

Effects of Rhetorical Reading on the Reading and Writing Performances of ELL and Native English Speaking College Students

Bernice Sanchez

Texas A&M International University

John P. Helfeldt

Texas A&M University

ABSTRACT

This quasi-experimental, comparison-treatment group study examined the effects of rhetorical reading strategy instruction on the reading and writing performances of ELL and native English speaking college students. The study was informed by theoretical constructs pertaining to reading and writing as composing meaning processes and the interrelated nature of the reading and writing processes. Statistically significant effects of rhetorical reading on reading and writing performances were reported and reflected by moderate effect sizes as well as comparisons of confidence intervals within and between comparison and treatment groups. These findings provide evidence that rhetorical reading instruction may have a positive impact on the reading-writing performances of ELL and native English speaking college students. The article concludes with a discussion of implications for future research and instruction.

The increase in cultural and linguistic diversity among K-16 students has impacted instruction and curriculum across the United States. Students entering U.S. colleges and universities possessing a native language (L1) other than English have increasingly shaped a population of English language learners (ELL) with varying levels of conversational and academic English language (L2) proficiencies. During the 2009-2010 academic year, a reported 4.7 million students in the United States were identified as English language learners (National Center for Educational Statistics, 2012). The National Council of Teachers of English (NCTE, 2006) emphasized the importance of educators learning about ELL students' literacy backgrounds and recognizing that first and

second language growth occurs over time as the result of abundant opportunities that actively engage students in the processes of reading and writing. Educational institutions at all levels are expected to address the needs of all students including those reflecting diverse linguistic and cultural backgrounds. Recent researchers (Crosby, 2009; Leki, Cumming, & Silva, 2008; Roberge, 2009) describe ELLs as users of English, not learners of English, and additionally refer to students as Generation 1.5 students if they immigrated as children and have life experiences that are negotiated between two cultures, languages, and identities.

Teaching composition to non-native English speaking college students, whether they are learners of English or Generation 1.5 users

of English, is a challenge for faculty members at institutions of higher education across the country. Bizzell (1986) suggested that students from different cultures frequently bring different dialects, diverse ways of thinking, and diverse written discourse conventions to the college environment. These forms of student discourse almost always require Standard English. Bizzell reported on the difficulties encountered by native speakers of English upon entering college which in turn decreased their self-confidence because of their lack of familiarity with the common language practices of the academic discourse community. Given the academic language challenges encountered by native speakers of English, it is not surprising that nearly all ELL students acquiring language skills and academic skills, in addition to academic writing skills, find themselves even further disconnected from practices of the academic discourse community and unprepared for the demands of college (Crosby, 2009).

Altogether, the challenges involving the complexity of teaching writing, the dissonance between academic and student discourse communities, and the need for differentiation of curriculum to address the needs of the growing ELL population have contributed to achievement gaps between ELL and native speakers of English. The current study was situated within the theoretical constructs pertaining to reading and writing as composing processes (Tierney & Pearson, 1983) or meaning construction processes (Olson & Land, 2007) and the premise that reading and writing are interrelated processes (Parodi, 2007). Within this context, Crosby (2009) suggested that previous researchers (see Carson & Leki, 1993; Raimes, 1987) reported that ELL students and Generation 1.5 students engage in a variety of overlapping or integrated cognitive strategies when engaging in reading and writing tasks. Murie and Fitzpatrick (2009) suggested various procedures for building academic literacy for ELLs and Generation 1.5 students with a focus on developing academic writing competence that entails analyzing content,

making meaning, developing a stance, and writing from source material. Furthermore, Hairston (1986) concluded that teaching students to read rhetorically, or to “read like a writer,” within the integration of reading and writing instruction can enhance students’ writing performances.

Theoretical and Empirical Background

Reading and Writing Relationships

Tierney and Shanahan (1991) summarized previous research on reading and writing relationships and concluded that integrating their instruction allowed readers to engage in greater varieties of reasoning operations when compared to reading and writing taught separately. Tierney and Pearson (1983) posited that students employ similar cognitive processes when engaging in reading and writing activities. Theoretically, they contended that readers determine their purpose for reading and then engage in renegotiating their goals and refining meaning to achieve greater understanding. Readers then reevaluate their effectiveness and revise their understanding at each stage of the comprehension or meaning composing process. Thus, these procedural characteristics of a reader are reflective of those of a writer’s planning, drafting, refining, and revising processes.

Tierney, Soter, O’Flahavan, and McGinley (1989) investigated the reasoning processes of undergraduate students during different reading and/or writing tasks. Findings suggested that students utilized different reasoning processes when they engaged in various reading or writing tasks. Students generally utilized more advanced reasoning processes such as critical thinking when a task required both reading and writing acts; however, they used less complex reasoning operations when they engaged in tasks that required separate or independent acts of reading or writing. In addition, Falk-Ross (2001) reported that the integrated nature of reading and writing assignments embedded within critical literacy activities increased reading comprehension levels and brought focus and

awareness of language and vocabulary use to the writing of college students enrolled in a developmental reading class.

Aydelott (1998) conducted a study on the reading-writing connections of first-year students enrolled in a university writing program. A comparison was made between students' reading levels and their overall writing performances in their writing classes, based on the professors' perceptions. The overall results of the study suggested that students who scored high on the reading test were perceived as good writers and students who scored lower on the reading tests were perceived as weak writers.

More recently, Parodi (2007) investigated the reading-writing connection across microstructural, macrostructural, and superstructural psycholinguistic levels of text comprehension/production processes. The study was situated in the framework established in Eisterhold's (1991) bidirectional hypothesis which showed that reading and writing are interactive at some levels and independent at others. The study included 439 eighth graders and tasks assigned included two comprehension tests and two writing tasks. Because of the significant correlations found between the reading and writing of argumentative texts at all three psycholinguistic levels, Parodi concluded that reading and writing share some common knowledge-based processing strategies.

Parodi (2007) asserted that studies conducted on reading and writing connections for the most part have not been guided by one specific framework. Morrow (1997) claimed that studies on reading-writing connections vary from composition studies, literary theory, and educational research.

The concept that reading and writing are related has been clearly established. Current research should move toward establishing frameworks indicative of how reading knowledge and writing knowledge evolve and change during various degrees of integration and levels of interaction.

Reading and Writing Among ELLs

Hirvela and Belcher (2004) suggested that research in the reading and writing connections

of English speakers has served as a basic theoretical framework and has informed the research agenda pertaining to the reading and writing connections of L2 students. While there is documented research evidence regarding the reading and writing connections of English speaking students (Langer, 1986; Loban, 1963; Shanahan, 1984), research exploring the awareness of reading and writing connections among ELL Spanish speakers is limited.

Carson and Leki (1993) and Hirvela and Belcher (2004) discussed some influences of the L1 framework applicable to L2 in regard to the reading and writing relationship, but they noted that caution should be taken when applying L1 findings directly to L2 environments. Despite some of the overlapping influences of the research conducted in L1 with L2 reading and writing connections, limited research in L2 reading and writing connections has also developed into new directions. These new directions are due to the interlingual transfer of skills, knowledge, and information from the first to the second language. For example, Krashen's (1993) reading input hypothesis asserted that extensive L2 print exposure through self-directed voluntary reading can influence and support L2 learners' writing abilities because of the increased, meaningful interaction with print in the target language (English). Krashen further contended that ELL learners would become better writers by extensively engaging in L2 (English) instructional practices that combined or integrated reading and writing. Similarly, Spack (1985) asserted that ELL students would increase both language and literacy proficiency by exposure to instruction in L2 that focused on reading and writing as interrelated language processes. Further utilization of text as resources for language experiences would provide ELL students the opportunities to experience how language is used and how these skills could be applicable to their own writing.

As previously mentioned, Crosby (2009) reported that ELL students and Generation 1.5 students engage in a variety of strategies when attempting reading and writing tasks. Crosby conducted a case study of two

Generation 1.5 learners in an attempt to understand their academic literacy difficulties (reading and writing). Case study methodology was employed, including a process of triangulation to establish validity and reliability of the data collected. Data collection included interviews, observations over 2 semesters, and written student papers. Overall findings suggested that students struggled with lexicon issues in the English language, grammar application rather than merely learning about grammar, and rhetorical issues of writing development because students lacked exposure to models of the writing process including its structure and organization. While both cases employed various differences in reading and writing difficulties, the importance of teaching students academic literacy strategies and knowing when to apply them to different task assignments was pivotal in this study. Crosby recommended that Generation 1.5 students should be exposed to varying texts that are understandable to learners, so students can practice applying various literacy strategies and experience the writing process all in English, the target language.

Overall, research on second language reading and writing has emphasized the importance of exposing second language learners to appropriate texts in the target language in order to create a knowledge base and skills in the target language (English).

Rhetorical Reading

Haas and Flower (1988) have referred to the reading and writing processes as *knowledge getting* and *knowledge telling/knowledge transforming*. Knowledge getting refers to comprehending and obtaining knowledge from reading. Knowledge telling/knowledge transforming refers to transforming that knowledge or understanding gained during reading into writing for meaningful, transformative (critical thinking) purposes, as opposed to simply getting and reporting information. They suggested that teaching students how to analyze rhetorical situations, or read for rhetorical purposes, builds a level of connectivity between knowledge telling and

transforming which in turn allows students to gain a better understanding of writing through their reading. Rhetorical strategies include activities that require students to read a text and understand the author's purpose, effects, motivations, and furthermore, to infer or predict the rhetorical situation of the text. The implication is that while rhetorical reading plays a significant role for L1 learning, L2 learning would also benefit as a result of the exposure to L2 rhetorical reading and writing.

Hairston (1986) asserted that too often literature is incorporated into composition classes without meaningful purposes beyond that of reading. She recommended guidelines for using nonfiction literature in composition classrooms along with rhetorical reading strategies that emphasize how discussions in classrooms should focus on the process of writing; that is, how and why an author created the written piece, as opposed to merely comprehending and appreciating the polished, final written product. Hairston concluded that instructional practices that teach students to read rhetorically (reading like a writer), which integrate reading and writing instructional strategies focused on constructing awareness of an author's purpose, context, and effect on audience, can enhance the writing performances of students. Additionally, Moje, Young, Readence and Moore (2000) recommended the integration of critical literacy activities as part of the curriculum in efforts to meet the literacy needs of adolescents. Moje et al. referred to critical literacy as inferring, reasoning, and problem solving abilities that require higher order thinking skills and enable readers to understand the author's purpose, challenge or question the content of texts, and explore the language constructs that were employed. Critical literacy activities can promote multiple meanings of texts and can promote adolescents who are "critical consumers and producers of text" (Moje et al., 2000, p.408).

Murie and Fitzpatrick (2009) asserted that increasing numbers of Generation 1.5 students find themselves at a crossroads when they transition from high school to college. These college-bound students are multilingual and have multicultural expertise, which should be viewed as

strengths or added cultural capital that these students bring to the classroom. It is important to provide students with access to literacy and language support that involves reading and writing in a variety of fields embedded in models for building academic literacy. Furthermore, Johns (2009) suggested that Generation 1.5 students must develop rhetorical flexibility in building academic literacy. Educators must focus on students' prior knowledge of academic and everyday social genres and motivate students to ask questions about the text and production of the text and must produce their own texts in the process. Rhetorical flexibility allows students to move from the familiar/known information to the ability to analyze academic situations, and then write successfully for various academic purposes and diverse audiences.

Haas and Flower (1988), Hairston (1986), and Moje et al. (2000) suggested that L1 (native English) speakers benefit from strategies to analyze rhetorical situations and strategies for critical literacy. Murie and Fitzpatrick (2009) and Johns (2009) suggest that Generation 1.5 students (L2) benefit from rhetorical flexibility strategies. This integrated theoretical framework informed the current study which included both native English speakers (L1) and ELL students (L2). Specifically, this study examined the effects of rhetorical reading on the reading and writing performances of students, including native English speakers (ENG) and native Spanish speaking (ELL) subgroups, enrolled in four sections of first year college composition courses.

Methods

Research Design, Setting, and Participants

Our investigation employed a quasi-experimental comparison-treatment group design that involved students enrolled in a beginning English composition course at a regional university situated in the Southwestern United States. Four intact classes each containing representative student samples, were assigned in a stratified-random manner to either the comparison or treatment condition based

on the beginning-of-semester (pre-test) mean reading and writing performances of each class. The student population at this institution is heavily reflective of a bicultural and biliterate community of Spanish and English speaking individuals and the four course sections, and subsequently the comparison and treatment groups, included a representative sample of 74 participants that included native English speakers (ENG) and English Language Learners (ELLs). At the beginning of the study, a survey was administered to identify participants' native language and additional language related information. Participants were identified as ELL students if they met all of the following criteria: 1) Spanish as the native language; 2) Spanish as the primary language of communication; 3) 1st generation immigrants to the United States; 4) received at least one year of schooling in Mexico; and 5) received at least one year of ESL/Bilingual instruction in a K—12 American school. Participants not meeting all five criteria listed above were identified as native English speakers. Specifically, the comparison group consisted of 16 ENG and 19 ELL students while the treatment group consisted of 20 ENG and 19 ELL participants.

Two instructors of beginning English composition were recruited to participate in the study. As a means of controlling examiner effects, instructional conditions were counterbalanced with each faculty member teaching one class section of the treatment condition and one class section of the comparison condition. In an effort to control for examiner biases for or against the instructional procedures implemented in each class, it was not disclosed to the instructors whether a class represented the comparison or treatment conditions. They were just characterized as two different instructional procedures.

In order to establish consensus in scoring, both examiners independently scored a sample of ten essays prior to the beginning of the study employing a four point holistic scoring rubric used to assess writing performances. The inter-rater reliability for the examiners was $r=.80$ for initial ratings of the essays. In the two cases where initial examiner ratings differed, the

instructors presented their rationale for their ratings and, following their explanations and subsequent discussions, a final consensus rating was achieved for both essays.

Instrumentation

Accuplacer Tests published by The College Board Tests (2003) include a battery of college entrance exams. For purposes of our study, only the Reading Comprehension Test was used as a baseline pre-reading performance measure and an end-of-study post-reading performance measure. This reading subtest is used to determine appropriate course placement for beginning college students, to decide whether or not developmental reading instruction is needed, and to track student progress for future course recommendations. The computerized adaptive technology of this online assessment allows for accurate and efficient measurements of students' knowledge and skills due to its capacity to identify and present test questions specifically suited for each test taker. The Reading Comprehension test presents a series of 20 questions in two different formats that address the areas of reading comprehension (70%) and sentence relationships (30%). The College Board (2003) reported the reliability of the Accuplacer (Reading Comprehension Test) was internally consistent at $r = 0.87$. The criterion-related and construct validity coefficients were at or above $r = .60$ and provides adequate support for using Accuplacer scores for college placement decisions.

The writing performance measures consisted of two required student essays. All of the subjects in the treatment and comparison groups were administered the same pre-writing prompt at the beginning of the study and both groups were provided the same post writing prompt at the end of the study. Rubrics were used to holistically assess the essays on a four point scale (0-4) that served as quantitative measures of participants' overall writing performance. The rubric included the following assessment areas: Focus, Organization and Development, Style and Sentence Structure, and Grammar and Mechanics.

Equivalency of Groups

In an effort to verify the equivalence of reading and writing performance levels of the comparison and treatment groups all participants were pre-tested using the Accuplacer Reading Test (The College Board Tests 2003) at the beginning of the course to assess their reading and writing abilities. An independent t-test was employed to compare the mean reading performances of the treatment and comparison groups (comparison group $M = 72.64$, $SD = 17.67$; treatment group $M = 73.12$, $SD = 17.30$). The computed $t(72) = 0.12$, $p > .05$ revealed no significant differences in the mean reading performances of both groups. A t-test for independent samples was applied to compare the mean writing performances of treatment and comparison group participants (comparison group $M = 1.72$, $SD = 1.33$; treatment group $M = 1.93$, $SD = 1.93$). The computed t-test ($t(72) = 0.75$, $p > .05$) revealed no significant differences between the mean writing performances of both groups. Based on these statistical comparisons of reading and writing pre-test performances, we interpreted the two groups to be equivalent for the purposes of our investigation.

Procedures

Participants in the comparison and treatment groups were required to read the same eight supplemental readings, one every other week, during the 16-week treatment period. The readings were selected from a supplemental text required for the composition course. The assigned readings reflected issues related to the topics of racism, diversity, literacy, poverty, and internal and external conflicts. They were selected to engage students in readings that were meaningful and allowed them opportunities to critically explore issues from various perspectives. These readings included both fiction and nonfiction selections in the forms of short essays, narratives, or short stories.

Participants and instructors in both groups followed the departmental course syllabus for English Composition supplemented by the same eight assigned analytic reading assignments. The participants in both groups were assigned to read the supplemental readings prior to class. The assigned readings were then reread during a subsequent class, by implementing an interactive read-aloud procedure with examiner guidance. During the interactive read-aloud procedure, both examiner and students would read voluntarily. This procedure was followed for each of the eight assigned readings for both the comparison and treatment groups. Following the in-class read aloud activity, students in the Comparison group were provided with open-ended statements that prompted them to decide whether to focus on direct comprehension of the ideas presented in the article and/or personal response options to guide their journal entries.

Participants in the Rhetorical Reading Treatment group generated written responses prompted by eight guiding questions encouraging them to read rhetorically or read like a writer. The instructor read each of the questions to students, provided any needed explanations or clarifications of the questions, and provided students with a copy of the questions for each of the eight assigned readings. Students were given explicit instructional guidelines and the examiner would model the strategy of reading like a writer. For example, the examiners would read the questions and model the cognitive process the examiner was experiencing in attempts to read like a writer. This process was followed for each question during the first three readings. Thereafter, a gradual release model was followed over the remaining readings, enabling students to work through the same series of questions progressing to a more independent level as they better understood the expectations gained during the earlier explicit instruction procedures. The eight questions below were applied to each of the eight selected readings and are part of an

adapted version of Hairston's (1986) guidelines for reading rhetorically:

1. What prompted the author to write this essay/selected reading?
2. What problem is addressed here? Is there an issue or area of concern?
3. Who is the audience the writer is trying to reach or influence?
4. What questions does the audience have that they would expect the writer to respond to?
5. What is the writer's intention or action that the writer hopes to invoke?
6. Describe and analyze the techniques the writer uses to influence or communicate their message?
7. Does this work answer the reader's questions and does it respond to a problem or purpose? Does this work change or influence your opinion in any way?
8. Why do you think it works or does not work?

Data Analysis

The data were analyzed by computing 95% confidence intervals (CIs). The *Publication Manual of the American Psychological Association* (2010) strongly recommends the use of CIs and characterized them as an extremely effective tool for reporting research results because CIs provide information regarding the location and precision of point estimates such as sample means. Capraro and Capraro (2009) reported that in a single analysis, CIs provide information regarding the location as well as the precision of a point estimate. The precision of the point estimate is depicted by the length of the bars above and below the point estimate. Further, independent events or groups can be compared by examining the degree of overlap among the CI error bars, where an overlap of 25% or less reflects a statistically significant difference ($p < .05$), and when there is no overlap between the CI error bars, it indicates a statistically significant difference ($p < .01$).

Results

Reading Performance

The reading performances of the Comparison and Rhetorical Reading Treatment groups are presented in Figure 1.

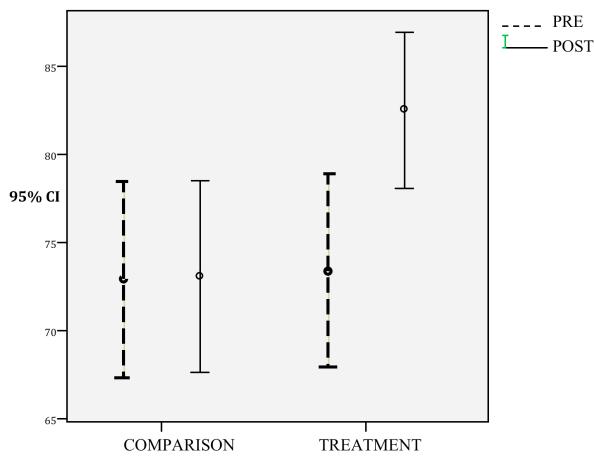


Figure 1
95% Confidence Intervals Pre-Post Comparison and Treatment Accuplacer Reading Score

As indicated by the nearly total overlap between the confidence intervals representing the pre-test ($M = 72.89$, $SD = 16.15$) and post-test ($M = 73.06$, $SD = 15.79$) reading performances of the comparison group, it is apparent that no significant change in reading performance occurred within this group. The minimal degree of overlap observed between the confidence intervals representing the rhetorical reading treatment group's pre-test ($M = 73.38$, $SD = 16.80$) and post-test ($M = 82.54$, $SD = 13.65$) and reading performances indicated that a statistically significant ($p < .05$) change in reading performance scores occurred within the rhetorical reading treatment group.

Further interpretations of the confidence intervals presented in Figure 1 provide additional insights into the treatment effects on the subjects' reading performances. The high degree of overlap between the confidence intervals representing the pre-test performances of the comparison and

treatment groups affirms the similarity of the two groups' pre-test reading levels, as reported previously ($t(72) = 0.12$) in the methodology section. The lack of overlap between the confidence intervals representing the post-test performances of the comparison and treatment groups depicts a significant difference between the comparison and treatment group reading performances at the completion of the study. A t-test for independent groups was used to affirm the post-test end-of-study differences between the comparison and treatment groups. The result of this analysis ($t(72) = 2.77$, $p < .05$) with a medium effect size .31 (Cohen's $d = .64$) corroborated the statistically significant difference between the overall reading performances of the two groups at the completion of the study.

ELL and ENG Reading Performances

In an effort to determine the existence of differential treatment condition effects on ELL and ENG subjects' reading performances, confidence intervals were computed for each language subgroup within the comparison and treatment groups. Within the comparison group, ELL students attained a mean score of 73.34 ($SD = 16.63$) on the reading pre-test and a mean score of 75.44 ($SD = 16.42$) on the reading post-test, while the ENG students attained a mean score of 71.88 ($SD = 16.04$) on the pre-test and a mean score of 70.19 ($SD = 15.02$) on the post-test. It is readily apparent that the mean pre- and post-test scores of the two language subgroups within the comparison group were very similar and that little or no change occurred between the pre- and post-test performances within either of these subgroups. The very large degree of overlap among these four confidence intervals represented in Figure 2 indicates that the reading performances of ELL and ENG subjects within the comparison group were very similar and that neither subgroup appeared to make any reading gains as a result of their supplemental reading and self-directed response journaling activities.

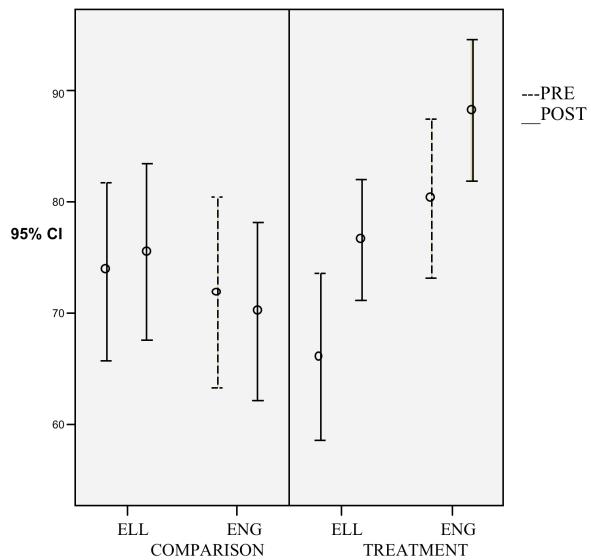


Figure 2
95% Confidence Intervals ELL and ENG Comparison and Treatment Pre-Post Accuplacer Reading Scores

Within the rhetorical reading treatment group, the ELL students attained a mean score of 66.11 ($SD\ 15.45$) on the reading pre-test and a mean score of 76.63 ($SD\ 11.26$) on the reading post-test, while the ENG students attained a mean score of 80.30 ($SD\ 15.33$) on the pre-test and a mean score of 88.15 ($SD\ 13.60$) on the post-test. Based on the confidence intervals presented in Figure 2, there was a significant difference between the pre-reading test performances of the ELL and ENG subgroups within the treatment group. As a result of this initial difference, no direct comparisons should be made between the reading performances of these two rhetorical reading treatment subgroups.

It should be noted that the ELL students within the treatment condition did significantly increase their reading performances, as reflected by the less than 25% overlap of the pre- and post-test confidence intervals associated with the treatment ELL students in Figure 2. While the ENG students within the treatment group showed improvement between their pre- and post-test reading scores, the mean difference was slightly less and not statistically significant as evidenced by the overlap greater than 25% between the pre- and

post-test confidence intervals associated with the ENG treatment subgroup.

Furthermore, at the beginning of the study, neither ELL nor ENG treatment group participants were significantly different from their ELL or ENG counterparts in the comparison group. The confidence interval and mean scores associated with ELL rhetorical reading treatment participants were slightly below the confidence interval and mean scores associated with the ELL comparison subgroup, but the difference was not significant as reflected by the > 50% overlap between these confidence intervals. At the completion of the study, the ELL treatment subgroup was more directly comparable to the ELL comparison subgroup as reflected by an even higher degree of confidence interval overlap and increased similarity between the attained mean scores (point estimates). At the beginning of the study, the confidence interval and mean scores associated with the ENG treatment subgroup appeared to be slightly above those associated with the ENG comparison group; however, these differences were not statistically significant as reflected by the approximately 50% overlap between the confidence intervals associated with the ENG pre-tests of the comparison and treatment conditions in Figure 2. At the completion of the study, the reading performance of the ENG treatment subgroup was significantly higher than that of the ENG comparison subgroup, as reflected by the lack of overlap between the confidence intervals representing the post-test reading performances of the ENG treatment and ENG comparison subgroups.

Writing Performance

Significant increases in writing performances occurred within the comparison and the rhetorical reading treatment groups. These increases in writing performances might have been anticipated since individuals participated in different experimental (comparison and treatment) conditions embedded within a semester-long beginning composition course. As presented in Figure 3, the respective statistically significant group

increases are depicted by the minimal overlap between the 95% confidence intervals representing the pre- and post-writing assessment performances of the comparison group ($p < .05$) and the lack of any overlap between the 95% confidence intervals representing the pre- and post-writing performances of the treatment group ($p < .01$).

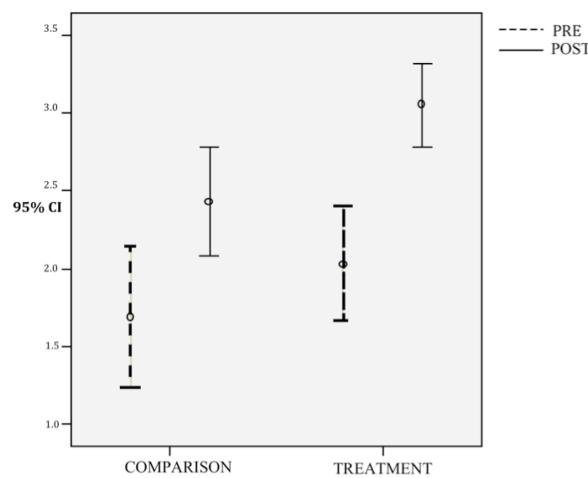


Figure 3
95% Confidence Intervals Pre-Post Comparison and Treatment Writing Performance Scores

The large degree of overlap observed between the confidence intervals representing the beginning writing performances of the comparison and treatment groups affirms the lack of statistical difference (reported previously in the methodology section) between the two groups at the onset of the study ($t(72) = 0.75$). On the other hand, the lack of overlap between the confidence intervals representing the post-writing performances of the comparison and treatment groups is reflective of a significantly higher writing performance achieved by the rhetorical reading treatment group at the completion of the study. The comparison group attained a mean of 2.43 ($SD 1.00$) on the post-writing performance task while the treatment group attained a mean of 3.05 ($SD 0.86$) on the post-treatment writing performance task. The results of a t-test comparing the post-writing

performances of the two groups ($t(72) = 2.91$, $p < .05$) with a medium effect size .32 (Cohen's $d = .67$) corroborated the significantly higher post-writing confidence interval of the treatment group observed in Figure 3.

ELL and ENG Writing Performances

The writing performances of ELL and ENG subjects were analyzed by computing 95% confidence intervals for each of the language subgroups within the comparison and rhetorical reading treatment conditions. Within the comparison group, the ELL subjects attained a mean score of 1.37 ($SD 1.26$) on the writing measure administered at the start of the study, and they attained a mean of 2.47 ($SD 0.90$) on the writing performance administered at the end of the study. The lack of overlap between the 95% confidence intervals representing the pre- and post-writing performances of the ELL comparison subgroup presented in Figure 4 is an indication that significant ($p < .01$) differences existed between the pre- and post-writing performance measures.

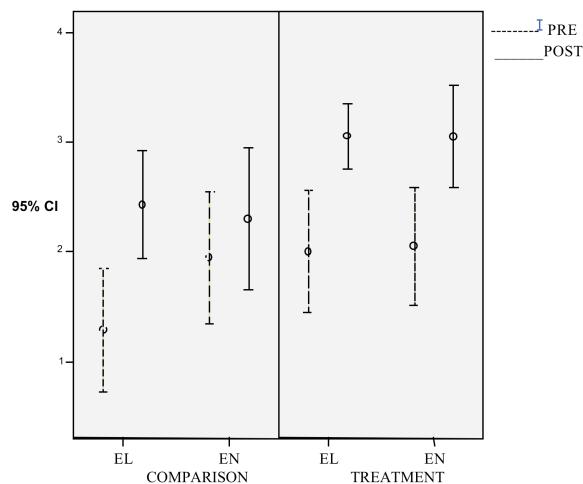


Figure 4
95% Confidence Intervals ELL and ENG Comparison and Treatment Pre-Post Writing Performance Scores

The ENG subjects in the comparison group attained a mean of 2.06 ($SD 1.34$) on the pre-writing measure and a mean of 2.38 ($SD 0.90$) on the post-writing measure. The high degree of

overlap (>75%) between the confidence intervals representing the ENG subjects' pre- and post-writing measures is interpreted as a clear indication that no significant differences existed between the pre- and post-writing performances for this subgroup of participants within the comparison group.

Within the rhetorical reading treatment group, the ELL subgroup attained a mean score of 2.00 ($SD\ 1.15$) at the onset of the study and a mean score of 3.05 ($SD\ 0.62$) at the completion of the study. The lack of any overlap between the confidence intervals representing the pre- and post-writing performances of the ELL treatment subgroup in Figure 4 provides evidence that a significant change ($p < .01$) in the ELL's writing performance occurred over the course of the Rhetorical Reading treatment condition.

The ENG participants within the treatment group attained a mean score of 2.05 ($SD\ 1.15$) at the beginning of the study and a mean score of 3.05 ($SD\ 1.00$) at the end of the study. The lack of overlap between the confidence intervals representing the pre- and post-writing performances of the ENG treatment subgroup provides evidence that this treatment subgroup also improved ($p < .01$) their writing performance over the course of the treatment condition.

As with the reading performances at the beginning of the study, it should be noted that on the pre-writing performances as well, neither the ELL nor ENG treatment subgroups differed significantly from their ELL or ENG counterparts in the comparison group. At the beginning of the study, the confidence interval associated with the ELL comparison participants was slightly below the confidence interval associated with the ELL treatment subgroup; however, these differences were not statistically significant as reflected by the nearly 50% overlap between these respective confidence intervals presented in Figure 4. When comparing the confidence intervals reflecting the post-writing performances of the ELL treatment and ELL comparison subgroups, a significant difference was observed, as evidenced by the < 25% overlap

between them. Because the two ELL subgroups' writing task performances were not significantly different at the beginning of the study, and because each of the ELL subgroups did reflect statistically significant differences between their pre- and post-writing performances, the degree of improvement evidenced by the ELL treatment participants appears to be greater than the degree of improvement accomplished by the ELL comparison participants. In addition, the post-writing task variability of the ELL treatment group diminished, as indicated by the smaller confidence interval error bar. This decrease in variability may well have contributed to the observed significant differences between the post-writing performances of the ELL treatment and ELL comparison subgroups.

The confidence intervals associated with the pre-writing performances for the ENG comparison and ENG treatment subgroups were almost totally overlapping, indicating a very high degree of comparability between these two subgroups at the beginning of the study, while the confidence intervals representing the post-writing performances for the two ENG subgroups indicated a much smaller amount of overlap, signifying a difference approaching a level of statistical significance.

Discussion

It appears that the rhetorical reading treatment, which focused students' attention on the similarities and connections between the processes of reading and writing and instructed them to analyze supplemental readings by "reading like writers," had a positive impact on their reading test performances. These findings are consistent with previous reports (Duke, Pearson, Strachan, & Miller, 2011; Falk-Ross, 2001; Shanahan, 2006; Tierney & Shanahan, 1991; Tierney, Soter, O'Flahavan, & McGinley, 1989) that conveyed the effectiveness of integrating reading and writing instruction. Guiding students in the rhetorical reading treatment group to consider the author's intentions—to analyze the author's

techniques, while drawing attention to other attributes and conventions regarding the form and function of each writer's message—reflects a closely integrated form of reading and writing instruction. This treatment is arguably more integrated than that experienced by the comparison group, who merely received open-ended prompts that did not emphasize the integrated nature of reading and writing processes.

The findings reported above also support Haas' and Flower's (1988) assertion that teaching students how to analyze rhetorical situations or reading for rhetorical purposes helps build a level of connection between both knowledge telling and knowledge transforming, which cultivates students' critical literacy. Thus, reading comprehension scores of the rhetorical reading group increased for both ELL and ENG participants because they were encouraged to engage in critical thinking activities (transforming knowledge). On the other hand, reading comprehension scores did not significantly change for either the ELL or ENG participants in the comparison group who were prompted to reflect on directly recalling information presented in the readings to guide their written journal entries.

While the reading performances of both language subgroups within the rhetorical reading treatment group improved, rhetorical reading significantly impacted the reading performances of ELLs or Generation 1.5 students to a greater degree than the ENG subgroup reading test scores. Rhetorical reading may have had a greater positive impact on L2's reading abilities because they were initially less familiar with the conventions of the English language than their ENG counterparts. The exposure to a variety of English language texts in combination with explicit rhetorical reading procedures may have facilitated the cognitive and linguistic processing of English for ELLs/Generation 1.5 students at a proportionately higher rate than it did for the ENG participants in the group. These findings are consistent with prior research findings (Crosby, 2009; Krashen, 1993; Spack, 1985) on second language reading

and writing that emphasized the importance of exposing second language learners to a wide variety of appropriate texts in the target language in order to enlarge the vocabularies, knowledge bases, and skills in English the target language. Further, our study extends the findings of prior research with ELLs by specifically identifying that the teaching of rhetorical reading strategies as a viable instructional procedure was key for improving the L2 reading of ELLs. This finding appears to have great promise for helping to bridge the gap between ELL and ENG college students' academic performances as the ELL rhetorical reading participants significantly increased both reading and writing performances.

As mentioned previously, it was not a surprise to observe the significant gains in writing performances achieved by the comparison and treatment groups. There are two findings worthy of note. First, the rhetorical reading treatment group experienced a significantly greater degree of change, as reflected by the significant difference between the treatment and comparison groups in writing performance on the end of semester writing task. Second, when considering the ELL and ENG language subgroups within the comparison and treatment groups, it was observed that the ENG students in the comparison group did not achieve significant writing improvement at the completion of the semester. While the comparison ELL participants did reflect a significant level of growth as the result of their experiences, the ELL and ENG students in the rhetorical reading groups both achieved significant gains in writing performances at the end of the semester, and the level of their performances were noticeably and significantly higher than their ELL and ENG counterparts in the comparison group. These results further reinforce the research findings (Falk-Ross, 2001; Tierney & Shanahan, 1991; Tierney, Soter, O'Flahavan, & McGinley, 1989) that reported on the enhanced effectiveness of

integrated reading and writing instruction on students' reading and writing performances and the importance of developing students' awareness of the connections between reading and writing and extend these findings to the ELL student population. The findings in this study coincide with both Hairston's (1986) and Johns' (2009) assertion to develop students' realization that their own writings become a reading for their intended audience and that their knowledge and skills as readers should be applied to help them become better writers. The finding that ELLs in both groups statistically significantly improved their writing performances supports Krashen's (1993) theory that ELL learners would become better writers by extensively engaging in L2 (English) instructional practices that combined or integrated reading and writing.

Implications for Teaching and Research

Because English is the primary language of instruction in U.S. colleges and universities, English literacy is a key factor in determining the success of the growing numbers of ELL students enrolled in U.S. postsecondary institutions. It is imperative that teachers provide instruction that enhances the literacy levels of all students to enable them to successfully participate in the academic discourse communities within higher education. The findings outlined in this study highlight the benefits of integrating reading and writing instruction into the English composition curriculum toward that goal. While successful strategic readers and writers independently employ various strategies at different times, it is important to remember that strategic readers and writers are the products of systematic, explicit instruction that provides learners with not only understanding how, but when and why to selectively activate a specific strategy to achieve success during diverse literacy tasks (Paris, Lipson, & Wixson, 1994). This type of systematic strategy instruction is imperative to facilitate ELL students' abilities to make sense

of text and to generate and organize ideas to communicate in written forms in English.

The results, recommendations, and implications of our study should be considered in light of the following limitations related to the sampling and treatment procedures that were implemented. First, the relatively small representative sample of 74 participants reflected a rather homogeneous bicultural and bilingual ELL Hispanic population attending a public university situated in a U.S. border town. Second, all participants were enrolled in one of four intact class sections of a beginning English composition course that was assigned to treatment conditions in a stratified random fashion. Third, the treatment conditions were implemented during 8 biweekly interventions within a 16-week semester.

Based on our findings, we recommend reading rhetorically as one strategy that can positively impact the reading and writing performances of ELL and ENG students. Because we conducted our investigation in the college composition classrooms of two instructors who volunteered, and because we did not wish to bias our examiners by making a case for why rhetorical writing would be effective, the treatment consisted of assigning one reading every other week during the semester. Each of the eight readings was accompanied by explicit strategy instruction procedures that included: teacher modeling of the strategy, thinking aloud like a writer while reading during interactive read-alouds, implementing a gradual release of responsibility model (Pearson & Gallagher, 1983) across the eight lessons, and consistently employing Hairston's (1986) guidelines for reading like a writer. While this treatment schedule was found to be effective, we, along with experts such as Oczkus (2003), would recommend more frequent and perhaps even more intensive strategy instruction activities when implemented within instructional settings. More frequent and intensive instruction should lead to an even greater impact on student literacy levels. In addition, instructors should be aware of the recursive nature of strategy learning and use. That is,

students will seem to have mastered using a particular strategy, but they will also forget or regress in their understanding of the strategy, so periodic instructional reviews, prompts, and reminders are also important in the development of using any strategy, not just rhetorical reading.

Because this study provides at least preliminary support for instructing students to “read like a writer,” we also encourage instructors to not only implement rhetorical reading instructional procedures, but also to engage in action research within their own courses and further validate rhetorical reading procedures with their unique student populations and subgroups. In addition to action research studies, further investigations involving more frequent treatment procedures with larger samples of students, including ELLs

whose native language is not Spanish, should be conducted to corroborate these findings and strengthen the level of support and generalizability regarding the positive impact that rhetorical reading instruction appears to have on the reading-writing performances of ELL and native English speaking college students. As Parodi (2007) asserted, research must move beyond the concept that reading and writing are related and progress towards establishing metalinguistic frameworks raising awareness of how reading knowledge and writing knowledge evolve and change during various reading-writing interactive experiences. The intent is to enable literacy learners to move beyond knowledge learning toward transforming knowledge through critical thinking and rhetorical flexibility when actively involved as readers and writers. **JCLL**

References

- Ackerman, J. (1990). Translating context into action. In L. Flower, V. Stein, J. Ackerman, M.J., Knatz, K., McCormick, & W.C. Peck, (Eds.), *Reading-to-write: Exploring a cognitive and social process* (pp.173-189). New York: Oxford University Press.
- American Psychological Association. (2010). *Publication Manual of the American Psychological Association*, (6th ed.) New York: American Psychological Association.
- Aydelott, S. (1998). A study of the reading/writing connections in a university writing program. In B. Sturevant J. Dugan. P. Linder, and W. Linek (Eds.), *Literacy and community twentieth yearbook: A peer reviewed publication of the College Reading Association* (pp. 101-113). Carrollton, GA: College Reading Association.
- Bizzell, P. (1986). What happens when basic writers come to college? *College Composition and Communication*, 37(3), 294-301. Retrieved July 18, 2007, from TAMU Academic Search Premier.
- Capraro, M. M. (2005). An introduction to confidence intervals for both statistical estimates and effect sizes. *Research in the Schools*, 12(2), 22–32.
- Capraro, R. M., & Capraro, M. M. (2009). Quantitative reporting practices in middle-grade research journals: Lessons to learn. *Middle Grades Research Journal*, 4(2), 1-10.
- Carson, J., Carrell, P.L., Silberstein, S., Knoll, B., & Kuehn, P.A. (1990). Reading-writing relationships in first and second language. *TESOL Quarterly*, 24, 245-266.
- Carson, J., & Leki, I. (1993). *Reading in the composition classroom: Second language perspectives*. Boston: Heinle and Heinle.
- Crosby, C. (2009). Academic reading and writing difficulties and strategies knowledge of Generation 1.5 Learners. In M. Roberge, M. Siegal, & L. Harklau (Eds.), *Generation 1.5 in college composition: Teaching academic writing to U.S educated learners of ESL* (pp. 105-119). New York: Routledge Taylor & Francis Group.

- Cumming, G., & Finch, S. (2005). Inference by eye: Confidence intervals and how to read picture of data. *American Psychologist*, 60, 170–180.
- Duke, N.K., Pearson, P.D., Strachan, S.L., & Billman, A.K. (2011). Essential elements of fostering and teaching reading comprehension. In S. J. Samuels & A.E. Farstrup (Eds.), *What research has to say about reading instruction* (pp. 51-93). Newark, DE: International Reading Association.
- Eisterhold, J. (1991). Reading-writing connections: Towards a description for second language learners. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 88-101). Cambridge: Cambridge University Press.
- Falk-Ross, F. (2001). Toward the new literacy: Changes in college students' reading comprehension strategies following reading/writing projects. *Journal of Adolescent & Adult Literacy*, 45(4), 278-288.
- Hairston, M. (1986). Using nonfiction literature in the composition classroom. In B.T. Peterson (Ed.), *Convergences: Transactions in reading and writing* (pp. 179-188). Urbana, IL: NCTE.
- Haas, C., & Flower, L. (1988). Rhetorical reading strategies and the construction of meaning. *College Composition and Communication*, 39, 167-183.
- Hirvela, A., & Belcher, D. (2004). *Connecting reading and writing in second language writing instruction*. Ann Arbor, MI: University of Michigan Press.
- Johns, A. M. (2009). Situated invention and genres: Assisting Generation 1.5 students in developing rhetorical flexibility. In M. Roberge, M. Siegal, & L. Harklau (Eds.). *Generation 1.5 in college composition: Teaching academic writing to U.S educated learners of ESL* (pp. 203-220). New York: Routledge Taylor & Francis Group.
- Krashen, S. (1993). *The power of reading*. Englewood, CO: Libraries Unlimited.
- Langer, J.A. (1986). Reading, writing and understanding: An analysis of the construction of meaning. *Written Communication*, 3, 219-267.
- Leki, I., Cumming, A., & Silva, T. (2008). *A synthesis of research on second language writing in English*. New York: Routledge Taylor & Francis Group.
- Loban, W. (1963). *The language of elementary school children*. Urbana, IL: NCTE.
- Moje, E., Young, J., Readence, J., & Moore, D. (2000). Reinventing adolescent literacy for new times: Perennial and millennial issues. *Journal of Adolescent & Adult Literacy*, 43(5), 400-410.
- Morrow, N. (1997). The role of reading in the composition classroom. *JAC: A Journal of Composition Theory*, 17(3) 453-472.
- Murie, R., & Fitzpatrick, R. (2009). Situating Generation 1.5 in the academy: Models for building academic literacy and acculturation. In M. Roberge, M. Siegal, & L. Harklau (Eds.), *Generation 1.5 in college composition: Teaching academic writing to U.S educated learners of ESL* (pp. 153-169). New York: Routledge Taylor & Francis Group.
- National Center for Educational Statistics (IES). (2012). *The Condition of education: English language learners in public schools*. Retrieved April 13: http://nces.ed.gov/programs/coe/indicator_ell.asp
- National Council of Teachers of English (NCTE). (2006). Position paper on the role of English teachers in educating English language learners (ELL). Retrieved May 27: <http://www.ncte.org/positions/statements/teacherseducatingell>
- Oczkus, L.D. (2003). *Reciprocal teaching at work: Strategies for improving reading comprehension*. Newark, DE: International Reading Association.
- Olson, C.B., & Land, R. (2007). A cognitive strategies approach to reading and writing instruction for English language learners in secondary school. *Research in the Teaching of English*, 41, 269-303.
- Paris, S., Lipson, M., & Wixon, K. (1994). Becoming a strategic reader. In R. Ruddell, M. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (4th ed.) (pp. 788-810). Newark, DE: International Reading Association.

- Parodi, G. (2007). Reading -Writing connections: Discourse-oriented research. *Reading and Writing: An Interdisciplinary Journal*, 20, 225-250.
- Pearson, P.D., & Gallagher, M.C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8(3), 317-344.
- Raimes, A. (1987). Language proficiency, writing ability, and composing strategies: A study of ESL college student writers. *Language Learning*, 37(3), 439-467
- Roberge, M. (2009). A teacher's perspective on Generation 1.5. In M. Roberge, M. Siegal, & L. Harklau (Eds.), *Generation 1.5 in college composition: Teaching academic writing to U.S educated learners of ESL* (pp. 1-24). New York: Routledge Taylor & Francis Group.
- Shanahan, T. (1984). The Nature of the Reading-Writing Relation: An Exploratory Multivariate Analysis. *Journal of Educational Psychology*, 76(3), 466-477.
- Shanahan, T. (2006). Relations among oral language, reading, and writing development. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 171- 183). New York: Guilford Press
- Spack, R. (1985). Literature, reading, writing, and ESL: Bridging the gaps. *TESOL Quarterly*, 19, 703-725.
- The College Board (2003). *Accuplacer On-Line Technical Manuel*. Retrieved September 2, 2007
http://isp.southtexascollege.edu/ras/research/pdf/ACCUPLACER_OnLine_Technical Manual.pdf
- Tierney, R.J., & Pearson, P.D. (1983). Toward a composing model of reading. *Language Arts*, 60, 568-580.
- 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.), *The Handbook of Reading Research Vol. II* (pp. 246-280). New York: Longman.
- Tierney, R.J., Soter, A., O'Flahavan, J.F., & McGinley, W. (1989). The effects of reading and writing upon thinking critically. *Reading Research Quarterly*, 24, 134-173.