

AN INNOVATIVE DEVELOPMENTAL READING EXPERIMENT: INTEGRATED COLLABORATIVE TEACHING AND THEMATIC CURRICULUM

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Native English speakers (NES) and English language learners (ELLs) in developmental reading courses have always been instructed separately in one large urban community college, even though they profit from learning and interacting together (Rochford & Hock, 2010, 2014). Because college-level academic English is a complex linguistic register for both groups, they must secure a new academic vocabulary, rhetorical patterns, and metacognitive awareness. Thus, during an intensive intersession, two professors integrated these populations, developed a thematic curriculum, and engaged in collaborative teaching activities. The results indicate that the advanced ELLs, who typically score 20 percent less than the NES on the ACT Compass Reading exam, greatly benefited from the mixed grouping as they produced scores that were comparable to those of their NES counterparts.

Keywords: collaborative teaching, developmental reading, thematic curriculum

Queensborough Community College, City University of New York, is situated in one of the most culturally diverse counties in the nation (Queens County Comptroller: Economic development and the state of the borough economy, 2006). Less than 42% of the incoming freshmen are born in the United States; 25.16% are African American, 26.29% Hispanic, and 23.64% Asian (Queensborough Community College Fact Book, 2011). Due to students' diverse educational experiences, more than 70% of incoming freshmen require remediation in reading, writing, and/or mathematics (Queensborough Community College Fact Book, 2011).

When students require remediation in reading at Queensborough Community College, separate courses are offered for native English speakers (NES) and English language learners (ELLs). Students who were born in the United States or have been in this country for most of their lives are placed in courses specifically designed for NES in order to improve their reading and enhance their critical thinking, time management, and study skills; students who have recently emigrated from other countries and have limited English language skills are assigned to courses given by instructors who specialize in teaching English to speakers of other languages.

The mixing of NES and ELLs at Queensborough Community College in developmental reading courses had never been tested until the summer of 2012. Several service-learning projects and discussion groups, however, brought forth the evident similarities among the two groups and the benefits of mixing NES and

ELLs (Rochford & Hock, 2010, 2014). Because learning college-level academic English is a new undertaking for both NES and ELLs, developing proficiency requires those students to acquire a new academic vocabulary, rhetorical patterns, and metacognitive awareness so that they can apply and communicate their knowledge successfully in a college-level setting. In addition, since Queensborough Community College's NES and ELLs are placed into reading and writing courses based on their scores on the ACT Reading Compass entrance exam, teaching those students via similar exercises and activities is common practice among faculty because both groups of students must ultimately pass the same standardized exit examinations.

Beyond those similarities, though, a number of differences exists between NES and ELLs. According to Rochford & Hock (2010, 2014), many ELLs display better study skills and higher levels of motivation; they also show, however, decreased language ability. In contrast, their NES counterparts tend to demonstrate more facility in communicating orally in class activities, yet they may lose focus more easily and exhibit less effective study habits.

Literature Review

Although a dearth of literature exists about the efficacy of mixing NES and ELL populations in college-level developmental reading courses, doing so often improves confidence among NES with regard to their own knowledge and ability to share that knowledge, and such mixing provides more exposure to English for ELLs (Rochford & Hock, 2010, 2014). Several articles have established that NES benefit from ELLs' positive attitude, motivation, and discipline toward schoolwork while the ELLs profit from interactions and friendships with NES (Rochford & Hock, 2010, 2014). Thus, this combination often produces a new group dynamic in the class, and builds a community of practice (Lave & Wenger, 1991; Wenger, McDermott, & Snyder, 2002; Wenger, 2006) among NES and ELLs by sharing their varied personal experiences, cultural backgrounds, and beliefs, thereby affording another learning opportunity for both populations.

In addition to integrating the two populations to create mutual learning opportunities, it is also essential to transform developmental learners into dynamic, engaged participants in the learning process, rather than remaining as passive students who expect their college professors to bestow knowledge upon them. However, because many students feel like "impostors" and fear their professors will view them as unintelligent (Brookfield, 1999), they are reluctant to contribute and take risks as they learn (Howell, 2001). Worse yet, many feel humiliated and shamed before they even enter the college classroom (Brookfield, 1999). One effective method for developing an improved sense of self-worth is to involve learners in what is being taught by emphasizing not only what they learn but also *how* they learn, so that they shift from being dependent, passive learners to autonomous self-reliant life learners (Howell, 2001). For this involvement to succeed, the curriculum must also intrigue students, and they must be able to grasp the concepts and skills before they can apply them to new challenges (Barr & Tagg, 1995).

Argyris (2002) emphasizes that besides providing a meaningful curriculum and metacognitive experiences, there is also the need to support two distinct levels of learning. The first level is single-loop learning, which means fixing the errors but not comprehending why those errors were made. In contrast, double-loop learning occurs when errors are remedied by adjusting the subliminal or subconscious rules and their subsequent actions. Thus, double-loop learning means being able to identify, understand, and correct errors in order to engage in self-correction. When students collaborate with classmates, they participate in a deeper level of learning in which they detect and correct errors so that their partnership fosters double-loop learning. Consequently, double-loop learning helps prevent: (a) the tendency toward siloization—the vertical, not horizontal, flow of specialized knowledge; (b) compartmentalization; and (c) fragmentation of potentially useful insights (Mazella & Grob, 2011).

Overview of Action Research Project

With this research in mind, two developmental reading professors with extensive ELL and NES experience collaboratively taught two advanced developmental reading courses. The end goal of the collaboration was to improve their students' reading skills and to develop their metacognitive awareness during a five-week session.

For this action research project, the two instructors determined that they would examine the following question: Will integrating ELLs and NES in an advanced developmental reading class result in a significant difference in performance?

This paper discusses how these developmental reading instructors mixed their ELLs and NES to create an integrated community of learners; describes the methodology, including instrumentation, population, materials, and procedures; and provides data analysis, discussion, and recommendations.

Methodology

Instrumentation

Students were placed in the advanced developmental reading course based on ACT Compass Reading exam scores of 58–69 or a passing grade in the lower level developmental reading course. Students in developmental reading courses received 60 hours of instruction. At the end of the term, the students were required to retake the ACT Reading Compass exam, and earn a score of 70 to exit remediation. The ACT Reading Compass exam is the primary instrument used to measure students' reading ability when they enter and exit remedial reading. It is a computerized multiple choice test, and it is used by the City University of New York to determine students' readiness for college-level courses—that is, the college prohibits students from taking many gateway college courses, such as English composition, psychology, and sociology, until they pass this standardized exam.

Participants

Regina's class consisted of 14 NES and Cheryl's contained 14 ELLs. On the first day of class, they the two instructors mixed the two different groups so that both classes would have an equal number of ELLs and NES. Except for scheduled occasions, when the two groups met in the Academic Literacy Learning Center (ALLC) computer lab to work on research-based assignments, each instructor taught her group in a separate classroom,

Materials

Both reading instructors used a common reader, *Searching for Great Ideas*, by Bruce Edwards and Thomas Klein, which contains a variety of high-level thematic readings frequently used in advanced college-level English literature credit courses. This choice provided the instructors with the opportunity to expose their students to contextualized learning, and it also introduced a common teaching platform to engage the instructors in shared discourse. In addition to this reader, the students also used *Test Taking Tips for the ACT Reading Compass Exam and Practice Reading Passages*, by Regina and Josephine Pantaleo, to prepare them for the demands of the standardized ACT Reading Compass exam.

Each teacher examined the text and selected potential themes and associated passages that piqued her own interest. Then, they met to construct a common curriculum that revolved around the themes of the course—discrimination, tolerance, and rationalism—and selected several reading passages that related to each theme. In addition, they searched through the ACT preparation textbook to locate practice-test topics connected to the three themes as further drill for the ACT Reading Compass exam.

Preparing lessons from the reading passages. To assist students in comprehending the challenging passages in their reader, Regina adapted a section entitled "Five Strategies for Readers." Her customized

guide requested that students do the following: (a) locate the main idea, topic, or thread; (b) observe how the author uses supporting details such as examples, illustrations, and arguments to explore the topic; (c) determine what new ideas are discussed for the first time or are presented in a fresh or startling way; (d) highlight the thread by noting significant sentences, words, or phrases; and (e) evaluate the overall credibility and power of the author's ideas, beliefs, and experiences by asking what the author wants the reader to feel, think, or understand about the topic.

Given that the reading passages in *Searching for Great Ideas* could be extremely challenging and abstract, both instructors took turns preparing guided-question sheets to assist the students in comprehension and to provide scaffolding for each reading assignment. Moreover, since the instructors were not using a traditional, skills-driven reading textbook, these question sheets also developed the following academic reading skills: (a) vocabulary in context; (b) main idea, major details, minor details; (c) facts and opinions; (d) inferences; and (e) tone.

Selecting thematically based articles. Next, to enhance the students' reading experiences and responsibility for their own learning, Cheryl suggested that the students regularly select their own thematically based articles from websites such as *The New York Times*. Once the students selected their online articles, they summarized the text and created practice ACT reading comprehension questions.

Before the students could create questions, however, it was necessary for them to understand the kinds of questions posed on the ACT Reading Compass exam. With this in mind, Regina adapted a section from the ACT preparation textbook that outlined the different types of questions on this exam.

Procedures

Understanding Great Ideas

After integration of the two classes, the students learned about the concept of a "great idea" through discussion and reading how the authors of *Searching for Great Ideas*, Bruce Edwards and Thomas Klein, defined that term. Each NES was paired with an ELL before visiting the ALLC, and they searched for one article that contained a great idea, as Edwards and Klein defined. Next, they summarized the article using the skills they had learned in their lower level reading course, and explained why they decided whether the article expressed a positive or negative great idea. For homework, the students were instructed to read the first short story, "The Fourth of July."

Responding to Questions about the Text

When the students returned for the following class session, most had read the short story, but superficially; they could discuss the concepts only broadly and lacked knowledge of the details. The instructors then demonstrated how to locate the answers and respond appropriately. After modeling this process, the instructors requested their students, in small groups, to do the same for subsequent paragraphs.

Shifting Away from the Text

When the summer intersession began, the selected reading passages concerned the first theme of racial, religious, and economic discrimination. Although the chosen passages explored multifaceted concepts, they contained as well concrete instances of bias against specific groups of people. As a result, the students related to these readings and were readily able to digest their content with the guidance of their teachers and tutors.

As the students progressed into the subsequent themes, however, and tackled readings such as Mary Midgley's "Trying Out One's New Sword" and Plato's "Allegory of the Cave," the readings became increasingly abstract and intangible because the majority of these texts employed theoretical and literary

concepts, such as allegories, hyperboles, metaphors, and symbols, that these students were not yet ready to tackle in such volume. Even though the instructors devised much simpler lessons and critical-thinking questions for these readings, the students became enervated and overwhelmed, so that even the most motivated learners began to lose interest. At that point, the instructors shifted away from the reading textbook and focused more on permitting students to select articles associated with these themes so that they would not lose interest at a critical point in the semester.

Searching for Articles

Because the first reading passage centered on the theme of discrimination, the students in both classes were instructed to search for articles about any kind of discrimination, such as racial, sexual, and religious, during the initial visit to the ALLC.

Designing and Using ACT Reading Exams

When the students submitted their first article and ACT questions, most of them had trouble completing the task. For instance, some students did not follow the basic instructions on their lab handout, such as the requirement to construct seven specific types of questions. In other instances, students created questions that were too easy, unclear, or inaccurate. Others did not provide answer keys, and a few students even admitted they were uncertain if their answers were correct. Whenever one of these issues arose, the teachers returned the assignment, discussed the problem, and requested it be revised and resubmitted before it could be graded.

Exchanging and Using Student-Made Exams

As the term progressed, students' test-designing skills steadily improved as they continued to select more relevant articles and create well-designed ACT questions. As a result, Regina administered some of Cheryl's students' tests in her class, while Cheryl utilized some of Regina's. This switch initiated a lively competition between the two classes, and improved student motivation and comprehension as well.

Data Analyses

This section illustrates the statistical analyses for the action research. Table 1 contrasts the ACT scores for the participants prior to and after the treatment. Tables 2 and 3 demonstrate the statistical differences in ACT scores between the ELLs and the NES before and after this investigation. Table 4 outlines the ACT reading pass rate by semester and student population. Finally, Table 5 compares the pass rate from this program to other community colleges in the City University of New York system.

The primary instrument used to measure student success in this study was the ACT Reading Compass exam, which the college employs to determine students' readiness for college-level courses. The analyses of the students' ACT Reading Compass results revealed some noteworthy outcomes. A *t*-test of independent means demonstrated a statistical difference between the ELLs and the NES before they participated in this study ($p < .05$). The mean score in the NES group was 53.88; the ELL mean score was 44.86 (see Table 1). In contrast, upon completing the course, the NES mean score was 68.44 and the ELL 67.07; no statistical difference, however, was evidenced between the two groups (see Tables 1 and 3). The similarity in the NES and ELL exit scores was an unanticipated result, because the NES typically pass the ACT Reading Compass exam at a rate 20% higher than do their ELL counterparts (Queensborough Community College Fact Book, 2011-2012); nevertheless, after this immersion program, the ELL and NES exit test scores evidenced no statistical difference (see Table 3).

In addition, after completing remedial reading courses in the fall of 2011 and 2012, approximately 36% of the ELLs had passed this standardized ACT Reading Compass exam (Queensborough Community

College Fact Book, 2012). Though 50% of the participants in the summer immersion program earned passing scores, it should also be noted that the NES pass rate remained consistent (see Table 4).

Finally, an analysis of the scores of the students who participated in the summer immersion program in other community colleges in the university revealed that the participants in this study increased their ACT Reading Compass scores by an average of 17.7 points. On the other hand, according to the City University of New York Office of Institutional Research and Assessment (2011), the average increase during remedial reading summer immersion programs in the other community colleges was only 12.8 points (see Table 5). Thus, in addition to improving their ACT Reading Compass scores, the students in this immersion program outperformed their contemporaries in other CUNY community colleges in the university.

Table 1 *Comparison of Average Incoming and Exit ACT Scores*

	<i>n</i>	Incoming ACT Score	Exit ACT Score	Increase
NES	10	53.88	68.44	14.56
ELLs	14	44.86	67.36	22.5
Total Population	24	48.53	68.63	20.1

Table 2 *Differences between ELL and NES ACT Scores Prior to the Course*

	<i>NES Group</i>		<i>ELL Group</i>		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ACT Reading Scores	53.88	6.175	50.14	14.341	.694 *

* $p < .05$

Table 3 *Differences between ELL and NES ACT Scores after the Course*

	<i>NES Group</i>		<i>ELL Group</i>		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ACT Reading Scores	68.44	8.110	67.07	12.313	.295*

* $p = .178$

Table 4 *ACT Reading Pass Rate by Semester and Student Population*

Semester	ELL Pass Rate	NES Pass Rate
Fall 2011	36.1%	56.3%
Spring 2012	36.2%	51.9%
Summer 2012	50.0%	55.6%

Table 5 *Average Increase in Points on ACT Compass Reading Exam during Summer Immersion*

	Point Increase on ACT Compass Reading Exam
Queensborough Community College	17.7
City University of New York	12.8

Thus, the research question—Will integrating ELL and NES in an advanced developmental reading class result in a significant difference in performance?—is rejected because the ELL and NES populations’ performance on the ACT Reading Compass exit exam was not significantly different.

Discussion

These data revealed that the mixing of advanced ELL and NES populations improved the performance among the students; the ELLs, however, reaped the most benefit because their pass rate was comparable to that of the NES, instead of being 20 percentage points lower. These results also suggest that mixing the ELLs and NES has a greater impact on the ELLs because they benefit from the opportunity to read, write, and communicate with NES, and thereby further enhance their language skills.

The enhanced ACT Compass Reading exam results among the ELLs (see Table 4) suggest that regular exposure to the target language advanced the ELLs’ reading ability by requiring these learners to conduct all of their reading activities in the English language. On several occasions, when many of the ELLs did not understand new vocabulary or complex sentence structures, they immediately turned to translation devices for clarity. When their NES partners observed this technique, however, they reminded the ELLs to use an English dictionary and the skills that they had been taught in class; in fact, on several occasions, the NES pointed out that the translated word or expressions provided an inaccurate meaning, which hindered effective comprehension. Although the instructors consistently cautioned their learners to avoid using their translation devices for the same exact reason, these requests were largely ignored during class activities and independent reading. After the NES expressed disapproval of this technique, however, most of the ELLs stopped using translation devices and began to employ the techniques taught in the class. As a result, the NES’s feedback compelled the ELLs to replace unproductive learning strategies with effective techniques.

In addition, after many NES declared that the ELLs were better readers, some ELLs volunteered to explain their questions and answers in front of the entire class. When they encountered difficulty with vocabulary or explanations, other members of their group would offer assistance. As a result, a number of ELLs became less reticent about participating in class discussion and were willing to take more risks because they were becoming comfortable in this learning environment.

As the students selected their articles and created practice ACT exams, many students did not choose articles related to the theme. Instead of explaining why an article was unacceptable, the teachers asked them to reread the article to determine the main idea. After this reread activity, most learners understood why their article was not acceptable. In this way, the instructors prompted their learners to engage in self-evaluation so that they began to think more critically about their assignments. Moreover, this activity encouraged the students to partake in double-loop learning by adjusting their subconscious rules and their subsequent actions (Argyris, 2002).

Finally, after Regina administered a thought-provoking student-made ACT test that was created by a student in Cheryl's class, her students became determined to design tests that would challenge Cheryl's students. On a number of occasions, the instructors noticed that many of their ELLs and NES were collaborating in the ALLC to perfect and test out their ACT reading exams so that they could "trick" the students in the other class. In order to create exams that were both fair and valid, this competition required that the students read and reread their articles and questions with meticulous attention to detail. As a result, to achieve this level of accuracy, the students abandoned superficial reading techniques for careful, detailed, and critical analyses of the article content. It should be noted that the students' attitudes toward this activity support the findings of Howell (2001), who recommended that teachers not only emphasize what is being taught but also how students learn, so that their students shift from being dependent and passive to autonomous, self-reliant life learners.

Furthermore, allowing students to select their own articles also permitted them to explore topics of their choice within a particular theme. As a result, several students who had initially exhibited low levels of motivation became more enthusiastic because they were picking their own reading material, so they produced better tests. Thus, these results also underscore the findings of Barr and Tagg (1995), who emphasized that the curriculum must intrigue the students.

Another unanticipated finding resulted from the instructors' collaboration on the action research project. Initially, Regina was concerned about having the students select their own articles because she had experienced difficulty when she attempted to have her students do this. After the two teachers met together with their students in the ALLC computer lab, Regina could see how she could benefit from Cheryl's guidance and support; as a result, both classes completed this task successfully. Because this activity evoked so much enthusiasm, Regina has incorporated it in all of her reading classes in following semesters. Clearly, by negotiating this new assignment into her curriculum, Regina also benefited from the double-loop learning experience (Argyris, 2002).

For her part, Cheryl benefited from the structure of Regina's approach, particularly with underachieving students. Guiding students to self-efficacy within a tightly scaffolded structure may seem atypical, but it made the learning process less overwhelming for students who were already struggling. Indeed, the more disciplined students and less disciplined students responded to the structure differently, but in valuable ways. Focused students felt confident from the beginning and took even more creative risks, whereas the weaker students had a very specific framework to follow throughout the course. Ultimately, the double-looping learning experience (Argyris, 2002) also informed Cheryl's instructional practices. Moreover, as a result of their collaborative teaching, both Regina and Cheryl evolved into "expert learners" instead of just experts (Anderson & Landy, 2006).

Finally, as the course progressed, each teacher felt increasingly comfortable to revise, recommend, and withdraw lesson plans as they witnessed their students' progress and development. They also profited from observing each other's individual teaching styles and classroom management techniques. Thus, although this intersession course required many discussions to fine-tune the lessons, the resulting experiences facilitated coherence and afforded direction (Anderson & Landy, 2006), and were also pleasurable because both teachers developed new insights into their pedagogy.

Recommendations

It is suggested this program be replicated during the fall or spring terms with larger populations. In addition, as the reading textbook, *Searching for Great Ideas*, proved to be somewhat abstract and complex for developmental readers, another reader should be employed so that the content is less theoretical, but still challenging for the students.

Because the success of this program not only hinged on mixing the ELLs and NES but also on the cooperative atmosphere created by the instructors, it is essential that teachers be willing to allow differences in philosophy and style to emerge as they collaborate so that their partnership can evolve into an open and honest exchange of ideas. Such an atmosphere will permit both instructors to highlight their expertise and creativity while they also bolster the strength of their curriculum. Most important, the teachers must be flexible to ensure dynamic curriculum planning that also allows for active, easy changes.

It is strongly recommended that when this action research is replicated, both the students and the teachers keep journals. Journals can help instructors to review and critique their curriculum decisions and processes in order to redesign and improve future course iterations. In addition, sometimes the teachers do not always recall significant decisions or discussions; their journals, however, will provide the detail needed to examine their curriculum decisions and processes. Finally, student journals will offer the instructors insights into the students' perspective on this collaboration so that they can consider the course from the students' point of view.

Conclusion

Ultimately, NES and ELLs benefited from integrating populations, although in different ways. When the two classes began, a significant difference was observed in their ACT Compass Reading scores (see Table 1). After the students retook the ACT Compass Reading exam at the end of the course, however, there was no significant difference between the two populations, although the most gains were evidenced among the ELLs (see Tables 3 and 4).

Besides enhancing the students' academic performance, the instructors successfully challenged and motivated their students to excel on a high-stakes exam. In addition, by permitting the two classes to take each other's exams, the teachers generated a spirited yet safe competitive atmosphere, one in which the students felt comfortable taking risks that enabled them to enhance their reading skills and assume a more active role in their own learning. Thus, the instructors shifted their students away from dependent, teacher-centered classrooms to a culture of autonomous, self-directed learners. In creating this atmosphere, the instructors emphasized not only what the students needed to learn but also how they learned, so that they were no longer dependent, passive learners, but instead autonomous, self-reliant life learners (Howell, 2001).

Both instructors also benefited from the integration of their teaching styles and developed new pedagogical techniques, which they continue to employ in their own developmental classes. Regina profited from discovering how to let her students select their own reading material and thereby relinquished control to her students, who evolved into self-sufficient pupils. Cheryl benefited from the

tightly scaffolded structure of Regina's approach—especially with underachieving students, because they benefited from having a specific framework to follow throughout the course.

Nevertheless, it should be noted that this action research included only a small population of 28 subjects, and the greatest development was evidenced only among the ELLs. It could be hypothesized that because the ELLs displayed more effective, consistent study habits than did their NES counterparts, they were able to advance their scores more than the NES, who had just begun to emulate the ELLs and develop these study skills. Thus, it is theorized that even though the ELLs arrived with weaker language skills, their self-discipline and study habits propelled them to make greater advancements than their NES classmates.

Given that this collaborative course permeated the entire curriculum, class activities, student performance, and faculty professional development in meaningful ways, this summer experiment was a worthwhile endeavor that should be replicated in the future with a larger population of learners.

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