Project Title: Meeting the Needs of Long-Term English Language Learners in High School, Phase II

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# Table of Contents

- Introduction ............................................................................................................. 1
- Organization of Report ......................................................................................... 2
- Main Characteristics of Long-Term ELLs .............................................................. 2
- The Biliteracy Program (The Intervention) ............................................................ 3
- Program Design ..................................................................................................... 4
- Methodology ......................................................................................................... 6
- Participants ........................................................................................................... 7
- Quantitative Research Design .............................................................................. 7
  - Quantitative Data Collection .............................................................................. 7
- Qualitative Methods .............................................................................................. 8
  - Classroom Observations .................................................................................. 8
  - Teacher Interviews ............................................................................................ 9
  - Administrator Interviews .................................................................................. 9
  - Individual Student Interviews .......................................................................... 9
  - Student Focus Groups ...................................................................................... 9
- Limitations ........................................................................................................... 10
- FINDINGS ............................................................................................................. 11
- FINDINGS SECTION I: PROGRAM IMPACT ON STUDENT PERFORMANCE AND GAINS ..................................................................................................... 12
  - Quantitative Description of Students: .............................................................. 12
    - Baseline Data .................................................................................................. 12
  - Quantitative Analysis ....................................................................................... 13
  - Performance and Gains on the ALLD Assessment in Spanish and English .... 14
    - English ........................................................................................................... 14
Language Usage...........................................................................................................40

A Focus on Subtractive Schooling in the U.S............................................................41

Attitudes Towards Spanish.........................................................................................42

Academic Performance and Engagement.................................................................46

Student Identity.........................................................................................................48

Hybridity in Language Usage....................................................................................48

Hybridity in National Identity: Both Here and There..............................................49

Attitudes Towards the Long-Term ELL Label.........................................................50

Discussion................................................................................................................51

CONCLUSION: EXECUTIVE SUMMARY OF MAIN FINDINGS.............................53

Acknowledgments.....................................................................................................57

References................................................................................................................58

APPENDICES .............................................................................................................61

Appendix A: Student Demographic Survey.............................................................61

Appendix B: Classroom Observation Protocol.......................................................62

Appendix C: Teaching Post-Observation Interview Protocol.................................64

Appendix D: Final Teacher and Administrator Interview Protocol........................65

Appendix E: Phase II LTELL Student Interview Protocol.......................................66

Appendix F: LTELL Focus Group Protocol...............................................................71
Listing of Tables & Figures

List of Tables

Table 1. Long-Term ELLs by Grade, 2007-2008.................................................................3
Table 2. Baseline Descriptive Statistics for LTELL Students....................................................13
Table 3. English ALLD: ANOVA Results Reported in Grades Level Below.................................14
Table 4. English ALLD: Gain Scores......................................................................................15
Table 5. Spanish ALLD: ANOVA Results Reported in Grades Level Below...............................15
Table 6. Spanish ALLD: Gain Scores......................................................................................16
Table 7. NYSESLAT Scaled Scores: May 2008 and 2009 (ANOVA)............................................16
Table 8. HLM: Difference Scores............................................................................................17
Table 9. Within-School NYSESLAT Comparisons Between Study LTELL Participants & ELL-Designated Students (ANOVA)...............................................................18
Table 10. Teacher Effort/Literacy Strategies: Average Scores....................................................21

List of Figures

Figure 1. RISLUS Instructional Model for LTELLs.................................................................5
Figure 2. English ALLD: Post-Test Averages Among Schools..................................................14
Figure 3. Spanish ALLD: Post-Test Averages among Schools................................................16
Introduction

This report shares findings from research about emergent bilinguals who have attended U.S. schools for seven or more years and whose prior schooling has been linguistically subtractive – in the U.S., these students are referred to as “long-term English language learners” (or LTELLs). In New York City, approximately one-third of all English language learners (ELLs) at the secondary level are long-term ELLs (New York City Department of Education, 2008). With funding from the New York City Department of Education (NYCDOE), Office of English Language Learners, we implemented a new biliteracy program to meet the needs of these students in two New York City high schools. Prior to our work in these schools, the native languages of long-term ELLs were not used in their education. In the 2008-2009 academic year, by contrast, both of our research sites implemented a new program for Spanish-speaking LTELLs as a way to increase their literacy skills in English and Spanish and subsequently improve their academic performance. This is our second phase of NYCDOE-funded research about this student population, and builds on our Phase I research in which we conducted a descriptive, qualitative pilot study from January-June 2007 in three New York City high schools serving LTELLs, to identify student characteristics and educational needs.

One of the major findings of our over 2.5 years of research about this student population is that the prior schooling of these primarily U.S.-educated students has been linguistically subtractive, in that their native languages have not been fully developed in school and instead largely replaced by English. We have found that while the LTELL students we have studied are orally proficient in English and their native language when using language for social purposes, they are characterized by limited academic literacy skills in either language. Students note that their schooling experiences have emphasized English literacy over native language development. As a result of their past schooling experiences, and in spite of their oral bilingualism, LTELL students in our research overwhelmingly report a preference for reading and writing in English; at the same time, however, reading and writing in English is also identified by students and their teachers as the greatest challenge LTELLs face in school.

Our findings indicate that a principal cause for LTELL students’ limited literacy skills in either language is that they have attended U.S. schools in the past that primarily emphasized their English acquisition. Students have attended English-only programs (such as English as a second language [ESL] and mainstream) and/or ‘weak’ forms of bilingual education, rather than consistently attending programs that offer them the opportunity to develop native language literacy skills. In addition, we have found that the students often move in and out of bilingual education, ESL, and mainstream classrooms. These practices occur in spite of tremendous research support for the argument that ELL students who have the opportunity to develop and maintain their native languages in school are likely to experience academic success, because the skills that students learn in

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1 ‘Emergent bilinguals’ are defined here as students who come from homes where a language other than English is spoken, and who are receiving specialized instruction to learn English at school. While typically these students are termed ‘English language learners’ in the U.S., as García, Kleifgen and Falchi (2008: 6) explain, “English language learners are in fact emergent bilinguals. That is, through school and through acquiring English, these children become bilingual, able to continue to function in their home language as well as in English, their new language and that of school.”

2 Bilingual education programs are considered ‘weak’ when their goal is English acquisition rather than bilingualism and biliteracy development (Baker, 2006; García, 1997). Transitional bilingual education programs offer an example of a weak form of bilingual education, and these programs remain the predominant model in New York City.
their native language, such as literacy skills, are found to transfer to English (Baker, 2006; Cummins, 2000; Krashen & McField, 2005; Thomas & Collier, 2002).

Prior to our research, little was written or known about these students and programming for them in high schools was not differentiated in any way from that of other emergent bilinguals. High schools are generally not prepared to meet the needs of these students and, as such, LTELLs in New York City typically attend ESL courses intended for new arrivals to the U.S., and foreign language courses in their native language that were intended for native speakers of English. As a group, overall school performance is found to be very low, with poor grades and grade retention commonplace, making this population at high risk for educational failure.

Before we began our new biliteracy program, to the best of our knowledge, no high school program was in place in New York City that was developed specifically to meet the needs of long-term ELLs. Instead, schools are for the most part just beginning to become aware about LTELLs and the likelihood that instructional services for these students should be differentiated from those provided to new arrivals. Therefore, we developed and implemented a high school intervention program for Spanish-speaking LTELLs that would model effective practices for these students, in response to a request of the Office of ELLs at the New York City Department of Education.

It is therefore of pressing concern that this student population gains greater attention in research and practice, so that schools can successfully meet their needs and open doors to future opportunities. In this report, we describe our efforts to implement this new program, highlighting its impact on student performance in Spanish and English, the needs and critical role of educators and administrators in program implementation, as well as further information about LTELL students. While much further research remains to be done, the results of our research offer promise for high schools in New York City and elsewhere that seek to improve their programming and instructional practices for long-term ELLs.

Organization of the Report

The first section of this report offers an overview of the main characteristics of LTELL students, the biliteracy program we developed in partnership with two participating high schools, and the methods we used to evaluate the impact of the program and learn more about how best to meet the needs of these students. The findings are divided into the following three main sections: I.) Program Impact on Student Performance and Gains; II.) Teacher Engagement, Preparedness, and Resistance; and III.) Student Characteristics. Each findings section concludes with a discussion, which highlights the main points. The conclusion of this report offers an executive summary of our main findings.

Main Characteristics of Long-Term ELLs

The United States is in the midst of an unprecedented demographic shift, as the number of minority students and those learning English grows at an exponential pace (National Clearinghouse for English Language Acquisition, 2007). Despite these increases in students who come from diverse cultural backgrounds with the asset of languages other than English, schools have largely responded by providing more (and only) English education, as opposed to bilingual programs that develop students’ native language and literacy skills as English is added to their linguistic repertoire. Although New York City has historically been supportive of bilingual education, in recent years
there has been a drastic decline in bilingual programs due to a convergence of language policies within an overall context of language restriction in the United States (Menken, 2008; New York City Department of Education, 2008).

In recent years, the NYCDOE has begun requiring that schools gather demographic data about their LTELL population. Table 1 below shows the numbers of LTELLs by grade at the secondary level in New York City.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number</th>
<th>(%) of ELL Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>2,839</td>
<td>32.5</td>
</tr>
<tr>
<td>8</td>
<td>2,365</td>
<td>28.6</td>
</tr>
<tr>
<td>9</td>
<td>4,120</td>
<td>29.8</td>
</tr>
<tr>
<td>10</td>
<td>3,411</td>
<td>25.6</td>
</tr>
<tr>
<td>11</td>
<td>1,825</td>
<td>24.4</td>
</tr>
<tr>
<td>12</td>
<td>2,270</td>
<td>35.4</td>
</tr>
<tr>
<td>Average</td>
<td>29.4</td>
<td></td>
</tr>
</tbody>
</table>

We find that LTELLs typically fall into three main categories:

1. Transnational students, who move back and forth between the U.S. and their family’s country of origin;

2. Students who – while attending U.S. schools – have shifted between transitional bilingual education, ESL programs, and mainstream classrooms with no language support programming; and, based on findings from our Phase II research,

3. Students who have received consistent subtractive schooling, due to enrollment in subtractive models of bilingual education and/or ESL throughout their educational careers.³

Thus these emergent bilingual students have had limited opportunities for academic language development in either English or their native languages. As a result, although LTELLs are orally bilingual when using language for social purposes, they typically have limited academic literacy skills in English or in their native languages. As bilingual education programs in the city decrease overall, it is likely that more emergent bilinguals will experience linguistically subtractive schooling and over time become LTELLs.

The Biliteracy Program (The Intervention)

Based on our prior research, from March-August, 2008 we planned and developed a program focused on academic language and literacy development both in English and Spanish, and

³ While these first two categories were presented in our Phase I report, this third category ‘consistent subtractive schooling’ is an addition from our most recent research findings, and is described in the findings that follow.
in the 2008-2009 academic year implemented the program in two New York City high schools serving Spanish-speaking LTELLs. In the city, small, specialized high schools where all of the students are emergent bilinguals have been proven successful, as in the case of the International High Schools (Ancess, 2003; Fine, Jaffe-Walter, Pedraza, Futch, & Stoudt, 2007). Unlike these high schools, our research project was implemented in schools where emergent bilinguals comprise only a minority of the total student population, and their needs are tangential to the school’s central focus; prior to our involvement in these schools, programming had not been differentiated for LTELL students.

School 1 is a large vocational high school that was involved in our first phase of research, while School 2 is a small high school. As such, there were variances in the implementation of the program model, in that the student participants at School 1 were ninth graders, while School 2 enrolls combination 9th/10th grade classes due to the school’s small size. School 1 offered ESL, English language arts, and Spanish Native language arts to a cohort comprised solely of LTELLs, while for their math and social studies classes LTELLs were mixed with other students. At School 2, LTELLs were mixed in with other students for all of their courses. School 3 served as our control school, as it did not implement the biliteracy program we developed. A total of 42 students were included in our final sample: 13 at School 1, 15 at School 2, and 14 at School 3.

**Program Design**

After completing our pilot study, we concluded that LTELLs would benefit from high school programs in which academic literacy skills are taught explicitly in both English and the students’ native languages, and where native language arts classes focused on native language literacy development are offered to LTELLs. Furthermore, we recommended that explicit literacy instruction become part of all content-area subjects, such as Math, Science, and Social Studies, in addition to ESL and native language arts classes, and that a school’s approach to literacy instruction must be uniform and coordinated across all subject areas.

Thus the program (or intervention) we created in partnership with the participating schools sought to support the development of students’ academic language and literacy skills in English and Spanish through a three-pronged approach, implementing the following course structure for ninth and tenth grade students:

1. Spanish Native Language Arts courses, to help students develop a strong foundation in academic Spanish language and literacy.
2. English as a second language courses, in which long-term English learners are taught separately from new arrivals so that instruction can focus on academic literacy in English rather than on the development of basic language proficiency.
3. Content-area courses—such as math, science, and social studies—that focus simultaneously on content, language and content-specific literacy learning.

Figure 1 below outlines the program design we implemented (with the courses taken by students in the 2008-2009 project highlighted in the figure), and also includes the future stages of program implementation if the programs continue.
The figure highlights the parts of the program students completed in the 2008-2009 school year, while the remaining information indicates our larger programming goals. In the high school biliteracy program, LTELLs participated in Spanish language courses, ESL courses, and content-area courses (e.g., Math, Science, and Social Studies) simultaneously, all of which sought to develop the students’ language and literacy skills.

As shown in this figure, LTELLs begin with four semesters of Spanish as a Native Language coursework, in order to help the students develop a strong foundation in Spanish literacy; over the course of the 2008-2009 project period, students completed the first two semesters of study. The idea is that students completing these courses successfully would then move on to participate in the Advanced Placement (AP) Spanish Language course and, ultimately, the AP Spanish Literature course; both of these AP courses further develop students’ Spanish literacy abilities. Thus, the primary focus of instruction in this Spanish language and literacy course sequence is on teaching students academic skills in Spanish.

Students also participate in an ESL course sequence beginning by taking four semesters of ESL class for LTELLs, whereby teachers plan instruction that is differentiated for LTELLs and integrated with their English language arts (ELA) and Native language arts (NLA) courses; students completed two semesters in the 2008-2009 school year. Ideally, LTELLs are separated from emergent bilinguals who are new arrivals, so that instruction can focus on literacy in English rather than on the development of oral language proficiency. While ESL classes are typically intended for new arrivals with strong native language literacy skills, these classes are instead designed for LTELLs with strong bilingual skills when social language is used orally, but who have limited literacy skills.
After the four semesters, our goal is that LTELLs will be able to test out of their English language learner status.

In addition to the language courses described above, LTELLs simultaneously enroll in content-area courses in Math, Science and Social Studies. Academic literacy skills are taught to students in an explicit way in these classes, rather than being assumed background knowledge. These skills are taught through content, as there is ample research support for content-based language instruction to facilitate English acquisition (Richard-Amato & Snow, 1992; Richards & Rodgers, 2001) and to foster bilingualism as modeled at Gregorio Luperón High School (García & Bartlett, 2007).

To date students at both School 1 and School 2 have completed the first two semesters of programming. As described above, while School 1 implemented English language arts (ELA), ESL and Spanish as a Native Language courses just for an LTELL cohort they created, LTELLs were mixed with new arrivals for all classes at School 2 due to the school’s small size.

Teachers involved in the project received regular, ongoing professional development from the research team throughout the project period. Professional development was provided to teachers in both schools in group settings, and also one-on-one throughout the school year. There were professional development sessions with all participating teachers at both schools on such topics as planning for language and content growth, and there were also one-on-one sessions involving classroom observations and post-observation meetings between members of the research team and teachers.

Methodology

This mixed-methods research project was guided by the following questions and corresponding sub-questions:

- In what ways does high school programming focused on language and literacy development in English and Spanish benefit LTELLs, if at all?
  - On standardized measures of academic English and native language literacy after a year of intervention, do students in the ‘treatment’ schools fare better than students in the control school?
  - Do students in the ‘treatment’ schools have a higher rate of change on standardized English and native language tests after a year of intervention than students in the control school?

- How can academic literacy in both languages be taught explicitly to secondary English language learners?
  - What are effective strategies for teaching academic literacy to LTELLs?
  - What are the effects of infusing direct literacy instruction into all content-area courses?

The program was be evaluated over the course of the year using both quantitative and qualitative methods in three main ways: 1) student performance in Spanish and English, as measured on assessments of reading and writing ability (quantitative); 2) classroom observations and
professional develop meetings, focused on language and literacy practices (qualitative); and, 3) interviews with administrators, teachers, and students (qualitative). These are each detailed in the sections below.

**Participants**

Student participants were all of the LTELLs in the 9th grades at Schools 1 and 3, and the 9th/10th grade at School 2 (students at this small school are mixed by grade). The students in the study were designated by the NYC DOE as long-term ELLs because they already received at least 6 years of ELL services, and were continuing to do so during the data collection period. Students are designated ELLs through administration of the Language Assessment Battery – Revised (LAB-R) upon entry to the public schools. Students’ progress towards English proficiency is assessed each year through the New York State English as a Second Language Achievement Test (NYSESLAT), and are no longer deemed ELLs once they achieve ‘proficient’ levels on both the Listening & Speaking and Reading & Writing portions of the NYSESLAT. Although the cohorts at each school changed throughout the course of the year due to attrition and administrative factors, a total of 42 students were included in our final sample: 13 at School 1, 15 at School 2, and 14 at School 3 (control).

The school sites were selected for inclusion in this study because they are comparable in terms of student demographics, student performance and other measures (as described further in Findings Section I), located in the same area of the city, and all serve significant numbers of LTELLs. The schools volunteered to participate, as they were interested in piloting new programming for their significant numbers of LTELLs. School leaders, in turn, worked with teachers to determine who would be involved. A total of 11 teachers participated in Schools 1 and 2, as further described in Section II of the Findings. In addition, the principal and one administrator at each school participated.

**Quantitative Research Design**

**Quantitative Data Collection**

In order to assess the program’s impact on LTELLs’ literacy skills, we collected two major sources of quantitative data during the 2008-2009 academic year: 1) a pre- and post-test of the reading comprehension portion of the Academic Language and Literacy Diagnostic (ALLD) and 2) test scores on the NYSESLAT. The ALLD, a diagnostic developed by colleagues at RISLUS that evaluates a student’s reading comprehension by grade level, was administered in both English and Spanish at the start of the school year at all three sites in October 2008, and again to the students at the beginning of June 2009. The NYSESLAT, described above, is administered statewide at the end of each academic year to all students receiving ELL services. Scaled scores and performance levels were collected prior to (May 2007 & 2008) and after (May 2009) the intervention. While we offer baseline information in our findings about student performance on the Listening & Speaking sections of the NYSESLAT, for the evaluation of our project we only examine and report Reading & Writing scaled scores, as these areas were the primary focus of our project.

To provide a fuller picture of the participants’ academic experiences, additional data points were collected at Schools 1 and 2 (the treatment schools that received our intervention). Data about student academic history and demographics were collected from the New York City Department of Education’s Automate the Schools (ATS) information system as well as through a demographic survey that was developed by our team and administered directly to the students (see Appendix A).
The writing assessment consisted of writing prompts we developed in partnership with teachers from Schools 1 and 2 that ask students to write a five-paragraph essay. Student writing was assessed using a rubric created by our team that was modeled on the New York State English Regents\(^4\) writing rubric. Writing assessments were administered in both English and Spanish three times during the course of the data collection period. However, due to incomplete data, the sample size of students for whom we have writing samples from all three administrations is small, and therefore we are unable to examine this data quantitatively. Writing samples were analyzed qualitatively to assess individual student growth. They were also provided to their teachers to give them a picture of their students’ progress throughout the year.

The quantitative data was analyzed using Hierarchical Linear Modeling (HLM) and Analysis of Variance (ANOVA). HLM was used to compare the difference in performance of the treatment schools to those of the control school. Difference scores were calculated between the pre- and post-test administrations of the ALLD as well as the May 2008 and 2009 NYSESLAT. HLM estimates a latent gain score with the measurement error partitioned out, resulting in a better estimate than if the mean pre- and post-performance scores were simply subtracted (Gelman & Hill, 2007). If the change or growth was positive, we will describe this as a gain, if the post-test was lower than the pre-test, the difference score will be referred to as a loss. ANOVA was used to determine differences in performance on the NYSESLAT between study participants and other ELL-designated students at the three school sites.

**Qualitative Methods**

The qualitative data from this study was collected from five main sources: classroom observations, student interviews, student focus groups, teacher interviews and administrator interviews. Taken together, these methods offer a portrait of instructional practices and views about the biliteracy program implemented in participating schools to meet the academic needs of the LTELL population (Lincoln & Guba, 1985, Maxwell, 1996). How the data was gathered and analyzed is described below.

**Classroom Observations**

Conducting periodic classroom observations was essential to our research, as doing so allowed for the documentation of teachers’ usage of specific pedagogical approaches and their outcomes, and also to support the content, language, and literacy learning of LTELLs (Genesee & Upshur, 1996). Over the course of the school year, each teacher was observed 4-5 times by one member of our research team. During each observation, the team member took fieldnotes of class structure and content; each observation was followed by a debriefing meeting between the teacher and researcher. The teacher-researcher pairs were created based on the content expertise of the team member and the teacher, in order to maximize subject-area support. This consistent, ongoing partnership throughout the school year helped facilitate a trusting professional relationship between the teacher and researcher when both parties were open to it. Thus, an open exchange about teaching practices related to LTELLs could evolve through meetings that provided support and professional development to the teachers involved in our study.

An observation protocol was used in order to describe the setting, students and lesson focus (see Appendix B). We also documented the extent to which teachers infused language and literacy

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\(^4\) The English Regents is one of five exams required by the state that is used to determine high school graduation.
methods specifically focused on the educational needs of LTELs into their instruction. In order to measure fidelity to the model we developed, following each lesson the research team member gave the teacher two scores ranging from 0-1 (with .25 increments) -- one for the teacher’s effort and the other for the teacher’s implementation of language and literacy strategies. The score for teacher effort reflected the extent to which teachers tried to implement these strategies, as evident in their lesson planning, instruction, and post-observation interview. The score for the teacher’s use of language and literacy strategies reflected the degree of success in the teachers’ actual implementation of these strategies during a particular lesson.

Teacher Interviews

Two types of teacher interviews were conducted throughout the yearlong study. First, following each classroom observation, the research team member and teacher had a post-observation debriefing session where they discussed the lesson (see Appendix C for the protocol). Because these interviews were held during the school day soon after a classroom observation, they generally tended to be 15-20 minutes long. The topics covered in these semi-structured interviews included: the way the lesson was planned to support LTEL literacy needs; successes and challenges in supporting LTELs throughout the lesson; and areas in which the teacher would like additional support from the research team. The researchers asked the teachers questions and also provided feedback and suggestions when the teachers were receptive to it.

In addition to the 4-5 debriefing interviews, each teacher participated in a year-end interview in which they reflected on the successes and challenges of the biliteracy program as a whole, as well as their work with LTELs in particular. These semi-structured interviews followed a protocol (see Appendix D), but allowed the researchers and teachers to build upon the questions listed (Merriam, 1998, Yin, 2003). As opposed to the post-lesson debriefs, these interviews were often held off school grounds and lasted anywhere from 30 minutes to 1.5 hours.

Administrator Interviews

The principal investigator (Menken) met periodically with administrators at each school to learn their perceptions of the program’s implementation. At the end of the year, an in-depth semi-structured interview was also conducted with administrators (see Appendix D). These interviews lasted approximately 2 hours and allowed for greater reflection on the strengths and weaknesses of the biliteracy program implementation efforts. These interviews allowed for greater insight into administrative issues when it came to developing and sustaining a program directed at the needs of LTELs.

Individual Student Interviews

A sample of students who participated in the study were interviewed individually approximately half-way through the academic year. The students were asked a series of questions about their background, educational experiences, views of schooling, (bi)literacy practices, and identity. The interviews followed a semi-structured protocol (see Appendix E).

Student Focus Groups

By providing students with a group context in which to express their views, we have found that a focus group structure with adolescents often lends itself to more open sharing and a reduction of interviewer effect (e.g., Menken, 2008). We conducted a total of two focus groups, one at each school with 5-7 students present at each site. The major areas discussed included students’ feelings
about learning and using Spanish in school and beyond, their perceptions of the labels placed upon them, and their experiences with the exam used to determine their ELL placement (see Appendix F).

All interviews and classroom observations were audiorecorded, transcribed, coded, and analyzed according to themes that arose most frequently (Creswell, 1998; Miles & Huberman, 1994).

**Limitations**

A limitation of the study is its small sample size. Due to the small sample size, the power of the statistical analysis is low, thereby reducing the probability of statistically significant results at the .05 and .01 level, the most commonly used benchmarks to denote statistically different results (Cohen, 1992). Although many of the findings we report do not show differential (statistically significant) change between treatment and control groups, the findings do demonstrate important trends for those LTELLs who participated in the biliteracy program (intervention) and those who did not. We also believe that if our sample sizes were larger for each of the schools, the same trends described in the paper would emerge and they would be statistically significant.

Another possible limitation is the composition of the LTELL student sample at School 2 (treatment). Due to the lack of LTELLs who were in the 9th grade, the student sample at School 2 consisted of both 9th and 10th graders, with 10th graders making up the majority of the sample. Students in both School 1 (treatment) and School 3 (control) were comprised solely of 9th graders. The difference in student composition of School 2 was accounted for by using repeated measures design through HLM, thereby allowing us to increase the power of the statistical analyses used. Therefore, the data collected was appropriate to analyze the gains and losses of LTELL students in the treatment and control groups.

Lastly our qualitative analysis indicates that students who participate in the study may intentionally ‘fail’ the NYSESLAT. Interviews at School 2 revealed that students may purposefully ‘fail’ this exam because they feel comfortable and supported within the cohort of students and often by the teachers with whom they are placed. Doing well on the NYSESLAT, or passing out of ELL status, may mean that they are mixed with the larger student population. We use NYSESLAT scaled scores for the final analysis since this is a common measure of academic English proficiency across the city, but student self-reports point to a validity for this measure, particularly at this school.
FINDINGS

In the sections that follow, we describe and analyze our main findings from our work in the two participating schools over the 2008-2009 school year. The findings are organized into three main sections, as follows:

I.) **Program Impact on Student Performance and Gains** – in this section, we draw from the quantitative data we gathered and analyzed to measure the progress made by LTELL students at the two schools involved in our study (Schools 1 and 2) in their English and Spanish literacy development in comparison with the progress made by the students at the control school (School 3) as a way to evaluate program impact.

II.) **Teacher Engagement, Preparedness, and Resistance** – recognizing the integral role of educators in program implementation, this section explores the ways that teachers in our study displayed engagement in the project through their efforts and effectiveness in both planning and implementation of language and literacy strategies in the classroom to meet the needs of LTELLs, and also the personal as well as institutional barriers they faced that prevented them from fully embracing the ideals of the project in their classrooms.

III.) **Student Characteristics** – this section provides information about the LTELL students who participated in our second phase of research, through an examination of their prior schooling experiences, attitudes towards Spanish and its usage in their schooling, challenges they face in school, and complex identity as primarily U.S.-educated emergent bilinguals.

Taken together, these findings offer further information about long-term ELLs and the educational factors that can positively or negatively affect their schooling.
FINDINGS SECTION I: PROGRAM IMPACT ON STUDENT PERFORMANCE AND GAINS

Quantitative Description of Students

Baseline Data

Scores from the ALLD pre-test in Spanish and English and NYSESLAT scaled scores from May 2008 were used to determine how comparable the three groups of LTELL student participants were. The analysis of the baseline test scores through ANOVA across the schools demonstrated no significant differences among these measures, thereby confirming that there were no differences among LTELL students’ performance across the three schools prior to the intervention (see Table 2). This means, statistically speaking, that the students at the three schools in our study are ‘comparable,’ implying our comparison of the performance of students at the two intervention schools to the control school is valid.

Pre-test ALLD results for English reading, reported in grade levels behind, was an average of 2.89 grade levels behind for all schools at the start of our project, but did not reveal significant differences between schools, F (2, 38) = .053, p = .949. The same was true for pre-test ALLD Spanish reading results – all schools scored similarly in terms of their average Spanish score on the pre-test, F (2, 38) = 2.34, p = .110. The average across all schools for Spanish reading was 3.57 grade levels behind. Scores for individual schools on the ALLD pre-test in English and Spanish are reported in Table 2.

No significant differences in average performance were found with respect to NYSESLAT scores before starting the intervention. Analysis of the NYSESLAT test scores from May 2008 (before the intervention) through ANOVA did not reveal statistically significant differences for either the Listening and Speaking section, F (2, 35) = 1.145, p = .330, or the Reading and Writing Section, F (2, 35) = .852, p = .435. The scaled score average of all schools on the May 2008 Listening & Speaking section was 716.63, while for Reading & Writing it was 683.02. The results for Listening & Speaking indicate that students are ‘proficient’ according to the NYSESLAT score range. For Reading & Writing, students’ scaled scores were at the ‘intermediate’ or ‘advanced’ levels. These results reinforce qualitative data from students and teachers, who report that LTELL students’ oral bilingualism is strong, while their literacy is not as fully developed. Averages of scaled scores on the May 2008 NYSESLAT for each of the school sites are found in Table 2. The proficiency levels included alongside the scaled scores presented in Table 2 reflect these mean scores. In the case of School 2, whose sample was comprised of 9th and 10th graders, the proficiency levels reflect the differing scale score ranges for students in these grades. Lastly, for purposes of comparison of LTELL participants in the study with other ELL-designated students at each school, we collected NYSESLAT data not only for the student participants, but all ELL-designated students at the three school sites.

5 Scaled scores on the NYSESLAT range from beginner to proficient, as follows: Beginner, Intermediate, Advanced, Proficient.
Table 2. Baseline Descriptive Statistics for LTELL Students

<table>
<thead>
<tr>
<th></th>
<th>School 1 (Treatment)</th>
<th>School 2 (Treatment)</th>
<th>School 3 (Control)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>13</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>ALLD Scores English</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Test (Grade Levels Below)</td>
<td>3.06</td>
<td>2.76</td>
<td>2.89</td>
</tr>
<tr>
<td>ALLD Scores Spanish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Test (Grade Levels Below)</td>
<td>3.61</td>
<td>2.47</td>
<td>4.72</td>
</tr>
<tr>
<td>NYSESLAT Scaled Scores, May 2008 – Listening &amp; Speaking</td>
<td>705 (Proficient)</td>
<td>9\textsuperscript{th} Graders – 711 (Proficient)</td>
<td>711 (Proficient)</td>
</tr>
<tr>
<td>NYSESLAT Scaled Scores, May 2008 – Reading &amp; Writing</td>
<td>676.17 (Intermediate)</td>
<td>9\textsuperscript{th} Graders – 667 (Intermediate)</td>
<td>683.82 (Intermediate)</td>
</tr>
</tbody>
</table>

Quantitative Analysis

As noted in our introduction, the quantitative analysis focused on two central research questions:

1. On standardized measures of academic English and native language literacy after a year of intervention, do students in the ‘treatment’ schools fare better than students in the control school?

2. Do students in the ‘treatment’ schools have a higher rate of change on standardized English and native language tests after a year of intervention than students in the control school?

Both of these questions are critical in uncovering how the program implemented for LTELLs at both treatment schools impacted students with respect to performance, rates of growth from one administration of a test to the next, and overall performance compared to other ELL-designated students. Moreover, our quantitative analysis reveals the extent to which the intervention we developed was successful in improving the academic skills of LTELLs.

Hierarchical Linear Modeling (HLM) was used to calculate difference scores among schools for both the ALLD and NYSESLAT. For each of the analyses, two-level HLM models were used. This multi-level model accounts for individual and school level effects (Gelman & Hill, 2007: 1). HLM is particularly suited to analyses of education data because students are nested within classrooms and in schools. In other words, individual student performance is correlated with other individual students who are in the same class or school. This model accounts for these within-school correlations. Furthermore, HLM is capable of comparing average student gains from pre-test to post-test scores, while an Analysis of Variance (ANOVA) compares means for one given point in
time. ANOVAs were used to determine significance on the post-test means among the schools. In addition to ANOVA, Tukey tests were run in order to ascertain between which groups statistical differences lie. Significance refers to the probability that LTEL student test performance at a given school was different from another school.

**Performance and Gains on the ALLD Assessment in Spanish and English**

**English**

The following table shows ANOVA results indicating the pre- and post-test average scores on the English ALLD:

<table>
<thead>
<tr>
<th>School</th>
<th>English Pre-Test Grade Levels Below</th>
<th>English Post-Test Grade Levels Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1 (Intervention)</td>
<td>3.06</td>
<td>1.79</td>
</tr>
<tr>
<td>School 2 (Intervention)</td>
<td>2.76</td>
<td>1.81</td>
</tr>
<tr>
<td>School 3 (Control)</td>
<td>2.89</td>
<td>3.47</td>
</tr>
</tbody>
</table>

Results from ANOVA of post-test ALLD data for English reading did not reveal statistically significant differences in average scores between the treatment schools and the control school. The differences instead lie in the gains made by the treatment schools in comparison to the control school from pre- to post-test administrations.

Analysis of pre- and post-test averages of the English ALLD for each school demonstrates gains for the treatment schools and loss for the control school (see Figure 2). Both control schools demonstrated gains from pre- to post-test administrations of more than one grade level. Alternatively, the control school demonstrated a loss of approximately half a year.

**Figure 2. English ALLD: Post-Test Averages Among Schools**
HLM analyses of difference scores for the English ALLD demonstrate that both treatment schools demonstrate statistically significant gains with respect to the control school. This result confirms that Schools 1 and 2 demonstrated more rapid improvement than the control school in English reading after the intervention. School 3, the control, demonstrated loss, with a difference score of -1.12 grade levels. School 1 showed a gain of 1.12 grade levels and School 2 demonstrated gains of .99. Both of these rates of change for the treatment schools were significant (p < .05).

<table>
<thead>
<tr>
<th>School</th>
<th>Gain Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1 (Intervention)</td>
<td>1.12*</td>
</tr>
<tr>
<td>School 2 (Intervention)</td>
<td>.99*</td>
</tr>
<tr>
<td>School 3 (Control)</td>
<td>-1.12</td>
</tr>
</tbody>
</table>

* p < .05

Spanish

Data from the pre- and post-ALLD for Spanish reading comprehension revealed significant differences in average scores between the treatment schools and the control school through ANOVA. The following table shows the pre- and post-test average scores and significance levels:

<table>
<thead>
<tr>
<th>School</th>
<th>Spanish Pre-Test Grade Levels Below</th>
<th>Spanish Post-Test Grade Levels Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1 (Intervention)</td>
<td>3.61</td>
<td>2.33**</td>
</tr>
<tr>
<td>School 2 (Intervention)</td>
<td>2.47</td>
<td>2.59**</td>
</tr>
<tr>
<td>School 3 (Control)</td>
<td>4.72</td>
<td>5.92</td>
</tr>
</tbody>
</table>

** p = .01

Students at School 1 fare significantly better on Spanish reading after the intervention, as measured by the Spanish ALLD post-test. Performance of students at School 2 remained flat, which means that students at School 2 did not experience further Spanish language loss. Furthermore, as denoted by the figure below, students in the control school actually demonstrated losses in their Spanish reading ability from pre- to post-test administration.
Figure 3. Spanish ALLD: Post-Test Averages among Schools

Table 6. Spanish ALLD: Gain Scores

<table>
<thead>
<tr>
<th>School</th>
<th>Gain Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1 (Intervention)</td>
<td>.92</td>
</tr>
<tr>
<td>School 2 (Intervention)</td>
<td>.06</td>
</tr>
<tr>
<td>School 3 (Control)</td>
<td>-.73</td>
</tr>
</tbody>
</table>

Pre- and post-test scores were analyzed using HLM to determine the difference score between schools. HLM analyses confirmed that School 1 showed a trend of improvement. Students from School 3, the control, experienced negative growth, with a difference score of .73 grade levels lower than their pre-test. In contrast, School 1 demonstrated improvement with a difference score of .92 grade levels from pre- to post-test administrations, and School 2 exhibited a difference score of .06 grade levels, which demonstrates essentially no change. Although School 1 demonstrated change in a positive direction, this difference score was not statistically significant from the control school. As mentioned above, a limitation posed by a small sample size is that it lowers statistical power of the analysis.

Performance and Gains on the NYSESLAT

Like the ALLD scores, the NYSESLAT Reading & Writing scores were analyzed to examine changes in performance and rates of improvement across schools through both ANOVA and HLM. According to ANOVA, there were no significant differences in scores among schools for NYSESLAT data between May 2009 and the previous year on the Reading & Writing sections.

Table 7. NYSESLAT Scaled Scores: May 2008 and 2009 (ANOVA)

<table>
<thead>
<tr>
<th>School</th>
<th>Reading &amp; Writing May 2008</th>
<th>Reading &amp; Writing May 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>676.17</td>
<td>717.67</td>
</tr>
<tr>
<td>School 2</td>
<td>687.93</td>
<td>693.93</td>
</tr>
<tr>
<td>School 3</td>
<td>683.82</td>
<td>707.00</td>
</tr>
</tbody>
</table>
Table 8. HLM: Difference Scores

<table>
<thead>
<tr>
<th>School</th>
<th>Reading &amp; Writing Difference Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>41.5*</td>
</tr>
<tr>
<td>School 2</td>
<td>6.0</td>
</tr>
<tr>
<td>School 3</td>
<td>23.61</td>
</tr>
</tbody>
</table>

However, as seen in Table 8, although average post-test results are not different among schools through ANOVA, HLM analyses reveal that the difference scores for School 1 are significantly different from the control school. Difference scores represent the difference between pre- and post-test administrations of the NYSESLAT adjusted for variance and measurement error. School 1 demonstrated significantly different growth than the control school after the intervention in the Reading & Writing portion of the NYSESLAT. This finding is important because it demonstrates that students’ literacy improved at a faster rate in English Reading & Writing for LTELL students at School 1 after the intervention as compared to students in the control school. A difference score of 41.5 points in the Reading & Writing portion of the NYSESLAT represents a change for students of one level closer towards proficiency. Keeping in mind that our goal was for students to test out of their ELL status on the NYSESLAT after four semesters, while students in our sample participated in the study for two semesters, it is noteworthy that four of the students at School 1 participating in the study achieved full proficiency on the NYSESLAT during the year of the intervention. At School 2, one 9th grade student achieved this goal.

NYSESLAT data was also analyzed to compare participants at each school to their ELL-designated peers. ANOVA was used to compare performance means between study participants and other ELL-designated students within the same grade for May 2008 and 2009 NYSESLAT results. According to this analysis, students in the study in School 1 out-performed other ELL-designated students in the Reading & Writing section of the May 2009 NYSESLAT administration. In other words, the students at School 1 participating in the study were more likely to achieve higher scores in Reading & Writing than their ELL-designated peers after the intervention. The gains at School 1 demonstrate a trend of moving LTELL students from ‘intermediate’ to ‘advanced’ levels on the Reading & Writing component of the NYSESLAT after a year of the intervention. The findings at School 1 for the study participants’ May 2009 NYSESLAT Reading & Writing scores as compared to the ELL-designated students are highly significant (see Table 9).
Table 9. Within-School NYSESLAT Comparisons Between Study LTELL Participants & ELL-Designated Students (ANOVA)

<table>
<thead>
<tr>
<th></th>
<th>Reading &amp; Writing 2008</th>
<th>Reading &amp; Writing 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>676.17 (Intermediate)</td>
<td>717.67** (Advanced)</td>
</tr>
<tr>
<td>ELL-Designated</td>
<td>674.27 (Intermediate)</td>
<td>684.79 (Intermediate)</td>
</tr>
<tr>
<td><strong>School 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>687.93 (Intermediate)</td>
<td>693.93 (Intermediate)</td>
</tr>
<tr>
<td>ELL-Designated</td>
<td>670.59 (Intermediate)</td>
<td>687.06 (Intermediate)</td>
</tr>
<tr>
<td><strong>School 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>683.82 (Intermediate)</td>
<td>683.24 (Intermediate)</td>
</tr>
<tr>
<td>ELL-Designated</td>
<td>675.06 (Intermediate)</td>
<td>707.00 (Advanced)</td>
</tr>
</tbody>
</table>

* denotes significance p < .05
** denotes significance p < .01
*** denotes significance p < .001

Discussion

ALLD results were examined for differences in performance across the schools as well as difference scores, gains or losses, at each school. For the English and the Spanish ALLD, both treatment schools scored on average higher in reading comprehension in both languages than the control school, as indicated by ANOVA analyses. Most significantly, Schools 1 and 2 demonstrated positive difference scores or gains, according to HLM analyses, when compared to School 3 on the English ALLD; in other words, both treatment schools experienced positive change in scores for the English ALLD, while the control school experienced negative growth. This finding is consistent with research by Yang, Urrabazo, and Murray (2001), whose study of LTELLs in the Dallas Public Schools indicates that without appropriate interventions the overall academic performance of these students does not continue to improve, in that there is a ceiling in the students’ levels of academic English attainment, and over time these students may in fact perform worse. Our findings provide evidence that if educational programming includes native language instruction as well as explicit attention to language and literacy in all courses, that LTELL students’ performance in English may show gains. Furthermore, for LTELL students in the control school, when programming is not attuned to their needs, they may fall further behind rather than making progress towards grade level literacy.

Analysis of the Spanish ALLD results demonstrated that both Schools 1 and 2, the treatment schools, also scored higher than School 3. Students at School 1 demonstrated a trend towards improvement in their Spanish reading comprehension on the ALLD, while students at School 2 did not show improvement, yet did not show further language loss; by contrast, students at School 3 displayed a trend towards negative growth in Spanish, as would be expected when students’
native languages are not maintained in school (García, 2009). This makes sense given that students in the control school did not have a Spanish Native Language Arts course built into their schedule.

With respect to the NYSESLAT results, all schools achieved at approximately the same level for all components of the May 2009 testing according to ANOVA. However through HLM analysis, School 1 demonstrated significant gains for the Reading & Writing component of the NYSESLAT as compared to Schools 2 and 3 between the May 2008 and May 2009 administrations. This is a particularly important finding given that LTELLs often have strong oral language skills in both languages, but lag behind in their reading and writing abilities. The impact of the intervention on the academic literacy of LTELLs suggests that if the program for LTELLs continues, this population may experience further progress in this area in the future.

Lastly, participant students’ average performance on all components of the NYSESLAT was compared to other ELL-designated students on the same grade level for each of the schools. Analysis through ANOVA confirmed that student participants in School 1 scored higher than their grade level ELL-designated peers on the Reading & Writing section of the NYSESLAT. This means that for LTELL students at School 1 who participated in the study, the intervention made a positive difference with respect to their academic literacy performance in English as indicated by the NYSESLAT. In fact, on average these students moved one level towards proficiency in both sections of the exam. Being part of the class that received a program attuned to the needs of LTELLs made a substantial difference to these students.

Analysis of NYSESLAT scores of students in Schools 2 and 3 did not show significant differences from their ELL-designated peers on the May 2009 NYSESLAT. The difference in performance of School 2 between the ALLD and the NYSESLAT is most likely due to the difference in what each of these tests measure. The ALLD was used to measure reading comprehension, while the NYSESLAT Reading & Writing component includes more than reading comprehension. Furthermore, different metrics are used to report the results of each of these tests. The ALLD is reported in grade levels below (or above), while the NYSESLAT is reported in scaled scores. As such, a much greater level of improvement is needed to demonstrate gains in the NYSESLAT than through the ALLD. Therefore, although School 2 demonstrated gains in both the ALLD and NYSESLAT, the magnitude of these gains are different respective to each of the tests – thus difference scores are significant according to HLM for the English ALLD but are not for either component of the NYSESLAT. Lastly, we attribute the lack of growth demonstrated by School 2...
on the NYSESLAT to student self-reports at this school that students may intentionally ‘fail’ this exam. These students’ self-reports threaten the validity of the results of the exam, given that the results may not truly reflect students’ English language abilities. That only one 9th grade student at School 2 (as compared to four 9th grade students at School 1) achieved proficiency on the NYSESLAT indicates that more qualitative research of this trend is worthy of attention.

However, this same reasoning brings attention to the remarkable finding that students in School 1 fared better on the Reading and Writing components of the NYSESLAT through HLM analyses. These students effectively moved on average from ‘advanced’ to ‘proficient’ levels in the Listening & Speaking section and from ‘intermediate’ to ‘advanced’ on the Reading & Writing sections. Once again, this finding further builds the argument that solid native language instruction will transfer to English language skills and, ultimately, proficiency.

Although it is not possible to draw causal conclusions about why study participants at the treatment schools in general fare better than others in both performance and in rate of growth, there are some probable theories why this may be so. School 1 developed a cohesive 4-period literacy block for LTELL students, supported by collaborative planning with the Spanish Language Arts, English Language Arts and ESL teachers. While there are other advantages of small high schools such as School 2 for emergent bilinguals, such as greater familiarity with each student and individual accountability, the luxury of size and large numbers of students allowed School 1 to create a stand-alone cohort of LTELLs and program especially for them. In addition, collaborative planning at School 1 was marked by an attention to language planning, thus making four components of language – reading, writing, speaking and listening – central components in the implementation of the LTELL literacy program. Although School 2 did demonstrate gains in the English ALLD, students did not experience the same levels of growth as students in School 1, perhaps in part due to administrative difficulties and classroom factors. Teachers did not have collaborative planning time, LTELLs were mixed with other students in all their classes necessitating extreme differentiation in instruction, and the Spanish Language Arts class did not meet for a full month at the beginning of the second semester due to administrative failure to add the course to the students’ schedules. A comparison of the Spanish Language Arts teachers’ development over the course of the academic year may provide further insight into differences in the two treatment schools (see What About Native Language Arts? section).
FINDINGS SECTION II: TEACHER ENGAGEMENT, PREPAREDNESS, AND BARRIERS

One of the most significant factors impacting the efficacy of our biliteracy program was the level of teacher engagement with the program’s ideals and practices. After the project began in Fall 2008 we soon realized that we had underestimated the great impact of teacher engagement and preparedness on our efforts at language education policy implementation. There were also several institutional barriers that arose over the course of the project period, as a result of decisions made by school administrators, which impacted programming. While our program was in fact successful overall, in that the LTELL students at the two schools involved in our study made substantial gains in their reading comprehension in English and Spanish, and gains were greater than those made at the control school (as reported above), we realize our program would have been more successful with greater engagement and preparation of the educators involved.

Over the course of the school year spent in the two participating schools, we found that teachers fell into one of three main categories when asked to change their programming and practices to meet the needs of LTELL students. The first group was comprised of several teachers at both schools who demonstrated enthusiasm from the outset; throughout the year, these teachers were eager for insights about the LTELL population and proactive in developing, implementing and evaluating effective classroom strategies to meet their needs. Other instructors, however, fell into the second group, in that they proved reluctant to modify or expand upon the teaching methods they employ with other student populations; consequently, the instruction they provided to the LTELLs in their classrooms departed in principle and practice from our model, and was not differentiated to meet the specialized needs of LTELLs. A third group of teachers made significant efforts to infuse a focus on language and literacy development into their lessons, but were not always effective in implementing their plans.

In order to quantify this observable level of teacher ‘fidelity’ to the biliteracy project, two evaluation measures were incorporated into our classroom observations: Teacher Effort (at infusing language and literacy) and Effectiveness (of the language and literary strategies they implemented), both of which were evaluated by our team during our observations on a scale of 0 to 1 at quarter-point intervals (as described in the methodology section above). Scores are shown in Table 10:

<table>
<thead>
<tr>
<th>Table 10. Teacher Effort/Literacy Strategies: Average Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School 1</strong></td>
</tr>
<tr>
<td><strong>Effort</strong></td>
</tr>
<tr>
<td>English Language Arts (ELA)</td>
</tr>
<tr>
<td>English as a Second Language (ESL)</td>
</tr>
<tr>
<td>Spanish Native Language Arts (NLA)</td>
</tr>
<tr>
<td>Social Studies</td>
</tr>
<tr>
<td>Mathematics</td>
</tr>
<tr>
<td>Science</td>
</tr>
</tbody>
</table>

6 The ESL teacher at School 2 co-taught with other teachers, mostly in global studies (social studies); there was no independent ESL class. While his fidelity to the model was high throughout the year, only the teachers with whom he taught were evaluated.

7 School 1 decided to eliminate 9th grade science for the cohort involved in this study, presumably due to scheduling pressures.
The findings presented in the table support the existence of the three groups of teachers outlined above. The teachers in the top two rows received the highest scores, in that no teacher in this group received an effectiveness score below 0.75 in any single observation. Conspicuously, these three instructors – who consistently strove to implement language and literacy strategies and did so most effectively – were those for whom English language and literacy were already central to the curriculum: the ELA and ESL teachers. In contrast, no teacher in the other four subject areas ever received a single-observation effectiveness score above 0.5, with the lowest scores belonging to the math and science teachers at School 1, who consistently displayed strong resistance to the aims and approaches of the program. The other five teachers – spread among the four ‘non-English’ subject areas – represent the third group mentioned above, whose various levels of effort yielded mixed results. Ms. H, for example, made strong efforts to infuse literacy into her classroom, but found a number of obstacles in her way:

I feel like there are very few [ELL/LTEL] resources out there. I feel like people don’t consider math a literacy area. It’s like English, then global, the two main ones. Then science and math, like you don’t need to read to do math. Yes you do.
(Ms. H, Math Teacher, School 2, Interview Transcript)

These and other challenges to teacher engagement – as well as key factors that foster it – are considered in detail below.

‘Language vs. Content’?

At first glance, the higher scores for ELA and ESL teachers might seem only natural. The teachers of these subjects (whom we call ‘Ms. K,’ ‘Ms. D,’ ‘Ms. S,’ and ‘Mr. N’) had stronger backgrounds in explicit language and literacy pedagogy, through both their training and prior teaching experience. Therefore, the changes they made to how they taught prior to participation in this project were more minor. In addition, language and literacy learning are central to the state-determined curricula they must cover. The teachers of other subject areas (called ‘Ms. N,’ ‘Mr. A,’ ‘Ms. H,’ ‘Mr. M,’ and ‘Mr. L’) faced the dual challenges of less experience with this type of instruction, and the need to teach content that was less explicitly focused on language and literacy (e.g., historical figures and events, mathematical and scientific formulas). The clear demarcation (see rows 4 and 5) between content teachers who put in significant effort and those who did not is worth noting here; teacher ‘buy-in’ to the very concept of language and literacy infusion was a factor that mitigated (School 2) or compounded (School 1) the difficulties already inherent in language planning for the content areas.

The teachers participating in our biliteracy project fell into three categories, which highlight the extent to which they embraced or rejected the model:

1) Those who made great efforts to infuse explicit language and literacy instruction into their courses, and were effective in doing so;
2) Those who resisted the model and would not make any effort to focus on language or literacy development in their instruction; and,
3) Those who made an effort but experienced limited or no success in their implementation.

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8 All teacher names are pseudonyms.
What about Native Language Arts?

What the ‘language vs. content’ divide does not easily account for are the lower evaluations of both Spanish teachers, whose pedagogical backgrounds presumably centered on language and literacy as much as those of the ESL and ELA teachers. Part of the explanation is that Spanish teachers are not prepared to teach Spanish to native speakers of the language who have experienced language loss, and who have low literacy skills in the language as a result. Additionally, neither school previously offered Native language arts (NLA) courses. At School 1, Spanish had previously only been offered as a foreign language arts course to be taken by native-English speakers; at School 2, Spanish had not been offered at all and the Spanish teacher had been teaching ESL. While the ESL and ELA teachers needed to adapt their previous curricula for LTELls, Ms. C, the NLA teacher at School 1, could draw only from her experience teaching native-English speakers in a foreign language course, while Mr. R at School 2 was faced with creating an entirely new NLA curriculum from scratch. Mr. R spoke of this pressure early on when asked where he needed additional support:

The curriculum itself. I can plan a good lesson, but I need to organize that. I want to sit down with someone who is used to doing it. I have a curriculum that I have that I’ve been working on with my mother-in-law (who was a teacher). I want to make it meaningful to me. What are the learning points, the four modalities [speaking, writing, listening, reading]?
(Mr. R, NLA Teacher, School 2, Interview Transcript)

Ms. C did not settle on a textbook until several weeks into the school year, and felt much more effective after she did:

We tried to get a book that would fit all of my students’ needs. I met with Ms. J and [teacher name] and we came up with the idea that Navegando is good for them, because it has a lot of activities. They practice talking, reading and writing... I feel now that the follow-up is more specific. [The textbook]'s guided towards their needs.
(Ms. C, NLA Teacher, School 1, Interview Transcript)

There were also significant individual differences between the two teachers that emerged over the course of the year. Mr. R expressed interest in LTELLs and their particular needs in early conversations, but proved somewhat less dedicated to actually implementing new strategies for his LTELL students as the year went on; in his final class observation, Mr. R’s effort was assessed at 0. By contrast, Ms. C overcame some initial unfamiliarity with how to help her students develop foundational native language literacy skills, and by spring was starting to receive 0.5s in both of her observation scores. Ms. C’s description of one of her later lessons reflect the work she had done, both on her own and in collaboration with the ELA and ESL teachers at her school:

[What’s working is] the fact that the [students] are writing and they have to write in English class and they have to organize thoughts, they’re writing narrative. They were writing that in the English class, it’s connected all the time. What they are writing in one class, they are writing in this class.
(Ms. C, NLA Teacher, School 1, Observation 4 Notes)

The Assistant Principal also noticed Ms. C’s growth over the course of the project period:
... [Ms. C] made the greatest growth, the greatest leap. I think working with [researcher]
was a great help. I saw a strong leap... someone who didn’t have a lot of experience, who
struggled with some of the activities in class... to someone who was very confident in the
classroom... [who] would do her thing, and do what she had to do, who felt very
confident. So I saw tremendous growth, a tremendous change in Ms. C!
(Ms. J, Assistant Principal, School 1, Interview Transcript)

Having repeatedly noted the difference in teacher fidelity between the NLA program at the two
schools involved in this project, we were not surprised to see correspondingly greater Spanish
growth on the ALLD at the first school (see above). Though the evidence might best be
categorized as suggestive, it supports the impression that teacher engagement was an extremely
significant factor in the program’s successful implementation. Undoubtedly, differences in
disposition among the various teachers involved in the study — e.g., Ms. C’s open-mindedness and
work ethic, as well as the willingness of School 1’s other teachers to collaborate with her — impacted
their levels of engagement.

Teacher Engagement

Heightened Teacher Awareness about LTELLs

It has been about four years since the New York City Department of Education began
requiring schools to disaggregate the data they gather about emergent bilinguals by sub-group,
including LTELLs. One of our primary findings has been that simply increasing teachers’ awareness
about this population has improved the quality of services being provided to them. Before we
began our study, the teachers in the participating schools had little to no awareness about long-term
ELLs, and schools citywide had no educational programs in place specifically tailored to the needs
of this population. This limited attentiveness is expressed by Ms. S:

To be honest, I don’t think that we had ever given an actual direct thought to the idea that
there are ELLs and there are long-term ELLs. Are we doing anything specific for those long-
term ELLs? So the study certainly helped us to focus our energy and focus our strategies on
them.
(Ms. S, ELA Teacher, School 2, Interview Transcript)

Over the course of the biliteracy project period, teachers received ongoing professional
development from members of the research team in formal group sessions and also in the one-on-
one classroom observations and subsequent discussions described above. Towards the end of the
year, Ms. K had come to the following understanding about LTELLs:

They need a lot of structure, a lot more scaffolding, a little bit at a time. You can’t
overwhelm them with too much…They need people to understand that they are LTELLs, to
be patient with them, that it’s okay to use their native language, they still need to. I’ve
learned for myself that there’s such a wide spread of LTELLs, there are those that are not as
academic. They are not misclassified or misprogrammed. They are not special education.
(Ms. K, ELA Teacher, School 1, Interview Transcript)

Ms. K noticed that although there were differences in the students’ abilities, as a group they require
additional support structures and time. She also noted that some LTELLs do not perform well
academically, but not as an outcome of learning disabilities, such as those evident in students assigned to special education classes. Mr. K understands that what this population of students requires most is their teachers’ awareness and appropriate modification of teaching strategies.

Mr. N, the ESL teacher at School 2, provides an example of what the ‘scaffolding’ for LTLLs that Ms. K refers to above looks like in the Global History classroom where he co-teaches with the social studies teacher.

What we did in Global was instead of giving them entire textbook chapters to read, which is something that a lot of teachers still do, we would take chunks that were important from the chapter and we would turn those chunks into double-entry journals where they’d have a chunk and had a question beside it. They had to read that chunk and then answer that question. I found that when we did that the LTLLs were able to access the text more. (Mr. N, ESL Teacher, School 2, Interview Transcript)

In this excerpt, Mr. N clarifies how instruction is modified for LTLLs.

Ms. N utilizes a similar scaffolding approach based on questioning in her science course, only she has students pose the questions. In her classes, students take notes, often by copying what is on the board, overhead or PowerPoint presentation. Because this approach does not guarantee students actually comprehend what they write, Ms. N has success with an activity she calls “know your notes.” Instead of the teacher asking students questions about what they copied, it is the students who must ask questions based on their notes and then pose them to their peers. This activity places students in the position of not only answering questions, but also asking them, which can be even more demanding.

Moreover, by simply clarifying for teachers the diversity of the student population they serve, and highlighting the specialized learning needs of LTLLs, the teaching practices of several teachers changed in positive ways at the schools involved our study. As a result of this increased awareness, they identified and refined teaching strategies such as those described above, which they found were successful for their LTLL students.

Effective Strategies for Long-Term English Learners

While this remains an area where greater research is needed, based on our findings we have identified certain strategies as effective in meeting the needs of LTLLs. Below we discuss these strategies and provide classroom examples to show how they worked with this specific group of students. We also include counter-examples to show how some strategies lacked effectiveness when implemented without consideration of students’ needs or backgrounds. In addition to the broad approach of scaffolding discussed above, further strategies include: activating prior knowledge, oral language development, attention to vocabulary, active read alouds, and teacher collaboration for student support. The latter is more of a general approach to teaching and learning than a strategy, but one we found very important in working with LTLLs.

9 Of the LTLLs who participated in this study, none were identified as special education students or those with an IEP (Individualized Education Plan). However, we do recognize that there are LTLLs who are simultaneously designated as special education students. It is likely their needs go beyond the approaches we describe here.
Although we found these strategies to generally meet the needs of LTELLs, we are certain there are other strategies that are also beneficial to this population. This area demands further investigation in future, as there remains a lack of in-depth understanding regarding which strategies are best for these students. It is important to note that there is likely no one strategy or approach that will transform all LTELL students into high achievers, because of their wide-ranging prior experiences and proficiencies. Furthermore, these strategies alone are not enough, but rather must be implemented in the context of a well thought-out program that incorporates explicit literacy instruction, native language development and which has a coherent language policy. Nonetheless, as this research clarifies, more can be done to increase the success of these students in school.

**Activating Prior Knowledge**

LTELL students come to school with a range of backgrounds and experiences across languages, cultures and countries. When teachers were able to build on this knowledge and make connections to students’ backgrounds and interests, learning became more meaningful and relevant. This is especially important of the LTELL population who are at risk of being disengaged from schooling, to the extent that they may eventually drop out of school altogether (Menken, 2008; Menken & Kleyn, 2009).

While LTELLs may have difficulty with academic literacy skills, they display proficiency when it comes to the media literacies necessary to go on-line and communicate via different technologies. In a lesson where Ms. S prepared the class to read a story called “Speak,” she built on their knowledge of instant messaging in order to use textual features to identify emphasis:

Ms. S: Does everyone know what a font is, you know you’re on AIM [America On-line Instant Messenger] and you decide you want to be cute, what would that be?
S (student): You put it in bold or italics.
Ms. S: Why do you think we should pay attention to words that are bolded, etc.?
S: It must be important. It could be like a clue or something.
(Ms. S, ELA Teacher, School 2, Observation Notes)

LTELLs also bring with them a background in their native language. Although schools have typically thought of languages other than English as an obstacle to overcome, one’s native language knowledge is often an asset to comprehending other languages (Baker, 2006). Ms. K utilized the students’ Spanish knowledge as a resource, and used it to scaffold her students’ understanding in a lesson on specific types of story writing:

Ms. K writes ‘Pourquoi Stories’ on board
Ms. K: What do you think this means?
(Nobody answers)
Ms. K: ‘Does it look like a word in Spanish?’
Students in unison: “Por que!”
Ms. K: So what do you think it means?

Instructional strategies identified in this research as helpful for Long-Term English Language Learners include:

- Scaffolding instruction for explicit language and literacy development
- Activating prior knowledge
- Oral academic language development
- Attention to vocabulary
- Active Read Alouds
- Teacher collaboration across subject areas for student support
Students: Why!
Ms. K: So what do you think these stories are about?
Students: Why! Why things happened...
Ms K writes on board: French word for ‘why’; stories that explain why or how something is
in the world.
(Ms. K, ELA Teacher, School 1, Observation Notes)

Ms. K was able to use the students’ language skills to help them understand course content, and in
doing so instilled in them a sense of pride.

Ms. N tried a similar approach in her science class, but with less success. She asked her
students, “De dónde viene la palabra cloroplasto...de chlore-o-fil-a.” While she was trying to make a
connection to a content term that is an English/Spanish cognate, the students did not have the prior
knowledge in Spanish to make the connection between the two words. With so few students being
products of additive or strong bilingual programs, their academic Spanish is limited. Therefore,
instead of assuming knowledge of such academic terminology, Ms. N can shift her focus and teach
these cognates to students in a way that will expand both their Spanish and English lexicons.

Because many teenagers are interested in romantic relationships, Ms H attempted to use this
very salient interest of her students to draw a connection between mathematical functions and
human relationships; another good idea that was unsuccessful in implementation, in spite of great
efforts and the best of intentions.

Ms. H asks the class what makes a good relationship. The students define a good
relationship as one in which an individual dates one person at a time, and a bad relationship
one is one in which an individual dates more than one person. Ms. H then makes a
connection between "good relationships" and mathematical "functions" (where one $x$ value
is mapped to a single $y$ value), and then shows that a "bad relationship" is not a function
(when an $x$ value is mapped to more than one $y$ value).
(Ms. H, Math Teacher, School 2, Observation Notes)

While this was a good effort on the teacher's part to draw connections between the students’
actual lives and a mathematical concept, there are two problems with the lesson. First, the
connection to a bad relationship would, in mathematical terms, be called a “relation” rather than a
“relationship.” However, Ms. H never teaches this term to the students, thereby missing valuable
content. Second, the similarity in terms could actually cause confusion for the students because the
connection would be between a “bad relationship” and a “relation.” Although Ms. H did report
later in the year that the concept of functions was one that the students remembered due to the
close connection to something they were constantly thinking about, the degree to which this link
developed their mathematical understanding is questionable.

Making connections to students’ lived realities and building on their prior knowledge is
important for all students, but especially for LTELs who are often disengaged and bored in class.
Making connections requires teachers to have a grasp of what students know, the things they are
interested in and the languages they speak. It necessitates significant effort and – as is evident in the
above examples of efforts that did not succeed – is not easy to do well. Nevertheless, activating
students’ prior knowledge is something all teachers must consider before and during the teaching and learning process.

**Oral Academic Language Development**

At the elementary level there has been a push to embed academic oral language instruction in the literacy block, as it has been found to assist students in learning to read and write (August & Shanahan, 2006; Calkins, 2001). We learned that this focus is also important for LTELLs at the secondary level. LTELLs tend to be orally proficient, often in English and Spanish, when it comes to informal language. However, they lack oral academic proficiency in both languages. Ms. S explains, “All they want to do is talk [laughs]. So why not build off the strength, not even a strength, but an interest I guess. They talk, so why not use it?” In order to develop the academic oral registers of these students, the teachers made explicit efforts to create such opportunities. Mr. N describes the inception of an oral academic language focus at School 2:

The conversations that we started having towards the second half of the year about oral language development was something that was helpful for me as a teacher. Because they come as very orally proficient in English…and to think in terms of oral language development that they still need was something I didn’t [consider], I was always so focused on the reading and the writing, which is an obvious issue…And thinking about how developing their academic oral language can transfer to reading and writing was something that was helpful to me.

(Mr. N, ESL Teacher, School #2, Interview Transcript)

The struggle for LTELLs does not lie in expressing themselves, but rather in using more formal-academic registers. Given that we have found that their writing also tends to mirror the structure of their informal speech patterns, a focus on oral academic language would only be an asset when it comes to transferring their skills into written formats.

Below is an excerpt from a lesson where Ms. S helps students determine the language register to use when writing a formal memo:

Ms. S: So what type of language would you use? I wouldn’t say he was mad beastin’.
Student: If you lived where we did you would.
Ms. S: So remember you’re writing in a professional way, it’s not inappropriate to use beastin’, but this is a memo that’s more formal.

(Ms. S, ELA Teacher, School 2, Observation Notes)

It is important to note that the teacher does not discount the students’ language, but instead only differentiates between that which is used in different settings. Clearly, the student who says, “If you lived here you would [use beastin’]” is also aware that place matters in terms of language register. Nevertheless, Ms. S takes it upon herself to explicitly teach academic language that transfers into formal writing.

Here Ms. S describes yet another approach to oral language development she used during a Shakespeare unit.
We did a court trial for Macbeth and that was all oral. They had to write down their arguments, but it was presented orally and one of the big things that they were graded on was: Were you talking like a lawyer? Were you using lawyer-ly language? Were you using professional language? They have all clearly watched a whole lot of *Law & Order* too, so that helped. But just even them being conscious of, ‘I am changing the way I talk because I am a lawyer or a character or someone else.’ That language changes is something both Mr. N and I have really tried to get them to understand, how much language changes based on where you are, who you are, and who you’re with.

(Ms. S, ELA Teacher, School 2, Interview Transcript)

Developing students’ oral language is important across all the content areas. In a science class, Ms. N has students discuss answers to questions before writing about them or answering related questions. This oral rehearsing technique requires students to think more carefully about the concept and the language they use to express it:

Oral language development benefits the writing of the students. We had done more reading review in prior lessons and I asked them questions before the review game. They had to work with their partner and talk about it before going over it as a class. It really helped for the final. There were better results for the multiple-choice than ever before.

(Ms. N, Science Teacher, School 2, Interview Notes)

The focus on oral language development and metalinguisic awareness for academic purposes allows LTELLs to be more aware of how and why they are using language. It is an important skill to develop on its own and a natural segue into other literacies as well (August & Shannon, 2006; Calkins, 2001).

**Attention to Vocabulary**

A defining characteristic of LTELLs is that they tend to rely on basic or low-level words orally and in writing. Therefore, instruction that focuses on increasing their vocabulary and developing a broader academic lexicon was a charge many teachers took on. Ms. D discusses her approach to expanding the vocabulary of her LTELL students:

I am a big proponent of amplifying the language. I put things on the board in different ways. For example I was doing apostrophes, not with them per se, but we’re talking about possession so I wrote belonging and ownership. Just showing them the different ways to use the language and never dumbing it down, and not simplifying, but always giving them more examples.

(Ms. D, ESL Teacher, School 1, Interview Transcript)

Ms. N offers the following explanation, with regard to scientific terminology: “While they can identify scientific words, they still struggle with what the terms actually mean.” In order to overcome this obstacle, she has students create glossaries where she provides students with textbook vocabulary definitions, which they must rewrite in their own words and also draw a corresponding diagram to represent the term/concept.

To strengthen students’ word usage in language arts courses, and help them use precise language, Ms. S taught a lesson to address vocabulary choice through the use of a thesaurus. The
lesson began with Ms. S explaining, “What we’re going to do today is find words to replace our tired words.” Examples of ‘tired’ words such as sad, mad, nice and smart were provided. Next, students received a "Stepping up the Vocabulary" handout where they were instructed to use the thesaurus to change ‘tired’ words in a paragraph to more exciting words. Students were not allowed to use just any word as a replacement, but instead they had to: 1) know what it meant, and 2) know its part of speech. Following a guided practice activity, students moved on to “step up” the vocabulary in their own writing. This focused vocabulary lesson allowed students the opportunity to edit their writing through the use of a tool that simultaneously supported vocabulary use and development.

History is also a content area where word choice or vocabulary greatly impacts interpretation. Teaching with a focus on accurate language usage for this academic discipline, ‘historian speak’ became a way in which a teacher in our project created a possibility for the intersection between content and language instruction:

Something that I think [about] in terms of global [history class] is having the students try to talk like a historian. It was something I think they enjoyed, as well. They were annoyed sometimes because they wanted to say whatever way they wanted, to use ‘thingy.’ But when I would say, ‘thingy isn’t precise enough for a historian, how would a historian say it?’ they were annoyed but I think it was helpful.

(Mr. N, ESL Teacher, School 2, Interview Transcript)

Every content area has its own terminology that is critical to success in that field. The teachers within this study used creative means to give students access to these words in ways that went beyond looking up and reciting definitions. LTELLs had the chance to push past their comfortable and sometimes ‘tired’ words to communicate in ways that were more academic and used content-specific vocabulary.

Active Read Alouds

A ‘read aloud’ is a literacy activity wherein the teacher reads a text out loud to students. This approach is most common in elementary classrooms, where what comes to mind is the image of a group of young children seated on a carpet with a teacher in a rocking chair reading aloud a storybook with lots of pictures. However, read alouds can also be an effective strategy in high school classes, and especially with adolescent emergent bilinguals with limited literacy skills, like LTELL students (Short & Fitzsimmons, 2007). In our study, only three of the thirteen teachers utilized this approach. Both of the ELA teachers used read alouds with novels, while the social studies teacher at School 2 read aloud from the textbook and from PowerPoint slides. We categorized their use of read alouds into two groups: active and passive.

Active read alouds were when students had a copy of the book being read by the teacher in front of them. They followed along as the teacher read, answering questions posed by the teacher to ensure they understood the text, and asking their own questions as well. Passive read alouds, on the other hand, required students to sit and listen to a text being read to them with little interactivity through questioning or a text in front of them to follow. If passive read alouds were on a topic that did not interest the students or directly connect to their lives, the result was typically student disengagement, often coupled with management issues.
In School 2, Mr. D (the history teacher), was conducting a lesson on the cultural diffusion of Buddhism. He began with a review of the more difficult vocabulary words that students would encounter and then went into a rather long read aloud of a photocopied page from a history textbook. Although the students did receive a copy of the handout, there was minimal monitoring as to whether they were following along, and there were no questions from the teacher or students in order to check for understanding or make connections to students’ background knowledge. This example of a passive read aloud was therefore not particularly effective.

Below is a portion of a transcript from Ms. S’s ELA class, in which she conducted an active read aloud as the class began reading the book “Night” by Elie Wiesel. Notice the inclusion of many of the strategies described above, all of which can easily be embedded into a read aloud activity:

Ms. S: Let’s open up to page 3.
S1 [student]: Miss, you’ll be reading this book right?
S2: What’s all this Miss?
Ms. S: There’s an introduction and a foreword.
S3: Miss, this really happened?
Ms. S: Yes, that’s why it’s called an autobiography.
Ms. S: For reading with a purpose I want you to look at how things are changing and how setting affects change, how things like place and environment can change everything.
[Teacher starts reading the first chapter aloud]
S4: Miss, what’s the err thing?
Ms. S: It’s to make a mistake.
[Teacher continues reading aloud]
Ms. S: Usually when I read one of my strategies is to visualize, but when I read this my camera basically shuts off.
(Ms. S, ELA Teacher, School 2, Observation Notes)

Within this brief overview of a read aloud where all the students followed along in their own book, we can identify learning happening on a number of levels. Students inquired about the format of the book and the vocabulary words within it. The teacher was able to provide students a focus with which to approach the reading, scaffold their understanding through questioning, and clarify explicit strategies that readers can use to comprehend the book. Thus, the active read aloud structure provides for a range of opportunities for scaffolding to make texts and the reading process accessible and interesting to all students.

The only caveat here is that students can become overly reliant on teachers reading to them. The second line of this transcript, where a student asks, “Miss, you’ll be reading this book, right?” indicates that the student may be more comfortable with being read to as opposed to reading independently. From our interviews with students and observations in classrooms, we noticed that LTEL students generally do not read books on their own and often exhibit resistance when they are asked to do so. However, this is not to say that read alouds serve no purpose. Instead, they can and should be used, but reap the most benefits when done in conjunction with independent reading.
Teacher Collaboration

Although collaboration among high school teachers is typically uncommon, and collaboration across content areas is even less prevalent at this level, our biliteracy program required teachers to plan together. In the summer of 2008, before the program began, the ELA, NLA and ESL teachers from both schools met with a few members of the research team to plan a linked curriculum, whereby different courses would reinforce and build upon each other. This was meant to set the tone for the remainder of the year, during which unit planning was intended to be collaborative across all three language teachers and courses.

The collaboration process took on different formats at each school. In School 1, the ESL, ELA, and NLA teachers continued to work together during their scheduled planning time, although the ELA and ESL teachers were in actuality able to work more closely with each other than with the NLA teacher. Nevertheless, the three teachers taught the LTELL students in back-to-back periods (with the ELA teacher having a double-period block). Ms. D speaks to the effectiveness of this working relationship, which was entirely new for the teachers at School 1:

'It's been great collaborating with the ELA teacher. I don’t collaborate as much with the Spanish or other teachers. I needed to learn the ELA strategies, so that helped me a lot. Ms. K and I were just teaching point of view at the same time, so the students had just done it and they were like “I know that.” That was great to hear that…but also working that time into our meetings you know, it became necessary because of the study. But it was necessary anyway…

(Ms. D, ESL Teacher, School 1, Interview Transcript)

As Ms. D mentions, the collaboration was very helpful, but did not equally involve all the teachers in the biliteracy program, largely due to scheduling issues. Nevertheless, even though she and Ms. K did not have the time to meet with the NLA teacher on a regular basis, their collaborative planning positively impacted the students in Spanish as well.

The similar focus embedded into course curricula allowed students to create connections around literacy in English and Spanish and to see how skills transfer across languages. Ms. C explains, “Students were reintroduced to the writing process in Spanish. This lesson is a review of what has been done in ELA, to connect students’ understandings of the writing process to NLA.” Thus, even a minimal level of collaboration positively affected students. Ms. J, the assistant principal at the school, summarizes the power of teacher collaborative planning and the discussions they had about their students:

Conversations, the teachers, like, with Spanish and English and ESL they taught along the same theme. And they planned together and they talked about the kids together, that this child did this in my room. This child is very quiet in my class. And this child does this. Just to have a conversation. And they also visited each other. That was great.

(Ms. J, Assistant Principal, School 1, Interview Transcript)

While collaboration was new at School 1, as it was a required component of the biliteracy program, it was already part of the school culture at School 2 prior to the start of our project. The teachers across all the content areas at School 2 select a common skill to teach each month, and address it in their own subject area. For example, teachers focused on comparing and contrasting
one month and word sorts to develop content vocabulary another month. However, while the teachers at School 2 did come together to collaborate, their efforts were not centered on the needs of English Learners or long-term ELLs. It was not until the LTELL biliteracy program started and we began coming into the school for professional development sessions that the specific focus and collaboration around LTELLs began.

With the smaller size of School 2 and teachers’ closer working proximity, they were able to co-plan and also to co-teach. This was the case with the ESL and content teachers. In this collaborative team-teaching structure, the ESL teacher focused on the explicit literacy skills required to make the content accessible to students. Ideally, both teachers worked together as equals to bring language and content instruction to students in a consistent and uninterrupted manner. However, this was not always easy, especially if the ESL teacher lacked content knowledge, or if the content teacher was not open to having another teacher in their room; at times, content teachers can see the ESL teacher simply as a paraprofessional or assistant there solely to help beginner ELLs (for further discussion of this common downfall of co-teaching, see Creese, 2005). Nonetheless, there were instances of successful team-teaching at School 2. The lesson summary below shows how the Math and ESL teacher collaborated:

Both teachers taught equally throughout the lesson. The focus on literacy was explicit through a sorting activity that centered on applying prior knowledge and specific vocabulary as it applied to the content of solving 2-step equations. The teachers worked together seamlessly so it seemed as if both were the math instructor, despite one of them being the ESL specialist. The students were quite engaged in the activity and the lesson appeared to be successful.

(Ms. H and Mr. R, Math and ESL Teachers, School 2, Observation Notes)

Although challenging in terms of the time commitment required and interpersonal relationships between teachers, collaboration at both schools was viewed as a positive aspect for instruction and student learning. For LTELLs, the reinforcement of skills across their different courses allow for purposeful connections to be made rather than those that arise simply by coincidence. Also, co-teaching can ensure that students receive content and literacy instruction simultaneously. It is likely that an expansion of such collaboration, already in place to different degrees in both schools, would only deepen its positive impact on LTELLs.

**Teacher Resistance**

In all likelihood, every school (if not every professional institution) counts among its members both those amenable to new ideas and those less open to change, and neither school in the study was an exception to this rule. Given the creation of a new LTELL student cohort apart from other emergent bilinguals, a new program of study involving the addition of Spanish courses, and the explicit objective of developing unique classroom strategies for that cohort, our program was bound to meet a certain level of resistance from teachers of the second type, and this was indeed the case. Some teachers were relatively open about this:

The way we’ve been told now is maybe you have them in groups… with the curriculum we have now, I don’t know how we can do that. You will never be able to cover the curriculum.

(Mr. M, Math Teacher, School 1, Interview Transcript)
Student collaboration was indeed something our team suggested for the LTEL classes, but, while perhaps not finding this particular approach problematic per se, Mr. M was in general resistant to new ideas. Mr. L presents an entirely different justification for avoiding group work:

I can’t do group work. That idea is not going to translate. There’s this belief that young people can work together. They’re so caught up in this self-entertainment that group work... is a non-starter.

(Mr. L, Social Studies Teacher, School 1, Interview Notes)

It should be noted that these views of student collaboration are at variance with those of other teachers in our program, but again, perhaps more significant are the phrases “will never,” “is not going to,” and “non-starter,” which indicate *a priori* rejection of the viability of group work with LTELs, as opposed to consideration of its relative value after actually attempting it. Indeed, as far as could be told from classroom observations, Mr. M and Mr. L succeeded in avoiding group work throughout the course of the year. The lessons of both teachers were strikingly and consistently teacher-centered: students were given problems or questions to do independently and silently, and then had their answers checked by the teacher. In several cases when time grew short for the completion of a worksheet, the teacher hushed the students in order to spoon-feed them – orally or on the board – the answers they were supposed to have found but had not. ‘Crowd control’ was often mentioned as a reason for avoiding group work; interestingly, however, classroom management was a salient challenge in both classrooms, despite (or perhaps because of) this teacher-centered focus.

Mr. L and Mr. M demonstrated similar resistance to ‘razzle-dazzle’ (i.e., various methods of infusing language and literacy instruction into content areas) from the start of our research project, and this resistance also lasted throughout the project period. When asked to consider methods of developing students’ vocabulary beyond mere impromptu, oral glossing of difficult words as he came across them in a text, Mr. L replied:

If I were to start doing razzle-dazzle, it’s going to raise the [students’] anxiety levels. I tried that a couple times [before the start of this program], but it didn’t work.

(Mr. L, Social Studies Teacher, School 1, Interview Notes)

Occasionally, apparent resistance or reluctance on the part of teachers in the program contradicted their outward affinity for the ideas behind the project. Mr. R, the NLA teacher, has already been mentioned in this regard: while never expressing the type of firm opposition to student collaboration seen above, he maintained strongly teacher-centered practices, with little student talk and minimal modeling or scaffolding for whatever independent work the students were required to do. Indeed, at one time or another, all of the teachers involved in the project expressed support for the concepts of native language support, additional scaffolding/modeling, and in general developing programming and instruction with the needs of LTELs in mind. In spite of this ‘lip service’ to the ideals of bilingualism and language learning, some teachers never moved their support of these ideals from theory into practice. Additionally, as described in the section that follows, there were several external barriers that inhibited the engagement of the educators in the program.
Institutional Resistance

School Culture

The two schools we worked with had different climates. While the administration at School 1 began the school year stating a strong commitment to collaboration among the teachers, in actuality the only teachers who regularly collaborated were the ELA, ESL, and NLA teachers (with the NLA teacher less frequently involved). Over time, we found that limited opportunities for collaboration negatively impacted teacher engagement. The roots of this difficulty were both logistical – e.g., few or no designated periods for co-planning, either during or after school – and cultural in nature. By cultural we mean that School 1’s teachers had evidently not been encouraged to work together in the past, and many were reluctant to do so for this program.

This was most notable in professional development sessions at the school, in which discussion of theories and practices for LTELLs were met with indifference from some of the faculty and administration alike, while model lessons demonstrating effective strategies were greeted more enthusiastically. Little value, in effect, was attached to the exchange of ideas among teachers; professional development was perceived as an exclusively top-down affair. Participants arrived late, wandered freely in and out of the discussion to attend to other business (e.g. cell phone calls), and – when one session ended at 5:03 instead of 5:00 sharp – a teacher asked the Assistant Principal in apparent seriousness if they would be paid overtime for the indiscretion. These behavior patterns indicated, in our view, a trickling down of an institutional ethos that devalued teacher collaboration and did not prioritize the needs of LTELLs.

On the other hand, School 2 paid greater logistical and cultural attention to the value of collaboration, with teachers participating more actively in discussion and viewing professional development and planning meetings as serious, worthwhile activities (though even more collaborative planning might have helped; see Mr. R’s comments below). It seems entirely reasonable to think that the lack of lowest-quadrant Teacher Effort scores (cf. Table 1) at School 2 might be related, at least indirectly, to this institutional culture.

Programming/Scheduling Issues and Spanish Instruction

Several difficulties with class scheduling and programming resulted in decreased teacher engagement, and a disproportional number of these problems pertained to support for the Spanish language programming that was such a crucial component of our efforts. Although both schools incorporated NLA classes into the LTELL program, sustained school support for these classes was lacking, reflecting a perception among school administrators and sending students a strong message that learning Spanish was less important than other subjects. Both schools scheduled NLA classes either first period or last period, times when students were most likely to be absent – particularly given that LTELLs tend to be disengaged in schooling. Teachers referred to first period as “a buffer” (Mr. R); students came in late or left early because they did not consider it “cutting,” and generally perceived that the classes were not as serious as others.

Scheduling, of course, was not the only root of this perception; the institutions nourished it in other ways. While conducting student interviews at School 2 in early February 2009, our research team was surprised to learn that the LTELL students had taken an NLA course in the fall, but were no longer taking it and would not be taking it any more. The students had, in fact, lost their NLA
class with the change in marking period; though the class was reinstated shortly thereafter, roughly a month had transpired without it, and another message had been sent to students about the class’s (un)importance.

At School 1, another institutional challenge arose when the integrity of the LTELL cohort was not maintained: new students were matriculated into the Spanish class throughout the year, requiring the NLA teacher to constantly deal with new class dynamics, the task of familiarizing herself with the language abilities of the new student, and meeting student needs in an increasingly heterogeneous classroom. In many cases, these new students were not LTELLs at all, a fact that cut against the very aim of the project. Though this phenomenon was unfortunately not limited to the NLA class, it was most acute in this class, and it contributed to the undermining of the Spanish class’s already fragile validity in students’ minds.

Absence was a consistent problem in NLA classes at both schools, a fact that in its own way affected institutional ‘fidelity’ to the program model.

When I started with them the first period in the morning, that was in the beginning of the year, a lot of them were coming late. The other thing is they keep on sending me students to that class. I had one last week. There is one student in that class who I don’t know yet. He was absent today. I would say almost every month a new student comes to that class.

(Ms. C, NLA Teacher, School 1, Interview Transcript)

Another challenge was the lack of materials and planning time needed to successfully implement the NLA class. Teachers at both schools, but Mr. R in particular, felt alone in the planning and implementation of the program. Since the students were LTELLs, and therefore highly proficient oral speakers of Spanish (for social purposes) with low academic reading and writing skills, the class could not be taught as a foreign language class. Nor could the class be conceived as a literature class, since the students had widely varying Spanish literacy skills, inclusive of those with very rudimentary levels. These two modes – Spanish as a Foreign Language and Spanish Literature – are usually how Spanish is taught at the secondary level in the U.S., so both NLA teachers in our program needed significant support in developing a meaningful and skills-rich curriculum from scratch, one that was appropriate for LTELLs.

One challenge that really burns me is not having the support of the general school... the general school community. It’s pretty much on your own. And I think it’s something that the students have experienced, not having support from everyone. So that was a challenge. Also [another challenge] is engaging them. A lot of them went into class and said to themselves: I know this, I don’t need this. Students also get the message that the school does not prioritize the Spanish program.

(Mr. R, NLA teacher, School 2, Interview Transcript)

Mr. R’s views stand in apparent opposition to our previous discussion of school culture: he teaches at School 2, which we described as significantly better at fostering teacher collaboration than School 1. In direct contradiction to its otherwise collaborative ethos, School 2, interestingly, displayed a lack of institutional support for the teaching of Spanish to LTELLs. Moreover, neither school administration saw NLA collaboration as important and in many ways undermined Spanish instruction altogether.
Class Size and Cohort Consistency

School 1 was, as just mentioned, inconsistent at maintaining the LTELL cohort. While the group of students remained more or less intact throughout the year in ELA and ESL classes, enrollment in the NLA, social studies and math classes changed dramatically from marking period to marking period. This became abundantly clear in Mr. L’s social studies class, which swelled to 34 students by spring.

The powers that be decided to put them [ELLs and LTELLs] together, and it’s basically a joke.
(Mr. L, Social Studies Teacher, School 1, Interview Notes)

This poorly considered expansion had an effect on engagement – both of teacher and students – that is easy to imagine; the program was institutionally declared to be low-value. Moreover, larger class sizes reduced the possibility that a teacher already resistant to change would try new approaches:

34 kids to a room. There’s not even enough room for group formation.
(Mr. L, Social Studies Teacher, School 1, Interview Notes)

The Impact of Testing: Language vs. Content, revisited

All high school students in the state of New York need to pass a set of Regents exams (in math, science, social studies, and English language arts) in order to graduate. Teachers in our sample – particularly those of science, social studies, and math – mentioned the pressure of preparing students for Regents examinations as a primary obstacle to their implementation of explicit language and literacy activities. When asked how she planned for the content and literacy needs of LTELLs in her first observed lesson, School 2’s math teacher (Ms. H) replied that the content had been based directly on a mock Regents exam, and that she had no planned for literacy at all. As the year progressed, Ms. H agreed in principle with the possible benefits of emphasizing literacy in her content area, but felt unable to deviate from her standard plan of “drill and kill.”

When I know something will work [for the Regents] with literacy, I’ll insert it.
(Ms. H, Math Teacher, School 2, Interview Transcript)

Mr. A, a first-year social studies teacher at School 2, had a similar awareness of the fundamental value of explicit literacy instruction for LTELLs – even as a key to performing well on standardized tests – yet found the need to cover the content necessary to pass the tests directly at odds with the time needed to focus on language and literacy development. Both social studies teachers at his school received prods from the administration for falling behind the set pace of the Regents curriculum, a pace which Mr. N, School 2’s ESL teacher, referred to as “ridiculous.” By the end of the year, Mr. A had come to see literacy as a precondition for this content-building with LTELLs:

[Over the course of the program I’ve learned that] LTELLs lack basic literacy skills needed to access information and do well on state tests, and these skills must be built before students can fully demonstrate their knowledge and understanding of concepts and information or do well on such tests.
The views of these two teachers to some extent bookend the ways instructors cope with the
difficulty of preparing LTELLs for Regents exams, with Ms. H viewing literacy as something one
might ‘insert’ if given more time or concrete proof of it bearing fruit on the Regents, and Mr. A
viewing the content ‘concepts and information’ as something LTELLs demonstrate knowledge of
only after their literacy skills are sufficiently developed. Both teachers face a similar challenge, one
that no content teacher in our program felt trifling.10

The looming specter of the earth science Regents exam obliged Ms. N to hurry through a
Regents-centered curriculum, as well as to herd her students through the requisite number of labs
(experiments) in order to sit for the test. ‘Completing’ a lab meant, for official purposes, having the
right answers written down in the right places; the class’s lab sessions, which might otherwise have
furnished an opportunity to explicitly teach science literacy and the metacognitive skills that go into
scientific thinking, instead centered around the spoon-feeding of answers to finish within the
allotted class time. Ms. N was under direct pressure from the administration to do this; she would
hear from superiors if too few students completed labs. When asked what worked for her LTELL
group in a particular class period, she replied:

They all completed the lab and made the connection to their lives. They have to
complete a certain number (30) to take the Regents, so it is good that they
finished.
(Ms. N, Science Teacher, School 2, Interview Notes)

As the year progressed, Ms. N reported success with vocabulary development, graphic organizers,
and developing oral language as a springboard to academic language; but, throughout the program,
Regents pressure provided a barrier to infusing attention to language and literacy development in her
classroom.

In each of these instances, we see high-stakes testing force even those teachers expressing
support for explicit language and literacy instruction to emphasize rote coverage over in-depth
analysis, not necessarily because they think this is effective for LTELLs but because they feel
pressure from administrators to cover content, and understandably want their own students to
perform well on the exams. In the case of those teachers with predisposed resistance, standardized
testing provides another incentive for leaving literacy and language to the English teachers.

Discussion

We found that the teachers participating in our biliteracy project fell into three categories,
which highlight the extent to which they embraced or rejected the model:

1) Those who made great efforts to infuse explicit language and literacy instruction into their
courses, and were effective in doing so;
2) Those who resisted the model and would not make any effort to focus on language or
literacy development in their instruction; and;

10 Mr. A resorted to a significant amount of Regents drilling and rote memorization with his 10th graders in the month
leading up to the exam.
3) Those who made an effort but experienced limited or no success in their implementation.

Moreover, we argue that changing schoolwide approaches to language entails an identity shift among certain teachers, as well as a shift in overall institutional culture. As highlighted above, the teachers who embraced our program and were most successful in their efforts to focus on the needs of LTELLs in the classroom were the teachers of English as a second language and English language arts. All of these teachers self-identified as language teachers, had been prepared to teach language in institutions of higher education, and had experience working with LTELLs prior to their involvement in our program. Over the course of the project, they were highly engaged and collaborative, planned consistently for language and literacy development, and they successfully identified and implemented numerous strategies to meet the needs of their students. Pedagogical strategies the teachers found successful with LTELLs in their classrooms include: scaffolding for explicit language and literacy development, activating prior knowledge, oral academic language development, attention to vocabulary, and active read alouds.

While the Spanish NLA teachers also self-identified as language teachers, they did so as foreign language teachers rather than as native language teachers, and had not had prior experience teaching Spanish to LTELLs. Thus they felt better prepared to teach grammar, vocabulary, verb conjugation and basic conversation to native-English speakers than they did to teach Spanish literacy skills to native-Spanish speakers. As described above, institutional culture was an added challenge that particularly affected the Spanish teachers, who faced scheduling problems and cohort inconsistency, which sent students and teachers a very clear message that Spanish instruction was of lesser value than other subjects at both schools – even though these two schools had volunteered to participate in our biliteracy project.

The greatest resistance towards our program was from teachers of such subjects as math, science, and social studies. These teachers self-identify as content teachers, and typically perceive of content as separate from language. Thus, many found it difficult to carve out time for language and literacy instruction within already tight schedules, while others rejected outright the notion that they were responsible for teaching both language and content, and would not try new approaches. Though many teachers came to see language and content as interconnected over the course of our project implementation period, they did not have the preparation necessary to explicitly teach language and literacy in their content areas. Within the U.S., content teacher preparation in institutions of higher education does not typically involve preparation to teach language and/or literacy, particularly at the high school level. This oversight is compounded by the structure of traditional U.S. high schools, in which teachers are segregated by content area and receive few opportunities to collaborate across disciplines.

In light of our findings in this area, we suggest that all teachers – beyond only language teachers – be prepared to face the realities of the multilingual rather than the monolingual classroom.
SECTION III: STUDENT CHARACTERISTICS

Interviews with students and teachers during this phase of the study offered confirmation of certain Phase I findings, and also helped to develop a more nuanced understanding of the characteristics of LTELLs. Students in both phases reported that they possess strong oral bilingualism, while feeling stronger and more comfortable reading and writing in English. They also reported lack of engagement in their schoolwork, which was reflected in their academic performance.

However, many students in Phase II report different experiences than the students in Phase I. The students in Phase I were categorized as having experienced inconsistent schooling. While inconsistency in ELL programming remained a factor for some students in Phase II, many students instead reported academic experiences in the U.S. that were quite consistent – albeit ultimately subtractive. Therefore, in addition to the Phase I categories of transnational schooling and inconsistent U.S. schooling, based on our new findings here we add a third category of students that we refer to in this report as having received consistent subtractive schooling.

We maintain that the common characteristic of all LTELLs in the study was subtractive schooling, whether it was due to inconsistencies in programming or consistently receiving subtractive models of bilingual education and ESL. This section will examine the consequences of this subtractive schooling in terms of both student attitudes toward the importance of Spanish, their attitudes toward taking a Spanish class, as well as their academic difficulties that their prior subtractive schooling experiences have created for these students. Lastly, we will briefly examine issues of student identity and how these students negotiate the different cultural systems they navigate as well as the subtractive schooling they have received.

Phase I Revisited

Language Usage

Students in both phases of our research typically self-report as being orally bilingual when language is used for social purposes, but more comfortable reading and writing in English despite the numerous challenges they face in this area. This tension is characterized by Yulia:

From our two phases of research, we have found that LTELLs typically fall into three main categories:

1. Transnational students, who move back and forth between the U.S. and their family’s country of origin;
2. Students who – while attending U.S. schools – have shifted between transitional bilingual education, ESL programs, and mainstream classrooms with no language support programming; and,
3. Students who have received consistent subtractive schooling, due to enrollment in subtractive models of bilingual education and/or ESL throughout their educational careers.

11 All student names are pseudonyms.
Yulia [Y]: I like to speak in English because, I don’t know, because in my house I speak English too even though my mom knows Spanish and English, but because all of my friends speak Spanish and I have friends that speak English too, but I only speak more English but I speak Spanish to my cousins and stuff, aunts and stuff.

Researcher [R]: Wait, with your cousins.

Y: Yeah, cousins and aunts cause some of them don’t really know English. So I speak to them in Spanish but I like both languages though. I’m comfortable with both so…

R: Do you feel more comfortable reading and writing in English or Spanish, or both equally?

Y: English. ‘Cause like I am used to reading in English, like there are some words in Spanish like even though I know Spanish and I have my family speaks Spanish in my house but it’s not like proper Spanish. I speak our language in Spanish…like ghetto ‘cuz in proper Spanish they talk in big words.

(Yulia, LTELL Student, School 2, Interview Transcript)

While Yulia reports feeling comfortable using both languages orally depending on the situation, she feels much less comfortable reading and writing in Spanish. She attributes this to her “ghetto Spanish” which she views as disconnected from the “proper Spanish” of schooling.

**A Focus on Subtractive Schooling in the U.S.**

The LTELLs in both phases of our research report experiencing academic difficulties, which was confirmed by their teachers and reflected in their grade averages. In Phase I of our study, we concluded by arguing that the inconsistencies of students’ prior schooling have denied them the opportunity to develop strong academic literacy in either their native language or English and are a primary factor in the academic difficulties that they face. Our findings in Phase II of this study demonstrate that this is only partially the case.

It should be noted from the outset that all of the 18 students interviewed were primarily educated in New York City with eleven reporting that they were U.S. born and raised, and twelve having been exclusively educated in New York City. Of the students interviewed for Phase II, only three fit under the transnational category. However, these three students experienced at most one year of instruction abroad in the midst of a predominately New York City-based education. In addition, six students (including two of the transnational students) fit under the category of ‘inconsistent U.S. schooling.’ Five of these six students reported not receiving ESL or bilingual services within New York City schools over multiple years. In contrast to Phase I where the absence of language support programming ranged from 1-3 years, the range was much wider with one student reporting two years with no services, another reporting having received no services for the three years of middle school, two others reporting an absent of services since 4th grade (meaning 4 and 5 years without services, respectively), and one reporting an absence of services for most of her schooling career. These six students’ experiences closely parallel the experiences of the LTELLs interviewed in Phase I of the study.

A significant finding in our most recent research is that twelve of the students interviewed in Phase II do not fit into the two major categories identified in Phase I. Although these students share the same characteristics of other LTELLs in terms of low academic literacy in both English and Spanish and their language usage, they report having received consistent programming throughout their academic career, across the traditional elementary, middle, and high school
transitions. Five of the students in this group received no bilingual education, consistently receiving ESL throughout their years of New York City schooling (although one of the students did received instruction in Spanish in Venezuela for two years before attending school in the U.S.). Six of the students reported receiving transitional bilingual education services (TBE) before being mainstreamed and offered ESL services. While three of the six students reported the expected 2-3 years enrolled in TBE, 3 of the students reported being in TBE six or more years; yet, all of these students expressed a strong preference for reading and writing in English. In fact, one student reported receiving TBE programming since he entered the New York City school system in 4th grade and reports three years of Spanish language instruction in the Dominican Republic, yet still reports feeling more comfortable reading and writing in English. These findings provide an indication of the limited role of Spanish in TBE programs, where by definition it is used merely as a tool to move children into English as quickly as possible, failing to truly develop students’ native language literacy skills and resulting in language loss over time (Baker, 2006; Crawford, 1999).

These findings provide an important addendum to our preliminary findings in Phase I of the study. While inconsistency either through transnational travel, inconsistent school language policies, or lack of language support programming in U.S. schools may play a factor in why LTELLs have difficulty testing out of ELL services, this only partially explains the situation. Many LTELLs in this study do not report inconsistent schooling, with a sizeable number even reporting having received weak bilingual instruction for multiple years. Despite this consistency in programming, these students continue to struggle in school, expressing a preference for reading and writing in English, and exhibiting academic difficulties. Moreover, these students received consistent subtractive schooling that failed to build on or develop their native language skills, which they would then have been able to transfer to their English development (Cummins, 2000, Menken & Kleyn, in press).

Attitudes Towards Spanish

While the students we interviewed offer lip service about the importance of Spanish, particularly oral language for social purposes, over years of subtractive schooling they have come to see little value in the role of Spanish within the academic world of school. This finding poses significant challenges to prospects of curtailing the relentless progression of language loss that these primarily U.S.-educated students have undergone, without pro-active language maintenance programming in school – such as continuation of the biliteracy program we piloted.

Seventeen of the eighteen students interviewed explicitly stated the importance of knowing how to read, write, and speak in Spanish. The reasons given usually consisted of vague notions of the importance of Spanish, such as the capability to help Spanish monolinguals on the street with directions. Laura provides an example of this notion when asked if she thought knowing how to read and write in Spanish was important:

Well at some point, yeah because you gonna need it in the future ‘cuz it’s a good, I don’t know, it’s a good language. You have to speak it ‘cuz you know in the future you’re gonna need it also. Like, you know, when somebody have problem speaking English, you gonna help them. And same thing Spanish, if someone has problems Spanish you could help them. (Laura, LTELL Student, School 1, Interview Transcript)

For Laura, as for many of her peers, there is this vague sense that Spanish is something that they should know. However, it is difficult for the students to express why they should know it, beyond
in general to help people and communicate better. It should also be noted that while Laura was asked the importance of being able to read and write in Spanish, her example discusses knowing how to speak Spanish. This implies that while she believes spoken Spanish will be useful for her future, the same may not be true of knowing to read and write it. This emphasis on oral Spanish, even when asked directly about reading and writing in Spanish, was a common theme arising in interviews with student participants in our study.

Despite this privileging of speaking over reading and writing, many of the students still expressed positive attitudes toward taking a Spanish class that emphasizes reading and writing — a central component of the biliteracy program we began in their schools. Thirteen students expressed somewhat positive attitudes toward taking a Spanish class as part of the biliteracy program. Similar to when asked about their general views of Spanish, most students who expressed positive attitudes toward their Spanish class were not able to clearly articulate why they liked the class. When asked how he felt about taking a Spanish class, Kazmir provides an example of the elusive answers we usually received to this line of questioning in interviews:

I don’t... my Spanish teacher speaks Spanish so we can do better at speaking it well. Um, so I speak Spanish, too, like, I try to speak it well.
(Kazmir, LTELL Student, School 1, Interview Transcript)

From his answer, Kazmir provides little sense as to why he likes the Spanish class. Further prompting from the interviewer offered little further information. Additionally, though Kazmir expresses positive feelings toward his Spanish class, his answer once again demonstrates the tendencies among these students to privilege speaking Spanish over reading and writing.

By contrast, some students were able to give specific reasons for why they appreciated the class. For example, in the interview excerpt below Tamara clarifies why she felt taking the Spanish class benefited her:

I felt like it was good. I thought that I was actually learning more about my original language that I have at home, and I think it was very helpful because I had to do some speech in church, so actually working in this class actually helped me with that speech. It was good.
(Tamara, LTELL Student, School 2, Interview Transcript)

For Tamara, having a Spanish class had a direct relationship to work that she was doing in her community. This connection to her home life would not likely have been made in an English-Only environment. Josefina went a step further, appreciating the status given to Spanish in her program:

Josefina [J]: I feel good because I haven’t been in a Spanish class. This is my first time. I’m mostly in bilingual or English.
Researcher: Well you haven’t been in a Spanish class in a long time because all middle school, you went a couple of years without a Spanish class. So you are enjoying this one? Is it difficult or easy, your Spanish class?
J: It’s all right. It’s a little bit difficult but not that much.
(Josefina, LTELL Student, School 2, Interview Transcript)

For Josefina it would appear that having a Spanish class taught exclusively in Spanish with other students who speak Spanish, offers her a new experience that contrasts with her prior experiences in
bilingual and English classes, where the use of Spanish for academic purposes was limited. She expresses positive feelings about this new educational experience, in spite of the fact that she finds the course somewhat difficult.

That said, this positive perception of Spanish class was not shared by everybody. Five students explicitly expressed negative attitudes toward the class. Interestingly enough, their reasons are contradictory, in that these students seemed to be arguing that the class was too easy and too hard at the same time. Armando demonstrates this ambivalence:

Armando [A]: I really don’t like it because the work that we do it’s like easy. And sometimes I don’t understand it, so I feel like I am here for nothing so I just don’t do the work. I don’t feel like doing little kids’ work.

Researcher [R]: Can you give me an example of some of the work that’s easy or little kids’ work?

Armando: When she gives us handouts…

R: So how are you doing in this class?

Armando: I am failing because I don’t come.

R: You said it’s easy, but you also said there’s some things you don’t understand, what don’t you understand?

Armando: Sometimes she gives us things to do but there’s like words that I don’t understand and then sometimes she gives it to us for homework so I can’t do it sometimes.

(LTELL Interview, School 1, Interview Transcript)

While Armando initially states that the class is easy, when prodded further by the researcher it is obvious that the class is more challenging for Armando then he initially let on. Years of subtractive schooling, in conjunction with the continued devaluation of Spanish by placing it first period (indicating a lack of administrative support), gives Armando an easy out to this dilemma. He is failing because he does not go, not because the class is difficult for him. To admit the class was difficult might mean having to admit he does not know Spanish as well as he would like to, especially since it is a language he holds dear to his heart; throughout the same interview, Armando expressed a strong identification with his Puerto Rican identity. Therefore, unlike Josefina, who is able to embrace a Spanish class despite the difficulties it poses, Armando and others simply resisted the class—perhaps as a way to preserve their cultural self-concepts.

Yet, it was not only the students who explicitly stated negative views toward taking Spanish class that participated in this resistance. In observations of both Spanish classes, issues with classroom management and student disengagement were commonly observed. These issues ranged from chronic lateness and absenteeism, to students acting out, to students simply not paying attention and not doing the work assigned. An excerpt from one researcher’s observation of a Spanish class illustrates this point:

There are 11 students and the majority of them are working. There are about 2 boys (there were no boys before!) that are constantly talking and make the classroom loud. [Jay], who has talked the whole time, just says, “I haven’t talked to my mom in two days and so I haven’t spoken any Spanish.”

Student: I need paper. I need a sharpener.

Two more students walk in to class.

One girl wants some cream and the boys are laughing.

The teacher is waiting.

(Mr. R., Spanish NLA Class, School 2, Observation Notes)
This is just one example of what was continuously observed in the Spanish classes and confirmed by interviews with teachers who noted that this was an everyday occurrence. Ms. C, the Spanish teacher at School 1 provides an example of how behavioral issues interfered with her teaching:

They didn’t see how the stories were connected or not connected. But we didn’t have the time because of the behavior. It’s hard for them to do the task at the same time. They are immature.
(Ms. C, Spanish NLA Teacher, School 1, Interview Transcript)

Mr. R, the Spanish teacher at School 2 also describes this phenomenon in an interview:

The only thing I am not too cool about is that kids are not coming. The schedule is not great – it’s the last class. They ask, ‘Can I have water?’ Even I am starving at that time. Having them to do significant work, it takes a couple of minutes. They do tend to be chatty.
(Mr. R, Spanish NLA Teacher, School 2, Interview Transcript)

This lack of engagement was especially the case at School 2, where – as described further in Section II of this report – the administration scheduled the course initially at the end of the day, and later changed it to the beginning of the day, the time periods when absenteeism are most likely to occur. In fact, the Spanish course at this school was never offered in the middle of the day as in School 1. When School 1 moved the class to the middle of the day, improvement in classroom management and increases in student engagement were observed. The year-long lack of administrative support in School 2 for the Spanish class perpetuated the notion that there is little room for Spanish in an academic setting, giving students an easy way to resist a course that they found challenging for both academic and personal reasons.

In the above example, Jay provides an example of the results of this continued subtractive schooling, by implying that Spanish was only useful for speaking to his mother and had no role in his academic development. Along with many of his peers, he has internalized the message that Spanish is not as valuable or prestigious as English, and that while perhaps important for translating at home or in his community, Spanish is not important at school.

Nuria expresses this attitude most succinctly when asked if she thought reading and writing in Spanish was important:

I don’t know if it is. I don’t really know if it’s important because, like, nobody has told me. Like, I live in the United States and for me it’s just that the important language over here is English. So I don’t really know if it’s important. I don’t know if Spanish is important.
(Nuria, I'TELL Student, School 1, Interview Transcript)

Yet Nuria also provides evidence that high school is not too late to attempt to counteract the subtractive messaging she has received throughout many years in school. When asked her opinion about the Spanish class, she noted:

Nuria: Yeah, well it’s actually good because my teacher separate us because some of the students like me never took Spanish before and it’s their first time taking Spanish. And
there’s an advanced group and she separated us. And she, like, give us different books. So we do one book and they’re doing another book and then she comes to help us. It’s like I feel good because I with the type of students that they like me because they don’t know like all that much Spanish.

Researcher: So you’re with students like you, the same ability. At first did you want to go?
N: At first I didn’t want to go because I thought it would be really really hard, when they said, “Oh you gonna take Spanish.” And I’m like, “Spanish? I don’t want to take the class.” But then when I went I was like, “There’s always a first time.” And then it was good. The teacher gave me a test and like to see what I could do and can’t do. And she give me a different book. And the book is actually an exercise book. It’s when they give you like articles so we could answer questions. She has to read it with us because there are some words that we don’t know. But what’s good about the book is that they put numbers on top of the letters and when you’re done reading you could look at the bottom of the page. And you could follow the numbers and see it in English, and so it’s better like that. It helps me understand the Spanish.

(Nuria, LTELL Student, School 1, Interview Transcript)

In this interview, Nuria demonstrates that it is possible for a student who has received subtractive schooling previously to gain a new appreciation for Spanish, thereby raising the status of the language in the students’ minds. This may engage students in developing academic literacy skills in Spanish, which research shows will transfer to their English academic literacy (Cummins, 2000). However, raising the status of the language and offering a class is only a first step. For example, while Nuria expresses an increased engagement in her Spanish class and implied in her response that she now had a greater appreciation for learning academic Spanish, her academic performance in the class remained low. In both semesters of the study, she received a 55 in the class. In other words, while her attitudes may have changed, her academic performance did not.

**Academic Performance and Engagement**

Findings from our analyses of the academic performance of the LTELLs in Phase II closely match those of students in Phase I. The average grades of all students interviewed in Phase I was 69%. In Phase II, the academic performance was very similar. At School 1, the schoolwide grade average\(^\text{12}\) was 64% while at School 2 it was 71% for a combined total of 67.5%\(^\text{13}\). Thus, in both phases LTELL students received borderline passing grades, indicating that they are experiencing serious academic challenges that are no doubt related to their low academic literacy skills in both English and their native language.

While school grade averages can provide us some indication of how LTELLs are doing in school, we also asked students about their own perceptions of their academic performance. The students varied in their views of their academic performance and school engagement. While a few of the students claimed to have a clear sense of how they were performing and what performing well

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\(^{12}\) Grade averages include the average (mean) of all major core subjects (ELA, Math, Global History and Science) in addition to Spanish NLA and ESL.

\(^{13}\) While it is beyond the scope of our research to account for these differences in grade averages between schools, we speculate that it may have something to do with structural differences between the schools, in that School 1 is a traditional larger high school whereas School 2 is a small school.
meant, most of the students did not. Yvette was one of the students who had a clear sense of how she was doing in school:

R: How are you doing in school?  
Yvette: I am doing great…I got my report card and I passed these two marking periods, I passed all my classes with 90s, 100s, and 80s.  
(Yvette, LTELL Student, School 1, Interview Transcript)

Yvette’s grade average for the academic school year was an 81, confirming that she, in fact, was indeed doing well in her core courses. However, Yvette and a few others were in the minority in terms of a clear awareness not only of how they were performing academically, but also in having high expectations for themselves.

The majority of the students were far less clear while describing their academic performance, setting a low bar for themselves in terms of expectations. Students responded with non-committal statements indicating that they did not know whether they were doing well in their classes. Mina provides an example of this:

R: How are you doing in school?  
Mina: Okay.  
R: You’re doing okay. What kind of grades do you get?  
M: Umm, I get 75 to 58.  
(Mina, LTELL Student, School 2, Interview Transcript)

Mina, like many other LTELLs in this study, expresses uncertainty and an inflated sense of her actual academic performance. In fact, Mina’s grade average was a 63.5, meaning that she was failing; yet for her this was ‘doing okay,’ indicating low expectations for herself as well as an apparent indifference to her academic underperformance.

This academic underperformance was confirmed by teachers who attributed their students’ academic challenges to poor literacy skills. Notes from an interview with Ms. N, the Science Teacher at School 2, indicate the difference between LTELLs and newly arrived ELLs in this regard:

Ms. N stated that newcomers have more prior knowledge compared to LTELLs so they have something to work with. LTELLs have low skills because of their prior education here, that did not start with where they were at and did not build on their prior knowledge, leaving them with little prior knowledge to work with.  
(Ms. N, Science Teacher, School 2, Interview Notes)

In this excerpt, Ms. N draws a clear connection between the prior knowledge of her newly arrived ELLs, who have previously received a strong education in Spanish, and her LTELLs, who do not have this foundation upon which to build. She, along with several other teachers, identified this as the greatest cause of the academic challenges faced by LTELLs.

These academic challenges no doubt help to explain the students’ low level of engagement in their academic work that researchers observed in classrooms, which was confirmed by the teachers as they discussed some of the characteristics they observed of LTELLs. Ms. S, the ELA teacher at School 2, attests to this fact:
[LTELLs are] just a frustrating group to work with. Not frustrating in that they personally are frustrating but your successes are fewer I think than working with beginners or advanced or non-ELLs. And I think when we sort of sectioned [them] off [as] long-term ELLs… it was easy to be like, those were often the most difficult students to motivate. Even before we had really categorized them as long-term ELLs like you know Guillermo [an LTELL in the study] is probably one of the harder kids to motivate, you know, that I’ve had.

(Ms. S, ELA Teacher, School 2, Interview Transcript)

This interview reflects a disconnection between what teachers perceived in terms of student engagement and what the students report about themselves. When asked about their engagement in school, the majority of the students reported feeling that they ‘always’ or ‘sometimes’ tried their best. No students self-reported a complete lack of effort in their schooling. This contradicts the sentiments of Ms. S. and many other teachers in the study who feel that by and large these students are not putting forth their best effort in their academics. This also goes against explanations of the low academic performance of these students. While teachers usually attribute this low academic performance to lack of effort (in addition to the literacy issues identified above), students insist that they are making an effort at least some of the time.

In summary, questioning students and their teachers about LTELL academic performance and school engagement demonstrates clear difference of viewpoints. Many of the students interviewed demonstrated a lack of awareness as to their academic achievement at the same time that they reported that they were either doing their best in all or some of their classes. Teachers, on the other hand, clearly articulated low academic achievement by their LTELL students, as well as a perception that the students do not try their best in their classes. It is not possible to fully explain what causes this apparent indifference to academic performance among LTELLs. However, what is safe to say is that it demonstrates the low expectations that LTELLs have for themselves, which we argue is a product of the low expectations their consistent subtractive schooling has instilled in them.

**Student Identity**

**Hybridity in Language Usage**

In unpacking the complex identity of LTELL students, the first thing that becomes apparent is the linguistic and cultural heterogeneity of these students, who are must negotiate many different and oftentimes conflicting cultural systems, in addition to the everyday identity challenges posed by adolescence. It is important to stress the fact that they are not ‘semilingual’ students who have failed to master English or Spanish, a deficit construct that has been critiqued by many scholars but continues surfacing as a way to describe this population of students (MacSwan, 2000). Instead, they are young people attempting to make sense of themselves within discourses that fail to fully account for the complexity of their hybrid existences. These are children who in day-to-day interactions do not separate English and Spanish, and instead are constantly translanguaging (García, 2009). In other words, the distinction made between English and Spanish in most research on bilingualism does not truly reflect the fluid language practices of these students.

This hybrid experience can best be seen by their use of both English and Spanish within different contexts. While most reported reading and writing _academically_ in English, indicating an
academic identity defined by English, the students also reported using both languages in non-
academic reading and writing, through such media as e-mail and text messages. Students are found
often mixing the two when interacting with other bilinguals, and using English or Spanish when
interacting with people who have a preference for one or the other. Celia provides an example of
this hybridity:

Researcher: Do you text, email, visit internet sites, or IM in English or Spanish?
Celia: Both.
R: How much of each?
C: English more. English more on everything…
R: Are there times when you mix English and Spanish?
C: On Myspace and AIM…
R: Why is that?
C: Because sometimes it just comes out.
R: That’s just how it happens?
C: Yeah.
(Celia, LTELL Student, School 2, Interview Transcript)

For Celia and many of her peers there is no clear differentiation between their English and Spanish
use in their personal relationships. In fact, for Celia, the mixing of the two happens without
conscious effort required. Adding to this, most LTELL students interviewed also reported watching
television in both English and Spanish. Therefore, we find these are adolescents who use their
languages in flexible and accommodating ways on a daily basis. It is important to acknowledge the
complexities of their experiences and not see them through a deficit lens that invalidates this wealth
of “transsocial” experience.

**Hybridity in National Identity: Both Here and There**

The complexity of the identities of these students can also be seen through their responses
to questions pertaining to self-identification. When asked the open-ended question, “What are
you?,” most of the LTELLs in this study expressed a strong identification with their families’
country of origin. This is the case even though the students in our sample are primarily U.S.-
educated as well as U.S.-born and articulate little actual knowledge of their country of origin; when
asked to compare the U.S. to their family’s country of origin, most simply described the U.S. as
having more resources, and discussed superficial differences such as the weather. For example,
Lorenzo, when asked how about the difference between the U.S. and Mexico answered, “There’s
more laws here than over there.” Despite this lack of knowledge, when asked how he identifies
himself, his initial response was “Mexican.”

Lorenzo was not the only student interviewed who felt this way. Many of the LTELLs
refused to identify as solely American (if they identified as American at all). This can be seen in
Josefina’s interview:

Researcher: Do you consider yourself to be American?
Josefina: (long pause) I don’t know.
R: What does being American mean to you?
J: Yeah, somebody who was born here.
(Josefina, LTELL Student, School 2, Interview Transcript)
Josefina, who was born in the Dominican Republic and came here at a young age, cannot see a place for herself in the construction of ‘American’ as she understands it.

Yet, it was not only LTELLs born in other countries who felt this way. Tamara, a U.S-born child of Mexican origin articulates the same ambivalence:

R: Do you consider yourself to be American? Why or why not?
Tamara: Well, the only thing that like, I was born here, but no. Not really. Besides me being born here and being able to talk English, no. Like everything home is a little piece of Mexico. The food. I feel more Mexican than American, even though I live here and still have this culture around me. I try to study it, try to get on board with it, but being home, with the food, the family, the type of music…
(Tamara, LTELL Student, School 2, Interview Transcript)

In this transcript, Tamara expresses a greater identification with Mexican culture than American culture, despite having been born here and expressing a strong preference for an English school identity.

**Attitudes Towards the Long-Term ELL Label**

As shown above, the identities of LTELLs in this study are remarkably complex, and a reality which the label ‘long-term ELL’ fails to fully address. This might be best demonstrated by an interaction between a researcher and students during a focus group in which the labels ‘ELL’ and ‘LTELL’ were discussed explicitly:

Researcher: Do you feel like you are English Language Learners? Why or why not?
Yulia: I don’t feel that way.
R: So why?
Yulia: Because we live in the USA and because we have to know.
Guillermo: I don’t feel that way. Sorry.
Kip: I agree.
Celia: Same here.
Kip: Ya, I agree with all of them. We already know English and all that stuff.
Celia: For most of us, it’s like our first language, I mean our main language.
R: Is there a better label to describe who you are? What label would you describe yourself as?
Guillermo: Guillermo.
[Students all laugh.]
(LTELL Student Focus Group, School 2, Focus Group Transcript)

For Guillermo, and the other students in the focus group, it would appear that the desire is to be treated as an individual with all of the complexities that that entails, that a simple label like ELL or LTELL cannot ever fully encompass. It behooves us to consider the views of Guillermo and his peers as we continue to explore the educational experiences and academic challenges faced by these students.
Discussion

The qualitative data we gathered and analyzed in conjunction with student performance data provide important insights about the prior experiences of LTELLs in school, the challenges they face at the secondary level, and about their complex personal identities in relation to schooling. As detailed in this section on student characteristics, a significant finding was the need to add a third category to our Phase I study findings. While Phase I identified inconsistency in prior schooling as the primary factor in the educational difficulties experienced by LTELLs, many students interviewed in the current phase of research had instead received what we term here ‘consistent subtractive schooling.’ This is because the schools they attended failed to build on the native language skills they entered with and/or to provide the supports they needed to develop strong academic literacy skills in English or Spanish. The lack of sufficient native language instruction in the students’ prior schooling has resulted in a strong preference among LTELL students for reading and writing in English, even though most are orally bilingual.

It has also affected their attitudes toward the Spanish language. While most of the students offered lip service about the importance of Spanish, they privilege oral language proficiency over academic literacy skills, and both expressed and exhibited strong resistance to being placed in a Spanish class focused on literacy development. In part, we feel this resistance is a form of self-protection or saving face for the students, as doing so provides a means to avoid an inherent threat to their ethnic identification: although the students strongly identify with their family’s country of origin on one hand, on the other most students found it extremely difficult to complete the work required in a Spanish NLA class. This situation was compounded by messaging in both schools in our study about the lesser status of Spanish classes, which were scheduled at times when students are most likely to skip. Beyond Spanish class alone, many of our student participants experienced academic difficulties in all of their subjects; the grade averages of students in School 1 was 64% while at School 2 it was 71%.

While this statement may seem ironic as the conclusion to a section seeking to identify the common characteristics of this population, our findings highlight the complexity and heterogeneity within the LTELL population. It is our stance that the label LTELL, while offering a useful pedagogical tool that helps teachers differentiate according to student needs, fails to fully encompass the lived realities of students who fit under this label. These primarily U.S.-educated bilingual adolescents are in a complex bind, wherein them must navigate many different and oftentimes contradictory cultural systems. In terms of how this hybridity plays out in school, it seems that the dominant academic language and thus the school identity of these students is English, while their dominant out-of-school identity is immigrant (see for instance García, Morin, & Rivera, 2001). If this is the case, the poor performance and disengagement of these students in school may mean that their out-of-school identity is currently trumping their school identities. Therefore, schools must devise strategies that connect the two in ways that are meaningful to these students.

Moreover, our biliteracy program was necessary because the students in our sample previously attended weak forms of bilingual education or English-only programming, which failed to adequately recognize the needs of this complex student population. As findings from Section I indicate, the program successfully prevented further Spanish language loss, and increased the students’ English literacy skills. This suggests that schools must find ways to utilize the native languages of students beyond simply as a brief support in the transition to English. Instead, when possible, schools should provide developmental models of bilingual education focused on
bilingualism and biliteracy acquisition, particularly in the early grades but also throughout their K-12 education. Our findings lead us to believe that doing so would decrease the number of emergent bilinguals who become LTELLs over time.
CONCLUSION: EXECUTIVE SUMMARY OF MAIN FINDINGS

This report documents findings from the development, implementation, and evaluation of a biliteracy program for long-term English language learners (LTELLs) – emergent bilinguals who have attended U.S. schools for seven years or more – in two New York City high schools during the 2008-2009 academic year. The two program or ‘intervention’ sites (Schools 1 and 2) and one control site (School 3) are located in the Bronx, serve a predominantly Spanish-speaking LTELL population, and are comparable in terms of demographics, student performance, and other measures.

We have found that LTELLs typically fall into three main categories:

1. Transnational students, who move back and forth between the U.S. and their family’s country of origin;

2. Students who – while attending U.S. schools – have shifted between transitional bilingual education, ESL programs, and mainstream classrooms with no language support programming; and,

3. Students who have received consistent subtractive schooling, due to enrollment in subtractive models of bilingual education and/or ESL throughout their educational careers.

While the first two categories were identified in our earlier research, the third category, consistent subtractive schooling, is a new addition based on our most recent findings. As a result of their prior educational experiences, none of the students have had the opportunity to fully develop their academic literacy skills in either English or their native language. Thus they are characterized by poor performance in school, and at greater risk of course retention and dropout.

The program we created in partnership with the participating schools focused on the development of students’ academic language and literacy skills in English and Spanish through a three-pronged approach, implementing the following course structure for ninth and tenth grade students:

1. Spanish Native Language Arts courses, to help students develop a strong foundation in academic Spanish language and literacy.

2. English as a second language courses, in which long-term English learners are taught separately from new arrivals so that instruction can focus on academic literacy in English rather than on the development of basic language proficiency.

3. Content-area courses—such as math, science, and social studies—that focus simultaneously on content, language and literacy learning.

Project implementation involved ongoing collaboration between the teachers at each school, across content areas, and professional development throughout the school year in both group and one-on-one meetings between research team members and teachers.

There were variances in the actual implementation of the program model at the school level due to the differing design of each school, in that the student participants at School 1 were ninth
graders, while School 2 enrolls combination 9th/10th grade classes due to its small size. School 1 offered a daily four-period literacy block including one period of ESL, two periods of English language arts, and one period of Spanish Native language arts to a cohort comprised solely of LTELLs, while for their math and social studies classes LTELLs were mixed with other students. At School 2, LTELLs were mixed in with other students for all of their courses.

This mixed-methods research project was guided by the following questions and corresponding sub-questions:

- In what ways does high school programming focused on language and literacy development in English and Spanish benefit LTELLs, if at all?
  - On standardized measures of academic English and native language literacy after a year of intervention, do students in the ‘treatment’ schools fare better than students in the control school?
  - Do students in the ‘treatment’ schools have a higher rate of change on standardized English and native language tests after a year of intervention than students in the control school?

- How can academic literacy in both languages be taught explicitly to secondary English language learners?
  - What are effective strategies for teaching academic literacy to LTELLs?
  - What are the effects of infusing direct literacy instruction into all content-area courses?

A total of 42 LTELL students were included in our final sample: 13 at School 1, 15 at School 2, and 14 at School 3. The program was evaluated over the course of the year using both quantitative and qualitative methods. In order to evaluate the program’s impact on LTELLs’ literacy skills, we collected two major sources of quantitative data during the 2008-2009 academic year: 1) a pre- and post-test of the reading comprehension portion of the Academic Language and Literacy Diagnostic (ALLD) in English and Spanish, and 2) test scores on the Reading & Writing portion of the New York State English as a Second Language Achievement Test (NYSESLAT). Qualitative data gathered included: classroom observations, student interviews, student focus groups, teacher interviews and administrator interviews. Quantitative data was analyzed using Hierarchical Linear Modeling (HLM) and Analysis of Variance (ANOVA), while qualitative data was analyzed by transcription and coding according to the most prevalent themes that arose.

The findings are divided into the following sections: I. Program Impact on Student Performance and Gains; II. Teacher Engagement, Preparedness, and Resistance; and III. Student Characteristics. The first section draws from the quantitative data we gathered and analyzed to measure the gains made by LTELL students at the two schools involved in our study in their English and Spanish literacy development, in comparison with the gains made by the students at the control school (School 3). These findings are very promising, in that ALLD data indicates that both treatment schools scored on average higher in reading comprehension in English and Spanish than the control school, and students in the treatment schools made greater gains in English over the course of the school year than students in the control school; in fact, students in the control school were found to perform worse on the ALLD at the end of the school year than they did at the start.
On the English ALLD, students at both treatment schools demonstrated significant gains by approximately one grade level over the school year, while students at the control school actually did worse and decreased by about a grade level. On the Spanish ALLD, students at School 1 increased by about a grade level, performance by students at School 2 remained flat, while students at School 3 performed .73 grade levels lower than their pre-test. School 1 demonstrated significant gains on the Reading & Writing component of the NYSESLAT, improving from ‘intermediate’ to ‘advanced’ between the May 2008 and May 2009 administrations, and outperforming both Schools 2 and 3. Likewise, student participants in School 1 outperformed their grade level ELL-designated peers on the Reading & Writing section of the May 2009 NYSESLAT, while students in Schools 2 and 3 did not show significant differences from their ELL-designated peers.

Moreover, these results indicate that our biliteracy program yields positive results for LTELLs in their development of academic literacy skills in English and Spanish, particularly under certain circumstances. School 1 showed the greatest gains, likely as a result of its four-period literacy block in which classes are comprised solely of LTELLs, in combination with ongoing collaborative planning between the English language arts, Spanish native language arts, and ESL teachers. While students at School 2 showed gains on both measures, their gains were far more modest. Although we recognize that there are likely certain benefits of School 2’s small size for LTELLs, we attribute differences between treatment schools in part to the fact that LTELLs at School 2 were mixed in all of their classes with other students (due to the programming limitations of small schools), and the Spanish courses were offered during first and last periods when absenteeism rates are high, thereby limiting their impact.

Beyond program design, one of the most significant factors impacting the efficacy of our biliteracy program was the level of teacher engagement with the program’s ideals and practices. The teachers participating in our biliteracy project fell into three categories, which highlight the extent to which they embraced or rejected the model:

1) Those who made great efforts to infuse explicit language and literacy instruction into their courses, and were effective in doing so;
2) Those who resisted the model and would not make any effort to focus on language or literacy development in their instruction; and,
3) Those who made an effort but experienced limited or no success in their implementation.

The teachers who embraced our program and were most successful in their efforts to focus on the needs of LTELLs in the classroom were the teachers of English as a second language and English language arts. While the Spanish native language arts teachers also self-identified as language teachers, they did so as foreign language teachers rather than as native language teachers. Institutional culture was an added challenge that particularly affected the Spanish teachers, who faced scheduling problems and cohort inconsistency, which sent a clear message that Spanish instruction was of lesser value than other subjects at both schools. The greatest resistance towards our program was from teachers of such subjects as math, science, and social studies. While our project yielded promising results, we feel the program would have been more successful with greater engagement and preparation of the educators involved.

Pedagogical strategies the teachers found successful with LTELLs in their classrooms include: scaffolding for explicit language and literacy development, activating prior knowledge, oral academic language development, attention to vocabulary, and active read alouds. In light of our
findings in this area, we suggest that all teachers – beyond only language teachers – be prepared to face the realities of the multilingual rather than the monolingual classroom.

As reported in Section III of the findings, we gathered information about the LTELL students who participated in our second phase of research through an examination of their prior schooling experiences, their attitudes towards Spanish and its usage in their schooling, the challenges they face in school, and their complex identity as primarily U.S.-educated emergent bilinguals. While Phase I identified inconsistency in prior schooling as the primary factor in the educational difficulties experienced by LTELLs, many students interviewed in the current phase of research had instead received what we term here ‘consistent subtractive schooling.’ Regardless of programming consistency or inconsistency, the lack of sufficient native language instruction in the students’ prior schooling has been subtractive, resulting in limited academic literacy skills and also a strong preference for reading and writing in English, even though most LTELLs are orally bilingual when language is used for social purposes.

Because all of the students in our sample have experienced subtractive schooling, this has affected their attitudes toward the Spanish language. While most of the students offered lip service to the importance of Spanish, they privilege oral (social) language proficiency over academic literacy skills, and both expressed and exhibited strong resistance to being placed in a Spanish class focused on literacy development. Our findings highlight the complexity and heterogeneity within the LTELL population. It is our stance that the label LTELL, while offering a useful pedagogical tool that helps teachers differentiate according to student needs, fails to fully encompass the lived realities of students who fit under this label. These primarily U.S.-educated bilingual adolescents are in a complex bind, wherein them must navigate many different and oftentimes contradictory cultural systems.

Moreover, for schools to successfully meet the needs of this student population, we argue they must both recognize and embrace the identities of LTELL students, finding ways to maintain and develop their native languages and embed content-specific literacy instruction in every class. When possible, schools should provide developmental models of bilingual education focused on bilingualism and biliteracy acquisition, particularly in the early grades but also throughout their K-12 education. Our findings lead us to believe that doing so would decrease the number of emergent bilinguals who become LTELLs over time.
Acknowledgments
We are grateful to the New York City Department of Education, Office of English Language Learners for their generous funding of this research. We also thank our colleagues at the Research Institute Study Language in an Urban Society, and particularly Ricardo Otheguy, Gita Martohardjono, and Leigh Garrison for their ongoing support.

We are very thankful to Aline Sayer, Associate Professor of Psychology at the University of Massachusetts at Amherst, a quantitative methodologist who specializes in new statistical strategies for studying individual development over time such as hierarchical linear modeling. Dr. Sayer was invaluable as an external consultant who went far above and beyond her commitments by not only helping us with our research design and subsequent analyses, but also by being a wonderful teacher and mentor to the members of our research team.
References


Appendix A: Student Demographic Survey

Name: __________________________________________
Date of Birth: __________________________________
Gender:   □ Male        □ Female
Grade: ________________________________
School: ______________________________________
Race: _______________________________________
Ethnicity: ____________________________________
Where were you born? ___________________________
What is your home language? _____________________
How many years have you attended school in the US? __________________________
How many years have you spent outside of the US? ____________________________
With whom do you live? _________________________
What language(s) do you speak with them?        □ Spanish only  □ English only
                                              □ Both Spanish & English □ Other_________

Parent(s)’ or Guardian(s)’ completed level of education:

  Parent/Guardian 1 (list relationship): ______________________________
  □ Elementary School □ Middle School  □ High School
  □ Some College/Associates □ College               □ Graduate/Professional School

  Parent/Guardian 2 (list relationship): ______________________________
  □ Elementary School □ Middle School  □ High School
  □ Some College/Associates □ College               □ Graduate/Professional School

Do you attend any after school programs? ______________________________
# Appendix B: Classroom Observation Protocol

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<thead>
<tr>
<th>Observer:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Teacher:</td>
<td>Observation Period/Time:</td>
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<tr>
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<td>Grade Level:</td>
</tr>
<tr>
<td>Course:</td>
<td>Designated Language(s):</td>
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This document is: [ ] Notes  [ ] Edited Notes

Observation Overview/Key Points (with focus on literacy instruction):

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<th>Teacher effort:</th>
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<tr>
<td></td>
<td>Use of literacy strategies:</td>
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</table>

Description of Students:
The information in this section is: [ ] factual (based on teacher reports, data, etc.)  [ ] your best estimation

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<tr>
<th>Number of Students:</th>
<th>Ethnic Backgrounds:</th>
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<tr>
<td>Type of ELLs (New Arrival, ELL, LTELL, SIFE):</td>
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Describe the Classroom:
Seating Arrangement: [ ] Rows  [ ] Groups  [ ] Circle/U Shape  [ ] Other: ____________

Environmental Print (wall hangings, etc.):

Materials Present (books, texts, dictionaries, etc.):
### Language Use:

**Description of Materials Used in Lesson & Language(s) of Materials:**

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<th>Written Language(s) Used by:</th>
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### Teaching:

<table>
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<tr>
<td>Information about prior instruction related to lesson:</td>
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<table>
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<tr>
<th>Instructional Activity Observed with approximate times (Provide an overview):</th>
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<tr>
<td><strong>Time</strong></td>
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Appendix C: Teaching Post-Observation Interview Protocol

1. How did you plan for the content and literacy needs of LTELLs in this lesson?
   a. In what ways did you infuse literacy into the lesson?
2. What worked for LTELLs? Why? Can you give an example to describe this?
3. What didn’t work for LTELLs? Why? Can you give an example to describe this?
4. Are there any specific areas where you’d like additional support?
Appendix D: Final Teacher and Administrator Interview Protocol

I. What have you learned about the educational needs of LTELLs?

Intention: To draw out how teachers define LTELLs and match their characteristics to their teaching practices. To get teachers to talk about their growth in working with these students this year.

II. What have been your successes in working with LTELLs this year?

Intention: To learn about strategies, methods or specific lessons that helped LTELLs learn academic content and language.

III. What have been your challenges in working with this population?

Intention: To identify aspects of educating LTELLs that still need to be further considered.

IV. In what ways has this biliteracy program been effective for LTELLs and yourself?

Intention: To get a sense of the overall impact of the biliteracy program, especially in terms of what has worked when programming is specifically designed for LTELLs.

V. What changes do you feel could improve the program in the future?

Intention: To learn about possible program modifications to make the program more beneficial for LTELLs.

VI. Is there anything else you'd like to add about LTELLs and/or this program?

Intention: To see if teachers have anything else they’ve been thinking about related to educating LTELLs and the biliteracy program that was not already been addressed via the prior interview questions.
Appendix E: Phase II LTEL Student Interview Protocol

Date:_________________________School/Location:___________________________

Time/Period:_____________________________________________________________

Interviewer: ___________________________________________________________

Course/Teacher (from which student was collected for interview, in case you need to find him/her again):

_________________________________________

<table>
<thead>
<tr>
<th>Name of Student</th>
<th>Grade</th>
<th>DOB</th>
<th>L1</th>
<th># Years in US</th>
<th>Váiven</th>
<th>Inconst. School</th>
<th>Other</th>
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- **DOB = Date of Birth**
- **L1 = First Language**
- **Please check off if student is a Váiven, Inconsistent Schooling and/or Other category of LTEL**

Summary (including notable points from the interview)

** Please remind students that they should be as honest as possible in their answers. This will not be shown to their family, teachers or administrators. There are no right or wrong answers; we just want to learn about their experiences.
Questions

I. Background
   a. Where were you born?
   b. When you were growing up who took care of you? In which language(s) did they speak to you?
   c. [If student was born in the U.S.]: Where were your parents or grandparents born?
      [OR if appropriate]: Where were your guardians(s) born?
   d. [If student was born outside U.S.]: How old were you when you first arrived to the U.S.?
   e. How long have you been in the U.S.?

II. Schooling Experiences
   [Show student Student Intake Form on following page]: Together we are going to complete this table about all of the schools you have attended, about where you went, and in what language(s) you learned.
   a. Did you ever miss school for a long period?
      1. If so, for how long?
      2. Why did you miss school for a long period?
   b. [For students who have attended many schools]: Why do you think you have attended so many schools?
   c. How are you doing in school (grades, etc.)?
      1. Can you offer an example or a story to describe this?

III. Views of Schooling
   a. How do you feel about school?
      1. Do you try your hardest in school? Why or why not?
      2. Are there any classes that you do not try hard in at all? Can you give an example of tell a story about that?
   b. What is your favorite subject? Why?
   c. What is your least favorite subject? Why?
**Student Intake Form** – Ask the student about her/his experiences at each grade level.

<table>
<thead>
<tr>
<th>Academic Year(s)</th>
<th>School Name/Number</th>
<th>Location (Borough/ City, State, Country)</th>
<th>ELL Services Received (Check as many as apply)</th>
<th>Language(s) of Instruction</th>
<th>Additional Information</th>
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<td>Pre-K</td>
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<td>ESL</td>
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IV. Biliteracies

a. Do you feel more comfortable speaking in English or Spanish, or both equally? Why? Can you offer an example or tell a story to describe this?

b. Do you feel more comfortable reading and writing in English or Spanish, or both equally? Why? Can you offer an example of story to describe this?

c. In the schools you have attended, have you learned reading and writing more in English or Spanish?
   1. Have you had the opportunity to read or write in Spanish in the schools you have attended?

d. Can you share a time when you were really interested in something you were reading/writing, either in or out of school.

e. When you read or write outside of school, what languages do you choose to read or write in? Can you give any examples?

f. Do you watch TV in English or Spanish? How much of each?

g. Do you text, email, visit internet sites, or IM in English or Spanish?
   1. How much of each?
   2. Can you give an example or tell a story about this?

h. Are there times when you mix English and Spanish? Can you give us an example?

i. How would you describe your abilities to read, write and speak in English?

j. Do you feel it’s important to know how to read and write in English? Why?

k. How would you describe your abilities to read, write and speak in Spanish?

l. Do you feel it’s important to know how to read and write in Spanish? Why?

m. How do you feel about the Spanish course you are taking this semester? Can you tell a story or give an example to describe this?

V. Identity

a. If somebody asks, “What are you?” regarding your background, how would you answer? Please explain why.

b. Do you consider yourself to be American? Why or why not?

c. What does being American mean to you?
VI. **Intergenerational/Transnational Issues**

a. How do you think the U.S. is different from your (parent’s) country of birth?

b. Are there differences between you and your parents/family because you’ve grown up in different places?
   
   1. Can you give an example or tell a story that shows this?

c. How do your parents/guardians help you with school?

d. What kinds of things do your parents/families read and write? In which languages?
Appendix F: LTEL Focus Group Protocol

I. Labeling (To get a sense of students’ awareness, perceptions and ideas about labels)

a. Students who have not passed the NYSESLAT are called English Language Learners, or ELLs. According to this definition by the NY State Department of Education you are English Language Learners. Do you feel like you are ELLs? Why?
b. What has been your experience with the NYSESLAT?
   i. I heard a rumor that some kids fail the NYSESLAT on purpose. Is that true?
c. According to the NYC Dept. of Education students are considered long-term ELLs if they have been in NYC schools for 7 or more years and have not passed the NYSESLAT. How do you feel about the label ‘long-term English learner’?
   i. Is there a better label to describe who you are?

II. Spanish (Perspectives on the Spanish component)

a. How do you feel about taking a Spanish class this year?
b. What are your goals for learning and using Spanish?
c. How important is speaking, reading and writing in Spanish? Please explain.

III. ESL (To assess students’ view of literacy instruction in the ESL for LTELs course)

a. How did you feel about the ESL course you took this year?
b. How was your ESL class similar and different to your English language arts class?

IV. Schooling – (To learn about students dis/engagements and effort)

a. Are you trying your best in school? Why?
   i. If not, what is holding you back?