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Two-Way Bilingual Education in Boston Public Schools: Required Features, Guidelines and Recommendations

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Two-Way Bilingual Education in Boston Public Schools
Required Features, Guidelines and Recommendations

A Report of the Mauricio Gastón Institute for Latino Community Development and Public Policy, University of Massachusetts, Boston
In Collaboration with Boston Public Schools Office of English Language Learners

Prepared by Virginia Diez and Faye Karp  |  MAY 2013
Glossary

Balanced bilingual: An individual who has equal and native-like proficiency in two languages (de Jong, 2011).

Bilingualism: Proficiency in two languages.

Biliteracy: The ability to read, write, and speak in two languages for a range of communication purposes (Beeman & Urow, 2013).

BPS: Boston Public Schools

CAL: Center for Applied Linguistics

Code-switching: Use by a bilingual person of both languages in conversation, usually in a social context where the mixing of languages is appropriate (e.g., “Llegaste tarde again”). Phrases that include code-switching follow grammar and phonological rules (Beeman & Urow, 2013).

Dominant language: The language that the child is most proficient in (de Jong, 2011).

Dual language learner: A student who is learning English and another language in school, regardless of native language. Sometimes called emergent bilingual.

Dual language program: An umbrella term that refers to additive language programs such as developmental bilingual, two-way immersion, heritage language immersion, and foreign language immersion.

Emergent bilingual: Student who speaks a language other than English at home and has been identified as becoming English proficient. In some contexts, this term is used in reference to English Language Learner (Beeman & Urow, 2013).

English Language Learner (ELL): Student who speaks a language other than English at home and has been identified as becoming English proficient. In some contexts, this term is being replaced by emergent bilingual (Beeman & Urow, 2013).

Heritage language speaker: Student brought up in a home where Spanish or other non-English language is spoken and who has some proficiency in the language (Beeman & Urow, 2013).

Language of initial literacy instruction: Language used in two-way bilingual programs to teach reading and writing when students first encounter print and are beginning to learn to match oral language with text (Beeman & Urow, 2013).

L1 (first language): An individual’s native language.

L2 (second language): A language acquired in addition to the native language.

Limited English Proficiency (LEP): Designation used by the federal government to refer to English Language Learners or emergent bilinguals. Although the term has fallen into disuse among linguists, it is still prevalent in quantitative studies that use federal No Child Left Behind data, such as state-mandated standardized tests.

Massachusetts Comprehensive Assessment System (MCAS): Standardized test mandated in the state of Massachusetts to comply with accountability requirements of the federal Elementary and Secondary Education Act of 2001 (No Child Left Behind).

Native English speakers (NES): Students whose native language is English.

Native Spanish speakers (NSS): Students whose native language is Spanish.
NORMAS: Normas para la Enseñanza de las Artes del Lenguaje en Español para Programas de Inmersión Doble. These are Spanish Arts Literacy Standards aligned with Common Core State Standards developed by the Mid-Atlantic Equity Center and District of Columbia Public Schools Office of Bilingual Education (2011).

OELL: Boston Public Schools Office of English Language Learners

Sequential bilingual learner: Student who has developed one language and is learning a second language (Beeman & Urow, 2013).

Sheltered English Immersion or Structured English Immersion (SEI): A language program for ELLs designed to teach English and content with minimal use of children’s first language.

Simultaneous bilingual learner: Student who has been exposed to two languages since before age 3 (Beeman & Urow, 2013). By definition, simultaneous bilingual students are not clearly dominant in either language.

Transitional Bilingual Education (TBE): A language program designed to teach children to read and write in their first language in order to facilitate English acquisition.

Two-way bilingual education (TWB): Two-way bilingual education is a distinct school-based instructional model in which all students acquire early literacy in English and a partner language (mostly Spanish in the U.S.) and use both languages to access a curriculum tied to state standards. The goals of TWB are to promote bilingualism, biliteracy, and cross-cultural competencies. Other commonly used terms are two-way immersion, two-way bilingual immersion, dual language education, and dual language immersion.

TWB instructional leaders: Principal and mid-level managers (e.g. director of instruction, literacy coach) responsible for supervising the day-to-day activities of two-way bilingual education and ensuring proper alignment of curriculum, instruction, and assessment with the goals of TWB education. The TWB instructional leader knows how to find and design instructional materials and assessments in two languages, can provide professional development tailored to teachers’ needs in two languages, and knows how to work with and engage families.

WIDA: World-Class Instructional Design and Assessment Consortium.
Acknowledgements

This study builds on the longstanding research collaboration between the Mauricio Gastón Institute for Latino Community Development and Public Policy at the University of Massachusetts Boston and the Boston Public Schools. The authors extend our sincere gratitude to our BPS partners: Dr. Carol Johnson, Superintendent; Dr. Eileen de los Reyes, Assistant Superintendent of English Language Learners; and Dr. Kamalkant Chavda, Assistant Superintendent of Data & Accountability. Antonieta Bolomey and Zoila Ricciardi at the BPS Office of English Language Learners were also instrumental in the success of this project. We thank them all for their continued support.

This research has benefited tremendously from the expertise of the teachers, administrators and parents of the Rafael Hernández K-8 and Joseph J. Hurley K-8 schools in Boston. Their dedication to educating bilingual, biliterate, and culturally competent students is most impressive. The authors wish to thank these school communities for their eagerness to participate, their generous contributions of time and for the candor with which they spoke. We also appreciate the photography of Hernández student work and Hurley students provided by the schools, and depicted throughout this manuscript.

The authors would also like to thank principals from the Sarah Greenwood K-8, Paul A. Dever School, and the Margarita Muñiz Academy in Boston, as well as the principal of the Barbieri school in Framingham for their respective contributions to this study. Many thanks to Phyllis Hardy, president of the Massachusetts Association for Bilingual Education, and Dr. Esta Montano for their invaluable feedback on preliminary versions of this manuscript. From the Gastón Institute, at UMass Boston, we thank GI Director María Idalí Torres, Ivelisse Caraballo, and Michael Berardino for his research assistance. We also recognize UMass Boston doctoral student Michael Bernardino for his research support. Finally, a word of appreciation goes to staff from Chicago Public Schools and the New York City Department of Education for sharing their own best practices which have informed some of the report’s recommendations.

Bios

Virginia Diez is a Research Associate at the Gastón Institute, and the principal investigator for this project. She holds a PhD in applied child development from Tufts University. Her general interests lie in understanding the interaction of policy and programs with children’s development, especially Latino children. In the last five years, as a research associate at the Gastón Institute, Dr. Diez has worked on several studies of best practices for educating Latino students and Spanish-speaking English Language Learners in Boston Public Schools.

Faye Karp is Senior Analyst at the Boston Public Schools Office of English Language Learners. Previously, she served as a Research Associate at the Gastón Institute where she was co-investigator for this project and where she analyzed ELL and Latino student achievement in Boston and in other Districts across Massachusetts. Ms. Karp has also conducted evaluations of college access and STEM programs serving low-income youth. Ms. Karp holds an M.S. in Public Policy from UMass Boston and a B.A. in Economics from Brandeis University.
Two-way bilingual (TWB) is an intrinsically equitable educational model which provides children from different linguistic, socio-economic, and racial backgrounds a rigorous, enriching education that is language additive. All students are expected to attain high achievement markers by state and federal standards, as well as bilingualism, biliteracy, and cultural competencies.\(^1\)

In Massachusetts, TWB programs were exempted from the 2002 state ballot initiative (aka Question 2) that dismantled bilingual education (Chapter 71A). The waiver was granted in response to teachers, parents, and advocates representing three TWB schools (Amigos in Cambridge, Barbieri in Framingham, and Hernández in Boston), who demonstrated positive outcomes for all of their students (Roger Rice, personal communication, October 23, 2012\(^2\)). Almost a decade later, the state’s Act Relative to the Achievement Gap (2010) required that Level 4 (Turnaround) schools “shall develop alternative ELL programs, notwithstanding the requirements of Chapter 71A” as part of their Turnaround plans; in turn the Massachusetts Department of Elementary and Secondary Education (MDESE) guidance named two-way bilingual as one type of alternative ELL program that these schools may adopt to accelerate ELL achievement.\(^3\)

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1. A fuller account of the equitable nature of TWB is presented throughout this report.
2. The advocacy effort was led by META (Multicultural Education, Training and Advocacy, Inc.), an advocacy group for educational equity for linguistic minorities.
In addition, the BPS English Language Learners Task Force and the Boston School Committee, with support from Mayor Thomas Menino and BPS Superintendent Dr. Carol Johnson, have recommended opening three new dual language programs, both to increase program and school choice for all students in the District and to promote the BPS Acceleration Agenda.

The current investigation was conceived to support the expansion of TWB programs in BPS by establishing a baseline of practices that are required to run effective and equitable two-way bilingual programs. The study builds upon years of collaboration between the Mauricio Gastón Institute for Latino Community Development and Public Policy at the University of Massachusetts Boston and the BPS Office of English Language Learners (Tung et al., 2009, 2011; Uriarte et al., 2009, 2011). In fact, it was a team of researchers at UMass Boston (Uriarte et al., 2011) who found that ELL students in dual-language programs had superior outcomes to ELL students in Structured English Immersion (SEI) programs. These findings are not surprising in light of empirical studies (Thomas & Collier, 1997, 2002), syntheses (August & Shanahan, 2006; Genesee et al., 2006; Goldenberg, 2008) and meta-analyses (Greene, 1998; Rolstad, Mahoney, & Glass, 2005; Slavin & Cheung, 2005; Willig, 1985) that have established academic benefits for ELL students who learn to read in their native language first or at the same time as they are learning English, as is the case in TWB programs. In addition, two-way bilingual education has been found effective for closing achievement gaps between native English speakers performing at grade level and English Language Learners and/or native English speakers who initially performed below grade level, regardless of student subgroup (Thomas & Collier, 2010). Specifically, in a two-year study (2008-2009) of TWB (called “dual language”) programs in several North Carolina public schools Districts Thomas and Collier (2010) found that TWB was beneficial for academic performance and student engagement in Grades 3 to 8, regardless of native language, race, or income. Their findings are of interest to Boston Public Schools because in North Carolina, as in Boston, a large percentage of students are African-American, and they were found to benefit from participation in TWB programs. By middle school, TWB students were scoring as high in Reading and Math as non-TWB students at least a year ahead of them (e.g. fourth graders in TWB programs scored as high in Reading and Math as fifth graders who were not in TWB programs). See Appendix A for further data from the North Carolina study. Finally, TWB has been linked as well with a higher likelihood of on-time high school graduation (Howard et al., 2003; Ramirez et al., 2009; Thomas & Collier, 2002).

1. Questions

In order to establish a baseline of required practices for launching and supporting quality two-way bilingual programs in Boston Public Schools (BPS, the District), this study asked the following questions:

- What is required, at a minimum, to offer quality two-way bilingual programming?
- What best practices were in place in TWB programs that were fully rolled out in BPS at the start of SY2012-13?
- What guidelines and recommendations emerge from Questions 1 and 2 for principals who wish to launch new programs and/or maintain fidelity to an effective TWB model?

The first question was addressed through a review of the literature, broadly construed to include websites of research institutions specialized in TWB education such as the members of the National Dual Language Consortium: the Center for Advanced Research on Language Acquisition, the Center for Applied Linguistics, Dual Language Education of New Mexico, Illinois Resource Center, Massachusetts Association for Bilingual Education, and 2-Way CABE (now ATDLE). See Appendix B for an annotated list of these and other resources. The work of researchers established in the field of TWB such as Kathryn Lindholm-Leary, Fred Genesee, and Liz Howard was also reviewed, as were the longitudinal outcomes studies conducted by Wayne Thomas and Virginia Collier. Findings from the literature were then used to develop semi-structured questionnaires to interview principals, instructional leaders, teachers, and parents at each school. No students participated in the study.
2. Study Participants

To answer the second question, two schools were visited. The Rafael Hernández K-8 school in Roxbury, and the Joseph J. Hurley K-8 school in the South End. These two schools were selected among four dual language/two-way bilingual elementary K-8 programs operating in BPS in the Fall of 2012. The four K-8 TWB programs were: Paul A. Dever, Sarah Greenwood, Rafael Hernández, and Joseph J. Hurley. The TWB program at the Paul A. Dever was entering its second year of rollout, which made it a new, not fully implemented program. The Sarah Greenwood was a "dual language" but not a "two-way bilingual" school as defined in this study. The Joseph J. Hurley and Rafael Hernández were the only two fully rolled out TWB schools in Boston. The Hurley was just becoming a fully rolled out K-8 two-way bilingual school at the time it was selected for this study. A fifth dual language/two-way bilingual high school had just opened in Boston at the time of this study: the Margarita Muñiz Academy.

The Hurley and the Hernández were K-8 schools (417 and 342 students respectively) with histories of success (see Figures 1.1-1.8). The student body of each school had a higher concentration of Latino, low-income, and LEP5 students than the rest of the District, and a smaller proportion of African-American students and students with disabilities.6 The Hernández also had a smaller proportion of white students than the rest of the District. Both schools had better stability, attendance, and out-of-school suspension rates than the District (see Table 1.1).

The descriptive statistics presented above show that about 30% of Latino students at the Hernández and 20% of Latino students at the Hurley are not classified as ELLs. Although sometimes attributed to data coding issues, the growth in the non-ELL Latino student population is also attributable to demographic changes reflected in increasing enrollment in K2 of “simultaneous bilingual” students (Escamilla, 2013). According to national demographic trends (see Passel & Cohn, 20088 for example), these young English-speaking Latino students are most likely U.S.-born children of immigrants and have grown up watching, hearing, and speaking both English and Spanish.

<table>
<thead>
<tr>
<th></th>
<th>Hurley</th>
<th>Hernández</th>
<th>Total BPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>75%</td>
<td>91%</td>
<td>43%</td>
</tr>
<tr>
<td>Black</td>
<td>6%</td>
<td>2%</td>
<td>34%</td>
</tr>
<tr>
<td>White</td>
<td>16%</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td>Asian</td>
<td>0%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Low-income students</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students with disabilities</td>
<td>11%</td>
<td>11%</td>
<td>19%</td>
</tr>
<tr>
<td>Limited English Proficient</td>
<td>56%</td>
<td>60%</td>
<td>31%</td>
</tr>
<tr>
<td>Stability (enrolled in same school during year)</td>
<td></td>
<td>92%</td>
<td>83%</td>
</tr>
<tr>
<td>Among Latinos</td>
<td>87%</td>
<td>92%</td>
<td>80%</td>
</tr>
<tr>
<td>Among low-income students</td>
<td>87%</td>
<td>90%</td>
<td>81%</td>
</tr>
<tr>
<td>Among ELLs</td>
<td>87%</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td>Attendance (% absent fewer than 10 days)</td>
<td>60%</td>
<td>68%</td>
<td>54%</td>
</tr>
<tr>
<td>Out-of-school suspensions</td>
<td>0%</td>
<td>1%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: MDESE, http://profiles.doe.mass.edu/ and http://www.doe.mass.edu/apa/dart/

Their language learning needs are different from those of children who arrive in schools as monolingual Spanish speakers. (Formerly, many of these students arrived in schools after being born outside the continental U.S. and acquired English sequentially at school.) This demographic change has instructional repercussions that will be discussed in section 3.2 of Chapter 2.

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5 Terms such as “students with disabilities” and “Limited English Proficiency” are favored by federal and state governments, and used here for that reason.

6 The study was not able to determine if the lower rate of students with disabilities could be attributed to: a) fewer students with disabilities enrolling in the schools; b) the fact that educators at two-way bilingual schools might be better at distinguishing between language acquisition and learning challenges than elsewhere in the District where ELLs may be misidentified as having a disability; or, c) some other factor.

7 Escamilla (2013) defines simultaneous bilingual students as children exposed to two languages before age 5. Other linguists view age 3 as the end of the sensitive period for developing simultaneous bilingualism.

8 Using U.S. Census data, Passel and Cohn (2008) project that by the year 2050, most of the Latino population growth (74%) will be among second-generation children of immigrants, the band where ELL students concentrate.
2.1. The Hernández K-8 Success Story: MCAS Performance surpasses the District

Looking at the MCAS performance of the Hernández shows the story of a school whose students perform better than the District and points to the promise of the TWB model in BPS. In 2010, for instance, 41% of Hernández students in Grades 3-5 attained Proficient or above on MCAS ELA compared to 36% of all BPS students in Grades 3-5. It should be noted that, while MCAS performance at the Hernández has declined in the last few years, school personnel attribute this trend to the impact that the terminal illness and untimely passing of school leadership had on the school over that period, underscoring the importance of a strong and stable leadership for TWB schools.

Performance on the MCAS Math is even higher, with a total of 52% of Hernández students in Grades 3-5 attaining Proficient or above in 2011, compared to just 37% of all BPS students in Grades 3-5 (a difference of 15 percentage points).

Figure 1.1: Percentage of Gr3-5 Students Scoring Proficient or Above on MCAS ELA

![Graph showing percentage of students scoring proficient or above on MCAS ELA for Hernandez Gr3-5, Boston Gr3-5, and State Gr3-5 from 2006 to 2012.]

School data retrieved from http://profiles.doe.mass.edu/state_report/mcas.aspx. BPS and MA data retrieved from http://www.doe.mass.edu/apa/dart/. Data for Gr3-5 were tabulated from these sources.

Strong student achievement at the Hernández is perhaps best illustrated by looking at Grade 5 MCAS performance. From 2006 to 2010, generally speaking, the percent of fifth graders scoring at Proficient or above at the Hernández was on the rise for both MCAS ELA and Math, marking a sizable gap between the Hernández and all BPS fifth graders. From 2008 to 2010, Hernández fifth graders performed as well as or better on MCAS ELA than fifth graders statewide. In 2010, 63% of Hernández fifth graders attained Proficient or above on MCAS ELA, well above the 36% of all BPS fifth graders and above all fifth graders in Massachusetts (60%).

Figure 1.3: Percentage of Gr5 Students Scoring Proficient or Above on MCAS ELA

![Graph showing percentage of students scoring proficient or above on MCAS ELA for Hernandez Gr5, Boston Gr5, and State Gr5 from 2006 to 2012.]

School data retrieved from http://profiles.doe.mass.edu/state_report/mcas.aspx. BPS and MA data retrieved from http://www.doe.mass.edu/apa/dart/. Data for Gr5 were tabulated from these sources.
On the MCAS Math, Hernández fifth graders consistently outperformed all BPS fifth graders from 2006-2012. The school's fifth graders also tended to outperform all fifth graders statewide. For instance, at the peak in 2011, 66% of Hernández fifth graders attained Proficient or above on MCAS Math, as compared to only 37% of all BPS fifth graders and 56% of fifth graders across Massachusetts.

**Figure 1.4: Percentage of Gr5 Students Scoring Proficient or Above on MCAS Math**


2.2. The Hurley Story of Success: MCAS performance rises dramatically as TWB is implemented

As the Hurley has grown its TWB program by adding a grade level each year, the school’s MCAS performance has risen sharply for both ELA and Math. Since 2011, Hurley school students have outperformed the District on MCAS by a difference of 15 percentage points for ELA and 14 percentage points for Math.

**Figure 1.5: Percentage of Gr3-5 Students Scoring Proficient or Above on MCAS ELA**

School data retrieved from http://profiles.doe.mass.edu/state_report/mcas.aspx. BPS and MA data retrieved from http://www.doe.mass.edu/apa/dart/. Data for Gr3-5 were tabulated from these sources.

**Figure 1.6: Percentage of Gr3-5 Students Scoring Proficient or Above on MCAS Math**

School data retrieved from http://profiles.doe.mass.edu/state_report/mcas.aspx. BPS and MA data retrieved from http://www.doe.mass.edu/apa/dart/. Data for Gr3-5 were tabulated from these sources.

The performance gap between the Hurley and BPS is widest in Grade 3. The first year that third graders were in TWB at the Hurley was in 2010. Since then, the number of third graders scoring Proficient or above on MCAS ELA rose by 40%, from 37% in 2010 to 63% in 2012. Hurley students outperform both their District and statewide peers, by a difference of 29 percentage points and 2 percentage points, respectively.
This dramatic increase is also seen with MCAS Math. From 2010 to 2012, while the performance of BPS and MA students remained somewhat relatively flat, the percent of Hurley students scoring at Proficient and above rose abruptly, with a high of 82% of students reaching this level in 2011. Hurley third graders have outperformed BPS third graders since 2011 (a difference of 31 percentage points in 2012). In addition, Hurley third graders have outperformed their statewide peers since 2011 (a difference of 9 percentage points in 2012).

Figure 1.8: Percentage of Gr3 Students Scoring Proficient or Above on MCAS Math

Data for this study were collected through semi-structured interviews administered to principals, instructional leaders, teachers, and parents. Visits lasted 2.5 days at each site, and also included eight classroom observations at each school. As part of the University of Massachusetts Boston, researchers from the Gastón Institute adhered to Institutional Review Board regulations for the protection of human subjects. All participants were asked to sign consent forms informing them of their rights and recourses in case of discomfort. Interviews were audio recorded, saved anonymously in a confidential database to which only the researchers had access. For analysis, findings were compared to the literature. When practices at the schools converged with empirical findings or empirically based recommendations in the literature, they were selected and highlighted as “best practices.”

4. Key Constructs

Terminology used to designate “two-way bilingual” education is varied, and sometimes confusing. For example, terms such as “two-way immersion,” “two-way bilingual immersion,” “dual-language immersion,” and “dual-language bilingual immersion” are common nationwide. In Boston today, as in many other districts, “dual language” and “two-way bilingual” are used interchangeably. However, in this study the distinction between dual language and two-way immersion/bilingual education proposed by the Center for Applied Linguistics (CAL, 2012) has been adopted; it is represented in the Dual Language Umbrella (Figure 1.9). The umbrella depicts the term “dual language” as an overarching term that refers to additive language programs such as developmental bilingual, two-way immersion (or two-way bilingual), heritage language immersion, and foreign language immersion. Definitions follow.

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Two-Way Immersion (TWI), or Two-Way Bilingual (TWB) Education

A distinctive form of dual language education in which at least 50% of instruction is in the partner language (e.g., Spanish) at all grade levels. Students study language arts and other academic content (math, science, social studies, arts, etc.) tied to state standards in both languages over the course of the program so that they become bilingual and biliterate and attain cross-cultural competencies. TWB/TWI begins in pre-K, kindergarten, or first grade and runs at least five years. Two-way bilingual programs enroll roughly equal proportions of native English speakers and native speakers of the partner language (Spanish so far in Boston) and integrate both groups for instruction so that all students serve in the role of language model and language learner at different times. In this study, the term two-way bilingual (TWB) is favored over two-way immersion (TWI) to reflect current BPS terminology. See Chapter 4 of this report for the required features for effective implementation of TWB in Boston.

Developmental Bilingual Education

A one-way immersion program in which students are primarily native speakers of the partner language, and receive instruction in the partner language at least 50% of the time.

Heritage Language Immersion

A dual language program in which students are primarily English speakers with some proficiency in or cultural connection to the partner language through family, community, or country of origin.

Foreign Language Immersion

Also known as one-way immersion, in this dual language program students are primarily native English speakers learning in a foreign language at least 50% of the time. An example of foreign language immersion is the Canada model, which immerses native English speakers in French.

Both developmental bilingual and foreign language immersion are one-way immersion programs in which students who speak the same first language (L1) receive instruction in the same second language (L2). The nomenclature changes with student populations: When students are largely English Language Learners, programs are called developmental bilingual; when students are mostly native English speakers, programs are designated Foreign Language Immersion.

5. Limitations

Initially, a quantitative data analysis component was included in the proposed study design to examine changes in achievement gaps over time. The intention was to compare MCAS performance for native English speakers and native Spanish speakers, and for ELL and non-ELL students in TWB schools in BPS. The quantitative component also included a plan to analyze the relationship between MCAS performance and student characteristics (e.g., gender, income, mobility, learning challenges, attendance, suspension, grade retention) within each group. However, coding issues made it hard to pursue this line of inquiry. In the BPS dataset obtained for the Uriarte et al. (2011) study, only LEP students enrolled in TWB could be identified (i.e., their FLEP and “never LEP” peers could not be identified). OELL is working to address these data coding challenges.

Another limitation is the timing of the study, at the start of SY2012-13. At that time, Massachusetts and BPS, as well as many states in the nation, were adopting the Common Core Standards (CCSS) and its instructional shifts as well as WIDA English Language Development Standards. Research and best practices for connecting CCSS, WIDA, and TWB were not yet well understood. For this reason, the study does not make
any pronouncements on best practices pertaining to the implementation of CCSS or WIDA consortium standards.

Finally, this study was conducted at a time when the Rafael Hernández school was still recovering from the impact of the loss of its long-time principal, Ms. Muñiz (after a long struggle with terminal illness), and the school's assistant principal, Ken Larson, who had taken the helm of the school during Ms. Muñiz's illness.

Although the two schools visited for this study were K-8 schools, data collection focused largely on the K-5 grades once it became apparent that research on best practices in middle school is almost non-existent. A review of existing practices in middle schools nationwide showed a decline in the percentage of instruction in the partner language in middle- and high-school. Fortune & Tedick (2008) advise that TWB at the secondary level should include a minimum of two year-long courses taught entirely in the student's second language (p. 9). This practice is in place in New Mexico and Utah, where middle school students take only two courses in the partner language: language arts and a core content course. Learning more about these middle-school programs is important, and something that at this time is best pursued in person rather than through the literature.

Also incipient is research on what expectations are reasonable for students graduating from TWB high schools. In Delaware, for instance, high school students achieve Advanced Placement credit by ninth grade. After that, they may opt for continuing with college-level credit courses, or take an additional world language that culminates in an additional Advanced Placement credit by graduation (Delaware Department of Education, 2012). This is another domain of practice worth exploring with practitioners, students, and parents working in the field.

6. The Structure of This Report

In the remainder of this report, Chapter 2 highlights findings from the literature about practices in areas of school organization that are fundamental for running effective two-way bilingual programs such as the choice of a language model; knowledge and skills of highly qualified teachers; and instructional, as well as parent involvement practices inherent to TWB. In Chapter 3, best practices found at the schools visited for this study are reviewed, focusing on some of the same domains as Chapter 2, such as school organization around a program or language model and specific hiring considerations at all levels of school staff, from the principal to office personnel, that contribute to educational equity. Emerging from findings in Chapters 2 and 3 are the required features, guidelines, and recommendations presented in Chapter 4 to guide planning and development of new two-way bilingual programs, as well as their implementation according to the selected model. The chapter ends with a brief discussion and an overview of work to be completed in the short term for the successful implementation of new and existing TWB programs in Boston.
This chapter highlights fundamental practices in school organization for implementing equitable TWB programs that effectively support the development of bilingualism, biliteracy, and cultural competencies. In particular, the focus is on the selection of a language model, because this is the essence of a TWB program. Language models provide a blueprint for implementing two required features of TWB instruction: at least 50% of instruction takes place in the partner language, and students of different language backgrounds are integrated at least 60% of the time. The selection of a language model touches upon major school organization decisions, such as allocating language instruction among teachers, and deciding whether the program will be operated as a whole-school model or as a strand within a school. These decisions must be carefully deliberated and communicated to the school’s community through a written language policy which also serves as a tool for program review and sustained implementation.

Embedded throughout the chapter are considerations about equity, conceived both narrowly (as hiring and training highly qualified teachers who have equal

1 Both of these practices are necessary for inclusion in the Center for Applied Linguistics Directory of Two-Way Bilingual Immersion Programs in the U.S. (Howard et al., 2007). http://www.cal.org/twi/directory/
expectations for all students) and broadly (as providing equally affirming instruction and curriculum for all students, equally affirming parent engagement opportunities, and the professional development needed to support them). Although some TWB teaching skills overlap with those required to shelter instruction in SEI classrooms throughout the District, on some levels good TWB instruction is unique. A few specific examples of unique TWB instructional features are provided here, in an effort to illustrate their complexity and their instructional potential. The chapter ends with a discussion of cultural relevance and parent involvement. These two features tend to be obscured by instructional considerations, yet are essential components for the equitable implementation of TWB.

1. Program or Language Model

Principals and instructional leaders—i.e., mid-level managers responsible for TWB implementation—must consider how to incorporate TWB best practices in light of their existing teaching staff and student population. However, some considerations are sine qua non for TWB planning. These include the selection of:

- a language or program model (90/10, 50/50, or modified, as described below)—i.e., determining the percentage of time instruction is given in the partner language at each grade level;
- a language of initial literacy instruction—i.e., whether students are taught literacy in early grades in the partner language, in both languages, or in their first language;
- a staffing model—i.e., “whether students have one teacher who teaches in both languages (one teacher-two languages) or students have one teacher for each language of instruction (one teacher-one language).
- whether the program operates with a whole-school model or as a strand within the school.

Lindholm-Leary (2005) reviewed the empirical literature on language models and found very little empirical evidence to recommend one over another, or an exact student ratio, or how much of the instructional day students of the two groups should be integrated. Today, what is emphasized in the literature is choosing a model that meets the needs of the students in the school, adhering to the model across all grades and teachers while allowing enough flexibility to change the program model if needed. Howard and Sugarman (2007) emphasize a “clear, consistent, and defensible model that is supported and carried out in all classrooms, yet still allows teachers flexibility and the opportunity to play to their individual strengths” (p. 9). In other words, practitioners must select a program that works for their students and implement it with fidelity while also keeping it flexible. The model should be paired with proper assessment of student outcomes and consistent implementation to evaluate whether/how it works at each particular school.

1.1. Full (90/10), Partial (50/50), or Modified Immersion

Howard and Sugarman (2009) describe the two most common TWB program models, the modifications that have been made to them, and the strengths and challenges of each model. The following summary has been adapted from a 2009 presentation the authors made on the subject.

- **Full immersion or 90/10 (or 80/20):** In the 90/10 model, all students receive 90% of instruction in the partner language and 10% of instruction in English, at the outset in kindergarten. As they progress through the grades, instructional time in English increases while instructional time in Spanish decreases until English and the partner language are each used 50% of the time. Although formal literacy in English does not start until the second grade, students engage in English pre-literacy and literacy activities during 10-20% of the time and are introduced to bilingual books at school, while they are encouraged to read English at home and are exposed to environmental print within and outside the school.

- **Modified 90/10 (full immersion):** As above, the partner language is used most of the day in the early primary grades. The modification consists in separating students into homogeneous language groups for daily literacy instruction in their first language (L1) in the early grades. The amount of English is gradually increased as the grade level increases until English and the partner language are each used 50% of the time. Variations of this model include 80/20 and 70/30.

- **Partial immersion or 50/50:** In the 50/50 model, from the outset, all instruction is divided evenly between the two languages.

- **Modified 50/50 (partial immersion):** The partner language and English are used equally throughout the program. All students are separated into homogeneous language groups for daily literacy
instruction in their L1. This is the model currently in place at the two schools visited for this study.

1.2. **Initial Language of Literacy**

When selecting a program model to implement, one of the first decisions planners face is on the language of initial literacy instruction, or the language in which students will be taught to read and write in early grade levels. A defining feature of two-way bilingual programs is that at least 50% of instruction takes place in the school’s partner (non-English) language. Howard and Sugarman (2009) present three options for deciding upon the language of initial literacy instruction: all children learn to read in (a) the partner language first, (b) in both languages simultaneously, or (c) in the native language first.

- **All students learn to read in the partner language:** For this purpose, a 90/10 (or 80/20) model is necessary. Literacy is in the partner language from grades K2 to 1. English Language Arts (ELA) does not start formally until the second grade. Native speakers of both partner languages are integrated the entire day. Teachers use differentiation to address the diverse needs of native and non-native speakers of the partner language.

- **All students learn to read in both languages:** A 50/50 program is recommended for this purpose. Native speakers of both languages are integrated the entire day. Teachers separate languages for instruction, coordinate to maximize cross-linguistic transfer, support learning in content areas, and use differentiation/flexible groupings to address different levels of proficiency.

- **All students learn to read in their native language first:** This is called a “modified” 90/10 or “modified” 50/50 model, where students are separated for part of the day during the first three years of the program, in order to learn literacy in their native language.

Figure 2.1 below shows the distribution of languages for instruction in 90/10 and 50/50 models, both of which, as mentioned above, can be modified to give all students an opportunity to learn to read in their native language first. Modified programs separate students by language for part of the day until the second grade. There are several ways to implement this kind of modified model. In some TWB schools, students are separated into L1 blocks only for phonics instruction; in others, students are separated for all language arts and even some content areas.

**Figure 2.1: Distribution of Language of Instruction in 90/10 and 50/50 Program Models**

<table>
<thead>
<tr>
<th></th>
<th>% of instruction in partner language</th>
<th>% of instruction in English</th>
<th>% of instruction in partner language</th>
<th>% of instruction in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>90</td>
<td>10</td>
<td>K</td>
<td>50</td>
</tr>
<tr>
<td>1</td>
<td>80</td>
<td>20</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>70</td>
<td>30</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>60</td>
<td>40</td>
<td>3</td>
<td>50</td>
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<tr>
<td>4</td>
<td>50</td>
<td>50</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
<td>50</td>
<td>5</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: Howard & Sugarman (2009).

1.3. **Advantages and Challenges of Different Language Models**

As noted earlier, the choice of a language or program model is rooted in the local context and needs; each model has both advantages and challenges, as represented in Figure 2.2.
**Figure 2.2. Two-Way Bilingual Model Considerations**

<table>
<thead>
<tr>
<th></th>
<th>Advantages</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>90/10 Model</td>
<td>• “Strong positive sociolinguistic message” that gives high value to the partner language and culture.</td>
<td>• Requires that all teachers be proficient in both languages.</td>
</tr>
<tr>
<td></td>
<td>• ELLs and heritage speakers have strong native language support.</td>
<td>• Teachers need to know how to properly meet competing needs of students of both language groups.</td>
</tr>
<tr>
<td></td>
<td>• Students have one teacher in early elementary grades.</td>
<td>• Students may perform worse on standardized tests measured in English in lower grades (though not by later grades) before formal English literacy instruction.</td>
</tr>
<tr>
<td></td>
<td>• Research indicates both NES and NSS have higher Spanish proficiency outcomes at the end of the program in 90/10 than in 50/50, with no detriment to English in the long run.</td>
<td>• Model may be more difficult to “sell” to parents (both English and Spanish speakers) who may fear that initial instruction in the partner language will prevent students from learning English or negatively impact performance on state-mandated standardized achievement tests.</td>
</tr>
<tr>
<td></td>
<td>• Spanish’s shallow orthography (pronouncing a word exactly as spelled) makes learning to decode text easier for young learners, and may be beneficial to learning English.</td>
<td></td>
</tr>
<tr>
<td>50/50 Model</td>
<td>• Consistent language allocation across all grades (50% in English, 50% in Spanish; students integrated 100% of time) may lend itself to easier program implementation and fidelity.</td>
<td>• The research on simultaneous biliteracy instruction is not fully developed, though empirical evidence from veteran TWB programs (e.g., Amigos in Cambridge, MA; Key School, Arlington, VA) supports its effectiveness.</td>
</tr>
<tr>
<td></td>
<td>• At the outset, there is a direct connection between literacy skills and academic content in both languages.</td>
<td>• Requires careful attention and planning for teachers not to repeat lesson taught in one language in the other language.</td>
</tr>
<tr>
<td></td>
<td>• Affords greater flexibility in staffing—single teacher uses both languages or one teacher/one language approach.</td>
<td>• Teachers need to know how to properly meet competing needs of students of both language groups.</td>
</tr>
<tr>
<td>Modified (native</td>
<td>• Clear research base supporting native language literacy instruction for English language learners (as opposed to English only).</td>
<td>• Some fear students will be overwhelmed with both languages, though this has not been empirically grounded.</td>
</tr>
<tr>
<td>language for</td>
<td>• Easier to target needs of early learners and with less temptation to water down instruction.</td>
<td></td>
</tr>
<tr>
<td>initial literacy</td>
<td>• With one teacher for initial literacy for each language group in early grades, implementation and staffing is easier.</td>
<td></td>
</tr>
<tr>
<td>instruction,</td>
<td>• In modified 90/10 models, all primary teachers need to be proficient in both program languages, since everyone would teach integrated groups in Spanish. In addition, English speakers have few opportunities to practice English literacy skills in content areas and are not learning literacy skills to support content work in Spanish.</td>
<td></td>
</tr>
<tr>
<td>whether in 90/10</td>
<td>• In modified 50/50 models, separation for initial literacy under a simultaneous literacy approach means model fidelity is harder to achieve. In addition, this separation may make cross-cultural competencies and children as peer language role models harder to achieve.</td>
<td></td>
</tr>
<tr>
<td>or 50/50 models)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Howard and Sugarman (2009).
Box 1.2: Questions about the 90/10 Model

A frequently posed question about the 90/10 model: Why would ELLs and not NESs be given the benefit of early immersion in their first language (L1), which the literature documents as advantageous for reading attainment later on?

California Department of Education (2012)\(^2\) answers:
Two-way immersion programs are based on years of research from the foreign language immersion models in Canada designed for English speakers learning French. This model, in which English-speaking students have been instructed in French for up to 100 percent of their day, shows students perform as well as or better on tests of English than their English-speaking peers who have been instructed only in English.

The English speaker is not at risk of losing the English language. English is spoken at home, in the community, and in the media. Two-way bilingual immersion programs are not replacing English with another language, but provide the students the opportunity to acquire a second language. Two-way bilingual immersion programs are additive programs in that a second language is acquired while maintaining the first language of the students.

1.4. Language Allocation Models

As in language models, there are largely two models for allocating languages by teacher: one-teacher mixed (one teacher, two languages) and two-teacher mixed (one teacher, one language). In the one-teacher mixed model, a single bilingual teacher provides instruction in English and Spanish. Rather than students switching teachers for instruction in the school’s two languages, the teacher switches language of instruction according to the language model and remains with the same group of students. In this model, teachers must be qualified to teach in two languages, and need in-service training in two languages. In Texas, in the only cost analysis identified in the literature, the one-teacher mixed model was found to raise staffing costs and increase demand for fully bilingual teachers (Lara-Alecio et al., 2004).

In the two-teacher mixed model, students have two teachers per grade: one who teaches only in English and one who teaches only in Spanish. Students see their English and Spanish teachers on different days of the week, or for entire weeks at a time (depending on the language model used at each grade level). Implementation of this model requires a minimum of two classes per grade level in which native English and native Spanish speakers are integrated in equal parts. The English and Spanish teachers work as a team, as they take turns teaching the same curriculum sequentially.

The two-teacher mixed (also known as side-by-side) model was found to be cost effective in Texas because it did not require each teacher to engage in professional development in two languages (Lara-Alecio et al., 2004). Yet, although each teacher works and receives professional development only in one language, in this model additional professional development is needed around collaboration. Teachers must work closely and effectively to coordinate weekly shifts in language of instruction together with continuity in coverage as students move to a new lesson, often at the same time they switch teachers (and languages), and as lessons build sequentially upon each other. In addition, shared responsibility for teaching all students in one grade level requires ongoing communication about each student’s progress, especially when differentiation is required. This deeper level of collaboration calls for hiring teachers capable of working as a team, and for building capacity to collaborate on specific domains. The two-teacher mixed model presents potential challenges as each teacher is responsible for students in two classrooms per grade level. In addition, when teachers are monolingual, they cannot communicate with parents of a different language group; and in times of illness or extended leave, Spanish teachers can be difficult to replace, which jeopardizes fidelity to model.

Ultimately, the choice of a teacher model will be affected by availability of qualified candidates in the BPS applicant pool, the District’s ability to recruit out-of-District teachers who are highly qualified, and/or to re-train existing, promising SEI or TBE teachers.

1.5. TWB Program as a Strand or Whole-School Model\(^3\)

A basic organizational option for TWB programs is whether to make them school-wide (every student participates), or a strand among other programs offered

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\(^2\) See http://www.cde.ca.gov/sp/el/ip/faq.asp.

\(^3\) For more information on key differences between organizing TWB as a strand or whole school, visit: http://www.cal.org/twi/FAQ/faq23.htm
Specific considerations such as variance in students’ language proficiency may result in different time and subject allocations by language, and different decisions about language of initial literacy. Ultimately, the language policy must be “always embedded within the local context and must be flexible enough to respond to changes in that context” (DeJong, 2011, p. 169).

for ELLs and native English speakers. There are advantages and disadvantages to both options. Organizing TWB as a strand enables schools to offer more than one option for ELLs and native English speakers. However, a TWB strand may be hard to manage and prone to inequities in the allocation of resources. This option may make more sense in middle- and high school, than in K-8. It is recommended that when a TWB program is a strand, it does not operate as “a separate part of the school but rather participates in, partakes of, and contributes to the positive student and educational climate outcomes” (Carter & Chatfield, 1986, quoted in De Jong, 2011, p. 179). The whole school approach, on the other hand, is more cohesive as all students are subject to the same language production expectations, and collaboration between teachers, specialists, and administrators is easier.

1.6. Language Policy

In the context of two-way bilingual schools, language policy refers to “decisions that schools make about language and language use” (de Jong, 2011, p. 108). In other words, decisions made in all the previously mentioned domains of school organization—program or language model, language of initial literacy, program staffing, teacher model for allocating language of instruction, and manner of rollout—should be included in a written language policy. In covering all these areas of language and language use, the language policy provides transparency to TWB program implementation, thus facilitating participation and buy-in by various stakeholders. At the same time, the language policy should be flexible. As Howard and Sugarman (2007) note, “Consistency does not necessarily mean doing exactly the same thing at every grade level, but it does mean following through on key principles of the chosen program model in a logical and thoughtful way at each grade level” (p. 19). De Jong (2011) further notes that specific considerations such as variance in students’ language proficiency may result in different time and subject allocations by language, and different decisions about language of initial literacy. Ultimately, the language policy must be “always embedded within the local context and must be flexible enough to respond to changes in that context” (p. 169).

Writing up a language policy is a first step toward understanding the crucial role that teachers play as policy makers. As de Jong notes, ultimately, teachers make language policy daily as they decide “which language they use and for what purposes, which languages their students can use (and where), and what language or languages and views are represented in the curriculum and texts they select” (de Jong, 2011, p. 121). Designing and reviewing the language policy, thus,

When considering changes to the language model, Lindholm-Leary (2007) recommends taking into account teachers’ language skills, which languages primary grade teachers are expected to teach in, and what professional development is necessary to accomplish a desired shift in instructional language. Other factors to take into account are additional materials and professional development needed, as well as advocacy required to secure support from parents, staff, and community for the new model.

When considering changes to the language model, Lindholm-Leary (2007) recommends taking into account teachers’ language skills, which languages primary grade teachers are expected to teach in, and what professional development is necessary to accomplish a desired shift in instructional language. Other factors to take into account are additional materials and professional development needed, as well as advocacy required to secure support from parents, staff, and community for the new model.

For insights and recommendations for language policy planning at the school level, please see De Jong (2011).
skills, which languages teachers are expected to teach in, and what kinds of professional development are necessary to accomplish a desired shift in instructional language. Other factors to take into account are additional materials and professional development needed, as well as advocacy required to secure support from parents, staff, and community for the new model.

2. Highly Qualified Teachers

Howard et al. (2007) claim that two major impediments to the success of dual language education are: a) teachers who are not adequately trained and do not understand its philosophy; and b) teachers who at some level are opposed to the model. Thus, critical thinking and reflective practice (e.g., commitment to ongoing learning, professional development, and new ideas) are necessary, not only to provide quality instruction but also to sustain commitment to and focus on program goals. This means that the ability to work collaboratively, to engage in reflective practice, and to develop self-awareness about deep-seated goals and expectations (for the program and for students) are key ingredients for the success of TWB. In addition, in its recent annual conference, the Massachusetts Association of Bilingual Education (MABE) issued a list of competencies, knowledge, and skills that teachers need in order to provide a high quality dual language education. The list was distilled from a detailed inventory of bilingual/dual language teacher licensure requirements in New York, Texas, and Washington state in five domains: language, culture, planning/management, assessment, and accountability. (See Figure 2.3. for MABE’s summary.)

Figure 2.3. Highlights of Competencies, Knowledge, and Skills from Cross-State (WA, NY, TX) Bilingual/Dual Language Teacher Licenses Compiled by Massachusetts Association of Bilingual Education

<table>
<thead>
<tr>
<th>Domain 1: Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dual-Language teacher should know, understand, and be able to apply the theories of first and second language acquisition and the understanding of language as a system to the classroom.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Knowledge: What Teachers Know</th>
<th>Application: What Teachers Can Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. How to read, write, and communicate orally in a proficient manner in L1 and L2⁶ (TX)</td>
<td>1.1s. Prepare lessons, materials, and assessments in L1 and L2 (TX)</td>
</tr>
<tr>
<td>1.2. First (L1) and second language (L2) acquisition and development processes and the relationship between L1 and L2. (WA)</td>
<td>1.2s. Apply linguistic concepts to support learners' language and literacy development in L1 and L2 (TX)</td>
</tr>
<tr>
<td>1.3. How the student's first language proficiency in listening, speaking, reading, and writing transfers to English and impacts second language acquisition (WA)</td>
<td>1.3s. Apply knowledge of linguistic concepts to select and use appropriate instructional methods, strategies, and materials for teaching L1 and L2 (TX)</td>
</tr>
<tr>
<td>1.4. Language development and can describe the different stages of language acquisition in L1 and L2 (WA)</td>
<td>1.4s. Assist learners in making connections between languages (e.g., noting similarities and differences, using cognates) (TX)</td>
</tr>
<tr>
<td>1.5. Similarities and differences between all aspects of L1 and L2 structures including: phonology (the sound system), morphology (word formation), syntax (phrase and sentence structure), semantics (meaning), and pragmatics (context and function) (WA).</td>
<td></td>
</tr>
<tr>
<td>1.6. The interrelatedness and interdependence of first- and second-language acquisition (TX)</td>
<td></td>
</tr>
</tbody>
</table>

Note that MABE, which differentiates between “dual language” and “two-way education” in the same manner illustrated by the Dual Language Umbrella, presents these competencies as relevant to all dual language teachers, not just teachers in two-way programs (see Figure 1.9 of this report).

⁶ L1 and L2 refer to first and second language of students, respectively.
### Domain 2: Culture

The Dual-Language teacher should know, understand, and use major concepts, principles, theories, and research related to the role of culture, cultural groups, and identity to construct a supportive learning environment for all Dual-Language students.

<table>
<thead>
<tr>
<th>Teacher Knowledge: What Teachers Know</th>
<th>Application: What Teachers Can Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. An understanding of the benefits of multilingualism and multiculturalism in a global society (NY)</td>
<td>1.1s. Emphasize the benefits of bilingualism and biculturalism (TX)</td>
</tr>
<tr>
<td>1.2. The characteristics of various processes of cultural contact (e.g., assimilation, accommodation, acculturation, biculturalism, multiculturalism) and the role these processes play in various models of bilingual education (e.g., by promoting additive or subtractive bilingualism /biculturalism) (NY)</td>
<td>1.2s. Create an additive educational program that reinforces a bicultural identity, including understanding the differences between acculturation and assimilation (TX)</td>
</tr>
<tr>
<td>1.3 Candidates can explain the differences between assimilation, acculturation, and cultural pluralism and their potential impact on students' cultural identity (WA)</td>
<td>1.3s. Use authentic materials from students' cultures (WA)</td>
</tr>
</tbody>
</table>

### Domain 3: Planning, Implementing, and Managing Instruction

The Dual-Language teacher should know, understand, and use evidence-based practices, strategies, and program models related to planning, implementing, and managing instruction for the Dual-Language classroom.

<table>
<thead>
<tr>
<th>Teacher Knowledge: What Teachers Know</th>
<th>Application: What Teachers Can Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. The characteristics, goals, benefits, and limitations of various types of bilingual education models/programs (e.g., submersion, dual-language/two-way bilingual, structured immersion, transitional, developmental, maintenance, early-exit, late-exit); research findings of the effectiveness of various models of bilingual education; and features that distinguish additive vs. subtractive bilingual education programs (NY)</td>
<td>1.1s. Apply effective practices and strategies to plan, implement, adapt, and modify curriculum and instruction for multiple language proficiency level classrooms with students from diverse backgrounds (WA)</td>
</tr>
<tr>
<td>1.2. Potential linguistic and cultural biases of pedagogies, curricula, and assessment instruments when determining classroom practices for the English language learner (WA)</td>
<td>1.2s. Implement effective curriculum, instruction, assessment, and evaluation in all content areas in both L1 and L2 (TX)</td>
</tr>
<tr>
<td>1.3s. Create authentic and purposeful learning activities and experiences in all content areas that promote bilingual learners' development of concepts and skills in L1 and L2 (TX)</td>
<td></td>
</tr>
<tr>
<td>1.4s. Assist learners in making connections between languages (e.g., noting similarities and differences, using cognates) (TX)</td>
<td></td>
</tr>
<tr>
<td>1.5s. Use content-area instruction to promote learners' language acquisition and development in L1 and L2 (TX)</td>
<td></td>
</tr>
<tr>
<td>1.6s. Use a variety of approaches to deliver comprehensible instruction in L2 to support the development of learners' content-area knowledge and skills and their development of cognitive academic language in L2 (TX)</td>
<td></td>
</tr>
</tbody>
</table>
3. Features of TWB Instruction

3.1. Established Features: Sheltering for TWB

Two-way bilingual instruction relies heavily on sheltering techniques similar to those used to teach English Language Learners in Sheltered English Immersion programs, but requires some additional features documented a few years ago by Howard, Sugarman, & Coburn (2006) and named the TWIOP. This acronym is a spin-off of the SIOP (Sheltered Immersion Observation Protocol),7 a sheltered immersion program that has been found effective for differentiating instruction for students who exhibit a wide range of proficiency levels (Echevarría et al., 2003). Figure 2.4 below provides a quick overview of some of the modifications made to the SIOP in order to adapt it for two-way bilingual classrooms.

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7 BPS trained its first SIOP cohort in SY2012-13.
Preparation, instructional practices, and review/assessment are only three of eight areas of practice covered by the TWIOP (the others are building background, providing comprehensible input, interaction, practice/application, and lesson delivery). Examples of most of these other areas are provided in Chapter 3. Readers are encouraged to visit the Center for Applied Linguistics website to access the full range of TWIOP strategies.

### 3.2. Newer Features of TWB Instruction: Paired Literacy

Increasingly throughout the nation, there is a greater understanding of the unique needs of students who arrive in schools as simultaneous bilinguals: those who do not have one clearly dominant language, but rather code-switch between English and Spanish. Traditionally, this linguistic behavior has been seen as a deficit (semilingualism) and as “interfering” with development.
of proficiency in two languages, but this paradigm is shifting to recognize code-switching as rule-bound language, as denoting emerging bilingualism and students’ ability to use their knowledge of two languages as a scaffold toward biliteracy. This new generation of bilingual students enrolling in U.S. schools calls for new strategies for teaching languages. In fact, the NORMAS, an adaptation of the Common Core English language arts standards for teaching Spanish language arts developed at the George Washington University Center for Equity and Excellence in Education (GW-CEEE, 2011), recommends the use of paired literacy for the dual-language/TWB classroom. Paired literacy recognizes the “symbiotic nature” of the two languages and gives students structured opportunities to learn content knowledge and content-specific vocabulary through “bridging” activities (GW-CEEE, 2012, pp. 3-4).

Paired literacy develops metalinguistic awareness, a higher-order thinking skill that enables students to compare and apply knowledge of phonology, morphology, syntax, and pragmatics (as shown in Figure 2.5 above) across their two languages. One strategy for eliciting

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**Figure 2.5. Areas of Focus and Examples of Contrastive Analysis during “The Bridge”**

<table>
<thead>
<tr>
<th>Element and areas of Focus</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **Phonology (sound system)** | • Sounds that are different in the two languages.  
  • Sounds that are similar in the two languages.  
  • Sound-symbol correspondence (e.g., the [k] sound: “qu” or “c” in Spanish; “c” or “k” in English)  
  • Silent letters (e.g., “h” and “u” in Spanish; many in English)  
  • The existence of the [th] sound in English but not in Spanish; therefore, students select the closest Spanish phoneme, which is /d/ |
| **Morphology (word formation):** | informal – informal  
  informar – inform  
  socialismo – socialism  
  desastre – disastrous  
  preparar – prepare  
  profesión – profession  
  educación – education |
| **Syntax and grammar (sentence structure)** | Spanish uses the initial inverted exclamation point; English does not (e.g., ¡Me encanta! – I love it!)  
  Articles have gender in Spanish but not in English (e.g., el título – the title; la revolución – the revolution)  
  In Spanish accents change the meaning of words (e.g., el Papa vive en Roma; la papa es deliciosa; mi papá es muy trabajador)  
  Spanish has many reflexive verbs; English has few (e.g., Se me cayó)  
  Conjugation of verbs in Spanish reduces the need for the pronoun (e.g., ¡Voy!)  
  Adjective follows the noun in Spanish and precedes it in English (e.g., centímetros cuadrados – square centimeters) |
| **Pragmatics (language use)** | Questions about age avoid the world “old” in Spanish because it has negative connotations (¿Cuántos años tienes?)  
  Figurative language from English is translated directly into Spanish: Estoy encerrado afuera (I am locked out!) rather than Me quedé afuera.  
  Spanish constructs are used during English (e.g., Mis padres ganan mucho dinero. (My fathers win lots of money).)  |

metalinguistic awareness is known as “bridging” (Bee-
man & Urow, 2013), and is described as “the instruc-
tional moment in teaching for biliteracy when teachers
bring the two languages together, guiding students to
engage in contrastive analysis of the two languages and
to transfer the academic content they have learned from
one language to the other language” (p. 1).

The “bridge” requires a paradigm shift away from
thinking of two languages as separate silos, to conceiving
biliteracy as the constant interaction of two languages in
the mind of the bilingual child, and the mutual scaffold-
ing that each language provides for progressing in the
other. The use of this model shows the advantage of using
translation to develop metalinguistic awareness, but
does not make translation acceptable in the classroom
on a day-to-day basis. In fact, the model reinforces calls
for the extremely judicious use of translation highlighted
in The Two-Way Immersion Toolkit (Howard, Sugar-
man, Perdomo, & Adger, 2005) almost a decade ago. The
Toolkit cautions that: a) students will be less motivated
to focus on instruction in their weaker language if they
know a translation in their stronger language will be
provided eventually; b) teachers who rely on translation
will be less inclined “to adapt the language of instruction
to the learners’ level of comprehension”; and c) too
much translation may “significantly reduce the time
spent working in and through the partner language”
(p. 11). At the same time, the judicious use of translation
that the Toolkit recognized as valuable to teach cognates,
can now be extended to bridging techniques.

3.3. Culturally Relevant Instruction

Culturally relevant instruction is currently recognized as
a cornerstone of equitable practice in the Boston Public
Schools Comprehensive Achievement Gap Plan, which
calls for diverse, culturally competent leadership, as
well as culturally relevant teaching as building blocks
for reducing achievement gaps. The focus on culturally
relevant instruction stems from the premise that
children learn best when their identities are affirmed
in school, and when teachers understand and some-
times replicate culturally driven interactional styles. A
poignant experiment to this effect was the Kamehameha
Early Education Program (KEEP) in Hawaii (see Tharp
& Gallimore, 2007 for a description). KEEP sought
to address persistent achievement gaps among Native
Hawaiian students who lived in economically depressed
rural areas by investigating how differences between
home and school socialization practices affected stu-
dents’ relationships with teachers. The Hawaiian study
opened new ways of looking at culture in the classroom,
and of connecting cultural relevance with student
outcomes. When an experimental design was used to
evaluate the outcomes of Native Hawaiian students
participating in KEEP-like programs with those of peers
in regular schools, highly significant differences were
found between the intervention and control groups,
with the former approximating and sometimes
exceeding national norms (p. 302).

**Figure 2.6. Salient Features of Individualism and Collectivism**

<table>
<thead>
<tr>
<th>Individualism (prevails in US mainstream)</th>
<th>Collectivism (prevails in immigrant and minority communities)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fostering independence and individual achievement.</td>
<td>Fostering interdependence and group success.</td>
</tr>
<tr>
<td>Promoting self-expression, individual thinking, personal choice.</td>
<td>Promoting adherence to norms, respect for authority/elders, group consensus</td>
</tr>
<tr>
<td>Associated with egalitarian relationships and flexibility in roles (e.g., upward mobility)</td>
<td>Associated with stable, hierarchical roles (dependent on gender, family background, age)</td>
</tr>
<tr>
<td>Associated with private property, individual ownership</td>
<td>Associated with shared property, group ownership</td>
</tr>
</tbody>
</table>


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*See The Two-Way Immersion Toolkit for well-researched answers to questions commonly asked by teachers and administrators, a list of online resources for planning and implementing new programs, model lesson plans for Grades 1 to 5, and family outreach materials. See http://www.alliance.brown.edu/pubs/twi/pdf_files/toolkit_all.pdf.

*See: http://www.bostonpublicschools.org/files/GapPolicy.pdf*
A well-established paradigm that is frequently used to understand cultural differences is the individualism versus collectivism framework. A quick contrasting overview of salient features of these two constructs is presented in Figure 2.6 above.

There are many examples of individualistic and collectivistic teaching practices and student behavior in school every day, and understanding such behavior as rooted in different cultural paradigms is helpful for instructional differentiation. In addition, TWB steeps students in each other’s languages and cultural norms, which when equally affirmed and expressed in classrooms, can foster the development of communities with norms that are representative of their members’ shared beliefs and practices, and thereby enhance cross-cultural understanding. (See Rogoff, 2003, for a discussion of cultural communities.)

4. Parent Involvement

Equitable treatment of students is inextricably linked to the equitable treatment of their parents, which in turn is a reflection of the school’s overall cultural competence. In order to facilitate parent engagement, Center for Applied Linguistics (CAL) guidelines suggest hiring bilingual office staff with cross-cultural awareness (Howard et al., 2007). As the first point of contact with the school, a welcoming administrative assistant who greets and guides parents in their first language, and creates a sense of safety, can make a difference, especially for engaging more reluctant parents. In addition, full bilingualism enables office personnel to engage in phone conversations with parents in the school’s two languages.

CAL guidelines recommend that schools develop a program-wide plan for involving parents and for training staff for working equitably with families and the community (Howard et al., 2007, p. 91). Examples of what might be included in a parent involvement plan include:

- New teachers are paired with veterans to learn about successful practices for involving families;
- Home visits are part of a teacher education/sensitization program;
- Staff learn about the socioeconomic and political issues facing the community;
- Staff learn about patterns of typical family involvement in the program;
- Staff are given the support needed to help families move to deeper levels of involvement;

CAL recommends that communication with parents and community members, including all materials available to the public (e.g., through a website), always be in both program languages, which should be given equal status. Finally, CAL recommends that parents and community members serve on school advisory boards and be in other ways included as strategic partners for the school (Howard et al., 2007, p. 94).

In conclusion, this chapter has highlighted key programmatic, staffing, and instructional features of TWB education. Throughout the chapter, an emerging theme has been the tension created by choosing and strictly adhering to a language model while also allowing for some flexibility in its implementation. Ultimately, the model should address the needs of the specific student population being served, and take into consideration the availability of qualified teaching staff, while considering that pre- and in-service teacher training for TWB is a must. In fact, the need for greater rigor in selecting teachers for TWB programs is currently evidenced by dual language teacher licensing credentials that some states are attempting to put in place. Among them is not only an in-depth understanding of first and second language acquisition, but also the ability to collaborate and design curriculum across languages (as highlighted in the TWIOP) and to conceive innovative instructional strategies such as the bridge. At the same time, the integral role played by teacher collaboration calls for flexibility and resourcefulness in implementation.

So do changing student demographics such as those mentioned in Chapter 1, which are increasing the numbers of simultaneous bilingual students. By looking specifically at how TWB programs are shaped and run in Boston, Chapter 3 begins to identify areas of greater rigor and greater flexibility in the implementation of TWB programs.
In this chapter, the study moves from the literature into the District, guided by the following question: In TWB programs that were fully rolled out in BPS at the start of SY2012-13, and that had a record of success, what best practices were observable in school organization, curriculum, instruction, assessment, professional development, family and community engagement? The methods used to answer this question were described in Chapter 1. Findings are presented in five key areas: staffing, language policy, curriculum and instruction, professional development, and family engagement. Staffing considerations and the development of a language policy are fore-fronted because of their significance to the success of TWB programs. In fact language policy is the pivot around which the entire TWB program rotates, while staffing demands must be met gradually for the program to become self-sustaining.

In terms of instruction, examples of sheltering and alignment specific to TWB instruction are highlighted as these are both crucial for teaching in two languages. On the cultural front, a range of affirming curriculum and instruction is highlighted, denoting that the development of cross-cultural competencies is embedded in TWB programming, and part of what makes it equitable. Professional development (PD) focuses largely on collaboration and reflective practice, as that aspect of TWB is a *sine qua non* for effectiveness. As a general rule, the chapter is organized as a descriptive narrative under headlines that highlight distinct areas of practice in TWB, and punctuated by concrete best practices. Practices were deemed “best” when they were consonant with empirical findings and/or expert recommendations.
from the literature, and/or when they supported current BPS priorities such as educational equity, reducing achievement gaps, and cost-effective management.

1. Staffing Considerations

1.1. Effective Leadership for TWB

Effective leaders of TWB programs are similar to effective school leaders in general. According to the Wallace Foundation (Leithwood, Louis, Anderson, & Wahlstrom, 2004, p. 5), the three main tasks of principals are: setting the school's direction by building a shared vision, hiring and developing high quality teachers and mid-level managers, and creating the conditions for collaborative processes among the staff. Leaders of the TWB programs included in this study took responsibility for all three of these tasks. In addition, as the Wallace Foundation also points out, they adapted and responded to the specific needs of their school communities. It was in the process of adjusting to the needs of specific school communities while remaining faithful to the principles of TWB education that the knowledge, skills, experience, and personal attributes listed in this section emerged.

Leaders of TWB programs in Boston operate under ad hoc restrictive language policies resulting from the 2001 No Child Left Behind Act (Elementary and Secondary Education Act) and the 2002 Massachusetts English Language Education in Public Schools Initiative (aka Question 2), a popular referendum that dismantled transitional bilingual education in Massachusetts schools. Dealing with an unfavorable federal and state policy climate has required resourceful filtering of information and mandates that are not designed to address the needs of TWB programs. In order to be effective, leaders of two-way bilingual schools in Boston have drawn upon extensive experience in second language teaching and learning and a strong commitment to educational equity. Hurley Principal Marjorie Soto succinctly captured the demands placed on TWB principals: “It’s just the way you think, the way you filter information, the way you look at equity issues. That’s why Margarita [Muñiz, former Hernández principal] was so good, because she got it.” Ms. Soto’s quote alludes to a key consideration guiding hers and Ms. Muñiz’s work: equity. In Boston, considerations about educational equity have been the hallmark of effective TWB leaders. The unwavering dedication to TWB exhibited by Ms. Muñiz and Ms. Soto (who was initially trained and subsequently mentored by Ms. Muñiz) was rooted in lifelong teaching and learning experiences, which proved to them that TWB education could improve academic outcomes for English Language Learners, while supporting cross-cultural connections with their native English-speaking peers.

1.2. Shared Life Experiences of Effective TWB Leaders in Boston

The leaders who have shaped the Hernández and the Hurley, Margarita Muñiz and Marjorie Soto respectively, have been competent bilingual educators dedicated to educational equity after multiple years of experience as bilingual teachers and administrators prior to their appointment as principals. Ms. Muñiz became principal at the Hernández School in 1982 after the school was developed by community activists. At that point, she had worked for nine years as a bilingual elementary teacher and administrator at the Agassiz School in Boston. Ms. Soto also had a long trajectory as an ESL teacher and administrator in the public schools of Philadelphia prior to arriving in Boston.

In addition, both principals grew up outside the continental U.S. (Cuba and Puerto Rico respectively) and completed their elementary education in Spanish prior to re-locating on the mainland. Born in Cuba, Ms. Muñiz was sent to the U.S. by her parents at age 11 through the Vuelos Peter Pan program; lived in a Catholic girls’ orphanage in Louisiana before she enrolled in Boston University for college; and only saw her parents again when she was in college (Campbell, 2011). Ms. Soto moved with her family from Puerto Rico to Philadelphia after completing the sixth grade, and grew up in the inner city. Both entered the U.S. educational system as English Language Learners, which prepared them to support the experiences of immigrant families and to affirm the language and culture of their students. In fact, their trajectories to positions of leadership resemble those of other BPS principals whose schools have been successful at educating ELLs (Tung et al., 2011).
All four Principals shared similar life experiences that shaped their vision for ELL students. All four were experienced bilingual teachers who had worked in Boston. In addition, the Principals all learned English as a second language themselves, and knew from experience that acquiring a strong command of social and academic English required considerable time, but conferred an advantage in the long run. This personal knowledge and experience attuned Principals to the needs of teachers of ELL students and to ELL students at their schools and gave them a clear vision for their success: ELL students must attain the same levels of academic achievement as native English speakers (Tung et al., Executive Summary, p. 6).

One significant difference, however, between Ms. Muñiz and Ms. Soto and the school principals featured in Tung et al.’s work appears to have been the ways in which their specific school communities shaped their visions of the best pathways to educational and economic opportunities beyond high school. While in the schools studied by Tung et al., the impetus was to give students access to opportunities in English by teaching in English, Ms. Muñiz and Ms. Soto favored bilingualism and biliteracy as pathways toward accessing opportunities in English.

The Hernández, a school launched to meet the educational needs of under-served Latino (largely Puerto Rican at the time) children in Boston, exhibited from the start a commitment to high-quality, innovative pedagogy. In 1993, the school was selected as one of the first ten in the country to implement the Expeditionary Learning program (Campbell, 2011), a professional development and curriculum planning program designed to sustain high levels of student engagement and achievement. In the Fall of 2012, Expeditionary Learning was still in use at the school, and the school was attempting to align its professional development with TWB guidelines for running effective programs, and also with teachers’ needs for materials in Spanish. Throughout the years, high expectations for all students were manifested in MCAS performance above District and sometimes state averages.

The Hurley was a low-performance school at risk for state receivership in the early 1990s; Ms. Soto turned it around by re-organizing the school and rolling out a TWB program that greatly improved academic outcomes. In due course, the Hurley went from being a failing school to having a waiting list of eager parents. In 2012, the school was recognized by EdVestors as a finalist for the “Thomas W. Payzant School on the Move” prize for closing the achievement gap at a higher rate than most schools in the District.

### 1.3. Ability to Unify the School Community behind a Shared Vision

Leaders of two-way bilingual programs need to be cognizant of, and convey clearly, the academic and developmental benefits of learning in two languages. Parents, both English- and Spanish-speaking, are often reluctant to place their children in schools where English is used no more than half of the time in the early grades. Not understanding the theoretical framework and data supporting two-way bilingual education, many become concerned if their children’s performance on standardized tests administered in English lags behind, especially in the third grade. One essential task that TWB principals face is unifying families, teachers, and the entire school community behind the school’s mission and vision, and maintaining such unity in the face of federal accountability rules that de facto favor English-only instruction (see for example Menken, 2008).

When looking at schools, one marker of cohesiveness and shared values is the mission statement, especially one that claims the goals of TWB education as the school’s mission, as in the case of the Hurley.

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Principals of two-way bilingual schools need to see where the school fits in policies that are not designed for them, they need to be very good negotiators with vendors, parents (who push back and want their kids taught in English in the 3rd grade), Central Office, and students who cry the first time they sit in a room and don’t understand.

—MS. CAMPANARIO, HERNÁNDEZ

ACTING PRINCIPAL
1.3.1. Best practice: Goals of TWB are clearly stated in mission and value statements

The Hurley’s mission is an example of a concisely written statement that focuses on attaining the goals of two-way bilingual education.

The mission of the Hurley is to graduate students who are bilingual and biliterate at the proficient and advanced academic levels. Our graduates understand their own cultural heritage and can compare that to numerous other cultures.

La misión de la Hurley es graduar estudiantes completamente bilingües, los cuales alcancen el más alto nivel académico en exámenes estatales, es decir “competente” (proficient) o “ avanzado” (advanced). Los estudiantes egresados de nuestra escuela comprenden su herencia cultural y son capaces de analizarla comparativamente con el patrimonio cultural de otros estudiantes.

The existence of a pledge strategically posted throughout the building in two languages also denotes alignment of school staff and the parent community on school values.

We pledge to lead by behavior, inspire with creativity, voice our opinions, own our actions, and master the academics.

Yo prometo modelar buen comportamiento, inspirar con mi creatividad, expresar mis opiniones, ser dueño/a de mis acciones, y dominar el área académica.

At the Hurley, these statements were associated with the presence of a school leader who was not only persuasive but also capable of galvanizing the school’s multiple parent communities around a set of values and attitudes that support the TWB model.

1  For a discussion of the Hernández mission statement, see best practices in section 3.5 of this chapter, entitled “Culturally-Affirming Curriculum and Instruction.”

1.4. Ability to Recruit, Train, and Retain an Instructional Team Capable of Implementing TWB

Principals are responsible for leading, managing, monitoring quality implementation of curriculum and assessment, engaging families, and procuring necessary resources that are not always covered by the school’s budget. While the principal oversees fidelity to the school’s language model (50/50), day-to-day implementation falls on the shoulders of one or more instructional leaders. The term “instructional leader” (IL) refers to one or more mid-level managers responsible for coordinating the TWB program. At the Hurley, these functions were handled mainly by a bilingual assistant principal/director of instruction (originally trained by Ms. Muñiz at the Hernández); in the absence of a bilingual literacy coach, the school had a part-time coach in English, and expressed the need for a similar position in Spanish. The instructional leadership of the Hernández was in flux at the time of the study, as the school was temporarily headed by Interim Principal María Campanario Araica. At the time, the Hernández had a bilingual director of instruction and a Spanish literacy coach.

1.4.1. Best practice: Roles of the TWB coordinator/s

Following is a list of responsibilities distributed among instructional leaders responsible for coordinating the TWB program at both schools.

- Overseeing alignment of curriculum and instruction in two languages and with state standards.
  - Mapping curriculum to ensure that students cover in two languages the same amount of curriculum as monolingual students in English-only schools.
  - Developing and articulating curriculum maps, with special attention to implementation—e.g. classroom displays, Open Response question, Big Idea, group work, independent work—that maximizes language learning.
  - Identifying authentic materials in Spanish aligned with Common Core instructional shifts.
• Validating assessments used to drive instruction in two languages, and establishing additional benchmarks for second language learners as necessary.

• Maintaining a culture of collegiality, where teachers collaborate in professional learning communities.
  - Observing, giving feedback, coaching, and otherwise supporting teachers’ specific professional development needs, especially newcomers;
  - Working with grade-level teams to support collaborative goal-setting for curriculum articulation in English and Spanish, as well as goals for self-assessment;
  - Supporting implementation of new District initiatives and/or state mandates,
  - Pursuing collaborative relationships with other instructional leaders in the District by building upon existing structures (Dual Language Network) or developing new networking mechanisms.

It seems pertinent to note that instructional leaders at both schools were balanced bilinguals, with literacy skills in English and Spanish. Specifically, they reported having learned Spanish (or Portuguese in the case of Ms. Campanario) first and maintaining it while learning English. Their bilingualism enabled them to compare the quality of English and Spanish instruction.

1.5. Ingenuity in Optimizing and Supplementing Limited Resources

Principals at two-way bilingual schools in Boston have been in the position of acquiring instructional materials in Spanish without an additional budget allowance. This requires resourcefulness and fundraising skills, as in the case of the following practices:

1.5.1. Best practice: Securing BPS support specific to TWB education

Both schools optimized limited resources by advocating and negotiating with pertinent BPS departments to have their needs met. The literacy coach at the Hurley secured funding from the Office of English Language Learners to pay for the Spanish version of the District’s curriculum—Calle de la Lectura. In addition, the Hurley obtained Spanish assessment kits with support from the Office of Curriculum and Instruction.

1.5.2. Best practice: PD providers to support curriculum development in Spanish

The Hernández leveraged a change in the school’s contractual agreement with Expeditionary Learning whereby EL was expected to provide bilingual professional development that addressed the specific needs of TWB education (e.g., lesson plans in Spanish, alignment with dual language guidelines). The new terms of the agreement were observed during the school’s 2012 Summer Institute, when one week (25 hours in 5 days) of professional development was dedicated to planning instruction and assessment in Spanish and aligning it with English instruction. Spanish teachers reported the beneficial impact of this change.

1.5.3. Best practice: Capitalizing on Boston Public Library’s Spanish literacy resources

In the face of budget cuts, the Hernández replaced the school’s librarian by turning to the Egleston Square branch of the Boston Public Library, with which the school has a long-standing relationship given its original location in Egleston Square. The Egleston Square librarian currently supports the Spanish literacy coach by identifying materials for curricular units taught in Spanish.

The Egleston Square Branch Library also has served as a venue for Hispanic Writers’ Week, a University of Massachusetts Boston (UMB) program that brings Latino authors to read and discuss their work with students. Among the guest speakers has been Dr. Raul Ybarra, a UMB professor who studies and writes about appropriate discourses for educating Latino students. Parents are invited as well.

1.5.4. Best practice: Principal involves parents as strategic partners

Ms. Soto at the Hurley holds weekly coffee hours to work with parents on a wide range of issues. For example, parents have established a 501(c)3 organization to raise funds to supplement school resources in English and Spanish for students with learning challenges; acquire materials not covered in the school budget; and pay half the salary of a bilingual, out-of-school program coordinator (the other half is paid by the YWCA) as well as a half-time interventionist trained to work in Spanish. On other levels, the School Site Council reviewed websites and selected a packet of games that
both English and Spanish-speaking families can play to promote language acquisition at home. Some parents volunteer to run the Bodega de Arte clubs once a week after school.

### 1.5.5. Best practice: Partnering with the community for additional Spanish resources

As in schools throughout the District, the two TWB schools visited for this study actively seek community partnerships to support their mission and vision. Specific to TWB is their focus on identifying service providers who can deliver after-school programming in Spanish. Specifically, at the Hurley, the Bodega de Arte after-school program offers an opportunity to strengthen Spanish language skills through participation in arts activities. The program involves partnerships with the Music Center of Boston, Urban Voices, and the YMCA. Through such partnerships and Spanish-speaking staff, the Hurley increases opportunities for students to learn and practice social language skills. Ms. Soto sees after-school programs as a mechanism for strengthening students’ social Spanish in "a fun setting where there's not a high level of anxiety, and kids are more receptive to speaking Spanish."

### 1.5.6. Best practice: Director of Community Partnerships is member of Student Support Team

At the Hurley, the newly hired bilingual Director of Community Partnerships participates in the Student Support Team and uses her knowledge about student needs to seek out appropriate school partners and resources. For instance, when she discovered the need for services for mental health and learning challenges, she sought out Boston Children’s Hospital to be part of the school’s open house. She also is dedicated to identifying more after-school activities to meet existing language-learning needs.

### 1.6. Teacher Qualifications Vary but Reflection and Collaboration are Hallmarks

Teacher qualifications in a TWB school are contingent on decisions about the school’s model for language allocation, which determines how teachers are assigned a language of instruction (see Chapter 2, section 1.4. for a review of two common models), as well as the language model (e.g. 90/10 requires hiring all bilingual teachers). The Hernández and the Hurley both have 50/50 models which do not require all teachers to be bilingual, but they have different teacher allocation models. The Hernández uses the one-teacher mixed model whereby a single bilingual teacher provides instruction in English and Spanish at different times of day, or on different weeks. The Hurley, on the other hand, has adopted the two-teacher mixed model where half of the teachers provide instruction in English only, and half in Spanish only. Although the Hurley model does not require certified bilingual teachers, teachers need to collaborate, so some degree of bilingualism is necessary.

Reflective practice and the ability to work in professional learning communities are hallmarks of effective TWB instruction. Upon interviewing teacher candidates for her school, Ms. Soto asks what they know about TWB; she also asks them questions such as “What do you do if [a certain practice/event] doesn’t work?” or “If we visited your classroom, what would we see?” By inviting teachers to reflect on these questions in real time during interviews, Ms. Soto observes their flexibility, their problem-solving, and their reflective capacity.

### 1.7. Bilingual and Culturally-Competent Administrative Staff

Bilingual and bicultural administrative assistants at both the Hurley and the Hernández serve as a welcoming first point of contact by speaking both of the school’s partner languages fluently, and interacting with parents in culturally relevant ways—e.g. during school visits. At the Hernández, the parent liaison is a veteran member of the staff responsible for translating and for the simultaneous release of every letter, flyer, monthly calendar, and orientation item. The parent liaison also serves in a supportive role to families who request her interpreting services during Individual Education Plan (IEP) and CORE2 evaluation meetings. She personally calls Spanish-speaking families to encourage their participation in school activities designed for them. She assists parents...
with limited English proficiency to contact summer camps and other enrichment activities. She liaises between parents, teachers, and external agencies. In connecting parents with external agencies for medical, counseling, and/or testing services, she also takes on transportation responsibilities. “I don’t say [to parents], ‘That is the place you need to go to, just go there.’ I say, ‘This is what you have to do. How are you going to get there?’ And if parents don’t have transportation, I can drive them over. That means a lot for a parent.”

In brief, hiring staff suited to meet the mission of TWB is taken very seriously at both the Hurley and the Hernández. Two-way bilingual education is rigorous, complex, and calls for a core group of teachers and instructional leaders who understand the multiple facets of language models and can resolve day-to-day challenges as they arise. Bilingualism, biculturalism, and the ability to build bridges between diverse parent communities are essential for continued enrollment and program success.

2. Language Policy

The selection of a language model at both the Hernández and the Hurley has been determined by multiple factors such as availability of qualified teachers, student characteristics, and families’ attitudes toward bilingualism, biliteracy and cross-cultural competencies. In fact, family attitudes were cited at both the Hurley and the Hernández as an important consideration in the adoption of 50/50 modified language models. The 50/50 modified model appeared safer to parents (both English- and Spanish-speaking) who want their children introduced to English early in their school trajectories. Some teachers also prefer to introduce English early, as they are mindful of the impact that low outcomes on MCAS tests can have on themselves and the school. The Hurley and the Hernández both have adopted “modified” 50/50 models where initial literacy is in students’ native language. As mentioned in Chapter 2 (Figure 2.1), model fidelity is harder to maintain in the modified 50/50 model because students spend time in literacy classrooms in their L1 in the early elementary grades—i.e., K1, K2, and first grade. This challenge can be addressed through intentionally designed activities in Spanish.

2.1. Elements of a Language Policy

At a minimum, a school’s language policy reflects the language model; preferably, it should also reflect the pedagogical rationale on which it is based. In early elementary, until second grade, at both the Hernández and the Hurley the week is divided into three days of instruction in Spanish (Monday, Tuesday, Wednesday) and two days in English (Thursday, Friday). Native English speakers attend daily literacy blocks in English, while Spanish speakers attend daily literacy blocks in Spanish. The theory behind this policy comes from research that has demonstrated the benefits of establishing an early foundation in students’ L1. This modification, however, makes fidelity to the 50/50 model hard to accomplish in early elementary. To approximate the 50/50 model, the Hurley maximizes the use of Spanish throughout the week, not only on Spanish days. After Grade 2, both schools move to a 50/50 language model, with some variations discussed below.

2.1.1. Best practice: Language policy includes time outside the classroom

The following excerpt from the Hernández language policy has been selected to highlight two aspects in particular, both of which are underlined. First, the phrase “and transitions” is bolded to emphasize the school’s explicit counting of time spent outside the classroom (e.g. hallways, recess, lunch) toward fidelity to the 50/50 model.

For all activities, Math, Science, Social Studies, and transitions, teachers and students follow this schedule for language use: Monday, Tuesday, Wednesday: Spanish; Thursday and Friday: English.

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2 CORE or TEAM evaluation is a group of assessments that will help the public school systems determine whether a child has a disability that requires special education (programs and services adapted for the education of children with disabilities or unique needs). See: http://www.bmc.org/Documents/AllBostonCanDo-specialeducation-guide.pdf

See also special education guides for parents in English, Spanish, and Portuguese at http://www.fcsn.org/parentguide/pgintro.html
2.1.2. Best practice: Language policy includes theoretical rationale

In addition, the Hernández has included rationales for the early elementary model, and for bi-weekly schedule changes after the second grade, as reflected by the following quotation.

*The rationale for this schedule [referring to weekly changes in language use] is that students whose home language is Spanish will be exposed to ESL3* in the outside world as well as in school, while the only opportunity for most students whose language is English to learn Spanish is at school. Providing instruction in Spanish for three days a week attempts to create a balance in the language learning of all of our students.

The Hernández also provides the following rationale for bi-weekly changes in language of instruction:

*The two-week cycle is a longer period of sustained time during which students can acquire and use vocabulary, language skills, as well as actively engage in vigorous in-depth lessons, activities, and projects in their second language.*

2.1.2. Best practice: Language policy includes clear, concise description of the language model

In Grades 2 to 5, the 50/50 time allocation to each language changes weekly at the Hurley, and bi-weekly at the Hernández, as represented in Figure 3.1 below. The respective structures are explained in the following statements of policy of the two schools:

<table>
<thead>
<tr>
<th>Hernández</th>
<th>Hurley</th>
</tr>
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<tbody>
<tr>
<td>Students in second and third grade follow a two-week language cycle. Homeroom A is engaged in all Spanish instruction while Homeroom B is engaged in all English instruction. At the end of two weeks each group switches to receive instruction in the other language. Each group reports to the designated language cycle classroom at the beginning of each day and remains working in that language for two weeks.</td>
<td>Literacy Instruction/Math, Science, Social Studies Students are instructed following a 50/50 model, in which the language of instruction alternates week to week. One week students receive all their classes in Spanish and the next week, students receive all their classes in English. The content is not repeated; teachers plan together weekly so the curriculum taught by subject is uninterrupted. Students are heterogeneously grouped.</td>
</tr>
</tbody>
</table>

2.1.3. Best practice: Language policy explicitly states exceptions to the model

<table>
<thead>
<tr>
<th>Hernández</th>
<th>Hurley</th>
</tr>
</thead>
<tbody>
<tr>
<td>In fourth grade, the 50/50 model is divided by subject. Social Studies and Science are taught in alternating quarters of the year, with Social Studies taught in English and Science taught in Spanish.</td>
<td>The second grade team uses the every other week model for literacy instruction; however, the teachers have opted to specialize in the content areas. Therefore, teacher A specializes in mathematics and teaches both groups in Spanish weekly, and Teacher B specializes in Science/Social Studies and teaches both groups in English every week.</td>
</tr>
</tbody>
</table>

The literature makes concessions for exceptional arrangements by grade level as reflected in these examples, as long as fidelity to the school's language model (in this case 50/50 modified) is maintained over the course of the year.

2.1.4. Best practice: Maximizing exposure to the partner language (Spanish)

Another kind of exception to the language model is aimed at increasing exposure to Spanish, which can slip below the 50/50 distribution in the modified model used at the Hurley and the Hernández. The Hurley makes the following modifications to maximize time spent on Spanish instruction:

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3 English as a Second Language
• “Daily school choice” period is always in Spanish, regardless of the language of the day. During this period, Spanish speakers and Spanish learners use Spanish socially as they engage in different forms of play—e.g. dramatic, Legos®, play dough, blocks, art, puppet, dollhouse, games, and singing.

• All specials are in Spanish daily.

• Native English speakers who attain grade level benchmarks by mid-year or later during the first grade are “flipped” to Spanish literacy classrooms to increase Spanish skills in preparation for changes in the language model that occur in the second grade.

2.2. Language Policy Extends Beyond the Classroom

Language policy is not limited to language use by teachers, but also by other staff in the building, as well as postings and communication with families, to ensure equal treatment of both languages.

2.2.1. Best practice: Postings in two languages throughout the building

At both schools, color-coded labels are used in English and Spanish to name structures (windows, door), furniture (chairs, desks, bookshelves), appliances (white board, computers), materials (pencils, pens, erasers), even electrical outlets. Parent bulletin boards are posted in English and Spanish; student work is displayed in both of the school’s languages as well, and so are the school’s mission and/or statement of values.

2.2.2. Best practice: Language policy includes communication with families

At the Hurley, Ms. Soto believes that the school’s language policy should include communication with families. As a result, the school delays the release of District curriculum and communications until a Spanish version of equal quality is made available by the District (sometimes weeks later). At the time of data collection, a parent-initiated school website in English was being held back until a Spanish version of equal quality was available and the school could release both versions simultaneously.

In conclusion, writing a language policy requires transparency explicating the language model, listing modifications or exceptions as well as the policy’s full scope beyond the classroom. A well written language policy can be used to communicate with parents and the larger community, and for self-evaluation purposes, both to determine fidelity to model and ensure equitable practices.

3. Curriculum and Instruction for Two-Way Bilingual Education

Successful student outcomes in TWB, as in other programs, are contingent upon high expectations, standards-aligned curriculum, data-driven instruction, and parent engagement. In addition, attaining the goals of bilingualism, biliteracy, and cross-cultural competencies presents unique exigencies for principals, teachers, students, parents, and staff.

3.1. Sources and Quality of Curriculum Materials

At the time of data collection, the Hernández and the Hurley had considerably different approaches to curriculum development. As a Discovery School since 2006, the Hernández was exempt from complying with BPS curricular mandates, and had considerable flexibility for selecting curriculum and assessment materials (as well as for hiring). As an Expeditionary Learning school, the Hernández contracted professional development, based on an experiential, project-based pedagogy, which the school then adapted to local curriculum standards. The freedom in curriculum design afforded by Discovery status and EL has been appealing, perhaps necessary, in a school that has blazed trails in Boston, but it also puts pressure on teachers to develop their own curriculum units.

As a District school that did not seek special status, the Hurley, on the other hand, complied with BPS curriculum mandates and adopted the Reading Street/Calle de la Lectura for language arts curriculum. This curriculum is aligned with Response to Intervention (RTI), a tiered instructional support program (in English only) for struggling readers. At the time of the study, teachers and interventionists still found themselves in the position of supplementing Spanish materials to compensate for imbalances in resources for planning and delivering Spanish instruction available from the publisher. In addition, the English-only design of the RTI instructional support program required Spanish-language interventionists to identify their own resources. Thus,
both schools faced challenges delivering instruction in Spanish. The use of different curricula added another layer of complexity: the schools could not share resources and materials developed in Spanish, or attain economies of scale in professional development involving Spanish curriculum and assessments.

3.1.1. Best practice: Fountas and Pinnell's leveled readers and assessment materials in English and Spanish

Aside from different approaches to curriculum development, both schools used Fountas and Pinnell's literacy and assessment materials in English and Spanish (see the Sarah Greenwood school in Tung et al., 2011 for example). The work of Fountas and Pinnell at the Lesley College Literacy Collaborative includes the Continuum of Literacy Learning and the Continuo de Adquisición de la Lectoescritura, together with the corresponding English Benchmark Assessment System and the Spanish Sistema de Evaluación de la Lectura, and covers the elementary grades.

Fountas and Pinnell leveled readers are considered critical for differentiating instruction in classrooms where speakers and learners of the same language learn side-by-side (Howard et al., 2005). Teachers at the Hernández, furthermore prefer the formative data they derive from one-on-one teacher assessments with leveled readers than from more standardized tests.

3.2. Sheltered Instruction

The main feature of curriculum and instruction in two-way bilingual schools is that all students learn a second language and they use the second language 50% of the time to learn content. So far, under No Child Left Behind, TWB programs have only been accountable for students’ performance on standardized tests in English, which creates natural disincentives for pursuing Spanish with the same intensity and level of rigor. However, for a TWB program to work, all students need to speak Spanish proficiently enough to access increasingly complex content. Sheltering strategies are as crucial for Spanish as for English learners, and thus are a *sine qua non* for the success of all students at the school.

3.2.1. Best practice: Sheltered Spanish math with no translation

In the second week of school at the Hernández, the 26 students in Ms. Gomez’s third grade class are learning math in Spanish. Ms. Gomez reports that about half of the students are Spanish speakers and half are Spanish learners. She is bilingual in English and Spanish but teaches Spanish only. Today, students are being introduced to the mathematical vocabulary for place value: *unidad, decena, centena* (unit, tens, hundreds). Ms. Gomez reports that some have heard these concepts in English, others in Spanish, and her role is to help the former group transfer what they already know from their English math class to learn this unit. She relies on multiple sheltering techniques to make content comprehensible without translating into English.

**Visual aids:** An illustration of a target next to the word *objetivo* (objective) provides a visual representation of the term’s meaning.

**Body language:** Hand gestures and facial expressions accompany verbal directions—e.g., the teacher points to her eye when she uses the word *observando* (observing). When students raise their voices, she whispers back at them. She is theatrical when showing directions and reacting to children’s utterances. She claims that theatricality is a strategy that comes naturally to her.
**Manipulatives:** After visual and verbal instruction, Ms. Gomez presents a tactile activity consisting of strings and cards as yet another modality for learning place value. Students in small groups are handed a set of cards with three-digit numbers and white thread, and are asked to hang the numbers in growing and descending order.

**Clear enunciation and repetition:** She slowly, clearly, and repeatedly enunciates academic vocabulary such as *dígito* (digit) and *valor de posición* (place value). *Repite conmigo* (Repeat with me), she prompts students’ oral output. Repetition is also embedded in directions for transitioning activities: *Mesa que ya está lista es la número 1* (Table number 1 is ready), *Mesa que ya está lista es la número 2* (Table number 2 is ready), and so forth to indicate to students at different tables that they are ready to transition to the rug for a new activity.

**Ongoing assessment of student comprehension:** *Levantá la manito si te sientes capaz de organizar números en orden* (Raise your “little hands” [Spanish diminutive connoting warmth] if you think you can set numbers in the right order), she says while she makes a thumbs up gesture, a thumbs flat (to denote student is not quite sure), or a thumbs down (to denote inability to complete task).

At both schools, teachers were committed to maintaining all communication in the language of the day/week. In K2 at the Hurley, the teacher responded “Yo no hablo inglés” (I don’t speak English) or “No entiendo lo que dicen” (I don’t understand what you’re saying) to children who addressed her in English. A paraprofessional at the Hernández was observed helping a student formulate a question in Spanish, and answering the question only after it was formulated so.

### 3.2.2. Best practice: Sheltered instruction aligned with CCSS instructional shift

In her fourth grade ELA class at the Hurley, Ms. Moll asks students to read aloud the first page of *Eleven*, a short story that uses complex figurative language and syntax to describe a small incident in the author’s life. Learning to describe small incidents is the lesson’s objective today. The author, Sandra Cisneros, is a key figure in Chicano (Mexican-American) literature. Ms. Moll encourages students to reflect how the incident the author narrates reflects the complexity of life itself.

> Only today I wish I didn’t have only eleven years rattling inside me like pennies in a tiny Band-Aid box. Today I wish I was one hundred and two instead of eleven because if I was one hundred and two I’d have known what to say when Mrs. Price put the red sweater on my desk.

After the text is read aloud, Ms. Moll proceeds to ask text-dependent questions, one of the instructional shifts required in CCSS. She asks students to predict what is referenced in the title, and to think about the meaning of complex figurative language (“eleven years rattling inside me like pennies in a tiny Band-aid box”). As she talks to students, she shelters instruction by enunciating slowly and clearly, ensuring that students are following along (“So now we are in the third paragraph”), encouraging students to read (“Help me out”), and interjecting questions such as “What do you think she looked like?” “How might that make you feel to admit that was your [raggedy, old] sweater?”
3.2.3. Best practice: Sheltered English language arts writing lesson

Today Ms. Moll is teaching “Strategies for generating personal narratives” (objective is clearly posted). Upon debriefing, Ms. Moll explains that in the beginning of the year, before she knows her students, she assumes they need work on writing details, as fourth grade students often do.

Elicits student narratives about important people in their lives: Ms. Moll asks students to list “persons who matter” and “small moments” lived with them. In so doing, she also begins to know her students. Students are encouraged to produce a few ideas, first individually: “Pick one person from the list, and come up with at least three small moments….One person, three or four small moments…. Any person you want…. And be ready to share in 5 minutes.”

Gives multiple examples: Ms. Moll describes multiple small moments she experienced during a trip to New York: a visit to the Museum of Science; watching “Wicked,” the musical; a stop at the comedy club.

Assesses student understanding: Throughout the lesson, Ms. Moll checks her students’ understanding about vocabulary that may be new for some such as: “a musical”, “a comedy club.” She waits for student responses, and explains the meaning of the terms, modeling the kind of narrative she expects from her students. For example, when she mentions the “comedy club” she describes it as a place where “my stomach got a workout because I laughed so hard.” Upon debriefing, she mentions checking students’ facial expressions and responses, and retooling her lesson midstream as needed.

3.3. Content Instruction in Two Languages without Repetition

In Grades K2 to 1, students move through curriculum units sequentially in two languages within the same week. This means that in a week-long curriculum unit in first grade—e.g., a math unit on place value—for three days students will learn content in Spanish, while the following two days they will work in English. By the end of the unit, they will have learned the same amount of content as students in English-only schools, but TWB students will know specialized vocabulary in two languages.

3.3.1. Best practice: Mechanisms for aligning English and Spanish curriculum

Mechanisms for achieving alignment across languages used at the Hurley and Hernández include:

- Curriculum maps/implementation guides that suggest ways to articulate a curriculum theme and question of the week in English and Spanish;
- Grade-level teams set, and hold themselves accountable to, goals for curriculum articulation;
- Grade-level teams meet weekly to review and discuss curriculum, and student progress;
- Grade-level teams have common planning time daily to discuss content covered, and plan curriculum sequencing, particularly as students move between the two language classrooms;
- Teachers in the classroom encourage students to transfer knowledge gained in one language to answer questions in the partner language.

3.3.2. Best practice: Articulated math content

Mr. Valdez, a fourth grade teacher at the Hernández, is teaching a math lesson on factorization. He encourages students to build on prior knowledge, and provides an example of factorization usando lo que ya sé (using what I already know). “Niños: ¿Cómo sabemos si 3 es un factor de 35? Empiezo usando lo que ya sé. 3 x 10 = 30. Luego sumo 30 + 3 = 33. ¿Es 35 un múltiplo de 3?” (Children: How do we know if 3 is a factor of 35? I start with what I already know: 3 x 10 = 30. Then I add 30 + 3 = 33. Can 35 be a multiple of 3?). The teacher later explained that encouraging students to use what they already know is meant to transfer content knowledge between languages. The teacher also reported using the same approach in English Language Arts, where cognates are presented to encourage the use of Spanish skills to understand the Latin roots of English vocabulary.

3.3.3. Best practice: Standards-aligned Spanish Language Arts (SLA)

It is the first week of class at the Hurley, and in the K2 Spanish classroom, 23 students of mixed language ability (Spanish speakers and Spanish learners) sit at six different stations designed to teach in Spanish the five critical literacy skills addressed in ELA standards: phonemic awareness, alphabetic principle, fluency, vocabulary, and comprehension.
For phonemic awareness, children play a game of Spanish bingo (board and cards created by the teacher) with a paraprofessional who slowly models the enunciation of each letter in the Spanish alphabet, including ñ and ch.

To begin alphabetizing while learning handwriting, students connect the dots on the letter E, while drawing cards with words starting with E such as elefante (elephant), escritorio (desk), and examen (exam), and illustrating these items on the page.

For fluency, and comprehension, students work at Listening Centers, where they hear an oral story about an elefante, one of the vocabulary words they learned in the centers. Some are at the Library Center, where visual learners can pick a Spanish book and read it only, and auditory learners can listen to an audio version (recorded by the teacher) as well.

In the science area, a poster of a Caribbean beach serves as background to an activity entitled Fui al mar [I went to the sea], which provides an opportunity for children to use content-rich non-fiction text while recording their observations of shells in small science journals (cuadernos de observaciones de ciencias). Science is also taught through dramatic play in an area decorated as an animal hospital where children learn about animals while pretending to care for them. Every week, materials and activities change.

3.3.4. Students are supported in two languages

Both schools offer differentiated instruction to address students’ strengths and challenges. Bilingual instructional leaders responsible for administering assessment batteries in English and Spanish (e.g., Woodcock-Johnson) are experienced at discerning learning challenges versus insufficient language skills. School staff believes that when interventions are targeted in the language that needs support, referrals to special education are reduced. Thus, in addition to the differentiation that each teacher is trained to provide to address students’ different learning styles and challenges, both schools support students in Spanish as needed. At the Hurley, a part-time Spanish-speaking interventionist and Spanish-speaking specialists (e.g., librarian and instructional technology) trained in Reading Recovery support Spanish speakers. At the Hernández, a bilingual special education teacher and a bilingual therapist were recruited with grant funding.

3.4. Culturally Affirming Curriculum and Instruction

The study unveiled multiple examples of culturally affirming practices embedded in many aspects of school organization, from the Hernández mission statement to rules governing the behavior of professional learning communities, to teacher-student interactions and curriculum materials. It is quite normative to find individualism and self-reliance affirmed in multiple levels of school functioning. Finding a strong affirmation of collectivistic values, as well as cultural beliefs and interactional norms underlying Spanish speech events is less common in English-only schools. The number of teachers in TWB who are native Spanish speakers, and the equal status given to English and Spanish, affirm the cultural norms of Spanish speakers throughout the school. Students, thus, learn to negotiate different world views as they shift between languages and teachers while moving through the grades. Evidence of cultural competence is presented below.

3.4.1. Best practice: Hernández mission reflects values associated with “educación”

The Hernández mission statement reflects the high value that the construct educación places on moral, social, and affective outcomes such as developing “courageous learners, effective communicators, and responsible students.”

La Escuela Bilingüe Rafael Hernández está comprometida a trabajar con los padres y la comunidad dentro de un ambiente de diversidad y cariño en el cual los estudiantes pueden usar el español y el inglés como herramientas constructivas de enseñanza. Creemos que los estudiantes, maestros y padres deben trabajar cooperativamente para establecer y alcanzar metas que aumenten el potencial de cada estudiante y que desarrollen alumnos valientes, comunicadores efectivos y ciudadanos responsables.

The Rafael Hernández Two-Way Bilingual School is committed to working with parents and the community within a diverse, nurturing environment in which students pursue Spanish and English as constructive tools for learning. We believe that students, teachers, and parents should work cooperatively to set and achieve goals that maximize each student’s potential and that develop courageous learners, effective communicators, and responsible citizens.

4 See below for a more extensive treatment of this term.
The distinct meanings of education and educación are amply documented in the literature (see Diez, 2012 for a brief summary).

### 3.4.2. Best practice: Cariño is an integral part of school culture

The above mission statement also alludes to cariño, which at the Hernández has been codified as an element of school culture, prevalent not only in teacher-student interactions, but also among school staff. “It just exists,” notes a first grade teacher. We show it all the time. The culture of the school is very warm. It’s why we can say hard things to each other. We always have been honest, accepting of criticism and feedback.” Etymologically related to “caring”, but also connoting love (Bartolomé, 2008), cariño has been reported as a motivating factor for Latino children in U.S. schools (see, Hondo et al, 2010; Nieto, 1998; Valenzuela, 1999). Hondo et al. (2010) argued that “Motivating students and inspiring ganas (will or desire) to achieve academically will only occur when we have educadores con cariño (with loving respect) who are willing to provide a culturally responsive education” (p. 139). Nieto (1998) has long contended that “The care or rejection experienced by Puerto Rican students in U.S. schools can have a significant impact on their academic success or failure” (p. 157). And Valenzuela (1999) also found that “Differences in the way students and teachers perceive school-based relationships can bear directly on students’ potential to achieve” (p. 62).

### 3.4.3. Best practice: Culturally informed communicative strategies

Following are two practices that exemplify speech events used by 3rd and 4th grade teachers in English and Spanish respectively for giving directions to students. While the English teacher encourages students to take a line of action through questions, the Spanish teacher does so through soft, lovingly (cariñoso) expressed directives. Both are kind and nurturing, but they use different formulations. Soft commands have been represented as normative in Latino communities (Livas-Dlott et al., 2010). Furthermore, warm terms such as mi amor, las manitos, associated with imperatives (ayúdalo, levanta), substitute for the use of “please” in English.

#### Figure 3.2: Prompting Pro-Social Interactions in English and Spanish

<table>
<thead>
<tr>
<th>Prompting pro-social interactions in English</th>
<th>Prompting pro-social interactions in Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>— What do you do if you see someone who doesn’t have a partner?</td>
<td>— Mi amor, ayúdalo (Help him, my love/dear).</td>
</tr>
<tr>
<td>— When someone is speaking, where should you look?</td>
<td>— Levanten las manitos (raise your little hands, manitos being a warm diminutive for las manos, hands).</td>
</tr>
</tbody>
</table>

Speech events like these send a strong message affirming the cultural norms underlying instructional practice in English and Spanish. They also teach elements of communicative competence for giving and receiving directions in English and Spanish that students can then apply on their own.

### 3.4.4. Best practice: Spanish materials affirm Latino immigrant identities

Mrs. Delgado is a veteran teacher at the Hernández, and a source of ideas about quality curriculum materials in Spanish. Her selection of Spanish materials, however, is not random, but closely tailored to the specific population of native Spanish speaking students at the school. “When I look for materials in Spanish, I think of my students. They are mostly from the Dominican Republic, and also Puerto Rico, El Salvador, Guatemala, and a few South American countries” says Mrs. Delgado. “I also take into consideration that often, literature from Spain and Latin America depicts families like my students’ in a negative light, and I avoid using it,” she adds, emphasizing her critical approach to selecting Spanish literature.

One of Mrs. Delgado’s favorite recommended readings is Esmeralda Santiago’s Las Mamis (written in English, with Spanish code-switching reflective of the language spoken in immigrant communities in the U.S.). A Puerto Rican author who grew up on the island and moved to the mainland at age 13, Santiago has written extensively about her life experiences in the U.S. Las Mamis is an anthology of short stories in which Latino authors remember their mothers.
3.4.5. Best practice: Bilingual teacher encourages self-reliance

Ms. Smith’s first grade students at the Hernández are working within the Writers Workshop framework, writing and illustrating a short story which they will later self- and peer-edit. As the teacher moves between tables, checking student work, a native Spanish speaker asks about a word spelling. Ms. Smith fosters self-reliance by encouraging the student to consult the word wall posted above the blackboard, and provides a long broom handle so the student can point to the word and then sound it out. It is only the first week of school, but each letter already has a list of student-generated words beneath it. The word wall is dynamic and student generated needs. An excerpt of the word wall is included below:

<table>
<thead>
<tr>
<th>Aa</th>
<th>Bb</th>
<th>Cc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Am</td>
<td>Big</td>
<td>Came</td>
</tr>
<tr>
<td>and</td>
<td>Boy</td>
<td>Can</td>
</tr>
<tr>
<td>Ate</td>
<td>Brother</td>
<td></td>
</tr>
</tbody>
</table>

3.4.6. Best practice: Music teacher examines cross-cultural use of the term “American”

In aligning music with ELA/SLA, Ms. Alvarez reports spotlighting different views of the term “American” within “the Americas” (the term used in Latin America to refer to the Caribbean, North, Central, and South America). From a Latin American perspective, Ms. Alvarez points out, the term America refers to what in the U.S. is known as the Western Hemisphere. “Donde queda este pais que se llama America?” (Where is this country called “America”? ). Cuando les pregunto en español de qué pais son, si me dicen America no me están respondiendo la pregunta. América es el nombre de un continente, no un pais. (When I ask you in Spanish what country you are from, if you say you are “American” you are not answering my question. America is the name of a continent, not a country). Si naciste en Estados Unidos eres un estadounidense, no un americano. América es el continente. Todos somos americanos. (If you were born in the U.S., you are a U.S. citizen, not an “American.” “America” is the name of the continent. We are all American).

In conclusion, one question arising from this study for schools and the District to consider moving forward is whether two-way bilingual and other dual language schools in the District should use the same curriculum and materials. Given current budget limitations, and the ongoing need to supplement high-quality, appropriately leveled materials in Spanish, it might be efficient to adopt the same Spanish curriculum and assessments throughout the District. This line of action may increase opportunities for teacher collaboration across schools, and thereby reduce their workload. Other reasons for increasing cross-building collaboration include: a) engaging in joint professional development to learn instructional innovations such as bridging and paired literacy; and b) sharing the wealth of experience in TWB curriculum and instruction that already exists in the District, including communicative practices that affirm elements of Latino identity such as educación and cariño at a time of high stakes testing and data-driven instruction. In fact, the sheer existence, side-by-side, of different cultural norms and communicative styles in TWB programs creates opportunities for building curriculum units that focus on a contrastive analysis of adult-child and teacher-student relationships across cultures.

4. Professional Development

As mentioned in section 1.6 above, reflection and collaboration are hallmarks of successful TWB programs. Thus, a considerable amount of professional development time—e.g. common planning time, weekly staff meetings—during the school year is dedicated to this effect. Both the Hurley and the Hernández have promoted formal and informal mechanisms for fostering professional learning communities (PLC).

4.1. Best practice: Questions for reflection in professional learning communities

In SY2011-12 the Hernández interim principal, Ms. Campanario, developed a list of self-evaluative questions (see Box 1.2 below) for specifically pertinent to TWB goals) for teachers to use twice a month throughout the school year for discussion in professional...
learning community (PLC) meetings. Reflection was reported as useful for encouraging teacher self-assessment and goal setting.

Box 1.2. Maria Campanario’s Questions for Reflective Practice

- How do your displays (bulletin boards, word walls, etc.) demonstrate rigor, alignment to CCSS, WIDA, and NORMAS?
- What instructional strategies do you use in class to ensure that all students meet or exceed performance targets set forth by CCSS, WIDA, NORMAS?
- Who are your ELLs? ELD levels of your ELLs? How are you meeting ESL needs (if you have ESL certification)? How are you meeting their English language development needs (if you have completed Category PD)?
- Who are your Spanish as a Second Language Learners? What are their levels in Spanish? How are you meeting their needs in Spanish language development?
- Your greatest instructional strength/challenge? How can you work on challenges without compromising strengths?
- Do you provide clear objectives for your students?
- What is the focus of classroom discussions?
- How do you evaluate learning each day for each student?
- Are your class discussions focused on how knowledge has been created or on the learner and the purpose of the learning?
- Do you challenge your students to do their best by creating a climate of caring and trust?
- How do you engage with academic language daily in your classroom? How do your students use academic language daily?
- What data do you find most useful? How are you using it to inform instruction?
- How is thematic, interdisciplinary instruction integrated in your classroom?

4.2. Best practice: Reflective review of language policy

During the period of transition in leadership at the Hernández, the Interim Principal launched a process of self-evaluation and reflection guided by an out-of-District expert on implicit and explicit language policymaking. Everyone at the school, from instructional leaders to administrative staff, participated in two days (10 hours) of professional development (PD) that involved several steps. The first was self-assessment (teachers wrote down their own understanding of implicit language policy as well as estimates of language use throughout the school day). Next, the Instructional Leadership Team (ILT) developed a teacher questionnaire and a walk-through observation protocol to assess actual practice. Discrepancies between self assessments and actual practice were used for reflection as a learning community, which raised awareness of myriad small decisions about language use teachers and staff make outside the classroom—e.g. hallways, lunch breaks, and recess—and why those decisions were made. Upon recounting the exercise, one teacher said, “You need to prevent yourself from switching languages…. I tell them [students] Hoy es en español (Today we speak Spanish).”

4.3. Best practice: Reflecting on the value/meaning of Spanish benchmarks within the school

Ms. Soto also argued that the equal affirmation of English and Spanish requires countering societal pressure to perform in English only, which can and does penetrate into the school. At the time of data collection, the Hurley was developing Spanish language benchmarks for Spanish learners. The benchmarks were released to teachers for grading, aligning report cards, increasing student support, and strengthening the instructional core in Spanish.

As the examples cited above indicate, professional development to support reflective practice was particularly ingrained in the fabric of both schools and ultimately had an impact on the equitable representation of both languages and cultural heritages. TWB schools and programs are in reciprocal interaction with an English-speaking social context where English is the language of access and success. They constantly struggle with giving Spanish an equally high status within the

7 The term “dual language” was used indistinctly with “two-way bilingual” in Boston at the time.
building. One way to handle this challenge is by reflecting and building awareness about practices that support and/or undermine the use of Spanish, both in classrooms and within the building as a whole.

5. Promoting Family Buy-in to Reduce Attrition

The need to hire personnel equipped to welcome and work with a wide range of families in the school community (see section 1.7. in this chapter), as well as the potential contributions that parents can make to grow the school (see best practice 1.5.4. in this chapter) have been discussed already. This section highlights the additional benefit that parent engagement may have for retaining families for at least five years, which the literature presents as a requirement for successful development of proficiency in Spanish as well as English.

TWB administrators report that Boston parents initially agree with the premise of learning in two languages, yet succumb to opportunities to transfer to out at different points in a student’s school trajectory and for different reasons (aside from the usual causes of mobility observed in the District). For example, low performance on the third grade MCAS tests may motivate immigrant parents to move their children to English-only schools. Successful fourth grade students may move out for Advanced Work Classrooms (AWC). In seventh grade, successful students may enroll in Boston’s exam schools. Although attrition is expected in any school, in TWB schools it has a greater effect as students cannot be easily replaced after the second grade if they do not demonstrate the skills and motivation to learn the second language. A rule of thumb in the District has been to test students’ ability in both of the school’s languages when they seek enrollment after the second grade. Currently, schools can accept ELLs who are Spanish speakers more easily than native English speakers with insufficient Spanish skills. Thus, attrition threatens not only the number of students at the school, but also the integrity of the TWB model.

Countering attrition, however, is a phenomenon beyond the control of individual school leaders. Schools and even the District exist in a larger social context. If biliteracy is not well understood and valued in the larger social context, parents’ commitment to stay in TWB schools may falter when they are faced with choices to pursue better established pathways (e.g. AWC) for enhancing college access and scholarship opportunities. One way to recognize the rigorous, additional work of students in TWB programs, as well as the benefits of biliteracy to individuals and the state has been to institute a “Seal of Biliteracy.” Both New York and California award this insignia to high-school graduates who demonstrate a “high level of proficiency in speaking, reading, and writing one or more languages in addition to English [including American Sign Language].” (California Department of Education, 2012). Currently, a legislative initiative to create a similar award in Massachusetts has been introduced at the State House.

At the District level, on the other hand, the impetus to open new two-way bilingual schools constitutes in itself a first step toward creating a larger critical mass of TWB programs and resources. Another useful initiative at the District level would be to provide intensive summer institutes for native English speakers wishing to transfer to TWB schools after the second grade. Last but not least, strengthening existing mechanisms for collaboration across buildings—e.g. the Dual Language Network—might also contribute to increasing the visibility of TWB programs within the District and the state.

To wrap up this chapter, the examination of best practices at two fully rolled out TWB programs has highlighted the breath of experience that already exists in the District, and the District’s eagerness to better understand and support TWB education. By taking this first step, OELL begins to change the context in which TWB programs operate to make it more positive and supportive of bilingualism, biliteracy, and cross-cultural competencies, especially when TWB programs are implemented with a view to increasing educational equity in the District.

Yet, much remains to be done at the District and state levels. One message to take away from the best practices observed in TWB schools is the importance of collaboration, not only within the schools but also across buildings in the District, and possibly the state. Strengthening mechanisms for collaboration such as the Dual Language Network is a significant and attainable next step toward solidifying contextual support and learning from TWB bilingual programs. This and other recommendations for the planning, launching, and continued implementation of TWB programs in BPS are presented in Chapter 4.
Implementing and attaining the goals of two-way bilingual (TWB) education—bilingualism, biliteracy, and cross-cultural competencies—in a climate of high expectations and educational equity requires considerable planning, specialized personnel, and commitment from the entire school community. This chapter presents features of two-way bilingual programs that are required to attain the three goals mentioned above, as well as guidelines and recommendations with general directions and specific examples of practices that support the two-way bilingual model. The main purpose is to facilitate planning and implementation of TWB during the elementary grades, given that 78% of programs nationwide are located in K-5 schools.

Intertwined with the required features of TWB education is the principle of educational equity, reflected...
in current BPS policy goals for closing achievement gaps\(^\text{26}\) and in the BPS Acceleration Agenda for 2009-2014.\(^\text{27}\) Key tenets of the Comprehensive Achievement Gap Plan that are aligned with TWB goals and strategies include the following: believing that all students can learn; hiring diverse and competent leaders; adopting culturally relevant teaching and learning; partnering with families and community; establishing a collaborative school culture and professional learning community; and treating staff equitably. Not only is there an affinity between the vision for two-way bilingual education and current efforts to reduce achievement gaps in BPS, there is also empirical evidence that TWB education works to this effect for all students involved. Findings from the North Carolina study by Thomas and Collier (2011), reviewed in Chapter 1, have shown that TWB education can reduce achievement gaps not only for ELLs, but also for NESs who are African-American and/or low-income. These findings are encouraging for urban Districts such as Boston’s with large percentages of ELLs, African-American, and low-income students.

The terminology used in this chapter is aimed at a lay audience. When technical terms are introduced, references to chapters and sections containing pertinent definitions and examples are included to facilitate understanding. The Glossary included immediately after the Table of Contents is also designed for this purpose. Although TWB programs in BPS are English/Spanish (as are 92% of programs nationwide), and although most research on TWB has been conducted on English/Spanish programs, the generic term “partner language” is used in this chapter to acknowledge the possibility that programs in which English is paired with other languages spoken in BPS may also be launched in the future.

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Guideline 1.2. Once the school community has piloted, and settled upon a language model that appears to work (language models are malleable), write a language policy that specifies how the school is meeting the minimum 50% of instructional time in the partner language (see Chapter 3, section 2). If the school separates students for initial literacy instruction by native language, specify what percentage of instructional time students of different language groups spend in integrated classrooms. A rationale for these decisions should be included.

Recommendation 1.2.1. The language policy should explicitly state how instructional time is divided by language, and demonstrate the school's efforts to provide at least 50% of instructional time in the partner language. Within this feature, there is room for variation in how language is distributed in different grade levels.

Recommendation 1.2.2. Solicit input from the parent communities when developing the language policy to ensure buy-in and support. It is imperative that parents understand that students in TWB programs are not guaranteed high levels of performance in third-grade MCAS tests. By the fifth grade, however, TWB programs should be held to the same standards as other programs for ELLs, and for native English speakers.

Recommendation 1.2.3. Involve teachers and staff in ongoing reflective practice about language use inside and outside classrooms throughout the school day. Decide what language/s will be used in hallways, recess, and lunch-time as well as in parent communications and after-school activities. Aim at making teachers and staff aware of implicit language usage.

Recommendation 1.2.4. Consider including rules for family engagement in the language policy. These rules could include the timely release of materials of equal quality in two languages; outreach strategies to engage families with diverse expectations about school involvement and parent-teacher collaboration; and explicit mechanisms for managing parental concerns.

Recommendation 1.2.5. Consider including rules for language use during out-of-school time as part of the school's language policy. For example, a 50/50 language policy during the school day can be prolonged to out-of-school time through partnerships with community organizations staffed by speakers of the partner language who are trained to support the work of the TWB school day.

Recommendation 1.2.6. Fidelity to language model/policy is necessary for quality implementation. Use the language policy as an accountability tool—i.e., to determine whether the program is being implemented as planned, how it is working, and what needs to be done differently. At least once a year, review the language policy and adjust it as necessary in response to these questions (and to changing student needs). The rationale for any changes in the language policy should be carefully documented.

Guideline 1.3. Principal and instructional leaders (TWB coordinator, assistant principal, director of instruction, literacy coaches) should be experienced in implementing the language model of choice, and capable of problem solving day-to-day challenges to its faithful implementation.

Recommendation 1.3.1. Schools that are converting to TWB should hire at least one experienced full-time instructional leader who knows the language model well upon program launch, and should re-train existing bilingual staff to deliver TWB education. Depending on the amount of expertise on TWB existent at the school, the new program may need oversight and support from expert consultants.

Recommendation 1.3.2. The principal and/or full-time TWB instructional leader should have the capacity to address and resolve day-to-day issues relative to implementing the school's specific language model. This should encompass all areas of school functioning, from curriculum and instruction to assessment, professional development, staffing, family/community engagement, and budget.

Recommendation 1.3.3. The principal and/or full-time TWB instructional leader should set in place school-wide practices that explicitly and implicitly affirm the equal status of both languages in the building. Consider for example, how to use classroom displays of student work, postings of the school's core values throughout the building, and student work in hallways to show equal apprecia-
tion and equally high expectations for student work in English and the partner language.

**Recommendation 1.3.4.** TWB instructional leaders should engage in ongoing advocacy for TWB education with District departments, families from the school’s multiple communities, teachers, staff, and community partners. Try to unite the entire school community behind the TWB mission and vision.

**Recommendation 1.3.5.** TWB instructional leaders should know how to create a culture of collaboration within and across school buildings. Work with relevant District departments, members of the Dual Language Network, the School Committee, external partners, and funders to improve practice and maximize resources.

**Second Required Feature:** The TWB program is of high quality, curriculum is aligned with standards, instruction is data-driven, and changes in achievement gaps are closely monitored.

**Guideline 2.1.** Adopt high-quality curriculum materials and instructional shifts aligned with state standards in English and, if available, in the partner language. Materials in English and the partner language should be of the same quality, authenticity, and academic complexity.

**Recommendation 2.1.1.** Adopt the six instructional shifts proposed by Common Core State Standards (CCSS) for ELA (English Language Arts) as well as WIDA English and Spanish language development standards.

**Recommendation 2.1.2.** Site-based instructional leaders should proactively generate quality materials in the partner language by collaborating with the BPS Office of Curriculum and Instruction and with publishers and by searching for resources online.

**Recommendation 2.1.3.** Adopt high-quality curriculum and assessments in two languages, and establish mechanisms for sharing curriculum materials vertically within the building and with other schools in BPS and the state.

**Recommendation 2.1.4.** Move the Dual Language Network into the digital age by creating a website, starting with online interactive forums and blogs, and moving toward a systematic structure for sharing best practices in curriculum and instruction across school buildings.

**Guideline 2.2.** Staff the school with highly qualified instructional leaders and teachers, and make provisions for their ongoing development.

**Recommendation 2.2.1.** Hire biliterate teachers with strong academic skills in the language(s) they teach, along with competencies, knowledge, and skills aligned with those summarized in Chapter 2 (Figure 2.3).

**Recommendation 2.2.2.** Train teachers to use the latest instructional strategies for TWB classrooms (see Chapter 2, Figure 2.5 for an example of “bridging”).

**Recommendation 2.2.3.** Train teachers to promote a variety of peer collaboration formats that facilitate language exchanges using both academic and social language, especially in the partner language.

**Recommendation 2.2.4.** Do not assume that all teachers have equal expectations for all students. Work on eliciting implicit beliefs about student ability in non-judgmental ways, and on raising awareness about how different expectations may manifest in the classroom.

**Recommendation 2.2.5.** Train teachers to differentiate instruction to address the learning needs of children with different levels of bilingualism and different expectations about student-teacher relationships.

**Guideline 2.3.** Allow time for teacher collaboration for horizontal curriculum alignment across language of instruction and for vertical articulation.

**Recommendation 2.3.1.** Hire and train teachers to work collaboratively to align curriculum in two languages from day to day and week to week, to discuss student differentiation needs, and to work in professional learning communities. See Chapter 2, section 3.2 for “bridging” strategies that can be used for transitioning between languages within the same unit.
Recommendation 2.3.2. Give grade-level teams enough common planning time to update each other on instruction completed in each language, student progress, and differentiation strategies.

Recommendation 2.3.3. Create opportunities for teachers to meet and collaborate on vertical curriculum articulation from Grades K through 8, especially in the partner language. Spanish teachers can use this time to share and adapt best practices for use across grade levels.

Guideline 2.4. Assessments in English and the partner language should be aligned with each other, with standards, and with tiered interventions in English and the partner language for struggling students. Student data should be disaggregated by language, race, and income.

Recommendation 2.4.1. Consider adopting Spanish Language Arts standards aligned with CCSS such as NORMAS, as well as assessments aligned with WIDA (e.g. SALSA) standards for English and Spanish language development.

Recommendation 2.4.2. Tailor data-driven interventions in English and the partner language to student needs in the native or second language; they should be delivered by interventionists trained to work at different tiers in each language.

Recommendation 2.4.3. Train teachers to analyze assessment data in two languages, and engage in data-driven instruction that recognizes language transference.

Recommendation 2.4.4. Schools should have resources to hire intervention specialists in each language of instruction, and to hire bilingual speech pathologists if not available from the District.

Recommendation 2.4.5. Schools should maintain records of student outcomes disaggregated by native language/s, race, and income, in order to monitor achievement gaps within each school, and in comparison with BPS students who are not in TWB programs.

Recommendation 2.4.6. Schools should collaborate with OELL to identify additional data coding needs for students in TWB, and for the continued measurement of achievement gaps by SES, race, gender, and native language/s.

Guideline 2.5. Partnerships with out-of-school-time services should be strategically selected to support students’ learning needs pertaining to language and culture, as well as physical and mental.

Recommendation 2.5.1. Make the school’s coordinator of community partnerships part of the Student Support Team to facilitate identification of relevant after-school services.

Recommendation 2.5.2. Structure after-school-time opportunities to supplement the more academic nature of interactions in the classroom.

Third Required Feature: Roughly equal numbers of native English speakers and native speakers of the partner language participate, so that each group makes up about 50% of the total student population (with some flexibility—Thomas and Collier, 2004, argue that a 70:30 distribution still provides the benefits of two-way immersion).

Guideline 3.1. Schools, OELL, and student intake centers should agree on language coding procedures to adapt to changes in the student population, which may account for more simultaneous bilingual children entering TWB schools now than a decade ago.

Recommendation 3.1.1. Conduct a demographic analysis of entering students who are simultaneous bilinguals, and develop strategies for adapting the TWB model to incorporate such students.

Recommendation 3.1.2. TWB programs should be rolled out with enough students to prevent attrition from undermining program viability in the upper elementary grades.

Recommendation 3.1.3. Work with the District to adopt uniform screening mechanisms to determine late-entrant (after Grade 2) ability to successfully participate in TWB education. Once admitted to the program, late entrants should be given necessary support in the second language to perform at grade level.
Fourth Required Feature: In order to obtain the full benefits of TWB, students are encouraged to remain in the TWB program for a minimum of five years, and preferably for six to eight years.

Guideline 4.1. The TWB instructional leader should take on the role of main spokesperson for the TWB program, building trust in the program among diverse groups of families.

Recommendation 4.1.1. The school should provide complete and accurate information about the language model, historical student outcomes, benefits and risks of TWB education, and family engagement expected for student success.

Recommendation 4.1.2. Ensure that families receive such information prior to enrollment, and throughout a student’s school trajectory. Families must understand that if students withdraw from TWB before a minimum five-year period is completed, proficiency in the L2 is not guaranteed.

Recommendation 4.1.3. Educate all the families, and the greater community, about the benefits of bilingualism and the need to master the partner language, both academically (in order to access content) and socially (for day-to-day communication).

Recommendation 4.1.4. Educate Spanish-speaking students and families (or students and families who speak other partner languages) and the greater community about the benefits of native-language preservation together with instruction based on close monitoring and support for the attainment of English acquisition benchmarks.

Guideline 4.2. TWB instructional leaders should work with OELL to strengthen mechanisms for encouraging families to honor a five-year minimum commitment.

Recommendation 4.2.1. Formulate orientation procedures for new families applying to TWB programs, according to Guideline 4.1 above.

Recommendation 4.2.2. Review procedures for ongoing communication with families about student and program outcomes.

Recommendation 4.2.3. Review available measures for encouraging families’ expressed commitment to remain in TWB for at least five years.

Guideline 4.3. TWB instructional leaders should ensure that the school is adequately staffed (and that staff is trained) to engage families in both of the school’s languages, and in culturally appropriate ways.

Recommendation 4.3.1. Consider hiring a fully bilingual, biliterate (preferably with good translation skills) administrative assistant to work in the school’s main office.

Recommendation 4.3.2. Consider hiring and training bilingual, biliterate parent liaison staff to communicate equitably with all families in the school’s two languages, and especially with the school’s more vulnerable families.

Recommendation 4.3.3. Instructional leaders should take personal responsibility for informing/educating all families about opportunities for educational advancement as soon as they become available.

Recommendation 4.3.4. Instructional leaders should take personal responsibility for welcoming and working with all families as strategic partners.

Recommendation 4.3.5. TWB instructional leaders across K-8 schools in BPS should work with the Margarita Muñiz Academy (Grades 9-12) to establish a K-12 pipeline of high-quality TWB programming.
**Fifth Required Feature:** Native English speakers, native speakers of the partner language, and simultaneous bilingual students are integrated for at least 60% of instructional time (ideally more) at all grade levels.

**Guideline 5.1.** Students should have early opportunities to learn each other’s languages and use them for communication

**Recommendation 5.1.1.** Consider adopting a language model that facilitates early and full integration (e.g. the 90/10 model) of students with different native languages.

**Recommendation 5.1.2.** Consider training teachers to use culturally relevant materials, and to differentiate instruction and assessment to fit different cultural belief systems and styles in the classroom.

**Recommendation 5.1.3.** Engage teachers in targeted exercises to elicit awareness of their own culturally based beliefs and behaviors, and to consider ways in which they can explain them to students.

**Recommendation 5.1.4.** Work to unify the school under a pluralist, integrationist ethic whereby students’ home culture is valued and used for educating all students on cross-cultural competencies.

**Recommendation 5.1.5.** Aim to accustom students to navigating and bridging between cultural contexts as the language of instruction shifts.

**Guideline 5.2.** Instructional leaders and teachers should be trained to reflect critically about their interactions with diverse students in integrated classrooms.

**Recommendation 5.2.1.** TWB instructional leaders and teachers should be trained to monitor inequitable student expectations, and to seek training in areas of need.

**Recommendation 5.2.2.** TWB instructional leaders and teachers should be trained to reflect critically and ensure that all students have equally meaningful and demanding opportunities for classroom participation in both languages.

**Recommendation 5.2.3.** Teachers should validate students’ “code switching” and use it to develop metalinguistic awareness.

In conclusion, readers will note that all five required features of TWB include components that promote equity: from the equal teaching and affirmation of two languages, to high expectations aligned with standards, to an integrated student body. The model is designed so that native English speakers and English Language Learners act as experts when their native language is taught, which equalizes the academic status of all students. One issue that challenges equity is the mobility of high-achieving students to Advanced Work Classrooms outside of TWB schools, and eventually to Boston’s exam schools. To preempt this phenomenon, it is important that TWB schools maintain high levels of rigor and expectations until Grade 8. The District, and OELL in particular, can play a significant role facilitating the recruitment and training of highly qualified teachers, as well as ongoing advocacy with the school’s parent communities. Incentives should be created for students to remain in TWB programs through middle school, and eventually attend the Margarita Muñiz Academy, as an alternative to advanced work and enrollment in exam schools. Thus, collaboration between OELL and the TWB schools beyond the scope of this study is essential for establishing more TWB programs and ensuring that they thrive. In other words, an additional, underlying requirement for the effective implementation of TWB is that OELL actively summons the resources to support it.
This study has focused on identifying required features of TWB programs and the practices that support them. The crucial role that bilingualism and biliteracy play in promoting student outcomes in English puts language at the center of curriculum, instruction, assessment, and school organization. Because, in the U.S. historically, bilingualism has not been a highly desired educational outcome, the first challenges to full implementation of two-way bilingual programs are posed by the teachers, students, and families involved in them. The constant pressure to master standardized tests in English only can erode confidence in the program. For this and other reasons, effective TWB leaders not only must have the same qualities as other school leaders, but also must be strong program advocates. They must constantly advocate for the strength of their program, to retain students and families, and secure adequate community support. A second overarching theme is the tension between adhering to required features of TWB while allowing flexibility to adapt to different student bodies, as well as different degrees of parental and community support. Flexibility, thus, must be used judiciously to stay within the bounds of the program's required features. It is up to OELL and programs to decide how to label and how to proceed in schools where programs develop characteristics that are still language-additive but do not fit the TWB designation. One option is to allow TWB programs to drift into other additive dual language program formats (as long as they remain within the dual language umbrella) and adopt designations that accurately reflect their altered format. Some possible alternatives are developmental bilingual, heritage, and foreign language immersion programs.

Closely linked to the faithful implementation of TWB are practices that support educational equity. Well implemented TWB programs are paragons of instructional practices that build upon students’ existing linguistic and sociocultural strengths. In TWB education, adding a second language requires affirming and building upon students’ existing linguistic and sociocultural strengths. TWB education also provides equal opportunities for English Language Learners to serve in leadership roles within integrated classrooms, on a par with native English speakers. In TWB programs that recruit and/or train highly qualified staff, teachers are capable of delivering a standards-aligned curriculum in two languages, and staff is capable of engaging families in culturally relevant and sensitive ways, while also recognizing their uniqueness.
Finally, collaboration across school buildings, with District support, is another hallmark of TWB education. This study is, in itself, a collaborative effort between a university, a local educational agency, two schools, and at times all members of the Dual Language Network. It is expected that the seeds have been planted for OELL, the Dual Language Network, and TWB programs to build upon this collaboration. In fact, at the close of this study, it was possible to discern an agenda for further collaboration on a few fronts:

- Adapting CCSS, SALSA, and other WIDA standards to the needs of TWB.
- Identifying economies of scale to be attained by working as a group with publishers and with providers of professional development.
- Agreeing on shared professional development needs that could be addressed through a joint Dual Language Summer Institute.
- Considering mechanisms for increasing the availability of highly qualified TWB teachers, both by increasing hiring flexibility (facilitating the professional advancement of existing personnel, including para-professionals) and by developing pipelines for teacher training with Schools of Education and World Languages Departments at local universities.
- Considering the development of a website for TWB educators and families in BPS. Such a website could provide access to the following: low-cost webinars by experts; latest research on TWB; resources for planning, launching, and evaluating TWB programs; the growing body of electronic curriculum resources in Spanish (and other partner languages whenever available); technical assistance websites; and research institutions specializing in TWB. Such a website could be used for sharing resources among TWB practitioners in BPS.
- Considering the role of the Dual Language Network as advocate for TWB, both within BPS and at a state level, as well as a mechanism for sharing best practices among practitioners in BPS.

In short, there is much more work to do to solidify two-way bilingual education in Boston. As OELL prepares to launch new programs, the Boston dual language community could gather to strategize about staffing issues. These could include: how existing bilingual teachers in District schools might be re-trained for staffing TWB programs; how Human Resources might tighten definitions of bilingualism for new job applicants to facilitate the recognition of bilingual and biliterate personnel capable of working in TWB programs; and how to ensure that there is enough expertise within the schools, and in the District, for sustaining effective new programs. Needless to say, not all the work at the District level falls within the strict realm of OELL. Some may involve other departments (e.g. Office of Instructional & Information Technology, Office of Curriculum and Instruction) or may be subject to the District’s April 2012 Successor Settlement Agreement with the U.S. Department of Justice. In fact, this study points to the interdependence of all aspects of TWB programs, and the districtwide support needed for their effective implementation.
References


Main Finding: Across both years of the study (2009, 2010), students in two-way dual language programs performed significantly higher than students not in dual language programs. When analyzing subgroups, all students in two-way dual language programs performed better or equivalent on the state achievement test than their counterparts not in dual language programs from grades 3-8. In many instances, students in two-way dual language programs outperformed students a grade above who were not in two-way dual language programs.

Main Finding: The two subgroups which showed the largest test score gap were LEP and NES-Black students. Across both years, both LEPs and NES-Black students in two-way dual language programs showed the largest gain over their peers not in two-way dual language programs. (The authors found similar outcomes among low-SES students, although they did not disaggregate SES by LEP status or race). Figures A.1 and A.2 below show the consistent outperformance of LEP and NES-Black students in two-way programs as compared to those not in two-way programs, across all grades.

Figure A.1: 2009 North Carolina End-of-Grade Reading Achievement of Current ELL Students in TWB (Dual Language) Programs Compared to Current ELLs Not In TWB (Dual Language) Programs

Figure A.2: 2009 North Carolina End-of-Grade Reading Achievement of NES African-American Students in TWB (Dual Language) Programs Compared to NES African-American Students Not In TWB (Dual Language) Programs

APPENDIX A—Additional End-of-Grade Reading Achievement Figures from Thomas & Collier (2010)
National Organizations, Consortia, and Research Institutes:

**Center for Advanced Research on Language Acquisition (CARLA) [http://www.carla.umn.edu/](http://www.carla.umn.edu/)**

CARLA, housed at the University of Minnesota, is one of the U.S. Department of Education’s Title VI National Language Resource Centers providing resources and programs for second language teaching, learning, and assessment. This extensive website provides information and resources for all second language acquisition including, but not limited to TWB or Dual Language education. The website contains information on research and programs on topics including articulation of language instruction, assessment of second language, content-based language instruction, culture and language learning, immersion education, learner language, Less Commonly Taught Languages, study abroad, technology and second language learning and more. Additionally, the website gives information on professional development opportunities including summer institutes for teachers, upcoming conferences, workshops, and CARLA Fellow Programs. The website also has links to current publications and working papers, as well as bibliography of relevant publications.

**Center for Applied Linguistics (CAL) [http://www.cal.org/topics/ell/immersion.html](http://www.cal.org/topics/ell/immersion.html) and [http://www.cal.org/twi/index.htm](http://www.cal.org/twi/index.htm)**

CAL has a variety of resources for researchers and educators interested in two-way bilingual programs, including: implementation toolkits and FAQ; guidelines and numerous other publications; TWIOP; research bibliographies; free downloadable research digests; e-Bulletin; national online directory of two-way bilingual programs. CAL offers technical assistance, professional development, and evaluation services to schools and Districts in the planning or implementation stage.

**National Association for Bilingual Education (NABE) [http://www.nabe.org](http://www.nabe.org)**

NABE is a national organization dedicated to representing both English language learners and bilingual educational professionals. The NABE website has information on the annual NABE conference, advocacy information and resources relating to language-minority students. Advocacy resources focus on budgets, legislation, partnerships, NABE language policy, action alerts, and links to other advocate organizations. The website also includes links and information on NABE publications, include NABE Perspectives, the Bilingual Research Journal, and NABE Journal of Research and Practice. Prospective members join NABE through the website. The NABE website provides a page dedicated to updating breaking news related to ELLs and new job opportunities. Finally, the NABE website hosts the NABE Marketplace, which allows users to post and search for various classroom materials, certifications, educational advancement opportunities, technology, and testing materials.


The National Dual Language Consortium is an organization comprising of the Center for Advanced Research on Language Acquisition, the Center for Applied Linguistics, Dual Language Education of New Mexico, Illinois Resource Center, and 2-Way CABE (now ATDLE) and researchers Kathryn Lindholm-Leary, Fred Genesee, and Liz Howard. These five non-profit organizations and three researchers created the consortium in order to disseminate research, provide training, and expertise on dual language programs. The website provides useful definitions on what determines a dual language program, as well as the various types of dual language programs. The website also has links to the
websites of the participating organizations and researchers, as well as links to other resources pertaining to dual language education.

**The Association of Two-Way and Dual Language Education (ATDLE):** http://atdle.org/

ATDLE (formerly Two-Way CABE) is a new national organization that provides technical training and programmatic support to new and existing two-way bilingual immersion and dual language programs throughout the United States. The website contains information on the annual national two-way bilingual immersion summer conference, provides technical support (Coaching Support System), and resources for program implementation and development. The website is still being developed.

**State Agencies & Associations:**

**Massachusetts Association for Bilingual Education (MABE):** http://www.massmabe.org/

MABE is a professional non-profit organization of individuals whose purpose is to promote bilingualism and multiculturalism as assets that provide cognitive, social, emotional, educational, and employment advantages for all students. Dual language resources and advocacy work are posted on the website. MABE hosts an annual conference for dual language educators in southern New England.

**California Department of Education’s Two-Way Immersion:** http://www.cde.ca.gov/sp/el/ip/index.asp

The California Department of Education has a website dedicated to two-way immersion programs. The websites provide a detailed overview of two-way programs in California along with key statistics on enrollments, funding, and languages taught. The website has a link to a directory of all the TWB programs in California. Finally, the website includes links to important resources pertaining to research, implementation, and programs for two-way language immersion programs.

**Dual Language Education of New Mexico (DLENM) http://www.dlenm.org**

Dual Language Education of New Mexico is a non-profit organization that provides resources for communities in New Mexico that wish to develop, refine, and/or implement dual language programs. The website provides program development information with definitions of dual language education, information and useful links for parents, educators, and administrators, curriculum alignment plans, dual language guiding principles, and information for schools. Additionally, the website includes professional development resources including information on program retreats for dual language educators and links to various workshops, projects, and centers. The DLENM website contains current research on or relating to dual language education. Finally the website has advocacy opportunities, dual language classroom instruction, and current research on dual language education.

**Illinois Resource Center (IRC) http://www.thecenterweb.org/irc/index.html**

The Illinois Resource Center is an intermediate service agency, which through support from the Illinois State Board of Education, provides educational and professional development programs for educators working with English language learners in Illinois and nationally. The website contains information on requesting assistance from the IRC in the following areas: Assessment & Evaluation, Cultural Diversity, Instructional Strategies, Program Development & Improvement, Resources & Materials, and Special Education. The IRC website also has information on professional development opportunities including courses, workshops, and events on reading courses, ESL methods, and dual language program development. The website includes an extensive list of links pertaining to IRC resources, national organizations, Illinois organizations, instructional strategies and techniques, research articles and publications, curricula and lesson plans, and multicultural literature sites.
The Dual Language Teacher Training Curriculum (Dual U): http://www.dualu.org

The Dual Language Teacher Training Curriculum is an eight-module curriculum developed by the Illinois Resource Center, designed to assist elementary and secondary teachers and administrators in developing, implementing, and assessing dual language programs. Use of the modules requires a subscription through the Dual U website. The modules include: Foundations and Critical Features, Program Development and Implementation, Oral Language and Literacy, Cross Cultural Learning, Teaching Content, Assessment, Curriculum Development and Model Lessons, and Advocacy.

Conferences on Two-Way Bilingual/Dual Language Education:

- NABE Two-Way Pre-Conference Institute (February)
- MABE Southern New England Regional Dual Language Conference (Spring)
- ATDLE National Two-Way Bilingual Immersion Summer Conference (July)
- DLeNM La Cosecha Dual Language Conference (November)

Additional websites with research and information on Two-Way Bilingual/Dual Language Education:

Dual Language Listserv http://www.wida.us/getInvolved/

WIDA hosts a listserv for dual language educators across the country to have a space for dialogue, to share best practices, and to strategize about new policies that promote and support high quality dual language practices and outcomes. To subscribe, follow the directions on the website.

Kathryn Lindholm-Leary’s Web Site http://www.lindholm-leary.com/

Dr. Lindholm-Leary is a leading researcher in the field of culturally and linguistically diverse students, working as an advocate for two-way immersion and other bilingual programs. Her website primarily includes links to her major publications on dual language education and educating ELLs. The website has background and contact information for Dr. Lindholm-Leary and includes links to key organizations working with two-way programs.

Multilingual Mania http://www.multilingualmania.com

Multilingual Mania is an online blog that provides current research, resources, and information for parents of bilingual children, bilingual teachers, and administration of bilingual programs. The website offers resources for topics including raising bilingual children, multiculturalism, immigration, bilingual education, second language acquisition, ESL instruction, policy, and bilingual advocacy. The website allows individuals to post articles pertaining to any of the topics. The website also has a list of links to websites about bilingualism and language learning, including other blogs. The website contains an Amazon store featuring various books on bilingualism and language learning.