# Dual Language Immersion 

Response to Board Resolution: February 2015
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The purpose of this report is to provide the members of the Board of Education with information regarding dual-language immersion in response to the resolution approved on February 9,2015 . Although bolded headings are specific to the resolution, this report also includes additional information that may be helpful to the board as it considers the implementation of a dual language program.

## Program Models

The two categories of dual language models below determine the population of students enrolled in the program.

Two-way programs can be implemented in communities where there are enough native/heritage speakers of the target language to make up at least $1 / 3$ of each class section of students. Most often, these classes are half target language speakers and half English speakers. The basic premise of a twoway program is that, because the teacher does not become the sole source of hearing the second language, students receive far more linguistic input in each language than through a one-way model (explained below). Additionally, the cooperative learning that naturally happens among speakers of both languages not only facilitates language growth but also development of interpersonal skills and problem solving. For these reasons and others, the two-way immersion model is the most effective in reaching the goals of immersion education. Nonetheless, two-way programs are only possible where there are enough native/heritage speakers of the language to populate at least $1 / 3$ of the class section.

## Insights

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$\checkmark$ Dual language immersion programs have a genesis in bilingual education and are most typically found in schools and districts with high numbers of English Language Learners
$\checkmark$ Dual language immersion research indicates that over time, students demonstrate above average achievement in comparison to students in monolanguage settings (see attached)
$\checkmark$ Students in dual language classrooms receive instruction in English reading and writing and the target language reading and writing along with other subjects depending on the adopted model
$\checkmark$ Students in dual language classrooms do not receive separate World Language instruction
$\checkmark$ The NJDOE does not mandate (with the exception of Health \& PE) numbers of instructional minutes for any subject including WL
$\checkmark$ For non-immersion students, all K-5 schools have full-time WL teachers to meet the proficiency levels established by state standards and as addressed in our curricula; scheduling, implementation, and student progress are the responsibilities of the principal

One-way immersion programs are intended for students who will receive part of their instructional day in the dominant societal language (English, in our case) and the chosen target language. This program model describes most of the dual language immersion programs in the United States since many communities do not have adequate heritage populations to offer and maintain two-way programs. Attached is a detailed report issued by the Intercultural Development Research Association that highlights the goals and five key components for a successful program. The report references the work of Thomas and Collier who are viewed as leads in the field.

The five key principles as sited by Thomas and Collier are:

- Focus on core academic curriculum,
- High quality language arts instruction in both languages with use of thematic units,
- Complete separation of the two languages without use of translation or repeated lessons,
- Use a 90/10 or 50/50 model,
- Use interactive and collaborative teaching strategies.

The district's English Language Learner (ELL) population is less than 1\% of our total in-district enrollment. Therefore, the district would be providing a One Way Dual Language Program. A target language would need to be selected. The district needs to determine if this would be based on the greatest ELL concentration (Spanish) or is based on principal's choice.

Although the district's ELL population is extremely low, the number of Spanish speaking students in need of ESL services has risen over the past three years. $64 \%$ of all ELL students are in K-5 and 79\% percent of them are Spanish heritage language students.

Mandating Spanish as the target language for the immersion program would allow the district to service the needs of the ELL students within the immersion setting, thus eliminating the need for additional services provided by a separate ESL teacher. There will still be a need for an ESL teacher to service the needs of the other heritage languages, but over time, the position could be reduced.

If the district mandates Spanish and parents of Spanish heritage speaking ELL students elect to participate in the immersion program, then this will have an impact on available seats for English dominant students.

## Instructional Models

The following are the two most widely accepted models for instruction within a One Way Dual Language program. Attached are supporting documents that provide greater detail on both models.

90/10: students receive $90 \%$ of their daily instruction in the target language and 10\% in English. A single teacher who is responsible for all aspects of the curricula model provides the instruction in a 90/10 model.

|  | \% Of Daily Instruction in <br> Spanish | \% Of Daily Instruction <br> in English |
| :--- | :---: | :---: |
| K | 90 | 10 |
| 1 | 80 | 20 |
| 2 | 70 | 30 |
| 3 | 60 | 40 |
| 4 | 50 | 50 |
| 5 | 50 | 50 |

50/50: students receive $50 \%$ of their instruction in the target language and $50 \%$ in English beginning in Kindergarten. Two grade level partner teachers deliver this instruction-one is the target language teacher and one is the English teacher. Students switch classes during the day to receive instruction from both teachers.

The following illustrate the typical division of instructional time by language in a 50/50 model:


Final decisions regarding the configurations of the $50 / 50$ instructional models and the impact on building schedules will need to be determined during the planning process.

Both the 90/10 and 50/50 models are delivered within the grade level and not between grade levels. In consultation with Greg Duncan, he strongly recommends that there be at least 2 sections of students participating per grade level to ensure sustainability of the program. It has been his experience that programs that have only one class of immersion students at the grade level often lose students to normal attrition factors, thus destabilizing the program.

It has been reported that you can utilize a vertical model where there is a K-1 or 1-2 configuration. However, upon further study and in consultation with Greg Duncan, he has never seen this type of configuration, and has no data or examples of this type of model.

## Populations Served \& Number of Students to be Served

Dual language immersion classes are inclusive settings and all students would have the opportunity to enroll in the program as incoming Kindergarten students; the only limitations would be available seats.

## Parent Request to Participate

Parents would have the option of requesting that their child participate in the program. The district will need to consider the maximum/minimum number of students who would be placed in each of the two grade level classes and how this type of program within a magnet school would be managed during the registration process. The district will need to develop policy and procedures to address over-subscription, as demand will most likely exceed the maximum number of available seats.

## Parent Request to Not Participate

Parents would be able to request that their child not participate as part of the initial Kindergarten registration process. The district will need to consider how many seats will be available in the classrooms that are not participating in the dual language model at each grade level. This decision is important, as parents will have the ability to have their child removed from the program and placed in one of the available non-immersion classrooms in the immersion school should it be determined that the immersion program is not a good fit for a student. There will need to be seats available in these other sections and the district will also need to consider at what point in the year this request can be honored. Additionally, students will not be enrolled in the program if they did not begin as dual language students in Kindergarten; there are two exceptions, students who are new to the school and are heritage speakers in the target language and who possess commensurate grade-level literacy skills, and students who have been enrolled in a dual language immersion program in their previous school.

## English Language Learners (ELLs)

Students are generally identified at point of registration that are to be assessed for ESL instruction. One of the ESL teachers administers a state required assessment and if the child qualifies, then he/she is placed in one of the schools that offer ESL instruction. The two elementary schools that currently offer ESL instruction (based on staffing) are Northeast and Edgemont. This instructor splits her time between both schools and services the needs of all English Language Learners (ELLs) regardless of their heritage language.

Students who are eligible for English as a Second Language (ESL) instruction and whose heritage language matches the target language will not need separate ESL instruction if their parents select the dual language immersion program. The dual language program would meet the mandated instructional requirements for these students. Students who require ESL instruction and whose heritage language does not match the target language would not be automatically enrolled in the dual language classrooms, but would still be placed at either Northeast or Edgemont Schools.

Policy and regulations would need to be reviewed and/or created to address district enrollment and class placement within a building:

- Do siblings of students currently enrolled in the school have first rights to the available Kindergarten seats?
- How will placement be made for students who have siblings in the buildings, but do not want to participate in immersion?
- Will a lottery system be developed to address over subscription?
- Do students who are eligible for ESL (English as a Second Language) instruction that matches the target immersion language have first rights to the available Kindergarten seats?
- What impact, if any, will the registration for this program have on diversity and balance within the school?
- Are a certain number of seats reserved in the program to allow for EL (English Language) students
- Who are not initially identified during Kindergarten registration as eligible for ESL instruction,
- But are identified once placed in any one of our district Kindergarten classes as eligible for ESL instruction and/or move into the district after the start of school and are eligible for ESL instruction?


## Best Practices for Immersion Programs for Districts Similar in Size to MPS

The Community Park School in Princeton is similar in size to schools like Northeast, Bradford, and Watchung as they have three sections of classes per grade level. Their ELL population is much greater than ours and they do not operate a magnet system. They have been working closely with the same consultant that we are using, Greg Duncan, for the last three years in developing their One Way program. We have collaborated with them this past summer in initial overview professional development and will continue to partner with them and learn from their experience as they will be implementing with students in September 2015.

The Englewood School system offers dual language programming with schools similar in size. Their ELL population is much greater than ours, which makes it possible for them to provide a Two-Way immersion program. They do not operate a magnet system.

There are many school systems outside of New Jersey who have been operating successful One Way and Two Way programs for years. The Academic Office by invitation of Greg Duncan is sending elementary principals to a two day dual language immersion conference in June hosted by the Delaware Department of Education. Principal leaders who have been implementing dual language programs in their schools are leading the workshop, and we expect to gain valuable information from this experience.

## Financial Projections for Implementation of an Immersion Program (Detail Sheet Attached)

A detailed projection is attached outlining potential expenses associated with the implementation of a K-5 program. Further analysis is needed to determine costs for middle and high school. Below are the summaries of the detailed projections. Once the program is successfully implemented, the costs would decline in the areas of resources, consultant fees, and intensive professional development. However, there will be on-going costs associated with teacher attrition and the need for sustained professional development.

Our K-12 science supervisor currently supports the needs of the existing K-12 World Language curricula and programming; supervisors do not need to be certified or experts in the content area. Our existing supervisor can continue to support K-12 world languages and to be the steward of the immersion program. The board may decide to finance a part time world language supervisor to oversee the on-going implementation of the program; this supervisor would have a background in world language instruction and this decision is reflected in the cost projections.

| Time Frame | No Additional Personnel | With a .5 WL Supervisor |
| :---: | :---: | :---: |
| Year 1 | $\$ 32,400.00$ | $\$ 122,400.00$ |
| Years 2-6 | $\$ 152,250.00$ | $\$ 602,250.00$ |
| Total for K-5 <br> Implementation | $\$ 184,650.00$ | $\$ 724,650.00$ |

## Personnel and Logistics Projections Related to an Immersion Program

Depending upon the school, instructional model, and language selected, the following would be the basic staffing requirements for each year that the program is offered. In all cases, the district needs to place teachers in these settings who are excited, willing participants. This is critical to the success of the program. Teachers should not be forced to participate based on certification and/or target language proficiency.

## 50/50 Personnel

- 1 certified teacher (English classroom) +1 certified teacher who is also proficient in the target language
- No extra World Language teacher is needed for these students; immersion satisfies the state requirements for WL instruction
- If ELL students are provided seats in these classrooms, then a separate ESL teacher is not needed for their instruction
- May need a Special Education teacher who is proficient in the target language for in-class resource room students


## 90/10 Personnel

- 1 certified teacher who is also proficient in the target language
- No extra World Language teacher is needed for these students; immersion satisfies the state requirements for WL instruction
- If ELL students are provided seats in these classrooms, then a separate ESL teacher is not needed for their instruction
- May need a Special Education teacher who is proficient in the target language for in-class resource room students


## Transfer of Teachers

If a teacher does not wish to participate in the immersion model and/or does not demonstrate proficiency in the target language, then he/she will need to be moved out of the grade level and potentially out of the building as the program progresses. This will be an on-going consideration for planning on the part of the principal and the Chief Human Resources Officer in concert with the provisions of the collective bargaining agreement.

## Teacher Qualifications

The board may wish to consider a policy that favors K-5 candidates who hold proper certification and demonstration of proficiency in the target language. Many dual language programs have adopted this requirement and in fact, that is the case for the Community Park School in Princeton, which favors applicants who possess Spanish language ability. They adopt this policy to allow for greater flexibility in teaching assignments as attrition occurs in the immersion classrooms and to add other staff to the school setting who understand and use the target language in natural ways.

## Constraints Related to Facilities for Housing an Immersion Program

As mentioned on page three of this report, the recommendations of the consultant and typical practices to ensure sustainability require that at least 2 classes within each grade level participate in the immersion program. In a school with only 3 classes per grade level, the third class must either function as a $90 / 10$ immersion class, $50 / 50$ with a single teacher (not optimal due to a lack of separation of the language) or not participate. Both have implications for staffing, students, parents, and enrollment procedures. A school with greater numbers of sections allows for greater flexibility, lowers negative impacts on non-immersion classrooms and positions the program for stronger sustainability. However, a smaller school, such as Edgemont could be designated as a full school model. This designation would require a great deal of community input as it would not allow families who wish to have a Montessori experience without immersion to participate in this magnet.

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| Schools with 3 Classes per Grade Level: Option 1 Using 50/50 Model for 2 classes \& 90/10 for 1 class | Considerations |
| :---: | :---: |
| 1 teacher who teachers $1 / 2$ of the day in Spanish while the partner teacher teaches $1 / 2$ of the day in English and the children switch classes so that receive equal time in the traditional English classroom and in the target language Spanish classroom <br> This third section could also be a $50 / 50$ classroom, but one teacher would teach all students, which is antithetical to the best practices outlined in the research and successful programs. <br> The third section could also be a 90/10 room, which would be one teacher who teaches the same students all day with 90\% of the day being taught in Spanish and 10\% in English. | - 2 teachers needed that are certified for the grade level \& are proficient in the target language (proficiency determined by a screening assessment); one for the 50/50 partnership and one for the 90/10 classroom <br> - Staffing considerations for appropriately certified and target language proficient special education teachers must be made as all students have immersion available to them as an educational program opportunity; although pull out resource room instruction would occur in English, students who receive in-class resource instruction must have a certified special education teacher who would be proficient in the target language <br> - Parents will have to select between 2 options at the grade level, which complicates registration <br> - Parents with students who have special needs may not want to have their child participate in immersion based on specific considerations, which would preclude these children from attending that school as the only options are immersion <br> - Parents with siblings already within the school may not wish to participate in any immersion settings, thus requiring them to enroll a sibling in another elementary building <br> - In a 50/50 model, the research indicates that students must receive their target language (Spanish) instruction in a separate and distinct setting for the most effective student outcomes <br> - If the third section is used as a stand-alone $50 / 50$ room, how will this impact equity and learning outcomes for that section of students <br> - There must be enough parents who elect a $90 / 10$ model to fill the seats of this third section <br> - Policy must be established outlining procedures for transfer requests to accommodate parents who elect to remove a child from an immersion class and place him/her back into a traditional, non-immersion classroom; since there would be no traditional classes in this building, then the child would need to be transferred to another building within the district <br> - Students who participate can be assigned to different classrooms from year to year allowing them to mix with their grade level cohort <br> - What implications, if any will there be on the building's existing magnet theme |


| Configuration for Schools with 3 Classes per Grade Level: Option 2 Using 50/50 Model for 2 classes and no immersion for 1 class | Considerations |
| :---: | :---: |
| 1 Spanish class + 1 English class for immersion ( $50 / 50$ ) same as above but the third section would not participate at all | - Policy must be established outlining the total number of seats available in the non-immersion class since parents may elect to remove a child from an immersion class and place him/her back into a traditional, non-immersion class; this can impact an overload of students in one room <br> - Parents with students who have special needs may not believe that the immersion class is the best fit for addressing their child's IEP and would only have one classroom to place their child in <br> - Students who are in the non-immersion classroom can not be assigned to mix with immersion students in classes as they move through the school; once with their cohort in Kindergarten, they remain with the same peers <br> - The perception that students in the non-immersion class "have less"; this equity issue is one that the Community Park Elementary School in Princeton has been struggling with throughout their 3 year planning process <br> - Parents with siblings in the building who have incoming Kindergarten students may not wish to participate in immersion, thus limiting their choice to the one cohort model; parents then may elect to place siblings in different buildings <br> - What implications, if any will there be on the building's existing magnet theme |

## Definition of Success and Related Metrics to Measure the Program

The definitions and measurements of success would have to be established by the planning team and incorporated into the curriculum documents. Student achievement is measured based on the mastery of the standards outlined in the curricula and by proficiency levels in the target languages. Goals often associated with dual immersion programs include:

1. Students will participate in a rigorous academic program that accelerates their learning.
2. Students will develop a high linguistic proficiency in two languages.
3. Students will develop a high academic proficiency in two languages.
4. Students will develop positive cross-cultural attitudes.

| Governance | Management | Responsible Stakeholder(s) |
| :---: | :---: | :---: |
| - Academic achievement for all <br> - Narrowing and elimination of the achievement gap <br> - Mandate building participation or allow principals to elect to participate <br> - Financial commitment to implementation and sustainability of the program <br> - Policies related to: <br> 1. Curriculum <br> 2. Registration <br> 3. Class placement <br> 4. Personnel (hiring) <br> 5. Student transfers <br> 6. Teacher transfers <br> 7. Class size | Create and communicate regulations aligned with policy | CS Administration, Principal, BOE Policy Committee |
|  | Communicate with staff and families (interest, plan, benefits, considerations, etc.) | Principal, MEA, SATp, WL Supervisor |
|  | Create immersion plan based on board policies and regulations (include vision, goals, timelines, resources, measures for success) | CS Administration, Principal, Consultant, WL Supervisor, Chief Human Resources Officer, Parents |
|  | Communicate with community regarding registration policies and program plan | BOE, Chief Human Resources Officer, Registrar, Principal, CS Administration |
|  | Hire/Assign personnel for 50/50 (1 target and 1 partner): certification and target language proficiency required | Chief Human Resources Officer, Principal, Teachers, MEA |
|  | Create curricula (ELA, Target LA, Math: standards, objectives, resources, assessments of proficiencies) | WL Supervisor, Teachers, Principal, Consultant |
|  | Review, select, purchase target texts and resources for Kindergarten | Principal, Teachers, Affirmative Action Officer, BOE Curriculum Committee, WL Supervisor, Assistant Superintendent for Curriculum \& Instruction, Consultant |
|  | Participate in professional development (pedagogy, standards, new curricula, new materials) - it should be noted that participation in summer PD is voluntary; teachers cannot be mandated to attend, which may impact PD schedule | Principal, Partner Teachers, WL Supervisor, Consultant |
|  | Finalize registration and notify applying families regarding placement | Registrar's Office, Principal |
|  | Host orientation meetings with families of students enrolled in program | Principal, Teachers, WL Supervisor |
|  | Provide on-going PD throughout the school year | WL Supervisor, Principal, Teachers, Consultant, Outside Sources |
|  | Provide on-going feedback and support to teachers involved in the dual language model | Principal, Teachers, WL Supervisor, Consultant |

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## The Multiple Benefits of Dual Language

## Dual-language programs educate both English learners and native English speakers without incurring extra costs.

Wayne P. Thomas and Virginia P. Collier



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During the past 10 years of conducting research on English language programs and school effectiveness, we have discovered the key to the successful future of U.S. education: meaningful, grade-level, and accelerated instruction in two languages-English and another language spoken in the school community-throughout the school years.

In many states-especially in Texas, New Mexico, New York, California, Illinois, and the Washington, D.C., metropolitan area-active dual-language programs are providing win-win advantages for all students. English learners have an opportunity to make faster-than-average progress on grade-level instruction that is not watered down. Native English speakers who are already on grade level can exceed the achievement of their monolingually educated peers. And through the cognitive stimulus of schooling in two languages, which leads to enhanced creativity and analytical thinking, native English speakers who are lagging behind academically receive the accelerated instruction necessary to close the achievement gap. All student groups in dual-language classes benefit from meaningful, challenging, and accelerated-not remedialinstruction (Baker, 2001).

Some dual-language programs in North America have developed as one-way programs provided for speakers of one language. Throughout Canada, for example, bilingual immersion programs provide instruction in both French and English to one language group, native English speakers. In the United States, one-way bilingual immersion programs teach native English speakers in two languages-English and Japanese, for example-and confer full proficiency and mastery of the curriculum in two languages.

Other one-way dual-language programs in the United States are designed for English learners who continue optimum cognitive development in their first language-for example, Spanish-at the same time that they are learning the curriculum in English. These one-way programs for English learners exist only in demographic contexts where there are few or no native English speakers in the schools.

Two-way dual-language programs educate English learners and native English speakers together, combining the instructional advantages of both types of one-way program. Effective two-way dual-language programs provide

- A minimum of six years of bilingual instruction;
- A focus on the core academic curriculum rather than a watered-down version;
- High-quality language arts instruction in both languages, integrated into thematic units;
- Separation of the two languages for instruction (no translation and no repeated lessons in the other language);
- Use of the non-English language for at least 50 percent of the instructional time and as much as 90 percent in the early grades;
- An additive (that is, adding a new language at no cost to students' first language) bilingual environment that has full support of school administrators, teachers, and parents;
- Promotion of positive interdependence among peers and between teachers and students;
- High-quality instructional personnel, proficient in the language of instruction; and
- Active parent-school partnerships (Howard \& Christian, 2002; Lindholm-Leary, 2001; Thomas \& Collier, 2002).

This approach allows English learners to help native English speakers learn through a second language, while native English speakers help English learners acquire the curriculum through English. As most teachers know, one of the best ways to learn is to teach, and both student groups receive accelerated instructional benefits from their other-language peers and from the teacher's use of collaborative learning strategies that capitalize on this effect. Also, learning together increases student interest in the school and curriculum topics, improving student motivation to learn and further amplifying and accelerating student progress (Calderón \& Minaya-Rowe, 2003; Freeman, 1998; Lindholm-Leary, 2001; Thomas \& Collier, 1997/1998, 1999).

## Meeting the Needs of English Learners

Why are these dual-language programs only now becoming more common? In the past, U.S. schools encouraged most native English speakers to learn a foreign language, but only in the context of separate language courses rather than half of the instructional year. Also, schools viewed most English learners as "broken" and in need of fixing, just as many schools treat Title I and special education students today. Transitional bilingual programs assisted English learners to gradually de-emphasize their first language and learn English as their exclusive language of instruction. Various similar forms of English-only instruction-for example, English as a Second Language (ESL) taught in pullout programs or through ESL content classes or structured English immersion-encouraged English learners to abandon their first languages in favor of instruction in English.

The debate about whether "bilingual" or "English-only" instruction is better for English learners has been long and rancorous. In the 1990s, several large-scale studies and meta-analyses showed that English learners made slightly higher gains per year in typical transitional bilingual programs than they did in typical English-only programs (Greene, 1997; Ramirez, Yuen, Ramey, \& Pasta, 1991). Our large-scale research in the late 1990s (Thomas \& Collier, 1997, 2002), however, found that transitional bilingual programs and English-only programs close at most only half of the achievement gap between native English speakers and English learners. In other words, if closing the achievement gap is the measure of program success, both transitional bilingual education and English-only instruction are inadequate.

The 2001 No Child Left Behind federal legislation aims to close the achievement gap by measuring adequate yearly progress on test scores that have been disaggregated by student groups, such as Hispanics and English learners. In response to the legislation, educators are turning their attention to programs that demonstrably close the achievement gap for English learners and other disaggregated groups while also increasing all students' mastery of state education standards. After reviewing the research, $\underline{\underline{1}}$ educators have realized that dual-language programs offer a pragmatic way to meet the federal legislation's ambitious goals.

Federal officials still need to correct two major flaws in the NCLB legislation, however. The first flaw is the requirement to compare the performance of this year's students with that of last year's students instead of following the progress of the same students over time. Because one class and one school can change dramatically from year to year, the cross-sectional comparison does not measure students' actual progress.

Nor does the legislation address the issue of how long it takes for English learners to close their achievement gap with native English-speaking students. Policymakers have converged on the politically expedient three-year limit for extra instructional support, and both educators and policymakers are engaging in wishful thinking when they assume that minimally-achieving former English learners will continue to close the achievement gap-that is, gain faster than native English speakers do-after they leave their special program and enter the mainstream classroom. Research shows that even the most effective programs require five to six years to bring English learners to full parity with average native English speakers in English proficiency and in mastery of the curriculum to high standards.

Educators and policymakers must face the facts here-a three-year special program of average effectiveness will not lead to long-term closure of the achievement gap and attainment of standards for most English learners. To meet No Child Left Behind's requirements for gap closure, schools need to aim for students' full mastery of the curriculum, choose effective programs, sustain them for five to six years to achieve full gap closure, and provide additional assistance in the mainstream for former English learners who have not received a duallanguage program.

## The Beauty of Dual-Language Education

The instructional infrastructure of dual-language programs provides greatly increased educational productivity because it offers full rather than partial achievement gap closure at
annual costs comparable with existing programs. Traditional programs for English learners provide only remedial, watered-down instruction in "playground English," virtually guaranteeing that the native English speakers will outperform English learners and thus widen the achievement gap over time.

English learners need enriched, sustained forms of instruction that allow them to receive support in their first language while learning a second language. Dual-language programs offer English learners a mainstream curriculum, which leads to full English proficiency and curricular mastery, with instruction provided by monolingual and multilingual teachers who already work within the school system.

In our research of the Houston, Texas, Independent School District (Thomas \& Collier, 2002), English learners who received five years of dual-language schooling reached the 51st percentile on the Stanford 9-a nationally normed test in English—after having initially qualified five years before for English learner services by scoring low on English proficiency tests. The majority of these students were of low socioeconomic status, receiving free or reduced-price lunches. In comparison, a matched group participating in the same district's effective transitional bilingual program scored at only the 34th percentile after five years. Many of the dual-language schools in Houston ( 56 schools to date, and increasing in number every year) and elsewhere in Texas have received recognition as superior, high-scoring schools by the Texas education system, a notable achievement because many also serve low socioeconomic groups.

Dual-language programs also provide integrated, inclusive, and unifying education experiences for their students, in contrast to the segregated, exclusive, and divisive education characteristics of many traditional English-only and transitional bilingual programs. The atmosphere of inclusiveness in the dual-language milieu meets the cultural needs of minorities and provides opportunities for them to experience the world of their nonminority peers.

Just as important, nonminority students expand their worldviews to include knowledge of and respect for the customs and experiences of others. Native English-speaking children receive many of the benefits of travel to, and life in, other countries, along with an increased understanding of other cultures. Many dual-language students value these early experiences, and, as high school graduates, they actively seek opportunities for international travel and employment that uses their second language.

Native English speakers also benefit academically. In Houston in 2000, native English speakers who had been in the two-way dual-language programs for four years scored between the 63rd and 70th percentiles in total reading scores on the Stanford 9, whereas the scores of native English speakers in the mainstream hovered around the 50th percentile. When tested in Spanish using the Aprenda 2, the dual-language native English speakers scored between the 65th and 87th percentiles at the end of grades $2-5$, with an average score equivalent to the 76th percentile. These native English speakers, including African American students, not only scored higher than their monolingually educated peers, but they also acquired a second language for their lifelong use.

## Recommendations for Education Leaders

Our research in 23 school districts in 15 states and our analyses of more than 2 million student records show that dual-language programs can close the achievement gap for English learners and provide a superior education for native English speakers. We recommend the following steps:

- For schools now using a transitional bilingual program-typically a 2-3-year remedial program for English learners-we recommend an immediate upgrade, using the same teachers, to a one-way or two-way dual-language program.
- If a school is now using a minimal English-only program—pullout programs for English as a Second Language or structured English immersion-we recommend improving these programs by adding first-language support wherever possible, emulating the enrichment characteristics of well-designed dual-language programs, and extending the length of these programs to at least five to six years to allow for full closure of the achievement gap.
- Teachers, principals, and policymakers should supplement the data collection required by No Child Left Behind with well-designed longitudinal comparisons of how the same students fare over time. Such comparisons provide a better assessment of student progress and may serve to explain persuasively why and how apparent "deficiencies" are really the result of year-to-year fluctuations in student population rather than the result of inadequate programs.
- Educators should actively seek to improve the program by adding more features each year from the feature-rich dual-language program guidelines (see, for example, Calderón \& Minaya-Rowe, 2003).
- Educators should provide teachers with preparation and professional development that focuses on the specifics of dual-language implementation (Calderón \& Minaya-Rowe, 2003).

By implementing one-way or two-way dual-language programs, schools can expect one-fifth to one-sixth of the achievement gap for English learners to close each year (Thomas \& Collier, 2002). And they can look forward to both English learners and native English speakers being fully prepared for high-stakes tests. The pass rate should be approximately equal for both groups, a vast improvement over the present pattern of overrepresentation of English learners among those who do not pass. We encourage school leaders and policymakers to find ways to adopt as many of the characteristics of dual-language programs as possible and to fulfill the promise of No Child Left Behind.

## Endnote

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[^1]Two major objectives guide the implementation of two-way dual language immersion programs, namely, (1) having a successful forum for addressing the language and academic needs of English learners, and (2) having an opportunity for other students to gain a world class education that instills the promise of a more interdependent world. For English learners (ELs) to have an equitable education, programs must be in place that value languages in addition to English as a means for learning the academic concepts required of successful students.

The promises are many: the academic gap can cease to exist and the United States can become the exemplar of multicultural societies working together toward a common goal. ELs will become students who achieve academic success, leaving high school with a diploma and college-ready. One program model that can help make this a reality for ELs is a two-way dual language immersion program.

A two-way dual language program is based on the premise that two groups of students (each with different home languages, in the United States one being English) learn together in a systematic way so that both groups become bilingual and bi-literate in the two languages. Stephen Krashen (1999) and Jim Cummins (1996) are two language researchers who heavily influenced the growth of bilingual and dual language programs. Both have asserted and confirmed in their research that, given time, the stronger language-minority students become in their native language, the more proficient they will become in their new language. Collier \& Thomas (2004), two other noted long-term researchers in this field, describe a twoway program as an enrichment model that is transformative for teachers, parents, administrators and communities.

There are benefits for both groups of language students in a two-way program. Language-minority students build their native language proficiency, which in the long run strengthens their acquisition of the majority language (English). English speakers develop proficiency in a new language, and their English skills are strengthened by this additional cognitive process. They maintain use of English in the majority culture, so their English skills do not diminish during the time they are immersed in the new language, and their English school achievement eventually outperforms that of native English speakers who have been schooled in English-only instruction.

Both of these outcomes are well documented by Collier \& Thomas (2009) in their numerous long-term studies. While dual language enrichment models help two groups of students become biliterate, they also are seen as one of the best options for closing the achievement gap for English learners.

In a two-way dual language program, there are generally two accepted models for language use and language instruction. In a 90/10 model both groups (native English and ELs) receive 90 percent of their instruction in the minority language (such as Spanish) and 10 percent in English in Year 1 (kindergarten). The percentage of English is increased by 10 percent each year until students are receiving 50 percent of their instruction in each language. In a $50 / 50$ model, the
instructional day throughout the elementary years is always 50 percent English and 50 percent the minority language.

Careful consideration in curriculum planning is done to alternate the language of instruction of content areas so that students become equally versed in math, science and social studies in both languages. Language arts for each language also is taught while paying strict attention to the different methods used in teaching literacy in different languages.

For example, Spanish literacy has traditionally been based on a very systematic sequence of learning vowels, syllables, and then syllables combined into meaningful word units. English, on the other hand, is typically learned through a phonological approach where individual letters are sounded out to decode the given words. Other high frequency words (sight words) are learned through recognition and memory. The vast number of linguistic origins of the English words leads to current debates over the best approach for learning to read and write in English.

Once the two-way dual language program model has been adopted along with teacher training, teachers and students need to have access to the standards and resources that will enable them to develop skills in both languages. The program must address language standards in both languages as well as content standards appropriate to each grade level.

Collier \& Thomas (2004) describe the implementation of the dual language model with strict adherence to five key principles as essential for student achievement and the closing of the achievement gap for ELs. These key principles are:

- focus on core academic curriculum,
- include high quality language arts instruction in both languages with use of thematic units,
- complete separation of the two languages without use of translation or repeated lessons,
- use a $90 / 10$ or $50 / 50$ model, and
- use interactive and collaborative teaching strategies.

The school administrator is a key person to ensuring the fidelity of the model implementation and program principles and for creating a partnership between the school, parents and community to strengthen success.

Finding quality dual language teachers has posed a challenge in many school districts. Teachers must demonstrate proficiency in the academic language of instruction in which they teach. Teachers also must be qualified to teach the grade level and content to the students with whom they are entrusted. All of these competencies must be in line with corresponding federal, state and local teacher standards.

Parents of dual language students should be educated in the process of dual language instruction. They must understand that language learning is a process and that the data show that results may take three to five years to reveal the full effect of the bilingual benefits. Parents can be involved at many levels from supporting their own children to being advocates in the community about the program and its accomplishments. Parent, school and community partnerships strengthen all schools, especially dual language programs.

Dual language programs must be evaluated through an ongoing and systematic review process. Leadership is critical for ensuring that the program is well defined from the beginning and that there is school wide support and understanding of the program. This includes the secretarial, library, custodial, lunchroom and other school staff. Leadership needs to ensure that programmatic details are defined, well implemented and evaluated accordingly, both informally and formally at the appropriate times.

Dual language programs have been shown to be the most effective way to close the achievement gap between ELs and native English speakers. In a wellimplemented two-way dual language program this gap closure usually occurs by the fifth grade (Collier \& Thomas 2009). Program administrators need to be aware that these benefits do take place but will not happen overnight.

Data collection should be conducted to document student progress in proficiency in both languages within the domains of listening, speaking, reading and writing. Academic achievement also must be assessed. Having a strong database illustrates stories of student success, provides feedback for improving the dual language program implementation, and builds support and credibility to continue this unique and incredible opportunity for students to become fully bilingual and biliterate. As it has been said, "¡Dos vale más que uno! [Two is worth more than one!]."

## Resources

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## Estimated Costs for 6 Year Dual Langua ge Immersion Program: K-5

| Item | Description | Cost | \# | Total: Year 1 | Total: Years 2-6 (x5) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Consultant |  |  |  |  |  |  |
|  | Implementation Consultancy: Personnel, Curic ula, Assessment, Communications, Pedagogy | \$3000 perday | 3 days | \$9,000.00 | 0 | \$9,000.00 |
|  | Summer PD: New Teachers | \$3000 per day | 2 days | \$6,000.00 | \$30,000.00 | \$36,000.00 |
|  | On-Site Support: Teacher \& Princ ipal Support | \$3000 perday | 3 days | \$9,000.00 | \$45,000.00 | \$54,000.00 |
| Resources:    <br> Spanish    <br> Versions    |  |  |  |  |  |  |
|  | enVision Math Kindergarten | \$700 per 24 | 2 | \$1,400.00 | 0 | \$1,400.00 |
|  | Teacher's Kit | \$700 each | 1 | \$700.00 | 0 | \$700.00 |
|  |  |  |  |  |  |  |
|  | enVision Math 1st Grade | \$1000 per 24 | 2 | 0 | \$2,000.00 | \$2,000.00 |
|  | Teacher's Kit | \$700 each | 1 | 0 | \$700.00 | \$700.00 |
|  |  |  |  |  |  |  |
|  | enVision Math 2nd Grade | \$1000 per 24 | 2 | 0 | \$2,000.00 | \$2,000.00 |
|  | Teacher's Kit | \$700 each | 1 | 0 | \$700.00 | \$700.00 |
|  |  |  |  |  |  |  |
|  | enVision Math 3rd Grade | \$75.00 each | 50 | 0 | \$3,750.00 | \$3,750.00 |
|  | Teacher's Kit | \$700 each | 1 | 0 | \$700.00 | \$700.00 |
|  |  |  |  |  |  |  |
|  | enVision Math 4th Grade | \$75.00 each | 50 | 0 | \$3,750.00 | \$3,750.00 |
|  | Teacher's Kit | \$700 each | 1 | 0 | \$700.00 | \$700.00 |
|  |  |  |  |  |  |  |
|  | enVision Math 5th Grade | \$75.00 each | 50 | 0 | \$3,750.00 | \$3,750.00 |
|  | Teacher's Kit | \$700 each | 1 | 0 | \$700.00 | \$700.00 |
|  |  |  |  |  |  |  |
|  | Miscellaneous Matenals for <br> Target Language <br> Classroom | \$1000 each | 1 | \$1,000.00 | \$5,000.00 | \$6,000.00 |

Estimated Costs for 6 Year Dual La ngua ge Immersion Program: K-5



[^0]:    ${ }^{1}$ The following Web sites provide extensive information and research on dual-language education: www.cal.org/twi; www.crede.ucsc.edu; www.duallanguagenm.org; www.ncela.gwu.edu; www. texastwoway.org.

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