## Alternative Instructional Models of Effective Bilingual Education

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This paper presents an overview of classroom life and instruction in selected classrooms within two settings where English learners (ELs) prosper. These settings are noteworthy because student outcomes differ from the outcomes that are normally observed for ELs. National testing in 2005 indicated that nearly one-half $(46 \%)$ of $4^{\text {th }}$ grade students in the EL category scored below a basic level in mathematics-the lowest possible level, with nearly three-quarters (73\%) scoring below basic in reading. Middle school achievement in mathematics and reading were also very low, with more than two-thirds ( $71 \%$ ) of $8^{\text {th }}$ grade ELs scoring below basic in both math and an equal percent of these students scoring below basic in reading (Fry, 2007). At Metropolitan Elementary and Secondary Academic District (MESA) ${ }^{1}$, the school district in which this study took place, only $13.8 \%$ of elementary English learners scored proficient or advanced on the 2008 English Language Arts portion of the $\mathrm{CST}^{2}$ and almost one-half (46.6\%) scored far below basic or below basic. These numbers are in stark contrast to English Only (EO) students district wide, of whom more than one-half (50.2\%) scored proficient or advanced on the 2008 English Language Arts portion of the CST and about $19 \%$ scored far below basic or below basic. ${ }^{3}$

Conversely, at Archimedes and Orquidea Elementary Schools within the MESA District, EL students receiving bilingual services have demonstrated strong academic gains, either across

[^0]the entire school, as is the case for Archimedes, or in the program-specific classrooms included in this study, which is the case for Orquidea. At the time the study began, Archimedes consistently met all 21 criteria of the Annual Yearly Progress (AYP) requirements outlined by the federal No Child Left Behind (NCLB) legislation. More than 30\% of EL students whose home language was Spanish and who were enrolled in Waiver-to-Basic Bilingual (WB) classes at Archimedes scored proficient or advanced on the 2008 English Language Arts portion of the CST (see Table 1). Although the school-wide achievement levels for ELs at Orquidea are less impressive, with only $18 \%$ of ELs whose home language was Spanish in WB classrooms scoring proficient or advanced on the ELA-CST, students performed at much higher levels in the individual Orquidea classrooms studied. For instance, $68 \%$ of $4^{\text {th }}$ graders in the sample WB classroom scored proficient or advanced on the 2008 English Language Arts portion of the CST, and $70 \%$ of the $2^{\text {nd }}$ graders in the sample classroom scored proficient or advanced on the same test, outscoring all other language groups at the school. Thus, the major interest in these schools and classrooms is that students we studied from Archimedes and Orquidea outperform their peers in many other schools and classrooms. The story of these schools is remarkable, given the low district, state, and national achievement levels characterizing schools serving similar student populations.

## Study Background

There are ongoing educational and political debates about the best ways of assuring that EL students succeed academically and that they acquire basic academic as well as conversational English and grade-level appropriate literacy skills. An important shift in this debate around the education of EL students is from a singular focus on the question, "Should students be instructed in English or Spanish?" to a focus on "What is the optimal instructional environment?" In many
ways, this shift reflects a broader national concern with instructional quality and student outcomes (August \& Shanahan, 2006). Yet there is not widespread agreement about which approaches are best with which learners or whether there are multiple approaches that can achieve acceptable student outcomes. Educators and policymakers have a pressing need for guidance in determining which approaches are effective with which students (Goldenberg, 2006), guidance that requires a systematic examination of programs that have had success in educating EL students and the factors make them successful in a specific local context.

Our primary area of interest is in reading achievement, as reading is one area that is especially critical for the EL student population. Reading is considered an essential skill in our society, and there is a strong relationship between poor reading skills and lower overall academic achievement (Chall, 2000). Juel (1988) found that the probability of a poor reader at the end of $1^{\text {st }}$ grade remaining a poor reader at the end of $4^{\text {th }}$ grade was .88 . EL students often experience difficulty in developing reading skills in the early grades. When EL students fall behind their English-speaking peers in reaching reading benchmarks, they are often disproportionately referred to special education for assessment and placed in learning disabilities programs (Artiles, Rueda, Salazar, \& Higareda, 2002). Additionally, student motivation is of particular interest in our study because, although it has been found to be critical to reading and comprehension with Englishspeaking students (Guthrie \& Humenick, 2004; Guthrie, McLae, \& Klauda, 2007), it has not been well studied with English learners. Moreover, student motivation has received considerably less attention in educational policy than basic skills, although both are key aspects of reading development.

Interestingly, while recent research syntheses suggested that native language instruction should be considered for ELs (August \& Shanahan, 2006; Genesee, Lindholm-Leary, Saunders,
\& Christian, 2006; Rolstead, Mahoney, \& Glass, 2005; Slavin \& Cheung, 2005), bilingual approaches have, for the most part, disappeared in California due to a statewide proposition (Proposition 227) passed by voters in 1998. ${ }^{4}$ According to the Master Plan Evaluation Report (2002-03) for English Learner Programs, the number of English learners in MESA's elementary bilingual program declined by $84 \%$ after the implementation of Proposition 227 in 1998-99. In 1997-98, about seven-in-ten (69.5\%) of the district's English learners were enrolled in bilingual programs. After the first year (1998-99) of Proposition 227 implementation, only $10.6 \%$ of EL students were in a bilingual program. Since then, the percentage of English learners in the bilingual program has continued to decline.

Nonetheless, there are isolated places where bilingual approaches remain. The present study was motivated by the existence of two different sites that are successfully serving lowincome EL students in a political climate that does not support bilingual instruction. Although both programs have been singled out as notable in terms of student achievement, they follow different bilingual instructional approaches. This natural variation of approaches presented a valuable opportunity to examine the instructional features of the different sites and document the different models. Our study of these different approaches for instructing EL students was guided by the research questions: (1) How do these programs approach bilingual literacy instruction? (2) Do the program elements foster student motivation? and (3) What are the outcomes for program participants versus students with similar backgrounds who are not program participants? In order to document the nature of these programs, our team of school-based and universitybased researchers banded together to investigate classroom composition, teacher practices and

[^1]use of curricula, student motivation, and reading scores. Reading scores were measured using formal assessments, the Woodcock-Muñoz Language Survey (WMLS-R) and the CST. ${ }^{5}$ Over 300 hours of classroom observations and individually administered student assessments inform our findings.

## Findings

How Do These Programs Approach Bilingual Literacy Instruction?
Given the importance of local contexts in understanding both the operation of instructional programs and the resulting student outcomes, we summarize here briefly the background and development of the program at each research site.

Archimedes School. In recounting his early days at Archimedes Elementary School, Mr. Jowear, the school principal, described how his highly recognized program started with the passage of Proposition 227, the English-only voter initiative. The Korean parents at the school were concerned that their children had been placed into English-only classes. The Spanish language transitional bilingual program existed prior to and after Proposition 227, but because state officials did not view Korean as a phonetic language, no native language services were offered to Korean students. The school thus turned to the Korean consulate for help, wrote a grant to initiate the program, and opened the first Korean bilingual classroom. The Korean Dual Language Immersion program followed soon after and catapulted the school into the national spotlight. Mr. Jowear noted that teachers with native-speaking ability as well as English fluency are vitally important to the program because they have the language skills necessary to teach

[^2]academic language in both languages. Currently, Archimedes School has a very positive reputation, and parents from both Korean and Spanish-speaking households line up three to four days in advance to register children for kindergarten.

In a recent study of six successful bilingual schools in California that included Archimedes, Gold (2006) cited the Archimedes teachers' belief that students excel academically when they are taught content in their native language at the same time they are learning English. Students feel more comfortable when their inability to speak English does not hinder them from learning subjects such as science and math. At Archimedes, the overall commitment to schoolwide literacy in two languages is practiced beginning in kindergarten. When students are in English-only settings, "they're not learning anything except English," said the school's bilingual coordinator, "They can't grasp any of the other concepts because they're still struggling with the language."

Children in the Spanish Waiver to Basic (WB) program at Archimedes are taught with the Houghton-Mifflin Lectura/Reading Spanish/English Language Arts program and transition out of bilingual education by $3^{\text {rd }}$ grade. Lectura is organized into themes, each of which contains various lessons divided across days. The teacher's guide provides five days of activities for three specific areas of content on a lesson grid. The Lectura curriculum materials address phonemic awareness, high frequency words, fluency, and reading comprehension skills and strategies during the Blue segment of the reading lesson; spelling, vocabulary, high-frequency words, combining syllables and building sentences during the Red section; and oral and written language during the Green section. In addition to assigning daily activities in each of the three areas, teachers are expected to provide daily 'universal access,' which is a time for students to learn to work independently and for teachers to work with individuals or small groups.

Archimedes' reputation is due, in part, to the community of Spanish and Korean Waiver to Basic teachers and students, the Korean Dual Language classes, and the Structured English Immersion (SEI) classes that are all integrated under the principal's leadership. All school materials are provided for parents in English, Spanish, and Korean, and most teachers are bilingual or multilingual. Music and art instructional components are drawn from various cultures of the world, the classrooms and library are stocked with materials in Spanish and Korean as well as English, and there is a school-wide culture of respect for diversity. Mr. Jowaer indicated during an interview that, "teachers can do what they want instructionally...as long as they keep their scores up." The following excerpt illustrates how Ms. Lopez, a kindergarten teacher at Archimedes, emphasizes the Red (grammar) and Green (writing) sections in her Waiver to Basic classroom. Ms. Lopez works with her kindergarten students in independent reading, spelling, grammar, and vocabulary. The bulk of her language arts lessons are devoted to large group instruction and to seatwork. Students are often permitted to work together as Ms.

Lopez pairs strong readers with struggling readers.

> In the morning, students read independently either from their Lectura textbooks or from the classroom library. After about 20 minutes, the teacher says, "Okay, ninos, hoy vamos a escribir en espanol sobre el...?" The students call out, "pato." And the teacher tells them to spell the word. The students shout out how to spell out pato, as teacher writes it on top of the bubble map. She asks, "Y por que puse una mayuscula?", Manuel, "Por que es titulo." Ms. Lopez makes a bubble map once more, she erased the English words she had previously written on the board, and says, "Oh se me olvido, las palabras en espanol." Different students call out, "veo, color, comer, tiene, tiene, gusta, puede, pone." Ms. Lopez continues, "Okay y en donde se ve un pato?" Mia answers, "En el lago." Ms. Lopez doesn't accept that answer, "Ya hicieron eso." Guille, "Parque." Ms. Lopez, "Okay y que color?" The students shout out, "Amarillo." Ms. Lopez asks for help, "Ayudeneme a escribir ese color." About half of the class shouts out the spelling for 'amarillo.' Ms. Lopez asks, "Y que come?"" The students shout, "Maiz." She asks for help again, and the students shout out the spelling for maiz. She asks, "Tiene acento?" About three students respond "en la i."" Muy bien, says Ms. Lopez.

Orquidea School. According to teachers at Orquidea Elementary School, the Dual Proficiency (DP) program, ${ }^{6}$ which is a teacher-developed, content-based developmental bilingual program, has been evolving for over 20 years. Its goal is to provide an opportunity for high achievement in both English and Spanish. Teachers reported that DP models high-level English and Spanish, heavily scaffolds content-based instruction, explicitly applies the Latin base of Spanish to academic English (Bailey, 2007), and extends learning opportunities during after school hours and intersession courses.

Officially, Orquidea staff utilizes SRA/McGraw Hill's Foro Abierto, a Spanish version of the Open Court Reading program, as the state approved Spanish-language instructional material in bilingual classrooms across grades K-6. Like Lectura, Foro Abierto is highly structured and organized into themes. Because the study's focal teachers, a K-4 vertical team, report having worked for so many years building their own program, they state that they use Foro Abierto only to supplement the DP program. The team encourages and invites other interested staff members to attend regularly scheduled professional development meetings (which they conduct themselves) to learn about the approach and brainstorm how to integrate content instruction into all areas of the curriculum as well as to share teacher-made DP materials and approaches. The use of the teacher-created program at Orquidea is one key difference between the Orquidea and Archimedes model, as the Archimedes program tended to follow the school-adopted program.

The stable core of DP teachers have been collaborating for close to 20 years. Even newer teachers on the DP team have, for the most part, been co-workers for ten or more years. The

[^3]teachers are natives of Spain, Argentina, Mexico, Nicaragua, or the United States with high levels of proficiency in both Spanish and English, thus they have the vocabulary and knowledge to teach content in both languages. This important fact differentiates the team from others whose Spanish skills might be at a level useful for daily communication with students and parents or for teaching only elementary reading and writing.

The DP model calls for $80 \%$ of instruction in kindergarten to be conducted in the target language (Spanish). Since many of the students come from homes where the parents have minimal formal education, the vertical teaching team said they 'double-time' the instructional day by using large percentages of comprehensible input in Spanish for integrated content and skills teaching, and by combining English Language Development (ELD) with music, rhythm, art, and physical education. According to the teachers, in DP classrooms all students initially develop literacy skills in their primary language (Spanish). However, oral ELD begins on the first day of kindergarten. English literacy instruction and language arts begin as soon as the child has advanced beyond the primer level in Spanish reading (usually second semester/Kindergarten) and has completed at least one semester of ELD. First grade instruction begins at the 70/30 ratio of Spanish to English and ends with approximately a 60/40 ratio. Starting in the second semester of $2^{\text {nd }}$ grade, English and Spanish are used equally; reading and writing assignments reflect the expectation of progress in both.

According to the teacher-developers of the program, the DP model makes extensive, explicit use of the Latin roots of Spanish as a bridge to higher-level academic English. DP teachers work to ensure that the Latin-knowledge assets possessed by Spanish speakers are used to the fullest advantage. Teachers regularly and frequently tie the children's Latin-based Spanish to academic English. The message that Spanish proficiency advances English proficiency is
explicitly reiterated and demonstrated not only to the children, but also to their parents at Open House, parent in-services, classroom meetings, and any other parent-attended venue. Teachers endeavor to correct the public perception, including that of other staff members, that knowledge of Spanish is an obstacle to be overcome. They do so by providing evidence that Spanish, as spoken by the families of Orquidea students, is actually a very efficient ladder to cognitive academic language proficiency in English. The following presents an excerpt (first in Spanish, then translated to English) from the second grade WB classroom at Orquidea. In this example, Ms. Melquiades introduces the topic of cave dwellers by drawing on the migration experiences of the students' parents as it relates to the migratory habits of cave dwellers.

Ms. Melquiades, "Que es esto? (She holds up a picture of a migration map). Students chime, "Un mapa." Jazmine, "De las personas que ...(and she pauses). The teacher confirms, "Right, y la palabra es muy importante. Primero, se trata del hombre primativo." Arturo calls out, "Se desplaza." Ms.
Melquiades nods, "Se desplazaron. Empezamos en Africa y despues se desplazaron y se fueron a Europa. Empezaron en el norte de Africa. Porque se desplazaban?" Henry calls out, "Un viento fuerte." The teacher muses, "Quizas el ambiente no era conveniente. Porque se desplazaron sus padres?" Students call out, "Para trabajar." She continues, "Right. El trabajo de ellos era matar, cazar, tejer. Cuando una person no tiene casa fija se llama -----? She pauses, but gets no response, so she provides, "Nomadas. Nomadas son personas que necesitan cambiar de lugar a lugar. Se desplazan. Se desplazaron porque necesitan comida." Roberto, "The monkey the person was, how they change from monkeys?" Ms. Melquiades asks with surprise, "Eramos monos?" Willie, "Carvenicolas." She corrects the misinterpretation, "Monos son otra clase de especias." And writes 'Mamifero" - Las personas mamiferas.' The children are excited because this becomes familiar territory to them. Henry says, "Changos son mamiferos.". The teacher asks, "Changos son gorrillas?" Children call out animal names and Ms. Melquiades writes on the board, "Caballos, elefantes, zorros, perros, vacas, leones, tigres, cerdos, pumas, ratones, leopaldos, mamuts!" She laughs and says, "Got it! Stop. Switch your mind. Me encanta come está sentada la Rebecca. Willie is on fire. Great!"

Ms. Melquiades "What is this? (She holds up a picture of a migration map). Students chime, "A map." Jazmine, "From the people that... (and she pauses). The teacher confirms, "Right, and the word is very important. First, it's about the primitive man." Arturo calls out, "They move." Ms. Melquiades nods,
> "They moved. They started in Africa and then they moved and went to Europe. They started in north of Africa. Why did they move?" Henry calls out, "A strong wind." The teacher muses, "Maybe the environment was not convenient. Why did your parents move?" Students call out, "To work." She continues, "Right. Their job was to kill, hunt, knit. When a person doesn't have a steady home is called-----? She pauses, but gets no response, so she provides, "Nomads. Nomads are people who need to move from place to place. They move. They moved because they need food." Roberto, "The monkey the person was, how they change from monkeys?" Ms. Melquiades asks with surprise, "We were apes?" Willie, "Cavemen." She corrects the misinterpretation, "Apes are another type of species." And writes 'Mammal" - The mammal people.' The children are excited because this becomes familiar territory to them. Henry says, "Monkeys are mammals." The teacher asks, "Monkeys are gorillas?" Children call out animal names and Ms. Melquiades writes on the board, "Horses, elephants, foxes, dogs, cows, lions, tigers, pigs, pumas, mice, leopards, mammoths!" She laughs and says, "Got it! Stop. Switch your mind. I like how Rebecca is sitting. Willie is on fire. Great!"

As can be seen in the example, Ms. Melquiades had an easy rapport with her $2^{\text {nd }}$ graders. She challenged the students' assumptions about humans descending from apes and turned the lesson into an opportunity for students to identify warm-blooded mammals. Adults (teachers, paraprofessionals, parent volunteers) and children laugh and frequently tell jokes in this classroom.

Finally, teacher-program developers at Orquidea reported that, in order to reinforce high expectations in two languages, classroom instruction centered on content in social science and science using thematic units with academic work provided and supported in both languages. As such, grade-level standards are addressed through a unified approach in which the whole academic day contributes to the elaboration of curricular goals. ELD is integrated directly into content instruction using songs, poems, plays, and varied approaches directly tied to the unit of content study. Team teachers said they motivate children to read by awakening their natural interest in learning about the world and providing interesting content-based materials as well as class time to enjoy it.

Do the Program Elements Foster Student Motivation?

In studying six specific reading motivation constructs (autonomy, challenge, social interaction, importance, recognition, and curiosity/interest), the data revealed unique differences between the levels of each construct that was evident in the two schools (see Table 2 and Figures 1 and 2). There appeared to be a wide range in the levels of reading motivation present in the classrooms. There were also differences in the area of autonomy-supportive instructional practices. We felt this was particularly important, since low achieving English learner students are often provided structured programs implemented in such a way to reduce choice and autonomy. Autonomy support was defined to include:

1) Teacher encouraged students to make choices regarding reading activities (content, duration of reading time, location of reading activity, task they perform with text, strategies that they believe are effective for them, partners);
2) Teacher provided time for students to read independent of class assignments;
3) Teacher explained to students why they are reading a particular text;
4) Teacher provided students with opportunities for self-expression during reading discussions;
5) Teacher allowed students to participate in the evaluation process and have opportunities to assess their own reading work.

At Orquidea, students experienced greater autonomy through opportunities to make choices regarding reading activities and time for independent reading, and all five examples of autonomy were present during classroom observations. However, they varied in frequency and practice. By far, the greatest autonomy afforded to students was 'providing time for independent reading,' and the least frequent was 'allowing opportunities for self-expression.' In the following example from the 4th-grade classroom, students were provided the opportunity to engage in self-
selected literacy activities during writers' workshop. These students were not only engaged in the reading and writing process but also exhibited high levels of self-regulation. They engaged in various reading and writing tasks, either on their own or in collaboration with other students, without prompting from the teacher.

Ms. Barela said, "I'm going to put up my conference list. Monica, put your name on the board." She briefly paused before adding, "Stop. Look. Listen. In your writing, a few of you wrote about vacations. Think about setting. What did you see or hear? I need more description. Come sign up so I know what order to take you." The students were then allowed to work independently, moving at their own pace and choosing their activity. Four students sat at the computers "publishing" the final step of the writing process approach to writing instruction. Two students sat on a beanbag reading and discussed their writing in Spanish. Three students selected free reading materials from the teacher's extensive library.

The instructional practices of teachers at Orquidea also showed evidence of generating interest with regard to reading. Interest was defined to include:

1) Teacher encouraged students to read about what interests them;
2) Teacher created book anticipation and prompts whole book reading;
3) Teacher used students' cultural backgrounds and experiences as a platform to develop their interests and curiosities for learning;
4) Teacher provided opportunities for students to ask their own questions.

One of the four teachers at Archimedes fostered an interest in reading through her instructional practices, specifically by creating book anticipation. All four teachers at Orquidea showed evidence of nurturing students' interests. Two teachers in particular incorporated students' cultural and linguistic backgrounds during reading activities. The following example demonstrates how a teacher utilized her students' knowledge of traditional medicine to elicit suggestions for a pre-writing exercise.

The teacher poses a question to the class, "What is popular medicine?
Traditional? Folk medicine? Medicina tradicional (Traditional medicine)?" A

> few hands go up around the class. The teacher says, "I'm waiting for Jesus. You can look up there. Give him a minute to think." Jesus says, "No es lo que te receta un doctor (It's not what a doctor prescribes)." The teacher agrees and repeats his answer for the class. She tells the students, "Yeah, did you hear? No es lo que te receta un doctor (It's not what the doctor prescribes). Como se dice medicina moderna (How do you say modern medicine)?" The teacher faces the white board and draws circles for a bubble map. She announces, "Una mapa de burbujas de recetas (A prescription bubble map). Ideas que han escuchado de cómo tratar una enfermedad (Ideas that you"ve heard on how to treat disease). Si yo escuche, la gripa (Yes, I heard, the cold). Voy a ser una mapa burbuja sobre cómo tratar la gripa con solo medicina tradicional ( I am going to make a bubble map on how to treat the cold with traditional medicine)." The teacher writes the words "la gripa" (the cold) in the middle of the bubble.
> Sandra raises her hand and says, "Vaporub." The teacher repeats, "Vaporub. Tradicion Mexicana (Mexican tradition). Adonde se encuentra (Where do you find it)? Viene de que (Where does it come from)? La ruta de menta (mint root)?" She turns around and draws a circle with the word Vaporub in it. Luis tells the class his aunt once ate Vaporub and the students say, "Ewww." Diana agrees that Vaporub is an effective remedy and says, "Dicen que es buena (They say it is good)." The teacher asks the class how it is used. She asks, "Adonde se pone (Where do you put it)?" The students respond and she tells them to continue writing down notes. The teacher then asks for one more example, "Una mas (One more)?" Angela says, "Tomar te de manzanilla. (Drink chamomile tea)" The teacher asks, "Cuando (When)?" She then draws a circle with the words "te de manzanilla (chamomile tea)" in it. Ricardo says, "Todo el dia (All day)." But other students suggest that it is best to drink the tea in the morning. Another student believes that lemon and honey should be added to the tea. The teacher says, "Yes. We are brainstorming," affirming their ideas.

With regard to challenge, social interaction and recognition, there were slight differences
between the schools. However, there was evidence to suggest that certain teachers, regardless of the school, selected instructional practices that fostered one construct in particular. For example, the instructional practices of the kindergarten teacher at Orquidea showed evidence of recognition-supportive practices during 33 percent of the 5-min intervals as opposed to all the other teachers who showed evidence during nine or less percent of the time. The striking difference is due to Ms. Parra's consistent use of feedback regarding student reading progress.

On one occasion, she commented on a student's fluency.

> Ms. Parra begins to listen to Veronica read and then tells her that she must practice reading more. Her reading speed must be worked on for she is still reading syllable by syllable. The teacher tells Veronica that she wants her to be able to read some of the words in their entirety.

What Are the Outcomes for Program Participants Versus Students with Similar Backgrounds

## Who Are Not Program Participants?

To address this dimension of the study, the research team used the results from two separate test batteries: 1) the WMLS-R in English and Spanish; and 2) the CST in English Language Arts (ELA) administered to students in grades 2-11 district-wide.

Woodcock- Muñoz Language Survey: Composite Scores Table 3 presents the data on composite scores for the test. The composite gain scores for all study classrooms were statistically significant, and there were no significant differences between the two schools on the composites of the seven subtests in both languages. Generally, all classrooms demonstrated significant gains from the pre-test to the post-test, indicating growth in language proficiency as measured by the WMLS-R in English and Spanish.

California Standards Tests (CST) in English Language Arts Table 4 presents school wide and district wide data for comparative purposes. The table illustrates that, across all grades, Orquidea's Spanish speaking students did not generally perform as well on this English test as did Spanish speaking students throughout the district. Archimedes students, conversely, outperformed Spanish speaking students at Orquidea and throughout the district. Interestingly, the students in the two sample classrooms from Orquidea outperformed the groups examined. ${ }^{7}$ Among the findings exhibited in Table 1, it is clear that almost twice as many Spanish home

[^4]language students who studied in mainstream classes ${ }^{8}$ scored proficient or advanced on the CST than did their peers in Dual Language Immersion, WB, or SEI classes. This was also the case for Spanish home language students who entered the district at ELD Level 1 (see Table 5). The tables also suggest that the WB program was stronger in both schools than it was district wide and that Spanish home language students in WB classrooms performed much better than their peers in SEI classrooms at both schools.

## Conclusions

We became involved in this study when we discovered teachers who were truly making a difference for their students. The students at Orquidea Elementary are those students who would, by every demographic measure, be considered students at risk. They are poor immigrants whose parents have very limited formal education and, in many cases, are illiterate in their home language. All of the DP students at Orquidea came to school with little or no English. They began at ELD Level 1, which is a low level of English proficiency, and some came to school speaking a Mexican or Central American indigenous language. Yet, during the time they spent with the DP cohort teachers, they thrived. They were happy, motivated, intelligent children, and they showed us what they could achieve when provided a positive learning environment and effective instruction. At Archimedes, the vision of the principal created a warm, welcoming school in which multilingual staff, parents, and students are encouraged to succeed and many do. We tried to capture the unique as well as distinctive features that characterize the schools. These featuers are summarized below.

In response to the question, "What policy recommendations can be suggested as a result of the findings of the research? " we offer the following conclusions from our extensive

[^5]observations and analysis of the data generated: The debate about which language to use in instruction should be superseded by a focus on instructional quality. As noted at the beginning of this paper, much debate has taken place about the language of instruction for English learners. Our belief was reinforced by this study that the focus should instead be on the quality of instruction. With respect to this issue, our examination of effective bilingual programs suggests that there is not a single indicator of high performing or effective programs for English learner students, but rather multiple features that characterize effectiveness (Gold, 2006). Summarizing the results of several "effectiveness" studies for English learner students, as well as his own case studies of six exemplary programs, Gold noted the following features:

- The bilingual programs were a school-wide effort.
- Teachers collaborated and team-taught, particularly for English language development (ELD) instruction.
- Staff demonstrated extensive language and cultural competence.
- Staff displayed overall support for language and cultural diversity.
- Staff demonstrated a focus on the individual student and differentiated instruction.
- The school culture emphasized consistent monitoring of students' progress and teaching to rigorous academic standards.
- Staff articulated rigorous expectations of staff and students.
- Consistent leadership supported and benefited programs and instruction.
- Staff demonstrated a focus on consistent, coherent program design.

These factors characterized the schools we studied, although they looked quite different from one campus to the other (see Table 6). Yet the consistency with which the abovementioned
factors appeared in the literature and in this study suggest that they represent a strong set of principles that should be used as a guide in creating or evaluating programs for this population.

One year with a strong teacher or program is not sufficient. At Orquidea School, two fourth grade classrooms were team-taught in language arts during the study, with one of the target teachers as a member of the team. Thus, one class taught by this teacher had been part of the DP program since kindergarten, while the other class had not been part of the program. Unfortunately, the research team did not collect data on the non-study fourth grade students who received language arts instruction for one year from the study-participant teacher. The non-DP students simply did not perform as well on the CST-ELA as those who had been with cohort teachers for five years, despite having been taught during the study year by an excellent teacher using an innovative and content-rich program. Thus, a strong hypothesis suggested by the student outcomes from these two classes is that length of time in a strong program with capable teachers makes a difference.

Several years with strong teachers or programs give EL students the opportunity to grow at the same pace as their English-speaking peers. The WMLS outcomes for sample students at both schools demonstrate that consistent content-based, meaningful instructional units based on over-arching academic themes yield strong results. The academic content units taught in DP classrooms are developed to meaningfully value, elucidate, and apply the child's European, Hispanic, and Indigenous cultural heritages while advancing the students' mastery of California content standards. Archimedes teachers affirm the importance of ongoing and long-term support for students in both English and Spanish and maintain contact and support for the student community long after the classes have moved on to subsequent grades. Programs should provide continuity between successive years to promote student achievement and engagement.

Teacher behaviors differed between the two schools with respect to motivating and engaging students. Examination of the reading motivation data coded with the observation protocol suggested that there were some differences between schools in several areas related to motivation. The classroom observers noted that the manner in which structured programs were implemented had a negative impact on motivational factors such as grouping, type of seatwork, time devoted to teaching phonics, grammar and spelling as compared to developing vocabulary related to academic content (CALP) comprehension, and giving students choices in how or on what they worked. Yet there were no significant differences in WMLS results. Motivation is a relatively unexplored but critical area that merits further investigation.

Different approaches can equally produce positive results. While sample classrooms at Archimedes and Orchidea differed, key elements were evident, including a strong instructional vision focusing on the needs of students, the implementation of a consistent, coherent program design, and viewing results as a barometer for effectiveness. We would propose that these should be at the core of every successful program. The focus should be on instructional quality rather than debating the language of instruction.

Professional development and a learning community are essential. The schools we observed were very distinct in terms of professional development. At Archimedes, the principal was the instructional leader and architect of the program and had the larger vision of the program and its development. He had a strong role in the area of professional development, and took an active role in instructional matters, such as modeling lessons and observing instruction. Professional development was practical with a focus on student outcomes. Important markers of success school were formal accountability measures, primarily high-stakes standardized tests.

At Orquidea, the professional development (as well as the DP program itself) was carried out by the teachers themselves. Instruction was also the focus at these sessions including individual presentations by teachers about how and what they taught, general discussions about the DP program philosophy and theory, and discussions about specific teaching issues or problems. The professional development was highly practice-focused, but theoretical considerations about second-language learning were also central and explicit. Important indicators of success for these teachers were informal measures, performance based assessments, and day-to-day monitoring of individual student progress. While the current climate did not permit ignoring standardized assessment results, these did not drive the program. However, administrators did not overlook the success of DP students.

For a bilingual program to survive, someone has to have the courage to support it (e.g., administrators, teachers, parents). Unfortunately, the precipitous decline in the number of bilingual classrooms in this state and district makes this point more salient than ever. Archimedes Elementary is a learning community that pays close attention to research on effective schools and programs for EL students. Accountability for achievement in Spanish and English language arts is a clearly stated foundation for the bilingual program. Average student achievement is above the $75^{\text {th }}$ percentile in Spanish reading for second graders at Archimedes. The principal maintains that, because his scores are high, the district administrators allow him broad discretion to permit different approaches leading to desirable student outcomes. At Orquidea School, DP has developed over time through the collaborative efforts of the teachers, who have created and maintained a very effective professional development community. However, this program has only been able to continue with strategic administrative support. We thus further recommend that school districts support autonomy with accountability for results.

Successful programs take an additive, rather than subtractive, approach to bilingual education. From Ms. Parra's kindergarten through all following grades of Dual Proficiency at Orquidea, a consistent message is sent: "You (the student) are expected to progress in two languages. Your Spanish knowledge will directly help you to reach a higher level in English than you would be able to reach otherwise." At Archimedes, Ms. Lopez taught in a very structured manner with high expectations for all her kindergarten students in both English and Spanish. She firmly believed that all kindergarten students can be taught to write a complete story not just a sentence, and the majority of students reach that goal by the end of the academic year. She gave short speeches to her students about the value of hard work, what it meant to be a good student, and how important it is to go to college. State mandates about informing parents of all their options for educating English learner students should be followed, and a fair and complete picture of each program should be offered.

Not all bilingual approaches, programs, curricula, or teachers are equally successful. Among the eight teachers observed, there was a range of interactional and instructional styles, Spanish language ability, years of teaching experience, philosophical approaches to bilingual education, effort expended, pedagogical skills, and, concomitantly, student outcomes in both English and Spanish. It is exactly these types of variations, which are an undeniable feature of any school program, that make strict comparisons difficult. However, where we observed the most success, we saw teachers who, on their own time, worked together to examine their own practice and to problem solve, teachers who thought deeply about what their students knew and what they needed to learn, and who had a deep and abiding respect for the children with whom they worked. Teacher problem-solving ability and drive also played a role in the success stories. Teachers should be trained in appropriate teaching methods for English learners and how to
supplement the scripted curriculum specifically for the needs of their students. Administrators should support teacher collaboration and allow the teacher 'experts' to help drive the program.

Table 1
Percent of Spanish Home Language Students Scoring Proficient/Advanced on 2008 CST/ELA By Program

| LAUSD Program | Orquidea School ( $\mathrm{N}=807$ ) | $\begin{gathered} \text { Entire } \\ \text { District } \\ (\mathrm{N}=112,365) \end{gathered}$ | $\begin{gathered} \text { Archimedes } \\ \text { School } \\ (\mathrm{N}=357) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| LAUSD Dual Language - EL | NO PROGRAM | 25.1 | NO PROGRAM |
| Bilingual (WB) <br> - EL | 18.3 | 11.8 | 36.0 |
| SEI - EL | 6.6 | 12.8 | 13.4 |
| Mainstream (RFEP or IFEP) | 43.5 | 56.1 | 61.3 |
| Total | 21.4 | 32.9 | 36.7 |

Table 2
Proportion of Fifteen-Minute Intervals with Instances of Reading Motivation

|  | Archimedes School |  |  |  | Orquidea School |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Class 1 | Class 2 | Class 3 | Class 4 | Class 1 | Class 2 | Class 3 | Class 4 |
| Instances <br> of Reading <br> Motivation | 15 | 2 | 25 | 17 | 67 | 28 | 52 | 34 |
| Number of <br> Data <br> Points | 87 | 70 | 97 | 87 | 106 | 77 | 104 | 76 |

Table 3
Woodcock-Muñoz Language Survey Composite Score Results

| Grade/ School | Language | Test Period | Mean Score | Mean Gain | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| K/Archimedes | English | Pretest | 416.29 |  |  |
|  |  | Posttest | 433 | 16.71 | <. 001 |
|  | Spanish | Pretest | 438.08 |  |  |
|  |  | Posttest | 453.95 | 15.90 | <. 001 |
| K/Orquidea | English | Pretest | 409.60 |  |  |
|  |  | Posttest | 428.30 | 18.70 | <. 001 |
|  | Spanish | Pretest | 426.10 |  |  |
|  |  | Posttest | 455.55 | 29.45 | <. 001 |
| 1/Archimedes | English | Pretest | 453 |  |  |
|  |  | Posttest | 463.73 | 10.73 | <. 01 |
|  | Spanish | Pretest | 464.47 |  |  |
|  |  | Posttest | $475.27$ | 10.80 | <. 01 |
| 1/Orquidea | English | Pretest | 451.89 |  |  |
|  |  | Posttest | 464.56 | 12.67 | <. 001 |
|  | Spanish | Pretest | 468.39 |  |  |
|  |  | Posttest | $477.33$ | 8.94 | <. 001 |
| 1/Archimedes | English | Pretest | 437.13 |  |  |
|  |  | Posttest | 456.87 | 19.73 | <. 001 |
|  | Spanish | Pretest | $459.47$ |  |  |
|  |  | Posttest | $478$ | 18.53 | <. 001 |
| 2/Orquidea | English | Pretest | 459.30 |  |  |
|  |  | Posttest | 469.35 | 10.05 | <. 001 |
|  | Spanish | Pretest | $480.05$ |  |  |
|  |  | Posttest | 487.6 | 7.55 | <. 001 |
| 2/Archimedes | English | Pretest | 467.67 |  |  |
|  |  | Posttest | 475.17 | 7.50 | <. 001 |
|  | Spanish | Pretest | $481.29$ |  |  |
|  |  | Posttest | 485.22 | 3.94 | .<. 01 |
| 4/Orquidea | English | Pretest | 485.23 |  |  |
|  |  | Posttest | 493.69 | 8.45 | <. 001 |
|  | Spanish | Pretest | 496.32 |  |  |
|  |  | Posttest | 504.14 | 7.82 | <. 001 |

Table 4
Percent of Children with Spanish Home Language Scoring Proficient/Advanced on 2008 CST/English Language Arts

## Comparison Group

|  | Orquidea <br> School <br> $(\mathrm{n}=804)$ | Entire <br> District <br> $(\mathrm{n}=110,588)$ | Archimedes <br> School <br> $(\mathrm{n}=362)$ | Orquidea <br> sample class- <br> rooms (n=42) |
| :--- | :---: | :---: | :---: | :---: |
| Grade Level | 28.1 | 36.2 | 39.6 | 70 |
| $2^{\text {nd }}$ grade | 8.5 | 20.9 | 28.4 | No cohort |
| $3^{\text {rd }}$ grade |  | 37.9 | 38.4 | 68.2 |
| $4^{\text {th }}$ grade | 24.8 | 30.2 | 39.5 | - |
| $5^{\text {th }}$ grade | 20.1 | 31.4 | 37.5 | - |
| Total | 20.9 |  |  |  |

Table 5
Percentage of Spanish Home Language Students Starting School at ELD 1 and Scoring Proficient/Advanced on the CST-ELA By Program

|  |  |  |  |
| :--- | :---: | :---: | :---: |
| LAUSDidea <br> Program | School <br> $(\mathrm{N}=736)$ | Entire <br> District <br> $(\mathrm{N}=86,726)$ | Archimedes <br> School <br> $(\mathrm{N}=315)$ |
| LAUSD Dual <br> Language | NO PROGRAM | $20 \%$ | NO PROGRAM |
| Bilingual (WB) | $18 \%$ | $11.4 \%$ | $35.6 \%$ |
| SEI | $5.6 \%$ | $12.3 \%$ | $12.2 \%$ |
| Mainstream <br> (RFEP or IFEP) | $47.4 \%$ | $55.8 \%$ | $59.4 \%$ |

Table 6
Comparative Features of the Research Sites

| Archimedes School | Orquidea School |  |
| :--- | :--- | :--- |
| A Waiver to Basic approach which uses <br> Spanish as a bridge to English until <br> grade 3 | A dual proficiency approach which <br> promotes bilingualism across the <br> grades |  |
| Distinct <br> Features | Strogram or approach is school-wide leadership - provided by the <br> principal | Program operates semi-independently <br> within the school |
| Reliance on commercial curriculum <br> Strong leadership - provided by the |  |  |
| group |  |  |
| Reliance on teacher-developed |  |  |
| curriculum |  |  |

- Similar populations - non-English home language, low SES
- High levels of teacher language fluency
- High expectations for students

Common - Student cohorts stay together throughout the programs
Features

- Additive learning environment - support for language and cultural diversity
- Consistent monitoring of students' progress and teaching to rigorous academic standards
- A focus on consistent, coherent program design

Figure 1
Percentage of Observational Intervals With Evidence of Instructional Practices That Support Reading Motivation


Figure 2
Percentage of 5-min Intervals with Evidence of Autonomy-supportive Instructional Practices


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[^0]:    ${ }^{1}$ These pseudonyms are used to maintain the anonymity of the schools and students.
    ${ }^{2}$ The CST is the California Standards Test and is a component of the statewide accountability system. It tests English Language Arts (ELA) and is taken by students in grades two through eleven. The test is a multiple choice assessment and includes a writing component at grades four and seven.
    ${ }^{3}$ It must be noted that $60.4 \%$ of the elementary students from MESA labeled as Initially Fluent English Proficient (I-FEP) and $59 \%$ of the students labeled as Redesignated Fluent English Proficient (R-FEP) scored at proficient or advanced on the CST-ELA.

[^1]:    ${ }^{4}$ Effective 1999-2000, almost all elementary-aged EL students in the focal district were placed into either mainstream English classes or Structured English Immersion (SEI). Students in the SEI program received classes in English-as-a-second language (ESL) and content in math, science, and history-social science taught nearly all in English with some primary language support. Alternative programs included Waiver to Basic Bilingual (WB) or Dual Language Immersion (DI).

[^2]:    ${ }^{5}$ There were limitations of this work that need to be taken in to account in considering the findings. For example, this study was descriptive, and did not set out to test hypotheses regarding the programs. In addition, our sample was relatively small - eight classrooms - and was limited in other respects as well (one geographic area, one district, and a relatively short time span). The time period of the study was especially important, because although we were able to test students at two time points in both English and Spanish, multiple time points spanning years are needed to understand longitudinal growth of the type we are interested

[^3]:    ${ }^{6}$ Named by teacher-developers, Dual Proficiency (DP) is not to be confused with Dual Immersion or Dual language Immersion, which refer to the district's two-way language immersion program that requires native English language models as well as native speakers of the second target language (either Spanish, Korean, or Mandarin) as language models in each classroom. DP students at Orquidea are labeled WB students.

[^4]:    ${ }^{7}$ We are aware that the manner in which these two classrooms were selected for study and the small number of students in two classrooms limits our ability to generalize beyond the two classrooms.

[^5]:    ${ }^{8}$ Among the Spanish home language students who study in mainstream classes district wide, $58 \%$ are Re-designated Fluency English Proficient (RFEP) and $41 \%$ are Identified Fluency English Proficient (IFEP). One would expect these students to more often excel as they have been identified fluent English speakers.

