

SUMMARY REPORT

External Evaluation for the Pasadena Unified School District *Mandarin Dual Language Immersion Program*

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Executive Summary

The purpose of this independent, external evaluation was first to study how the MDLIP was meeting its current goals of bilingualism/biliteracy, academic excellence, and multicultural understanding. We also examined how the program was expanding, specifically to gauge the district's ability to manage the growth in K-5 to a wall-to-wall program, to expand to all grades at the middle school, and perhaps eventually start a program at the high school level.

We examined student performance data, including state content assessments in English language arts and math, the English language proficiency test, and the Mandarin language assessments. To gather evidence on language use in the classroom, we were welcomed into classes at both sites and observed teaching in Mandarin and English. To gain insight into students' experiences, we conducted student surveys and focus groups in grades 4, 5, 6, and 7. To gather evidence about program goals and learn about the manageability of future plans, we used focus groups and one-on-one interviews to hear from several stakeholders including teaching staff, parents, advisory group members, and district personnel. We also conducted a parent questionnaire to include as many families as possible in the process.

Overall, there are three aspects of the MDLIP that are worth commendation. We commend the **successful growth** of a community of learners where bilingualism and biliteracy are valued, and deep friendships have formed. We also commend the **successful development** of many aspects of the academics, especially in grades K-2 which has become a strong foundation for the program over 7 years of development. Furthermore, we commend the **hope for future expansion** which has been fostered throughout the years, as evidenced by how many families wish to continue to the middle school and some to the high school program. There is wide support for choosing Pasadena High School. Families are interested to know more and some will likely enroll if advanced planning, curriculum, scheduling and staffing meet their expectations.

There are several aspects of the MDLIP that need improvement, some urgently. The urgent recommendations have been expressed to district leadership throughout the evaluation. We **urgently recommend** that PUSD (1) **hire a program leader who is fluent in Mandarin/Chinese**, (2) **create transparent plans for program growth before initiating the high school expansion**, and (3) **enact a recruitment plan for Mandarin/Chinese fluent teachers and substitutes**.

In addition, we recommend that PUSD consider ways for program and district leaders to partner with teaching staff and parents to (1) support the development of curriculum and assessment, (2) create ways to monitor and celebrate student learning, (3) create opportunities to increase Mandarin language use, (4) improve classroom management and professional development, (5) improve multicultural awareness and inclusion, and (6) provide support and guidance for parent involvement.

Introduction

Setting

This evaluation was conducted for the Mandarin Dual Language Immersion Program (MDLIP) within Pasadena Unified School District (PUSD) which is currently located at one elementary and one middle school. The program at Eugene Field Elementary School was created in 2009 with 28 students and now enrolls approximately 350 students in K-5th grades. The program at Sierra Madre Middle School began in 2014 and now MDLIP cohorts in 6th and 7th grade. Enrollment in the MDLIP is expected to grow to over 500 students by the 2016-17 year with plans for continued expansion at the elementary and middle school, as well as extension to a high school location in the district.

Brief History: The MDLIP in PUSD began as a strand program at Burbank Elementary in 2009-10 with one class of first grade and one class of kindergarten students. After two years at Burbank, a number of factors made it necessary to move the program. These factors included transportation budget cuts which shifted enrollment among the schools, and the expected extension and expansion of the program. In 2011-12 the MDLIP moved to Eugene Field Elementary School and started expanding to multiple cohorts in the early grade levels. When the first group of MDLIP students reached middle school grade in 2014-15, the program expanded to include a strand program Sierra Madre Middle School with one sixth grade class while continuing to expand cohorts at the early grade levels at Field. In 2015-16 the program had multiple cohorts with four classes in kindergarten, four in first grade, three in second grade, three in third grade, two in fourth grade, and one in fifth grade, one in sixth grade, and one in seventh grade. The ongoing expansion of the MDLIP at Field means an eventual shift from being a strand within a school to a wall-to-wall program. This change is expected to happen within 3 years as in 2016-17 there will be only three mainstream classes remaining, one each at second, third and fourth grade; all will be advanced to middle school by 2018-19.

The MDLIP at elementary was inaugurated as a 90:10 model with the kindergarten class receiving 90% of their instruction in Mandarin and 10% in English. The language balance shifts as the grades increase: first grade 80:20, second grade 70:30, third grade 60:40, fourth grade 50:50, and fifth grade 50:50. In the first two years at Burbank Elementary, the program was staffed with bilingual Mandarin-English speaking teachers who switched languages to accommodate the model. When the program transitioned to Field Elementary, a language separation model was instituted where, ideally, Mandarin teachers provide only the Mandarin-language portions of the day, and English teachers provide instruction for the English-language portions.

The MDLIP at middle school was inaugurated as a 1.75 course model within a 6-period day. Students take Mandarin Language Arts (1.0) and Mandarin Culture (0.75) classes which supplant their elective course and a portion of their Physical Education, a schedule that was brokered with input from parents. The language separation model continues at middle school with Mandarin teachers providing all instruction solely in Mandarin.

Purpose for the Evaluation

The purpose for this independent, external evaluation was to study the extent to which the MDLIP is meeting its current implementation goals for the purpose of program improvement, maintenance, and decision making regarding expansion to a high school model/program. The PUSD DLIP Master Plan Goals are:

- **Bilingualism and Biliteracy:** Students develop a high level of thinking, listening, speaking, reading, writing proficiency in English and the partner language.
- **Academic Excellence:** Students strive for academic excellence in all subject areas, meeting or exceeding District and Common Core State Standards.
- **Multicultural Understanding:** Students develop positive attitudes and appreciation toward world languages and cultures in our global society, promoting their involvement in world issues.

In addition, data were collected to better understand implementation within the strands of the Dual-Immersion Guiding Principles (Center for Applied Linguistics), which are: Assessment and Accountability, Curriculum, Instruction, Staff Quality and Professional Development, Program Structure, Family and Community, and Support and Resources. Information was also collected regarding the challenges and opportunities of the expansion to high school.

Methodology

The evaluation was designed to provide information for program maintenance, program improvement, and decisions related to the expansion into a high school model/program. The evaluation used both qualitative and quantitative methods for the purpose of gathering real-time formative implementation data as well as information about the organizational, social, and political context of program decisions. The design and implementation of the evaluation adhered to professional guidelines set forth in *The Program Evaluation Standards* (Joint Committee on Standards for Educational Evaluation) and *The American Evaluation Association Guiding Principles*, as well as content-specific guidelines from *The Guiding Principles for Dual Language Education* (Center for Applied Linguistics) among other resources.

A brief description of our methodological approaches is provided here:

Qualitative: This approach employed several methods to collect information about program implementation and expansion. Data about implementation and expansion were collected through parent focus groups, parent questionnaire, teacher/instructional aide/TOSA interviews, administrator interviews, advisory team member interviews, classroom observations, student focus groups, student survey, and document review. The student survey and parent questionnaire, as well as the protocols for interviews, focus groups, classroom observations, were developed by lead evaluators utilizing exemplars from published research and in consultation with other DLIP evaluators. All interview and focus group sessions were transcribed. These transcriptions are being analyzed by both researchers

using *a priori* coding related to program goals and research strands, as well as open coding for unexpected themes related to implementation or expansion.

Quantitative: Quantitative methods were used to analyze student-level outcome and demographic data, to help identify (a) program enrollment demographics, (b) trends in enrollment, (c) trends in student outcomes, and (d) student responses on student survey. Student outcomes include those related to the program goal of academic excellence (test scores) as defined by district. Students' and parents' program perceptions were also collected using survey methods. Quantitative analyses were performed using the SPSS v.23 software package.

The following is a list of our data collection activities that started in February 2016 and ended in May 2016:

1. District documents review
2. Student-level and grade-level data analysis
3. MDLIP classroom observations
4. Student survey and focus groups at grades 4, 5, 6 and 7
5. Parent questionnaire and focus groups
6. Teacher, TOSA, and Instructional Aide interviews
7. Administrator, District Office Personnel, and Mandarin-Parent Advisory Council (M-PAC) member interviews

Limitations to Generalization

As with most evaluation studies, the generalization of the findings is limited as participation is voluntary and conditions are not randomly assigned. Also, the scope of work is bound by the typical constraints of data and participant availability within the evaluation period.

Review of Relevant Literature

This purpose of this brief review is to examine the main elements of dual immersion programs and consider their potential impact on student outcomes. This review is not meant to be comprehensive, but rather to refresh and extend prior reviews (see DLIP Master Plan, 2013).

Background: Mandarin immersion programs started in the United States in 1981 with the Chinese American International School in San Francisco. By 1996 there were still only 4 programs in the nation. Federal funding increased in 2006 and so did program growth; as of 2014, there were over 170 programs in 26 states (Weise, 2014). Guidelines for dual language programs include the following (Howard & Christian, 2002; Lindholm-Leary, 2001):

- A minimum of 6 years of bilingual instruction (e.g., K-5);
- A focus on the core academic curriculum;
- High-quality language arts instruction in both languages;

- Separation of the two languages for instruction;
- Use of the partner language for at least 50% of the instructional time;
- An additive bilingual environment with no cost to the student's primary language;
- 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.

Policy Context: In California, bilingualism and bilingual education has been the subject of controversy and policy. In 1998, voters in California passed Proposition 227 which restricted bilingual education with an immediate, detrimental effect on bilingual program enrollment. Some suggest that current shortages in bilingual teachers can be traced back to this policy decision (Gándara & Hopkins, 2014). Californians will vote on the reinstatement of bilingual education in November 2016 when Proposition 58 is placed on the ballot. Policies such as these will continue to influence public perceptions of language programs and bilingualism, teacher pipelines, and funding for curriculum, staffing, and research. Many educational policy makers, as well as the public at large, assume that monolingualism in English is the ultimate goal of schooling. Thus, preservation of bilingual programs depends on districts' and states' ability to highlight effective DLIPs and the positive outcomes associated with elective multilingualism and emphasize the equity of outcomes (Alfaro et al., 2014; Castro et al., 2013; see also Reardon et al., 2014; Umansky & Reardon, 2014).

Dual Language Education: Designed for All? The preservation of home and heritage languages enriches our educational communities and our nation. An increase in partnership between educators and families in the context of language education not only increases the success of language attainment (Soderman, 2010), it solidifies the value of language learning beyond academic achievement. For recent reviews of the history of bilingual education in the United States, see Kim, Hutchinson & Winsler (2015) and Weise (2014).

In California and other states, public school districts may choose to implement DLIPs in order to retain middle-class (often white) families, with implications for program goal-setting and development (Palmer, 2010; Valdés, 1997; see also Kahlenberg, 2006). If DLIPs evolve towards meeting the needs of the dominant majority, it is often the case that minority students' needs are not prioritized unless their interests converge with those of the dominant majority (Palmer, 2010). This "interest convergence," a core principle of critical race theory which contends that members of the majority culture (white families) will only allow change to happen in the service of equity and social justice for members of a minority culture if the reasons coincide with the majority's own self-interests (Bell, 1980). In a Mandarin DLIP, this could also take the form of English dominant families pursuing a program model which serves the language needs of their own children above the needs of Mandarin dominant families, other non-English speaking families, and their students which include English learners.

Since DLIPs have evolved within the racially charged context of language education in the United States, structural and attitudinal barriers to equity could persist if left unchecked, making it more likely that the DLIPs become an enrichment, one-way immersion designed for the middle- and upper-class dominant culture (Palmer, 2010; Palmer & Martínez, 2013; see also Valdés, 2002). Structural features, such as recruitment for language balance and preparation of

teachers, can either address or ignore the root causes of inequities and misconceptions about language learning. Since DLIPs profess a goal of multicultural awareness understanding for all students, there should be no question that dual language learning could be a valuable experience for students of all dialects and language backgrounds (see also Bailey & Osipova, 2015; Orfield, 2014).

Challenges to Dual Immersion: Although dual language programs which take an additive approach to education have been in place for many years, there are inherent challenges. The pre-existing challenges of any dual immersion program include: (1) relatively slow progress in younger grades as compared to upper elementary towards bilingual/biliterate goals, (2) few assessments which can pinpoint growth and development needs of bilingual students, (3) creating robust curriculum and evidence-based instructional practices at all grade levels, and (4) encouraging students to use the partner language in and outside the classroom (Lindholm-Leary, 2012; see also Potowski, 2007, de Jong & Bearer, 2011; Montague, 1997).

Dual language programs cannot achieve their goals of without wise and consistent planning (Freeman, Freeman & Mercuri, 2005; Law, 2015). Some have noted that a well-run one-way immersion can produce better outcomes than a poorly run dual immersion (Potowski, 2004). As with any specialized program, districts and site leadership are responsible for setting measurable objectives according to their program goals (Howard et al., 2007).

Whether directly or indirectly, districts and schools communicate the goals of their program through the key features of (a) program configuration, (b) language model, (c) quality of curriculum in each language, (d) the language used for assessment and accountability, and (e) the equal use of languages in the school and district (Shohamy, 2006; de Jong & Bearer, 2014). In the sections that follow, we explore key features of dual language programs and their relationship to student experiences and outcomes.

Program Configuration (strand or wall-to-wall): In a strand or a wall-to-wall program, districts and schools communicate the value of languages and cultures through recruiting and programming. When DLIPs are a strand within a mainstream school, the DLIP may not always reflect the demographics of the whole school which can create unease. Conversely, a wall-to-wall program risks becoming isolated and less connected to district initiatives. Districts and schools need to plan for ways to build relationships between students in both configurations while celebrating how the strand can bring DLIP students closer through uniquely shared experiences (DeJesus, 2008; Forman, 2015).

Language Model: Adherence to the DLIP 90/10 model can turn into highly-focused prioritization of the model itself as the sole facilitator of students' academic success. This can create tension between "following the model" and "meeting the needs of students" (Weise, 2014). Studies of mainstream education remind us that many, if not all, students have moments when pre-teaching or re-teaching is required to achieve and stay on grade level. The few studies which have compared outcomes by language model have found benefits to both (e.g., Lindholm-Leary, 2016).

Language Separation: The goal of language separation in DLIPs is to maximize input and output in the target language while minimizing the use of the partner language in order to increase intake and uptake of language skills (Cummins, 2005; Larsen-Freeman & Long, 2014; Long, 1981). Without this clear delineation, it would be more difficult for students to use their less dominant language in a dominant language setting (de Jong, 2016). Even though the separation of languages for instruction is viewed positively for this purpose, some consider it to be unnatural and not supportive of natural, interactive, “translanguaging” among bilingual and biliterate students (de Jong, 2016). Dual language learners need spaces and opportunities to use both languages strategically and purposefully to complete social and academic tasks. This promotes negotiated interactions, authentic learning, and the equal positioning of languages.

Language Balance: The premise of “two-way immersion” is that there will be an equal distribution of students from English and partner language backgrounds in the classroom. Studies suggest that few DLIPs are meeting this goal (de Jong, 2016). Instead, many programs enroll a majority of English speaking students with less than 25% of students who speak the partner language at home. It can be argued that this is no longer a two-way immersion, but rather a one-way immersion model which places additional responsibility on teachers and the few partner language peers (Montague 1997). However, when dual language programs are well-implemented, both minority- and majority-language students can benefit, showing achievement at or above that of their mainstream peers (Block, 2011; Lindholm-Leary, 2011; Li et al., 2016; Padilla, Fan, Xu, & Silva, 2013).

Multiculturalism and Attitudes towards Language: Students in dual language programs have shown greater cross-cultural competence and more positive attitudes about other cultures (Lindholm-Leary, 2016; Barse & de Jong, 2008). Students can display strong commitment to and investment in language learning connected to deeply felt beliefs about language identity (Potowski, 2007). Students are often asked to be language brokers in and outside the classroom, which can increase empathy in the role of language and social mediators (Palmer, 2007; Martin-Beltrán, 2009).

Bilingualism/Biliteracy: Dual language programs tend to have a wide range of proficiency within each class which makes it difficult to quantify average outcomes. Some studies report that students who remain in dual language programs until Grade 8 can achieve upper-intermediate to low-advanced oral language proficiency as measured by Proficiency Guidelines developed by the American Council on the Teaching of Foreign Languages or ACTFL (Fortune & Tedick, 2015).

Classroom Language Use and Development: Dual language learning is not an easy task. Students can at first experience the pleasure of language learning, which naturally turns to resistance before reaching a stage of commitment (Mu & Dooley, 2015). Researchers have been interested in why students don’t speak the target language as readily in social settings as the home language since the early days of language immersion programs in the United States (see Tarone & Swain, 1995). Factors include the relative status of the target language, pressure for linguistic and cultural conformity, and peer pressure (Caldas, 2006; Law, 2015; Palmer & Henderson, 2016; Zhang & Slaughter De Foe, 2009). More contact with native speakers is not sufficient without additional motivation for communication and interaction within the complex

social environment of school (Potowski, 2004). Since Chinese is one of the most rapidly lost languages (Law, 2015), families and extended families and MDLIP communities have a role to play in ensuring the fundamental benefits of belonging and cultural identity are woven in to language learning. The funds of knowledge that parents and families bring and use are the conduit for language development and maintenance.

Curriculum: One of the common challenges facing dual language programs is developing and articulating curriculum. In DLIPs that are both extending to upper grades and expanding into additional cohorts, co-planning is continuous and increasingly complex. Effective dual language programs allow for planning time within grades across Mandarin and English teachers and cohorts, as well as between grades for vertical articulation of content and language skills (de Jong & Bearse, 2014). Common time for team planning has always been recommended for serving English learners who are mastering content and concepts (Echevarria, Vogt, and Short, 2004).

Mandarin curriculum planning starts with a choice of teaching simplified or traditional characters. This choice can be a touchstone for political differences in Mandarin-speaking communities, impacting where students can use their Mandarin. Most programs in the United States use simplified Chinese (84% in 2014 according to Weise, 2014), while others do both. In Utah, for example, MDLIPs use simplified in K-5 with a staged transition into traditional so that students have sufficient exposure and fluency by the time they begin secondary school.

Curriculum materials for MDLIPs are not plentiful. The only pre-packaged materials available have mostly been books designed for intensive foreign language instruction, which follows a different scope and sequence which emphasizes conversational topics, not necessarily content-based academic instruction aligned with K-12 standards. These programs also lack robust assessments. Therefore, DLIPs have relied on teachers to create curriculum, a time-consuming process of translation and alignment (see Hsu, 2016). DLIPs also need Mandarin-specific content standards that are aligned with common core at each state. Standards in Mandarin have goals that are specific to that language (e.g., learning the four tones, identifying “radicals” in place of root words). Development of content lessons such as math, science and social studies also requires thoughtful development, as well as materials for GATE, English learners, intervention, and topical lessons to address the program goal of multiculturalism. Mandarin language K-12 experts have an essential role in developing and aligning Mandarin standards, creating the scope, sequence and pacing guides that will identify which standards can and will be covered within a 90/10 or 50/50 program, and developing assessments for each grade over multiple years of program development. Advanced planning for the expansion to new grades is highly recommended (de Jong, 2016; Howard et al., 2007; Lindholm-Leary, 2011).

Teacher Preparation and In-Service Practice: Teacher preparation and professional development is crucial, yet many DLIPs struggle to find certificated, qualified teachers (Tedick, Christian & Fortune, 2015). Districts expect (and DLIPs need) teachers who have a host of essential skills in addition to fluency in both languages, such as understanding of language patterns of dual language acquisition, mastery of grade-appropriate instructional and assessment strategies, as well as extraordinary organization and communication skills (Castro, Espinosa, & Páez, 2011). In-service professional development, coaching, and specially designed dual

language mentoring programs can provide additional learning spaces for these skills to develop. In addition, some districts have used professional development programs to address concerns around multicultural awareness so that DLIP teachers have a space where they can examine their own unconscious biases and ideological orientations in order to fully support students' bicultural development (see Alfaro et al., 2014). All teachers, instructional support providers, and administrators involved with DLIPs will need continuing educational opportunities, as well as time for specifically designed DLIP collaboration and self-reflection.

Program Expansion to Middle and High School: Dual language education in secondary school holds great promise yet has been challenging due to school structures and scheduling. A robust, integrated language program at middle or high school is unlikely without structures to support planning time and integrated curriculum building (de Jong & Bearse, 2014; de Jong, 2016). Secondary DLIP programs can rarely maintain a 50:50 language balance. This can signal to students that there is a devaluation of the partner language in the broader context of secondary school goals or outcomes. Even in an additive bilingual program, a “language as resource” perspective can quickly become “language as problem” (Ruiz, 1984) if parents perceive that time spent in the partner language could hurt students' chances at academic success, hindering access to electives and advanced coursework, or making it more difficult to maintain a high GPA. Thus, it is natural and understandable to observe students shifting their language investment because of reduced time in the partner language. As more DLIPs approach secondary school implementation, more research will be possible to examine these concerns.

Parent Expectations and Involvement: Parents who seek out DLIPs share common hopes for their children's' education, but may have different expectations regarding program outcomes. Studies examining parent expectations found that many DLIP parents expect high levels of language proficiency in both languages, while some are more concerned about academic English development, and yet others wish to foster a stronger ethnic identity more than multicultural awareness (Ee, 2016; Lao, 2004; Parkes, 2008). Parents who are generally in favor of DLIP goals can turn a critical eye to organizational features of the program, including the finer points of instruction (Lee & Jeong, 2013). Districts, schools and teachers have the daunting task of navigating incongruent parent expectations. In general, middle class, English-speaking families are often very involved in the school yet with a narrow focus on the needs of their own children (Shannon & Milian, 2002; see also Shannon and Latimer 1996 for a review).

Dual Language Resources for Families: Resources for parents and educators in DLIPs are constantly expanding, and now include books and guides created explicitly for Mandarin DLIPs. The selected resources on this short list are hubs for many additional sites and materials that may be useful to MDLIP staff and families:

Books

- *A Parent's Guide to Mandarin Immersion* (2014) by Elizabeth Weise

Websites

- Center for Advanced Research on Language Acquisition <http://carla.umn.edu/>
- Center for Applied Linguistics: Dual Immersion www.cal.org/twi
- Mandarin Immersion Parent's Council Website <https://miparentscouncil.org>
- UCLA Confucius Institute <http://www.confucius.ucla.edu/>

Findings

Data Analyses – Student-level and District-level Data

For the purpose of the evaluation, we requested and received (1) student-level administrative data including student demographic and outcome variables for the past four years (2011-12, 2012-13, 2013-14, and 2014-15); and (2) student-level achievement data on AAPPL for the past two years. Using the data collected by the district, we conducted descriptive analysis and presented the results in the following paragraphs. As there are only six MDLIP students in 6th grade at the Sierra Madre Middle in 2014-15, we will not report any results on these six students for confidential considerations.

We will start with describing the Pasadena Unified School District's K-5 students in terms of student demographics and changes in the past four school years, then the demographic results for Field's MDLIP students and their similarities and differences to Field's non-MDLIP students. We will proceed to document the academic performance of Field's MDLIP students, relative to the non-MDLIP students and the district K-5 students.

PUSD Student Demographics: K-5

As presented in Table 1, there are 8,502 K-5 students in the Pasadena Unified School District in 2014-15. Hispanic students make up the majority of the student population, 58.1%, followed by 18.4% White, 12% African American, 6.3% Asian, 2.7% students of other races, and 2.5% students of two or more races. Among them, 57.2% of these students reported English as their home language, 35.9% reported Spanish as their home language, and 1.3% of the students reported having Mandarin as their home language. Regarding English language proficiency status, 57.1% were classified as English only, 6.7% as Initially Fluent English Proficient (IFEP), 11.6% as Redesignated Fluent English Proficient (RFEP), and 24.5% as English learners (ELs). In addition, 12.5% of students were classified as eligible for special education, 2.1% as students with disabilities, 4.4% homeless, 10% classified as gifted, and 66.9% as receiving free or reduced-price lunch.

Over the four year span, the demographic profile of the district K-5 population remained relatively the same, with 2.5% fewer Hispanic and 1.6% fewer African American students, yet 2.3% more White and 1.6% more Asian students between 2011-12 and 2014-15. There is also an increase of students whose home language is English and students who are eligible for special education. Correspondingly, there was a decrease in the number of students whose home language is Spanish, students who are classified as English learners, and students who receive free or reduced-price lunch.

Table 1: PUSD K-5 Student Characteristics, 2011-2015

	2011-12	2012-13	2013-14	2014-15
Number of students	8,795	8,570	8,526	8,502
Ethnicity (%)				
African American	13.6	13.1	12.3	12.0
Asian	4.7	5.4	5.7	6.3
Hispanic	60.6	58.9	58.4	58.1
Two or more races	2.7	2.6	2.4	2.5
White	16.1	17.8	18.9	18.4
Others	2.3	2.2	2.3	2.7
Home language (%)				
English	52.3	54.1	55.7	57.2
Spanish	41.0	38.6	37.1	35.9
Mandarin	0.5	0.8	1.1	1.3
Non-Mandarin Chinese*	0.2	0.2	0.2	0.2
Other Language	6.0	6.3	5.9	5.4
Language Status (%)				
English Learner	30.6	29.2	28.1	24.5
English only	52.2	54.1	55.6	57.1
Initial Fluent English Proficient (IFEP)	6.8	6.6	6.3	6.7
Redesignated-FEP	10.2	10.0	9.9	11.6
To be determined	0.1	0.1	0.0	0.0
% Male	52.3	52.0	52.7	52.3
% Receiving free/reduced-price lunch	69.4	68.1	67.1	66.9
% Special Education	10.2	12.3	12.9	12.5
% Gifted	9.6	10.4	9.3	10.0
% Students with Disabilities	0.0	0.0	0.0	2.1
% Homeless	NA	NA	0.0	4.4

* non-Mandarin Chinese includes Cantonese, Chaozhou, and other Chinese

Field Student Demographics: MDLIP and non-MDLIP

In 2014-15, there were 334 MDLIP students enrolled in Field Elementary. As shown in Table 2, Asian students made up the largest share (44.9%). For the home language of MDLIP students, 73.7% reported English and 17.4% reported Mandarin. Regarding English language proficiency status, 73.7% of the students were classified as English only, 17.4% were IFEP, 5.7% were RFEP, and 3.3% were English learners. In addition, 19.8% of students were classified as receiving free or reduced-price lunch, 3.9% eligible for special education, 0.3% as students with disabilities, and 21.9% classified as gifted.

Table 2: Field K-5 MDLIP and non-MDLIP Students Characteristics: 2011-15

Characteristics	MDLIP				Non-MDLIP			
	2011-12	2012-13	2013-14	2014-15	2011-12	2012-13	2013-14	2014-15
Number of students	102	196	272	334	336	308	251	141
Ethnicity (%)								
African American	10.8	10.2	8.5	7.5	15.8	14.0	12.7	12.8
Asian	40.2	44.9	43.8	44.9	2.1	3.2	4.0	4.3
Hispanic	15.7	14.3	16.2	13.5	57.4	56.5	58.6	58.2
Two or more races	16.7	14.8	15.4	19.8	6.8	6.5	6.8	7.1
White	14.7	14.8	14.0	12.0	13.7	16.6	15.5	14.9
Others	1.9	1.0	2.1	2.3	4.2	3.2	2.4	2.7
Home language (%)								
English	71.6	71.4	75.4	73.7	64.3	67.9	66.9	68.1
Spanish	4.9	2.6	2.2	2.1	28.6	24.4	25.1	22.0
Mandarin	13.7	17.3	15.4	17.4	0.6	0.3	0.4	0.7
Non-Mandarin Chinese*	0.0	3.6	2.2	2.1	0.0	0.0	0.0	0.0
Other Language	9.8	5.1	4.8	4.7	6.5	7.4	7.6	9.2
Language Status (%)								
English Learner	12.7	12.8	9.6	3.3	22.6	20.5	19.1	15.6
English only	71.6	71.4	75.4	73.7	64.3	67.9	66.9	68.1
Initial Fluent English Proficient (IFEP)	15.7	14.8	13.6	17.4	7.4	5.2	5.6	2.1
Redesignated-FEP	NA	1.0	1.5	5.7	5.7	6.5	8.4	14.2
To be determined	NA	NA	NA	NA	NA	NA	NA	NA
% Male students	48.0	46.9	49.3	52.4	53.6	53.9	52.2	52.5
% Receiving free/reduced-price lunch	21.6	19.4	20.6	19.8	68.2	65.9	67.7	66.0
% Special Education	2.9	3.6	2.9	3.9	9.8	10.1	8.4	8.5
% Gifted	4.9	9.7	15.8	21.9	7.4	6.8	7.6	9.2
% Students with Disabilities	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.7
% Homeless	NA	NA	NA	NA	NA	NA	NA	2.8

* Non-Mandarin Chinese includes Cantonese, Chaozhou, and other Chinese

Over the past four years, the MDLIP student population at Field almost tripled, while the non-MDLIP student population decreased by more than half. This is as expected as Field has been moving to be a wall-to-wall MDLIP school by increasing its MDLIP cohorts while phasing out the mainstream program. The demographic profile of students in the MDLIP changed a bit over the past four years, however. Proportionally, more Asian students and students with two or more races entered the program, while the proportions of African American, Hispanic, and White students decreased. The trend is quite similar for the non-MDLIP population in the Field: Asian students increased slightly and the African American population decreased slightly.

Corresponding to the larger proportion of Asian MDLIP students and smaller proportion of Hispanic MDLIP students, a larger proportion of MDLIP students have home language of English and Mandarin, a smaller proportion of students reporting home language as Spanish over the past four years. Additionally in the same four year span, the proportion of students classified as English learners decreased from 12.7% to 3.3%, the percentage of students classified as gifted increased from 4.9% to 21.9%, and the percentage of students receiving free or reduced-price lunch decreased slightly from 21.6% to 19.8%.

Field Student Performance in English Language Arts and Mathematics

Moving to the results on student academic outcomes, in 2011-12 and 2012-13, students in grades 2-11 took the California Standards Tests (CST) in both English language arts (ELA) and mathematics. In 2013-14, the State of California joined the Smarter Balanced Assessment Consortium (SBAC) to replace CST. The students participated in the SBAC field testing but no student data were released. Therefore, 2014-15 is the first year the PUSD students took the SBAC tests, and students in grades 3-8 and 11 participated. These test results in both raw scale scores and performance levels are available. For CST, the performance levels are: Far Below Basic, Below Basic, Basic, Proficient, and Advanced. For SBAC, there are four performance levels: Standard Not Met, Standard Nearly Met, Standard Met, and Standard Exceeded.

In addition to reporting raw student scale scores, we also report standardized student scale scores in our findings (see Table 3). The standardized scale scores are based on the district mean and standard deviation for each subject test and each grade level, allowing us to compare scores across grades, tests, and years more easily and compatibly. A standardized scale score of zero, for example, indicates that the student scored at the mean for all other students in the same grade level in the district who took the same test. A standardized scale score of 1.0 means the student scored one standard deviation higher than the district mean. Conversely, a standardized scale score of -1.0 indicates that the student scored one standard deviation lower than the district mean. Using generally accepted benchmarks in statistical analysis, we consider a difference of 0.1 standard deviations or less to be minor, a difference of 0.1 to 0.3 standard deviations to be small, a difference of 0.3 to 0.5 standard deviations to be moderate, and a difference greater than 0.5 to be large.

Table 3. Field Elementary MDLIP and non-MDLIP Students' Mean ELA and Math Scores

Year	Grade	ELA				Math			
		MDLIP		Non-MDLIP		MDLIP		Non-MDLIP	
		<i>n</i>	Mean	<i>n</i>	Mean	<i>n</i>	Mean	<i>n</i>	Mean
Raw Scale Scores									
2011-12	2	14	397.36	43	335.33	14	446.71	43	337.02
	3	10	433.40	55	328.71	10	482.90	54	393.85
	4	NA	NA	45	370.93	NA	NA	45	364.44
	5	NA	NA	47	365.38	NA	NA	45	372.22
2012-13	2	27	390.85	49	330.78	27	429.37	49	336.00
	3	15	393.13	38	322.37	15	483.13	37	387.95
	4	12	469.67	57	354.68	12	475.25	56	381.91
	5	NA	NA	45	344.67	NA	NA	45	355.47
2013-14*		NA	NA	NA	NA	NA	NA	NA	NA
2014-15	3	53	2459.60	32	2395.50	53	2401.81	32	2485.30
	4	22	2533.86	37	2402.84	22	2532.41	37	2418.65
	5	19	2561.79	27	2421.89	19	2556.74	27	2437.70
Standardized Scale Scores									
2011-12	2	14	0.42	43	-0.52	14	0.53	43	-0.68
	3	10	1.32	55	-0.32	10	0.91	54	-0.10
	4	NA	NA	45	-0.10	NA	NA	45	-0.37
	5	NA	NA	47	0.07	NA	NA	45	-0.26
2012-13	2	27	0.47	49	-0.42	27	0.59	49	-0.54
	3	15	0.53	38	-0.45	15	0.82	37	-0.20
	4	12	1.62	57	-0.27	12	1.11	56	-0.10
	5	NA	NA	45	-0.29	NA	NA	45	-0.40
2013-14*		--	--	--	--	--	--	--	--
2014-15	3	53	0.71	32	-0.04	53	0.95	32	-0.02
	4	22	1.04	37	-0.37	22	1.02	37	-0.40
	5	19	0.82	27	-0.64	19	0.79	27	-0.47

NA: No MDLIP students enrolled.

* Students participated in the Smarter Balanced Assessment field testing.

Across all years, all grade levels, and all tests, MDLIP students performed higher on average than their non-MDLIP peers at Field Elementary and in PUSD. Relative to their peers in Field Elementary, MDLIP students scored about 0.7 to 1.9 standard deviations higher on average in ELA and about 1.0 to 1.4 standard deviations higher on average in math across the three years when test data were available. To describe the differences in scale between the CST and SBAC tests, for ELA one standard deviation ranged from 48 to 70 points in CST, and from 78 to 105 points in SBAC. For math, one standard deviation ranged from 60 to 117 points in CST, and from 70 to 106 points in SBAC.

For ELA, and compared to the district average, the MDLIP students scored on average as high as 1.6 standard deviations above (in 2012-13 for the 12 Grade 4 MDLIP students). The smallest difference in ELA was 0.4 standard deviations above the district average (in 2011-12 for the 14 Grade 2 MDLIP students). For math, and compared to the district average, the MDLIP students scored higher on average, ranging from 0.5 standard deviations in favor of Grade 2 MDLIP students in 2011-12 to 1.1 standard deviations in favor of Grade 4 MDLIP students in 2012-13.

Correspondingly, a higher percentage of MDLIP students were classified as “Advanced” in ELA and math than their non-MDLIP peers at Field and in the district. For ELA, 44.1%, 30.6%, and 40.5% more MDLIP students achieved “Advanced” or “Standard Exceeded” levels than their peers in Field in 2011-12, 2012-13, and 2014-15, respectively. For math, 54.1%, 44.7%, and 41.6% more MDLIP students achieved “Advanced” or “Standard Exceeded” levels than their peers at Field in 2011-12, 2012-13, and 2014-15. Please see Table 4 for more details.

The difference in performance levels between MDLIP students and their peers in the district is not as large, but still substantive. The difference ranged from 22.6% in 2012-13 to 33.2% in 2011-12 in ELA, and the difference ranged from 31.2% in 2014-15 to 38.5% in 2011-12 in math.

Students classified as English learners take the California English Language Development Test (CELDT) annually which measures their progress towards proficiency in reading, writing, listening and speaking. The CELDT is administered to students in all grades, and the results are reported in both scale scores and in the following five performance levels: Beginning, Early Intermediate, Intermediate, Early Advanced, and Advanced.

In both 2011-12 and 2012-13, MDLIP EL students out-performed their non-MDLIP peers in Field Elementary by about 12 and 14 points, respectively (see Table 5). In 2013-14 and 2014-15, MDLIP EL students scored 5 and 2 points lower than their non-MDLIP peers in Field Elementary, respectively. We are not reporting the CELDT scores by grade because in most grades there are fewer than 10 students in both the MDLIP group and the non-MDLIP group. Compared to the district EL students, MDLIP EL students scored 23, 19, 25, and 44 points higher in 2011-12, 2012-13, 2013-14, and 2014-15 respectively. These results should be interpreted with caution as an increase in scale score does not necessarily correspond with increase in performance level.

Table 4: CST and SBAC Performance Levels, ELA and Math, for Field and PUSD

	ELA			Math		
	Field		PUSD	Field		PUSD
	MDLIP	Non-MDLIP		MDLIP	Non-MDLIP	
2011-12 CST (Grades 2-5)						
Number of students	24	190	4,636	24	187	4,673
Performance Level	%	%	%	%	%	%
Far below basic	4.2	7.4	4.7	0.0	2.7	2.2
Below basic	4.2	13.7	10.1	4.2	16.6	11.1
Basic	8.3	28.4	27.2	8.3	25.1	18.3
Proficient	20.8	32.1	28.8	8.3	30.5	27.7
Advanced	62.5	18.4	29.3	79.2	25.1	40.7
2012-13 CST (Grades 2-5)						
Number of students	54	189	5,039	54	187	5,072
Performance Level	%	%	%	%	%	%
Far below basic	1.9	9.5	5.2	1.9	5.9	2.3
Below basic	11.1	16.4	11.0	3.7	17.1	11.7
Basic	20.4	31.2	28.1	93.0	22.5	19.4
Proficient	18.5	25.4	30.1	14.8	28.9	27.8
Advanced	48.1	17.5	25.5	70.4	25.7	38.7
2013-14*						
2014-15 SBAC (Grades 3-5)						
Number of students	94	96	3,994	94	96	3,996
Performance Level	%	%	%	%	%	%
Standard not met	10.6	49.0	39.0	9.6	46.9	35.7
Standard nearly met	20.2	29.2	23.7	11.7	34.4	29.6
Standard met	23.4	16.7	20.6	34.0	15.6	21.2
Standard exceeded	45.7	5.2	16.6	44.7	3.1	13.5

* Students participated in the Smarter Balanced Assessment field testing.

Table 5. CELDT Scores, K-5 MDLIP and non-MDLIP

Year	Grade	MDLIP			Non-MDLIP		
		<i>n</i>	Standardized Mean	Scale Mean	<i>n</i>	Standardized Mean	Scale Mean
2011-12	K	12	1.05	455.75	14	0.13	383.29
	1	7	--	--	18	0.08	441.50
	2	2	--	--	13	0.25	495.69
	3	2	--	--	19	-0.23	476.11
	4	NA	NA	NA	10	-0.33	502.60
	5	NA	NA	NA	11	0.10	528.45
2012-13	K	20	0.87	436.95	12	0.02	365.17
	1	10	0.48	470.80	14	0.03	445.00
	2	5	--	--	17	-0.04	469.71
	3	3	--	--	9	--	--
	4	2	--	--	13	-0.02	504.15
	5	NA	NA	NA	6	--	--
2013-14	K	14	1.05	458.43	7	--	--
	1	12	0.46	475.58	8	--	--
	2	6	--	--	13	0.51	501.23
	3	4	--	--	11	-0.05	466.27
	4	1	--	--	7	--	--
	5	1	--	--	8	--	--
2014-15	K	27	1.15	485.22	NA	NA	NA
	1	6	--	--	4	--	--
	2	10	0.87	528.40	5	--	--
	3	4	--	--	4	--	--
	4	3	--	--	13	0.39	525.08
	5	1	--	--	5	--	--

NA: No MDLIP or non-MDLIP students enrolled

--: For confidentiality, results that are based on fewer than 10 students are not reported

Additionally across all four years, there are higher percentages of MDLIP EL students who achieved “Early Advanced” and “Advanced” than their peers in Field. There are also higher percentages of MDLIP EL students who achieved “Early Advanced” and “Advanced” than their peers in the district, ranging from 21% to 53% higher (see Table 6). Since “Advanced” students are typically reclassified, this may simply indicate differences in reclassification timing which could leave ready-to-reclassify students in EL status longer than expected.

Table 6: CELDT Performance Levels, Field and District

	Field		PUSD
	MDLIP	Non-MDLIP	
2011-12 CELDT (Grades K-5)			
Number of students	23	40	3,028
CELDT Performance Level	%	%	%
Beginning	0.0	0.0	10.7
Early intermediate	13.0	12.5	15.8
Intermediate	21.7	35.0	39.3
Early advanced	30.4	30.0	27.6
Advanced	34.8	22.5	6.6
2011-12 CELDT (Grades K-5)			
Number of students	85	71	2,761
CELDT Performance Level	%	%	%
Beginning	5.9	11.3	12.3
Early intermediate	21.2	16.9	15.7
Intermediate	44.7	42.3	40.8
Early advanced	22.4	28.2	25.6
Advanced	5.9	1.4	5.6
2011-12 CELDT (Grades K-5)			
Number of students	38	54	2,694
CELDT Performance Level	%	%	%
Beginning	2.6	5.6	13.0
Early intermediate	5.3	9.3	17.1
Intermediate	26.3	42.6	37.8
Early advanced	52.6	38.9	26.2
Advanced	13.2	3.7	5.9
2014-15 CELDT (Grades K-5)			
Number of students	51	31	2,696
CELDT Performance Level	%	%	%
Beginning	0.0	6.5	10.5
Early intermediate	0.0	0.0	15.4
Intermediate	9.8	41.9	36.9
Early advanced	58.8	38.7	29.3
Advanced	31.4	12.9	8.0

Field Student Performance in Mandarin

The *ACTFL Assessment of Performance towards Proficiency in Languages* (AAPPL) is one of the two most popular tests used by the Mandarin immersion programs across the nation. The assessment was primarily developed for students in grades 5-12, but the Interpersonal Listening and Speaking part has been routinely used by Mandarin immersion students in earlier elementary levels. The AAPPL was adopted as the official test of the MDLIP in PUSD starting in the 2013-14 school year. PUSD set proficiency targets for each grade, as seen in Table 7.

Table 7. Pasadena Unified School District DLIP AAPPL Mandarin Proficiency Targets

Grade	AAPPL Domain				
	Interpersonal Listening/Speaking	Presentational Speaking	Presentational Writing	Interpretive Listening	Interpretive Reading
K	Novice Low	Novice Mid	Novice Mid	Novice High	Novice Mid
1	Novice Mid	Novice High	Novice Mid	Novice High	Novice Mid
2	Novice High	Novice High	Novice High	Intermediate Low	Novice High
3	Novice High	Intermediate Low	Intermediate Low	Intermediate Low	Intermediate Low
4	Intermediate Low	Intermediate Low	Intermediate Low	Intermediate Low	Intermediate Low
5	Intermediate Low	Intermediate Mid	Intermediate Mid	Intermediate Mid	Intermediate Mid
6	Intermediate Low	Intermediate Mid	Intermediate Mid	Intermediate Mid	Intermediate Mid
7	Intermediate Low	Intermediate Mid	Intermediate Mid	Intermediate Mid	Intermediate Mid

In 2013-14 and 2014-15, the MDLIP students in grades 2-5 took some subtests of the AAPPL. Specifically, in 2013-14, grades 2-5 students took the test in Interpersonal Listening and Speaking; in 2014-15, grades 3-6 students took the test in Interpersonal Listening and Speaking. The results presented in Tables 8. Not all students' scores are represented because not all students took the test, and the size of the pioneer cohort was too small to report with confidentiality (Grade 5 cohort in 2013-14, $n=7$; Grade 6 cohort in 2014-15, $n=7$).

Interpersonal Listening/Speaking. In 2013-14, Pasadena's MDLIP students in grades 2-5 took the AAPPL Interpersonal Listening/Speaking subtest. Compared to the district benchmark, 60% of the 58 Grade 2 students scored as Novice High or higher; 63% of the 24 Grade 3 students scored as Novice High or higher levels; 60% of the 15 Grade 4 students scored as Intermediate Low or higher levels; 45% of the 11 Grade 5 students scored as Intermediate Low or higher levels. Please see Table 8 for more details.

Table 8. AAPPL Interpersonal Listening & Speaking, PUSD MDLIP Grades 2-5, 2013-15

	2013-14		2014-15		
	n	%	n	%	
Grade 2 MDLIP Students					
Novice Low (N-1)	2	3	NA	NA	
Novice Mid (N-2)	10	17	NA	NA	
Novice Mid (N-3)	11	19	NA	NA	
Novice High (N-4)	17	29	NA	NA	
Intermediate Low (I-1)	17	29	NA	NA	
Intermediate Mid (I-2)	1	2	NA	NA	
Intermediate Mid (I-3)	0	0	NA	NA	
Intermediate Mid (I-4)	0	0	NA	NA	
Intermediate High (I-5)	NA	NA	NA	NA	
Subtotal	58	100	NA	NA	
Grade 3 MDLIP Students					
Novice Low (N-1)	0	0	0	0	
Novice Mid (N-2)	0	0	0	0	
Novice Mid (N-3)	1	4	6	11	
Novice High (N-4)	8	33	23	42	
Intermediate Low (I-1)	10	42	24	44	
Intermediate Mid (I-2)	2	8	2	4	
Intermediate Mid (I-3)	3	13	0	0	
Intermediate Mid (I-4)	0	0	0	0	
Intermediate High (I-5)	NA	NA	0	0	
Subtotal	24	100	55	100	
Grade 4 MDLIP Students					
Novice Low (N-1)	1	7	0	0	
Novice Mid (N-2)	0	0	1	5	
Novice Mid (N-3)	1	7	2	9	
Novice High (N-4)	4	27	5	23	
Intermediate Low (I-1)	7	47	8	36	
Intermediate Mid (I-2)	1	7	4	18	
Intermediate Mid (I-3)	0	0	1	5	
Intermediate Mid (I-4)	1	7	1	5	
Intermediate High (I-5)	NA	NA	0	0	
Subtotal	15	100	22	100	
Grade 5 MDLIP Students					
Novice Low (N-1)	2	18	0	0	
Novice Mid (N-2)	0	0	0	0	
Novice Mid (N-3)	0	0	0	0	
Novice High (N-4)	4	36	5	26	
Intermediate Low (I-1)	4	36	12	63	
Intermediate Mid (I-2)	1	9	1	5	
Intermediate Mid (I-3)	0	0	1	5	
Intermediate Mid (I-4)	0	0	0	0	
Intermediate High (I-5)	NA	NA	0	0	
Subtotal	11	100	24	19	100

In 2014-15, MDLIP students in grades 3-5 took the same subtest. The number of MDLIP students taking the test increased from 15 Grade 4 students in 2013-14 to 22 students, and more than doubled in Grade 3 (from 24 students to 55 students). The student performance in terms of the percentage of students scoring at the district benchmark levels decreased 16% in Grade 3, increased 3% in Grade 4, and increased 28% in Grade 5.

Interpretive Listening and Reading. In 2013-14, Grade 5 MDLIP students also took the Interpretive Listening and Reading subtests. In 2014-15 both Grades 5 and 6 took the Interpretive Listening and Reading subtests. The results for Grade 6 students are not included in the report because of the small sample size of seven students.

As presented in Table 9, 36% of the 11 Grade 5 scored Intermediate Mid or higher levels for Interpretive Listening in 2013-14, and 69% of the 16 Grade 5 MDLIP students scored at the same levels in 2014-15. It was an improvement of 33% in meeting the district benchmark. The results for the Interpretive Reading test were relatively consistent across the two years. In 2013-14, 55% of the Grade 5 students scored as Intermediate Mid or higher levels, and 50% of the Grade 5 students scored at the same levels in 2014-15.

Table 9. AAPPL Interpretive Listening and Reading, PUSD MDLIP Grade 5, 2013-15

	2013-14		2014-15	
	n	%	n	%
Interpretive Listening				
Novice Low (N-1)	0	0	0	0
Novice Mid (N-2)	0	0	0	0
Novice Mid (N-3)	1	9	0	0
Novice High (N-4)	4	36	2	13
Intermediate Low (I-1)	2	18	3	19
Intermediate Mid (I-2)	1	9	5	31
Intermediate Mid (I-3)	1	9	4	25
Intermediate Mid (I-4)	2	18	2	13
Intermediate High (I-5)	0	0	0	0
Subtotal	11	100	16	100
Interpretive Reading				
Novice Low (N-1)	1	9	0	0
Novice Mid (N-2)	0	0	0	0
Novice Mid (N-3)	1	9	6	30
Novice High (N-4)	2	18	4	20
Intermediate Low (I-1)	1	9	0	0
Intermediate Mid (I-2)	3	27	1	5
Intermediate Mid (I-3)	1	9	4	20
Intermediate Mid (I-4)	2	18	3	15
Intermediate High (I-5)	0	0	2	10
Subtotal	11	100	20	100

Presentational Writing. In addition to the subtests mentioned above, Grade 5 MDLIP students also took the Presentational Writing test. In 2013-14, 36% of the 11 students scored as Intermediate Mid or higher levels, and none of the 17 students in 2014-15 scored met the district benchmark of scoring as Intermediate Mid. Please see Table 10 for more details.

Table 10. AAPPL Presentational Writing, PUSD MDLIP Grade 5, 2013-15

	2013-14		2014-15		
	n	%	n	%	
Presentational Writing					
Novice Low (N-1)	0	0	1	6	
Novice Mid (N-2)	0	0	0	0	
Novice Mid (N-3)	1	9	3	18	
Novice High (N-4)	1	9	8	47	
Intermediate Low (I-1)	5	46	5	29	
Intermediate Mid (I-2)	3	27	0	0	
Intermediate Mid (I-3)	0	0	0	0	
Intermediate Mid (I-4)	1	9	0	0	
Intermediate High (I-5)	0	0	0	0	
Subtotal	11	100	24	17	100

Summary: In general terms, the 2014-15 cohorts of Grade 5 MDLIP students seem to be more proficient than the 2013-14 Grade 5 cohort in Interpersonal Listening/Speaking and Interpretive Listening, yet less proficient than the prior cohort in Interpretive Reading and Presentational Writing. The Grade 3 MDLIP cohort in 2014-15 had a lower performance level than the 2013-14 cohort in Interpersonal Listening/Speaking. The Grade 4 cohorts of students had relatively similar performance across the two years examined in Interpersonal Listening/Speaking.

Classroom Observations

At the start of the data collection, the principal at Field arranged for both evaluators to visit each of the MDLIP classrooms. We spent 5-10 minutes in each MDLIP classroom to briefly be introduced to the teachers and get a general first impression of the classes. Following this, the evaluators used the contact information shared by the principals at both Field and SMMS to email teachers about the data collection and ask for participation. We emphasized the purpose of the classroom observation is to better understand program model and the organizational, social, and political contexts. Evaluators were invited into 10 classrooms and observed the classroom activities for about 30 minutes in each classroom. Among these 10 observations, we saw two classrooms at Kindergarten, three at Grade 1, one at Grade 3, one at Grade 4, two at Grade 6, and one at Grade 7. Regarding language use and active engagement, we observed:

- Mandarin teachers and instructional aides stayed exclusively in Mandarin during instruction.
- On the whole, students were observed speaking Mandarin to teachers and aides during Mandarin time; however, students regularly spoke English to peers throughout the class day both in and out of the Mandarin- and English-time.

- Classroom activities included whole group, small group, pair work, and individual seatwork. Opportunities for interaction and language production were present in all classrooms, with observed variation by grade level, class, and teacher.
- Instructional aides were observed to do a wide range of activities in the classroom, such as doing artwork with students who didn't finish, conducting make-up tests with students, assisting in classroom activities along with the teacher, or simply observing.
- Student skills in Mandarin varied in a given classroom, especially in classrooms beyond Kindergarten and 1st grade. In some classrooms, the teacher actively encouraged students to help each other by having small group activities with peer help as part of the routine.
- Teachers' classroom management skills varied a lot, sometimes independent of years of teaching. Some classrooms ran very smoothly and students moved on to the next activity with ease, and in these classrooms students were observed as being more engaged in learning.
- Some teachers kept a tally of student behavior individually on the board, adding points for positive behavior including demonstrated learning and reducing points for not following instructions or demonstrating poor behavior.

Summary: Teachers strongly adhered to the language of instruction and encouraged target language use through various activities. Classroom management techniques and skills varied. Instructional aides offered one-on-one instructional support, mostly for remediation. Students were actively engaged in general, yet had difficulty using Mandarin for basic interpersonal communication.

Student Survey and Focus Groups

The student survey was created for this MDLIP evaluation based on similar survey administered by researchers studying student perceptions of bilingualism in DLI programs (Lindholm-Leary, 2016). The survey starts with questions about students' perceptions of both languages, their preferred language for different activities, and their interest in other languages and cultures. The survey was provided in both English and Mandarin (one page, double-sided) so students could choose which language they preferred to use.

According to parent consent, students were given the chance to fill out the survey and 39 surveys were completed (17 at SMMS, 22 at Field). Two students completed the survey in Mandarin, two students completed the survey in both English and Mandarin, and the rest of 35 students (89.7%) completed the survey in English. Most of the students answered all questions in the survey, but for nine questions, a range of one to five students skipped a question.

By grade level, participants included 15 students at Grade 4, 7 at Grade 5, 11 at Grade 6, and 4 at Grade 7, and 2 students who did not provide their grade level. Among these 39 students, 21 were boys (53.8%) and 18 were girls (46.2%). Twenty-five students (64.1%) reported they mostly speak English at home, four students (10.3%) reported mostly speak Mandarin at home, five

students (12.9%) reported their home language to be a combination of English and Mandarin, three students (7.7) reported speaking English and at least one other language at home, and one student reported “other” as the home language. These survey results corresponded with the PUSD district data on Field MDLIP students when parents could only pick one language as the home language: 73.7% English and 17.4% Mandarin.

A large percentage of students surveyed expressed a strong interest in speaking English (100%), and reading and writing in English (97.4%), compared to relatively fewer showing an interest in speaking Mandarin (65.8%), reading and writing in Mandarin/Chinese (52.6%). Additionally, 94.9% of students agreed with the statement that “When I talk to my friends, I talk mostly in English,” and 10.8% of 37 students agreed with the statement that “When I talk to my friends I talk mostly in Mandarin.” With that said, 87.2% of the students agreed with the statement of “I like to learn in English and Mandarin,” 97.4% of students agreed with the statement “I think it is good to be bilingual,” and 70.3% of the 37 students indicated interest in learning another language besides English and Mandarin.

When asked questions on multiculturalism, students overwhelmingly expressed their interest or plan to:

- have friends from other countries and cultures – 87.2%
- learn about other countries and cultures – 85.3%
- learn about people who are different – 79.0%

Most students, 94.7%, agreed with the statement that in school they learn about other countries and cultures; 82.9% agreed with the statement that in school they learn about what is happening in the world; and 88.9% said they wanted to travel around the world when they were older.

With parent consent, students were given the chance to participate in grade level focus groups. Of all students with consent forms, evaluators blindly and randomly selected 8 students for each of the three focus groups (Grade 4, Grade 5, and Grade 6&7). 24 students participated. All focus groups were recorded and transcribed for analysis.

Students in the focus groups shared their opinions about program goals, program outcomes, and the potential expansion to a high school program. In summary, the students shared the following:

- Many students said their academic performances were on par with, or better than, students outside of the MDLIP.
- Many students expressed enjoyment of learning languages and being multicultural, as well as pride in their goal of becoming bilingual or multilingual.
- Most students indicated they rarely use Mandarin outside the classroom, either at school or at home, as they reported it was easier to communicate in English.

- Some students expressed frustration with language learning and concern about the increasing difficulty, while others shared frustration in their boredom with the current level of classroom instruction and cited specific ways the program could be more challenging.
- Students in every focus group expressed that they had been teased at some point by MDLIP and non-MDLIP students at school, and they believed the teasing was related in part to their involvement in the MDLIP. On balance, some students also mentioned that they rarely chose to spend time with non-MDLIP students and thought the non-MDLIP students were not as academically capable. Students also shared about classroom management problems which could leave open the opportunities for teasing.
- Students expressed frustration at having lots of different teachers, and about having substitute teachers who could not speak Mandarin well or at all.
- When asked about continuing on the Middle School and High School, many students expressed concern about what courses, electives or opportunities they would have to give up to stay in MDLIP.

Summary: Overall, students were positive about being bilingual and showed that they were interested in multiculturalism. They expressed pride and excitement about learning languages and becoming aware of other countries and cultures. However, students reported incidents of teasing that had perhaps been related to their MDLIP membership, and were frustrated with teacher turnover and classroom disruptions. Nearly all students reported rarely speaking Mandarin outside the classroom, and most did not have family members who knew the language. In the classroom, their language abilities varied widely and they reported feelings of boredom or frustration. They also expressed concern about moving into the middle and high school MDLIP, wondering what electives or opportunities they would have to give up.

Parent Questionnaire

The parent questionnaire was created for this MDLIP evaluation in cooperation with researchers from Claremont Graduate University who used a similar tool for the Spanish-DLIP evaluation. The survey starts with background questions, followed by questions on program satisfaction, program expectation, and current and future plans of MDLIP participation. The questionnaire ended with open-ended questions where parent could share their perceptions of program strengths and weaknesses. The questionnaire was made available in print (in person at the school sites) and electronic versions (distributed by email). Completed questionnaires were sent directly to the evaluation team by email, mail, or in person at the school sites.

A total of 82 parents completed and returned the parent questionnaire. Among them, 55 parents (67%) have children enrolled in Field MDLIP, 8 parents (10%) have children enrolled in Sierra Madre, and the other 19 parents (23%) have children in both Field and Sierra Madre MDLIP. Forty-four parents reported having either one child enrolled in Field or one child in Sierra Madre, 19 parents reported having two children in either Field or Sierra Madre, 16 parents reported having one child in Field and one child in Sierra Madre, and the other three parents have three or

four children in Field and Sierra Madre MDLIP. The majority of the parents, 59 parents (72%), reported to live within the boundary of the Pasadena Unified School District. Three parents are either members of the district DLIP Advisory Committee or the school MDLIP Advisory Committee.

When asked whether they speak Mandarin, only 27 parents (33%) indicated they do. Sixteen parents rated themselves as to be proficient in understanding, speaking, reading and writing Chinese, while 11 parents understand and speak Chinese, but do not read or write in Chinese. Thirty-three parents reported to come from a Mandarin-speaking background with their parents speak Mandarin. Question 8 asked the parents whether their child's other parent who could speak Mandarin. According to the survey, 59 (72.0%) of the responders claimed that their child's other parent could not speak Mandarin and 23 (28.0%) parents claimed they could.

Enrollment Reasons: We asked parents to pick two top reasons for enrolling their children in the MDLIP schools. The most frequently selected reason, chosen by 69 parents, is "to maintain and/or gain Mandarin language skills." The number two reason, chosen by 44 parents, is "to challenge him/her academically." A total of 21 parents chose "for cultural appreciation reasons," 6 parents chose the schools because it was the neighborhood school, one parent chose the school "so my child could be with children of friends/family," and 11 parents chose the category of "other." The reasons these 11 parents gave include "cognitive/social-emotional advantage," "diverse family/classmates," "language of the future," "first cohort's small class size," "to learn Chinese & pass the 12th grade AP Chinese exam." and "better school than my district."

Program Information: We asked parents how informed they were about the MDLIP in five areas: program goals, curriculum, assessments, benefits to parents and students, and sacrifices made by parents and students. Out of the 82 parents who responded, 71 indicated that they were either fully or somewhat informed of the program goals; 73 indicated that they were either fully or somewhat informed of the curriculum; 68 indicated that they were either fully or somewhat informed of the assessments; 72 indicated that they were either fully or somewhat informed of the benefits; 61 parents indicated that they were either fully or somewhat informed of the sacrifices made by parents and students.

Program Satisfaction: The majority of the parents expressed satisfaction with the six specific areas of the program and the overall program. Specifically:

- A total of 59 parents (72%) claimed that they are totally satisfied or somewhat satisfied with the overall program.
- Sixty-four parents (78%) claimed that they are totally satisfied or somewhat satisfied with their child's language skills in Mandarin and their language skills in English, and 72% of the parents reported the same level of satisfaction with their children's language skills in Mathematics.
- Seventy-six parents (94%) claimed that they are totally satisfied or somewhat satisfied with their child's appreciation for other language and cultures.

- Seventy-six parents (95%) claimed that they are totally satisfied or somewhat satisfied with their child’s positive attitudes towards people of other language and cultures.
- Seventy parents (91%) claimed that they are totally satisfied or somewhat satisfied with their child’s interest in world issues.

Parent Expectations: While the majority of the parents expressed satisfaction with the MDLIP, they are less confident in their children’s future performance on the district assessments on English, mathematics, and Mandarin by the end of elementary school. For English, 44 parents (54%) indicated they are confident that their children will score proficient or higher; for mathematics, 49 parents (60%) indicated they are confident that their children will score proficient or higher; and for Mandarin, 42 parents (51%) indicated they are confident that their children will score proficient or higher. A range of 5-7 parents didn’t think their children will score proficient or higher; about a third of the parents selected “maybe” as their choices. According to the survey data, only 37 parents (45%) claimed that they have heard of the “Seal of Biliteracy” and 44 parents (54%) showed interest in having their children attain the Seal, 7 parents said they were not interested, and 31 parents said that they are not sure.

Current and Future Plans: We inquired about parents’ future plans in enrolling their children in Pasadena’s middle and high schools with the MDLIP. About half of the parents said they would definitely enroll their children in the PUSD middle school MDLIP, 16 parents (20%) said they already had, 24 parents (29%) said maybe, and three parents said no. When asked whether they would enroll their children in a PUSD high school MDLIP, a smaller proportion (28 parents) said yes, and a larger proportion said maybe (42 parents), or no (12 parents).

Sacrifices Made by Parents to Support Children in the Elementary School MDLIP: A total of 67 parents described the sacrifices or trade-offs that they made to support their children in the MDLIP elementary school. Among them, two parents said “No sacrifices really” or “None significant.” The sacrifices described by the rest of the parents fell within four categories:

- time needed to reinforce their children’s learning,
- opportunity loss,
- longer commute time, and
- time and money spent to help with school and classroom activities.

The majority of parents indicated that they provided additional support in English, math, and/or Mandarin to their children. The additional support includes helping them with homework, hiring tutors, making or buying additional resource materials. Secondly, a large number of parents expressed concerns for their opportunity loss in enrolling their children in the MDLIP, instead of their home schools; and opportunity loss in not having time for arts, music, science, and STEM that receive less time in the MDLIP schedule. Some parents also reported they sacrificed their time in doing volunteer work in the classrooms and in the school. A number of parents indicated their increased time in commuting. In the most extreme case, one parent wrote that he/she drove 100 miles per day to commute to and from the school.

Sacrifices Made by Parents to Support Children in the Middle School MDLIP: A total of 22 parents described the sacrifices or trade-offs they have made to support their child in the MDLIP

middle school. In addition to the need of providing additional support to their children in learning, parents also said they bought extra resource materials and endured a longer commute. A large number of parents expressed their concerns about their children not having access to electives and having limited access to PE classes.

Sacrifices Anticipated by Parents to Support Children in a High School MDLIP: A total of 53 parents described the sacrifices or trade-offs they are anticipating in supporting their children in a high school MDLIP. In general, parents' concern about their sacrifice is similar to the response to the prior questions, but more intense since they believe that the high school plays a more important role in their children's lives. Also, a number of parents who have children only in kindergarten expressed that they were not sure about the sacrifice to be made in high school at the time of this questionnaire.

Program Strengths: Most parents consider parent involvement and the quality of individual faculty as the two main strengths of the program. Firstly, most parents consider the high level of parental involvement as the contributing factor to the program's success. This included families from different cultures and economic backgrounds who were actively participating in volunteering as well as providing feedback on the program. Secondly, most parents indicated their appreciation for the high quality of the teaching staff. Parents considered the teachers to be dedicated, patient, hard working, and knowledgeable about teaching. Some parents named specific teachers in their words of appreciation. Another factor that is highly regarded by parents is the schools' Chinese cultural immersion activities. Parents are impressed by schools' cultural activities and good materials for teaching about Chinese culture.

Program Weaknesses: Parents shared their concern about the program's weaknesses. The issue that received the most criticism was the perceived deficiency of administrative leadership both at the school and district level. Parents specifically commented on lack of vision, lack of competency of goal execution, lack of leadership to produce sound solutions, lack of communication with parents, lack of big-picture thinking and curriculum planning, and lack of district leadership and vision for the program.

Another major category of parent concern is about the school faculty. Their concerns included the constant teacher turnover, and some teachers' limited ability in classroom management and lesson development. Parents also shared concerns about the inconsistency of teaching quality within and across grade levels.

The third main problem parents cited was the limited communication between parents and teachers on student progress. Parents were expecting a new system to provide better teacher-parent feedback with regard to their children's performance in school. Some parents specifically complained that the homework was not meaningful and teachers didn't provide meaningful feedback.

Fourthly, parents raised concerns about the lack of extra-curricular activities and traditional math, science and English activities in the MDLIP. Many of them claimed that they had sacrificed their children's ability in math and English to be in the program. Additionally, they

felt that the program also lacked enough extracurricular activities to develop students' well-rounded personal character.

Fifthly, quite a number of parents raised their concerns of having disruptive students in the classrooms. They claimed that there are serious discipline issues which concern certain disruptive students which have negatively affected the overall classroom environment as well as education quality. This connects to their concerns about classroom management.

Further Thoughts: Most parents expressed their gratitude and appreciation for the program. They appreciate this unique program that gives their children the opportunity to learn Mandarin. Some outstanding teachers were also specifically mentioned for their excellent teaching skills. Many parents repeated their opinion of the program weaknesses in this section of the questionnaire, while some parents claimed that they didn't get what was promised and some were worried whether or not the district would keep funding the program. In general, most parents expressed their satisfaction towards the program, with the understanding that this is a new and non-traditional program and thus some drawbacks are worth tolerating. Most parents expressed confidence in the future development of the MDLIP.

General Findings from Focus Groups and Interviews

In addition to the research activities described above, we also conducted focus groups and interviews with parents, teachers, TOSAs, instructional aides, site administrators, district office personnel, and members of the Mandarin-Parents Advisory Council (M-PAC).

Parent Focus Groups: A total of eight focus groups were conducted with parents at the school sites: six at Field and two at SMMS. Of the 56 parents who signed up, 40 attended. All focus groups were recorded and transcribed for analysis. Questions posed in the focus group centered on the main goals of the program, program features, strengths and weaknesses, and opinions regarding the expansion to high school. In general, findings from the focus groups were similar to what parents had expressed on the questionnaire. Here is a summary of the main points:

- Parents shared their ongoing frustration that there is no one at the district or among the site administrators who speaks Mandarin and devotes time to Mandarin-specific curriculum guidance and teaching support.
- Parents recognized the contribution the site administrators and pioneer teachers had made to curriculum, standards, assessments, and recruitment since MDLIP arrived at Field.
- Parents felt extra support was needed for the site administrators, as people who do not speak Mandarin, to be able to adequately guide and implement MDLIP. Parents would like someone supporting MDLIP who is savvy in securing funding and could push the program to the next level.
- Parents felt appreciation for all the teachers did to create and maintain the curriculum. However, parents had noticed that there was insufficient support from the school and

district administration for common planning time, vertical articulation and assessment development for teachers at all grade levels, especially for the new teachers.

- While the parents expressed their appreciation for the teachers generally, they repeatedly expressed their uncertainty about which teacher their child would get the next year. This was concerning as they viewed teacher quality as varying greatly from one teacher to another. This was especially apparent in cohorts and grade levels with long-term subs and high turnover. Parents believed that student learning depended on which teacher(s) the students got and wanted more assurances of quality.
- Parents in upper grades of 4th and 5th felt their students were not getting adequate education in all subjects, especially in science. They were worried about the upcoming 5th grade science assessment and the prospect of entering middle schools unprepared. Parents were keenly aware of the rigorous education at middle school and were concerned about their students' ability to keep pace with the mainstream (non-DLIP) students.
- In terms of multi-cultural awareness, some parents were pleased at the Chinese cultural offerings while others expressed disappointment. Many parents shared concerns that other cultures (Latino, African American) were rarely explored or celebrated which was in their view a missed opportunity for such a diverse population of students. Other parents wished for better integration of multi-cultural ideas into the curriculum by teachers, not just extra activities organized by parent volunteers.
- Parents noted that gathering curriculum materials in the content areas like science and social studies was challenging, especially at the upper elementary and middle school grades. High-interest readers in Chinese were also difficult to find, and parents shared their frustration in trying to spur action from the district in ordering and keeping track of Chinese reading materials which could sometimes languish at the District warehouse with no Mandarin-speaking employees to check and label the inventory. Parents shared high hopes for the new library at Field to help fill this gap.
- Parents expressed surprise that the district was not funding core positions in the program, like a PE teacher. They felt that having the classroom teachers conducting PE was not time well spent, nor the best option for providing a variety of sports and activities at each grade level. Teachers may wish to use that time for lesson planning and collaboration.
- Parents also expressed frustration at how their fundraising efforts were viewed by the district, and how the district and schools used the funds that were raised.
- To meet the ongoing needs of staffing this growing program, parents expected the district to establish a pipeline with universities and other Mandarin-speaking communities. They suggested that an eligibility pool be opened to ensure enough Mandarin-speaking substitutes are available. Parents recommended active recruitment at job fairs and other face to face venues, especially in light of competition from new programs nearby. Early contracting is preferable to allay the concerns of parents, especially considering the limited pool of applicants.

- Parents felt a greater need for communication from the site administrators, especially during staffing turnover and gaps. Parents expressed frustration at the slow pace in hiring qualified teachers, and not getting up-to-the-minute information about student progress.
- While understanding that not all requests and suggestions can be taken by the district or school sites, parents wished for more transparency in the answers that are given.
- Parents expressed that the greatest strength of the Field MDLIP is parent involvement and collaboration, acknowledging that some parents are over-involved and can be abrasive. Parents worried about the sustainability of the program once the highly-involved pioneering parents were gone, wondering to what extent the district is able to support the core elements of staffing and curriculum development as the program expands.
- For a high school location, nearly all parents suggested Pasadena High School. Some parents wished that the program could be at Blair because it is already hosting the International Baccalaureate program. However, most said that PHS was the more natural and likely choice since it already has Mandarin in the world language program, and would give students a comprehensive high school experience.
- A majority of parents would like to see a plan in advance of the high school expansion. They expect a smoother transition and better retention of MDLIP students if the model, curriculum, and outcomes are presented in advance.
- Parents expressed skepticism in any changes would result from this evaluation work as they had again and again made these suggestions to the district. They have observed the district's role in MDLIP as mainly reactive and not proactive, always busy plugging the holes and fixing crises with limited to no time spent on forward planning.

Teacher, Teacher on Special Assignment (TOSA) and Instructional Aide Interviews: A total of 28 interviews were conducted with teachers, TOSAs, and instructional aides at Field and SMMS. All interviews were recorded and transcribed for analysis. The teachers we interviewed had a range of teaching experience, from a few months to over 20 years in the district. The questions asked of teachers followed the same protocols as parent interviews with the addition of questions regarding teaching resources and support.

- Teaching staff expressed the frustration that there was no one in a leadership position at the district or school sites who spoke Mandarin and could devote time and guidance to curriculum and assessment development, implementation support, and general vision.
- Teaching staff expressed a high level of commitment to the MDLIP, and most were pleased to be in a 90/10 model program where students could make rapid progress in Mandarin. Many teachers praised the site principals and mainstream colleagues for helping them in their first months and years in the program.

- All teachers reported difficulty of accessing and creating curriculum materials and assessments. They discussed the time it took to search for materials online, translate the materials, prepare lessons and homework sheets, prepare tasks for the instructional aides, as well as additional duties as assigned.
- English and Mandarin teachers reported that the teaching schedule required for the 90/10 increases teaching loads including preparation time, average number of parent interactions, and time allocated for within- and between-grade planning. This was especially true for the English teachers in the early elementary.
- For common planning time, teachers often met outside regular school hours. Teachers shared that during the school day they had time to discuss common teaching goals for the grade level, but no time to discuss teaching strategies including differentiation.
- Mandarin teachers reported unease and burden in translating teaching materials and creating student assessments. Many were surprised that these tasks were not accomplished at the district level, but expressed appreciation for the support they received from their colleagues, TOSAs and site leadership.
- Teachers felt the need to work together in the grade level and across grade levels, even when there was no protected time in the schedule for this work. Some even indicated that they attended events even when they were not paid. However, many said that the lack of time and compensation and district acknowledgement or appreciation for curriculum development, along with the lack of Mandarin-speaking leadership, were key factors in their decision to stay or leave the district.
- Instructional aides expressed appreciation for the strengths of the teachers in the program and wished they had more time to interact with student to improve conversation skills in Mandarin. Most aides and teachers expressed concern that students were still not speaking Mandarin frequently enough in class, often reverting to English with peers.
- For the high school expansion, teachers who knew the high schools in the district said they expected that Pasadena High School would be the best, most convenient site.

Site Administrators, District Personnel, and M-PAC Member Interviews: A total of 14 interviews were conducted. Interviews followed similar protocol as the parent and teacher interviews, with some additional open ended question about district duties around the MDLIP. In-person interviews were recorded and transcribed for analysis. Phone interviews were not recorded, so notes were used for analysis. These interviews echoed many themes mentioned the parents and teaching staff. For this reason, the summary that follows is an **augmented summary** with themes that also emerged in prior sections.

Augmented Summary of Focus Groups and Interviews

The findings from the site administrators, district personnel, and M-PAC member interviews, as well as district documents, are described here according to the themes that emerged in prior sections. We have woven these findings together with those from student, parents and teachings staff interviews and focus groups.

Program Staffing: In the original FLAP grant application, PUSD planned for a number of supports to teachers. First, stipends would be awarded to support teachers' attainment of the Bilingual Cross-cultural Language and Academic Development (BCLAD) credential in Mandarin. According to teachers, it seems that this stipend is no longer offered. Second, teachers would be given release time or compensation to visit other successful immersion programs and collaborate with other teachers. Few teachers were able to make use of this offer. Third, teachers would be supported in curriculum development by a Mandarin Teacher Specialist and other Chinese language and culture experts. However, the Mandarin Teacher Specialist was also expected to teach a full time equivalent (100% FTE), lead the curriculum and assessment design, lead the parent education programs, and other duties as assigned. This was an extraordinary load of duties and responsibilities for a teacher to take on during a program inauguration. Since neither the dual language project director (a 10% FTE) nor the dual language project coordinator (a 33% FTE to cover both Mandarin and Spanish programs) were Mandarin speakers, the Mandarin Teacher Specialist was also a de-facto language liaison. According to nearly all stakeholders, this model of Mandarin leadership did not work well for PUSD and is unsustainable. Teaching staff and site leaders agreed that for its current size and level of growth, neither this nor the current staffing model is sustainable and high staff turnover is likely to continue without sufficient Mandarin support.

Site Principal Preparation: The principal at Field Elementary was asked to take on the MDLIP in its third year. The district chose Field as the preferred location for the growing program under the new enrollment conditions due to transportation cuts. The principal had strong personal interest in supporting the program despite no prior experience with Mandarin or with DLIPs and less than six months to prepare. She committed herself to meeting with families ahead of time, studying Mandarin and learning about Chinese culture, including traveling to China. The arrival of the DLIP as a strand program signaled a gradual phasing out of the mainstream program at Field, which brought concerns and challenges to families and staff in both programs. The principal was an advocate for the students, teachers and families in both programs and believed in the possibilities of program success at Field and beyond. The principal at SMMS was asked to take on the MDLIP as a strand program, just as a large school building construction project was nearing its completion. The transition to the new school site coincided with the arrival of the first MDLIP cohort, and he committed himself to meeting with the pioneering families and MDLIP teachers in preparation. Both site principals reported that the new district leadership was supportive of MDLIP in its mission, yet wondered at how the program could continue without Mandarin speaking leadership at the district level.

Parent Involvement: The district and site leadership were appreciative and complimentary of the parents who had been involved with all aspects of the MDLIP since its inception. Members of the M-PAC also appreciated the parents who were part of the inaugural cohort. These “pioneer parents” are known to be vocal volunteers who donate their time, money and expertise to what they believe will support the program’s success. Pioneers and other involved “powerhouse parents” believe they are the strength of the program in the face of the shortcomings they see in the schools, the program, and the district. Parents who have taken a less active role reported they had shied away from involvement because of how assertive and demanding some parents could be and citing instances of strong disagreements which have, in some cases, leapfrogged over school administrators and other district personnel and directly involved the superintendent. Others expressed gratitude that there were at least some parents who weren’t afraid to stand up and advocate for the program directly to the district. Some parents shared frustration at “transactional parents” who just drop their kids off and rarely express appreciation for what other parents do for MDLIP. For their part, pioneer and powerhouse parents shared their deep commitment to and strong hopes for MDLIP’s success, despite feelings of anxiety, frustration and burnout. In this way, the district and site leadership saw how parental involvement has varied between and within schools.

District involvement: Since the inception of the program, there are several district personnel who support the MDLIP in part. This included the recently created position for a Director of Innovative Programs whose job in part was to oversee both DLI programs. Since there was no one who spoke Mandarin and no one whose sole assignment was to coordinate or facilitate the program, the district has relied upon the principals, teachers, support staff, MDLIP families, and external consultants to ensure program success, expansion and extension. The district has also relied upon MDLIP families’ fundraising and volunteer efforts to cover budget shortfalls for staffing (e.g., English teachers/TOSAs) and special programs (computer lab, library, PE, Science Olympiad, math field day). As the DLI programs expand, the district is looking at new ways to provide district level oversight.

Funding: District personnel, site principals, teachers, and parents all shared concerns about program funding. The Director of Innovative Programs and the elementary principal both recounted instances where they had to personally advocate for MDLIP funding to maintain essential staffing levels. Parents recounted holding fundraisers for essential staffing such as an English teacher/TOSA, computer teacher, librarian, and PE teacher. Parents shared their frustration at the perceived lack of transparency for how raised funds would be used; citing the instance where money raised for a computer teacher was used instead to purchase computer equipment. Only when parents spoke up loudly did the district allocate some funds for a part-time computer teacher. District personnel have since attempted to clarify if and when fundraising for the general fund can be earmarked for MDLIP-initiated spending.

Enrollment/Recruiting: District leadership and site principals attested to how popular the program has been for families within and outside the district. Recently, the DLIP has been featured as the signature program of the superintendent who expressed hope that

more local families would choose public school programs as a result. When community members are surveyed, the DLIPs are consistently a top draw for enrollment. The district and school site websites provide ample information, and school tours of Field Elementary are regularly offered for prospective families. Recruitment of Mandarin-speaking families to keep the language balance in the program has been more challenging, leading to frustrations among within-district, non-Mandarin families who rely on waiting lists for a chance to enroll. Currently, the number of Mandarin-speaking families has not met program goals of 50% enrollment. District personnel shared the difficulty of recruiting Mandarin-speaking families, who typically have come from outside the district which involves the request of transfers and, in some cases, discouragingly long commutes. Additionally, new MDLIPs are now opening up in districts closer to PUSD which means several districts are competing for a small number of willing families. Some leaders shared their hopes that the program could open up more spots for within-district families and still maintain program goals for balanced language representation. This is likely to continue to be a challenge as the program expands.

District and site leaders and M-PAC members were content with the current 30:70 balance, although they wished it could be closer to the goal. Teachers and instructional aides expressed concern that so few students had Mandarin influence at home – in some cases, as few as one student per classroom – meaning the instructional setting was more akin to a one-way immersion program. The lack of peer support in the Mandarin language is compounded by the limited schedule of Mandarin-speaking instructional aides who spend around 45 minutes in each classroom on a given day. Site leaders, teachers, aides, and students noted that this intensifies the amount of one-on-one support students need directly from the teachers during class time. M-PAC members and Mandarin teachers shared that writing and reading comprehension were areas where students needed the most personalized support, and how hard it was to get to each child. English teachers at early elementary also found it difficult to provide sufficient one-on-one support due to the large student-to-teacher ratio created by the 90/10 model of implementation. Lack of one-on-one time makes differentiation a monumental challenge, and students could more easily fall behind unless pre-teaching or re-teaching is provided outside of class. For language acquisition in general, a 30:70 model can mean that students will hear less Mandarin, be spoken to less in Mandarin, and have less opportunity to use Mandarin for communicative purposes (e.g., performing tasks with classmates who speak only Mandarin) both in and outside the classroom. Thus, when interacting with peers, it shouldn't be surprising that students revert to English even during Mandarin classroom time.

Language Separation: Currently, both MDLIP sites support the goal of language separation, which is when teachers stay in Mandarin-only or English-only in front of students. Site principals and teachers shared some challenges to maintaining language separation. First, effective language separation requires the full support of the entire school staff, families and all classroom visitors. This necessitates advanced planning, including ongoing reminders for new personnel, families, and school site visitors (e.g., memos, signs on classroom doors). Mandarin-speaking teachers have to be creative in how they communicate with families and English-speaking colleagues during the school

day when students are around. Second, language separation means that all communicative tasks in the classroom have to be accomplished in that language, even if students do not yet have the comprehension. This has proven to be a challenge with classroom routines in younger grades, and classroom management in all grades. Mandarin teachers are limited to providing correctives only in Mandarin, or asking the designated English teacher to provide the correctives. Site leadership and teachers noted that the Mandarin teachers found that classroom management could suffer when correctives are delayed or not understood, and they had to rely on English partner teachers to give correctives.

90/10 Model: The MDLIP at Field Elementary uses a 90/10 model with language separation staffing meaning Mandarin teachers and English teachers have to combine across cohorts and in some cases across grades to fulfill a full-time position. This has implications for staffing, master scheduling, classroom space, and teaching loads including planning time, curriculum development and student-teacher ratios. The district and site leadership shared that staffing the 90/10 model had always been challenging, especially now with larger cohorts extending to upper grades and expanding to multiple cohorts in younger grades.

Classroom space is a challenge at Field as the strand program expands and mainstream program dwindles. The 90/10 model using language separation means that English teachers in the youngest grades will teach a small percentage of time in each cohort. At Field elementary, these teachers rarely have a classroom space of their own. They set up their English lessons in a small corner of each Mandarin teacher's classroom, using a roving cart to transport their teaching materials among the many rooms they cover in one day. As larger cohorts of students move up through the grades, it is unclear how the district will provide sufficient classroom space.

Site leadership agreed with what teachers had mentioned that teaching loads in a 90/10 language separation DLIP could be burdensome. On the Mandarin side there is extensive curriculum and assessment development which involves time-consuming translation and technology component development. In some cases, Mandarin teachers also have to cover more than one grade level, increasing the burden on preparation. On the English side, due to the limited number of instructional minutes at each grade level, teaching loads cover several classes in and across grade levels. This makes the student to teacher ratios the largest at the youngest grades, in some cases nearly 90:1, decreasing the amount of personalized and differentiated teaching that is available for each child. Administrators, teachers and parents have all reported that the student to teacher ratio is particularly frustrating and has an impact on the quality and quantity of parent-teacher conferences, student study teams, and report card time.

Site leadership also shared how difficult it was to find time in the schedule for MDLIP teachers to collaborate with those who share the same students at their grade level, or at multiple grade levels. They also wished to set up time for collaborate with mainstream teachers who were well-respected as knowledgeable and experienced. Teachers and administrators agreed that this could happen during staff development on Mondays, but

rarely is there enough time. The district includes DLIP teachers in regular staff development, but few opportunities have been created for DLIP collaboration. Out of frustration and necessity, site leadership, TOSAs and teachers have given time beyond school hours with other teachers from the same cohort or language. M-PAC members supported the idea of more teacher collaboration, not just for academic excellence but also for camaraderie in the midst of a program which “is being put together while it’s flying.” Site leaders and M-PAC members joined the teachers in expressing surprise at how little advanced planning had been done at the district level for DLIP curriculum and assessments, and how little time was set aside for teachers to translate standards, create materials, refine sequences, and add differentiation. Some district leaders also expressed how little they knew about the Mandarin program, although how much interest they had in learning more and finding ways the district could provide more tailored coaching to English and Mandarin teachers. The consensus was that common planning time and vertical articulation of curriculum would be beneficial on many levels.

Staffing: As mentioned in the prior section, staffing a 90/10 program with a language separation policy has always been a challenge. Unlike 50/50 models which rely on an equally matched teaching team, or 90/10 models which do not use language separation approaches and can rely on a single teacher per cohort classroom, the staffing for PUSD’s 90/10 model is like a three-dimensional jigsaw puzzle.

Site leadership, M-PAC members and teachers wished the district had taken a more active role in projecting staffing needs and staying competitive with hiring practices. Principals, and more recently the district, took steps to attract prospective teachers from friends and acquaintances of current teachers, outreach to local credential programs, connections at dual language conferences, and recruiting from out of state. Principals learned about the H1 visa process so they could know how to advise and support international recruits, and discussed the possibility of stronger collaboration with schools and contacts in their sister city school in Beijing. Overall, principals and teachers expressed frustration that the district wasn’t more forward thinking in hiring for positions that were presently or soon to be vacant. Even for known, planned expansion and extension of the program, parents, teachers and administrators reported that the district moved slower in hiring teachers and substitutes than nearby DLIP districts. The lack of planned recruiting at the district, ongoing teacher turnover, expansion of the cohorts, and increases in local competition has intensified the pressure on principals and district leaders.

Serving Special Populations: Principals and M-PAC members, as well as teachers, instructional aides, and parents, said that there was not enough time for differentiated instruction in the MDLIP. Site and district leadership had worked with the M-PAC members’ suggestions to address these issues. In the context of GATE, parents wished to see more novelty and complexity in the Mandarin assignments so that Mandarin speakers could be sufficiently challenged. For math (in Mandarin) and English, parents and teachers wished for more time for students to get extra help when needed. For special education, teachers shared their frustration about not having enough time during English minutes, and not enough resources to offer special services in Mandarin. For English

learners, teachers were also trying to find ways to cover both ELA and ELD in the allocated English minutes. In the early grades, this is nearly impossible in the 90/10 model where, for example, Kindergarten allows approximately 40 minutes of English time for teachers to provide a full complement of ELA plus 30 minutes of ELD. Teachers, administrators and parents shared that some families of English learners had left the program due to insufficient ELA and ELD support in the 90/10 model, and that some Mandarin-speaking families held doubts about enrolling for the same reason. Although the 90/10 model is a signature feature of the PUSD program, a 50/50 model may be more attractive for addressing the needs of all students and the district signaled willingness to explore this option if families expressed an interest.

Commendations and Recommendations

Commendations

The evidence gathered in this evaluation study has brought out many aspects worth commending.

Successful Growth of a Special Community: The MDLIP continues to grow and impress with its inaugural cohorts starting 7th and 8th grade in 2016-17. Overall, the students, parents, teaching staff and site administrators are happy to be part of this distinctive language immersion program, to have made close friendships, and to be contributing to something they believe in.

Successful Development of a Unique Program: The teaching staff, especially the pioneer teachers and TOSAs, have been praised for their dedication to curriculum development, assessment development, and a multitude of small and large tasks that they take on to make the 90/10 program possible. Parents and especially pioneering families have also been commended for their dedication and commitment of time and resources to the MDLIP. It is clear that the founding staff and families of the MDLIP have inspired many of the best and most creative aspects of the program, and have themselves benefitted from the dedication and friendship of the MDLIP family.

At Field, the K-2 classrooms were widely praised as the strongest part of the program. The early grade teams and cohorts have clearly benefited from the strong commitment of pioneering teachers, families and site administration over 7 years of development. The upper elementary grades have had only 2 to 4 years of development so far, yet have supportive participation from the veteran teachers. The music program is enviable and students also enjoy extras like Science Olympiad and Math Field Day which are made possible by volunteer parents and staff. These programs bring out the best of what the Field MDLIP has to offer.

At SMMS, teachers and site administrators are making ways to enable MDLIP students to take electives in addition to Mandarin. This is a big step forward and an important bridge between Field and the future high school location. As the first cohort of MDLIP students enters 8th grade in 2016-17, there is a lot of anticipation for their success.

Hope for Future Expansion: It is commendable that the program has a cohort matriculating into high school in 2017-18. This is notable achievement for students, families and the district.

For the ongoing expansion in middle school, there was wide support for the program to continue even if not all families will choose to stay in a dual language program for secondary school. For the expansion to high school, there is wide support for choosing Pasadena High School with the caveat that advanced planning, clear communication, curriculum and staffing are firmly in place before families are asked to commit.

Recommendations

The evidence gathered in this evaluation study has brought to the surface some main areas for improvement. The first three recommendations are listed as urgent and have already been expressed to the district throughout the evaluation period. The remaining recommendations are also seen as the most necessary at this point in program implementation. It is our hope that these sufficiently encompass the main suggestions that have been expressed by stakeholders throughout this study. The selection of these as the main recommendations is not intended to diminish the sincerity or potential benefit of other suggestions that have been expressed by stakeholders.

URGENT: Hire a Program Leader Fluent in Mandarin/Chinese. All stakeholders agreed that there should be a Mandarin-speaking leader at either the district or site level. The current model of relying on TOSAs and teachers for all Mandarin-related work is *unsustainable*. This is true not only because of teacher turnover, but also because the Mandarin-related work spans more cohorts, grades, schools. Furthermore, Mandarin-related work involves guiding school leaders regarding program effectiveness. We strongly recommend a Mandarin-speaking leader at the district level who can ensure high quality Mandarin language development through curriculum, assessment and enrichment at elementary, middle and high school levels. We expect this person to also play key a role in MDLIP teacher recruitment and development, as well as the recruitment, education and retention of Mandarin-speaking and non-Mandarin speaking families.

URGENT: Create Transparent Plans for Program Growth. All stakeholders expressed concern about how the district and site leadership continued to be reactive instead of proactive with regards to program extension and expansion. The development of the DLIP Master Plan in 2013 was a first step towards program planning, and revisions to this document are considered ongoing. However, the district and site leadership have more work ahead to assure MDLIP families that the promise of the program will be fulfilled, including plans for transitioning Field to a wall-to-wall MDLIP, continued expansion at middle school, the inauguration of the high school program, and ongoing staffing to meet the needs of larger cohorts at early grades. Furthermore, the district should clarify its commitment to the 90/10 model in terms of considerations around staffing, meeting program goals of bilingual/biliterate for Mandarin and non-Mandarin and English learner students, and recruiting Mandarin-speaking families to maintain a minimum of 30:70 Mandarin-to-English language representation. A clearly stated position on these program elements, along with data collection where needed (e.g., number of inter- and intra-district transfers annually, number of students needing intervention by grade and home language, and exit interviews with families who leave the program) will help leadership evaluate program sustainability and, if needed, suggest changes in the future. For high school expansion, as noted in the commendations of this report, there is wide support for choosing Pasadena High School with the caveat that advanced planning, clear communication, curriculum, and staffing are in firmly in place before families are asked to commit.

URGENT: Enact a Recruitment Plan for Mandarin-Speaking Teachers and Substitutes.

All stakeholders agreed that staffing was a concern and should be given high priority. During the spring, PUSD established an eligibility pool for hiring Mandarin-speaking teachers and substitute teachers. This was a positive step towards maintaining necessary staffing for expansion, and for having subs for times when teachers are out, attending professional development, or working together on curriculum and assessment projects. The need for Mandarin-speaking substitutes is likely to remain high, and the district may consider creative ways to maintain a pool of substitutes dedicated for the MDLIP. It will be necessary to keep both eligibility pools open as the program expands so that the students are not disrupted from their studies, and TOSAs and Mandarin teachers are not pulled from other duties to cover classes.

Curriculum and Assessment: All stakeholders agreed that curriculum and assessment development was an ongoing need for all grade levels, but especially at grades 3 and up where there has been less time and resources for development. The middle and high school programs are also in urgent need of curriculum planning as the program expands. It will be necessary for the district to set aside resources for this activity, including Mandarin-speaking specialists, paid time for teachers and substitutes, access to Mandarin and English curriculum and formative assessment materials. These efforts should be coordinated with other related initiatives, including the refinement of Mandarin report cards and the ordering of Mandarin/Chinese supplementary materials. It is recommended that curriculum and assessment plans be evaluated on an ongoing basis by Mandarin- and English-language development specialists. Further development of resources for differentiation and intervention is needed at all grade levels to help teachers meet the needs of all students. Differentiation within whole-class instruction is also a topic related to classroom management, and additional strategies and coaching are needed to meet both needs. While the district has made coaching available in English and Spanish, there is a strong need for Mandarin/Chinese-language specific guidance, and MDLI program-specific guidance in the classroom.

Monitoring and Celebrating Student Learning: Based on the district-wide standardized assessments in ELA and math, MDLIP students consistently demonstrated higher performance than their peers in the district, though this could be associated with the uniqueness of the MDLIP students and their parents who can dedicate additional resources towards their education. But stakeholders expressed their concerns on student learning in science (because of the lack of classroom instruction in science), English, math and especially in Mandarin. Most parents don't know Mandarin which makes it difficult for communication on student learning, coupled with large student-to-teacher ratios in lower grades and staffing issues in upper grades. In support of better articulation between curriculum and assessment, it would be useful to take the district's Can Do statements and break them into more meaningful and recognizable indicators which could to be used in the regular communication between teachers and parents, like trimester report cards. With the addition of curriculum-based assessment in Mandarin that go beyond AAPPL, stakeholders will have a tool to measure the progress of student learning in Mandarin across the K-8 for the purpose of planning instruction, intervention, and gifted-level innovations. As expressed in the prior recommendation, formative assessment activities needed to coordinated and aligned, both within the grade level and across grades. The associated student data should be

maintained by the MDLIP for longitudinal tracking and analysis. To achieve the best results, formative assessments should be reviewed at least annually by the teachers, site leadership and language development experts to ensure the alignment of teaching goals and standards.

Create Opportunities to Increase Mandarin Language Use: All stakeholders agreed that students could benefit from more opportunities to use their Mandarin speaking skills in class and around the school, as well as meaningful opportunities to use Mandarin on field trips and in the community-based activities. It is recommended that the district, site leadership, teachers, aides, parents and especially MDLIP students be involved in creating new initiatives to promote and incentivize Mandarin language use. A multi-grade, multi-stakeholder committee could be a powerful force in raising awareness of ways language use could improve in and out of school hours. These initiatives could include class, grade and school-level incentive programs, more coordinated involvement with Mandarin speakers that students can connect to (e.g., sister school in Beijing, community groups in the Pasadena area), greater use of online and computer-based resources, and the development of Mandarin-focused field trips, community service opportunities, speaking clubs, and cultural events. However, it is important to note that all classroom-based curriculum and activities are at the discretion of the certificated teacher of record and site leadership. Parent input is useful in planning, but should not supersede the authority of the classroom teacher in classroom implementation.

Improve Classroom Management and Professional Development: Most stakeholders suggested that classroom management needed to be improved, and this could be aided by some of the recommendations already made (staffing, curriculum development, common planning time, and student incentives for language use). District coaches are interested in supporting MDLIP teachers, but there are no Mandarin speaking coaches on staff. District and site leadership should work together to support Mandarin and English teachers in observing master teachers, attending trainings, and receiving in-classroom coaching from district coaches as well as MDLIP peers. This recommendation will be aided by the addition of Mandarin-speaking leadership as well as more robust and articulated curriculum development.

Improve Multicultural Awareness and Inclusion: Most stakeholders suggested improvements in this area to extend the goal of multicultural awareness past the basic “flags and food” programming and into exploration of what it means to be bicultural and multicultural in society. In addition, there are ongoing concerns about how all families, cultures, languages, ethnicities and socio-economic backgrounds are valued in the MDLIP. These concerns should not be taken lightly as the success of the program depends on a deepening and expanding of understanding among all members of the MDLIP community. A multi-grade, multi-stakeholder committee which includes student members could bring voices to the discussion that may not have another venue for discussing these issues. The committee might begin their work by celebrating all the languages and backgrounds represented in the MDLIP community. There are several consortia of dual language programs and local universities that can be a resource for expanding these goals and activities. Some of these initiatives could likely be paired with the prior goal of expanding Mandarin language use.

Provide Support and Guidance for Parent Involvement: All stakeholders agreed that parent involvement is crucial for the MDLIP. The M-PAC, room parents, and other parent groups are

already providing structure to how parents engage with the program. However, several stakeholders expressed concern about parents who may overstep the boundaries of teachers' professional work and site leadership responsibilities. Although involvement is often well-meaning, district and site leaders should consider ways to reset the relationship with MDLIP parents by setting forth guidelines for communication. In addition, district and site leaders should consider ways to bring more parents into conversations around language development and multicultural awareness. Since many parents don't speak Mandarin, we suggest using resources for parent education that could equip parents with more knowledge about immersion. One place to start would be using Elizabeth Weise's book, *A Parent's Guide to Mandarin Immersion* (2014), which is topically arranged to address the questions and concerns of MDILP families. There are also a number of online Mandarin program community groups with resources for parents and students (e.g., <https://miparentscouncil.org>) that can be used to generate more options for parents to learn from and support other parents. This will build upon the strengths of the parent involvement that already exists, while building capacity for when the pioneering families' students have graduated.

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