

Global Literacy Through Mandarin Immersion and STEM: Year Three Evaluation Report (2011-12)

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◆ Executive Summary

- In 2009, a Foreign Language Assistance Program (FLAP) grant was awarded by the U.S. Department of Education to the Minnesota Mandarin Immersion Collaborative (MMIC) for the project *Global Literacy Through Mandarin Immersion and STEM*. The funding was expected to continue for a period of 5 years, however, in 2011, Congress voted to discontinue all FLAP funding. Therefore, the MMIC was funded by a FLAP grant for a period of only 3 years. The grant supported early elementary immersion instruction in Mandarin Chinese that begins at the kindergarten level and the development of a curriculum that has a content focus on Science, Technology, Engineering, and Math (STEM). The districts participating in the MMIC were Hopkins, Minnetonka, and St. Cloud.
- In 2011-12, the third year of the grant-funded project, the Hopkins and St. Cloud school districts offered Chinese immersion for students in kindergarten through grade 4. Minnetonka also offered grade 5 immersion. From the initial year of enrollment through 2010-12, the retention rates for all three districts were generally quite high, with an average of 93% across immersion cohorts.
- The total enrollment in Chinese immersion classes in the baseline school year of 2008-09, aggregated across the three participating districts, was 318 students. In 2011-12, the total enrollment was 757, an increase of 138% from baseline.
- For evaluation of the third year of the MMIC project, information regarding implementation of the Chinese immersion programs was obtained via a survey of the parents and a survey of non-immersion instructional staff (English teachers).
- Maintaining student discipline was the area in which English teachers reported they were most likely to provide assistance to the Chinese immersion teachers. The English teachers also indicated they provided assistance fairly often with respect to obtaining instructional resources, organizing and managing a classroom, understanding the curriculum, communicating with parents, becoming familiar with the school's mandatory testing program, and diagnosing student needs.
- The most prominent theme in the English teachers' open-ended comments was that they felt they not only spent a great deal of time supporting the Chinese immersion teachers in many areas, but that they also took on a disproportionate amount of responsibility regarding other roles in the school, such as serving on school-wide committees. However, many positive comments were also made in which the English teachers expressed praise for the Chinese immersion program's teachers, students, and achievements.
- In response to a question about the most successful or most important interactions they had had with immersion teachers, the English teachers frequently described professional interactions that involved modeling, mentoring, and/or discussing instructional strategies and formal PLC or grade-level meetings. Also mentioned fairly often were informal settings that the English teachers said provided them with an opportunity to get to know the immersion teachers better on a personal level.
- In order to establish a strong professional community, the English teachers stressed the need for interaction, collaboration, and team-building among all programs offered at their schools. They

also placed importance on ensuring good communication among all staff and striving for equity between Chinese immersion and regular school programming.

- Results of the 2012 parent survey indicated that most children experienced a fairly high level of enjoyment in their Chinese immersion classes. In addition, the majority of parents indicated they were satisfied with their child's progress in the Chinese immersion program. Aggregated across grades, the satisfaction ratings for the 2011-12 school year ranged from 91% for progress in social studies to 97% for progress in speaking Chinese.
- Although the parents' responses indicated they were generally satisfied, the areas where they seemed most concerned in the 2011-12 school year were class size, opportunities for their child to interact with children not in the immersion program, communication about their child's progress, and amount of homework. A number of parents also expressed fears regarding inadequate preparation for middle school and lack of adequate support for struggling students.
- Nearly all parents (97%) reported that they definitely or probably would re-enroll their child in the immersion program for the coming 2012-13 school year. When describing the reasons for their re-enrollment decision, the parents most frequently mentioned satisfaction with the program, the importance of foreign language proficiency, a commitment to the program, or the high quality, rigorous education offered in Chinese immersion.
- Parents of fourth and fifth graders seemed less certain of their decision to re-enroll than parents of children in the earlier grades. Parents of fourth and fifth graders also gave relatively low ratings in the areas of child's enjoyment, child's progress, quality of instruction, and overall satisfaction with the program. It is recommended that program administrators investigate these results further to identify possible explanations.

◆ Introduction

In 2009, a Foreign Language Assistance Program (FLAP) grant was awarded by the U.S. Department of Education to the Minnesota Mandarin Immersion Collaborative (MMIC) for the project *Global Literacy Through Mandarin Immersion and STEM*. The funding was expected to continue for a total of 5 years contingent upon annual renewal approved by Congress. However, in 2011, Congress voted to discontinue all FLAP funding. The 3 years' of funding received by the MMIC supported early elementary immersion instruction in Mandarin Chinese that begins at the kindergarten level and the development of a curriculum that has a content focus on Science, Technology, Engineering, and Math (STEM). The schools in the MMIC have added a grade level each year, with the intent of creating the capacity to continue Chinese immersion to grades 7-12.

The MMIC contracted with the Center for Applied Research and Educational Improvement (CAREI) at the University of Minnesota to serve as the external evaluator of the project. This report presents CAREI's evaluation of the third year of the grant-funded project. The report includes enrollment and retention data as well as the results of a parent survey and a survey of English teachers (i.e., instructional staff whose positions were in the regular, non-immersion program).

◆ Participating School Districts and Schools

Four elementary schools located in three Minnesota school districts participated in the MMIC. These four schools and their districts are:

1. Eisenhower Elementary XinXing Academy (Hopkins School District)
2. Excelsior Elementary Mandarin Immersion Program (Minnetonka School District)
3. Scenic Heights Elementary Mandarin Immersion Program (Minnetonka School District)
4. Madison Elementary Guang Ming Academy (St. Cloud Public Schools)

During the 2011-12 school year, the third year of grant funding, all four schools offered Chinese immersion in kindergarten through grade 4. Because the Minnetonka School District began its Chinese immersion program by offering kindergarten and grade 1 in the first year of implementation, Chinese immersion was also offered in grade 5 at Excelsior Elementary and Scenic Heights Elementary in 2011-12. The grade levels offered at each school and the number of teachers per grade are displayed in Table 1. During the first year of grant funding, 2009-10, a total of 24 teachers were employed in the Chinese immersion programs offered by the four schools. In 2010-11, the total was 31, an increase of 29% over the first year, and in 2011-12, the total was 38, an increase of 58%.

Table 1. Grade Levels Offered and Number of Teachers in Chinese Immersion Programs by District and School, from 2009-10 to 2011-12

District/Grade Level	2009-10	2010-11	2011-12
Hopkins	6	8	10
• K	2	2	2
• Grade 1	2	2	2
• Grade 2	2	2	2
• Grade 3	a	2	2
• Grade 4	a	b	2
Minnetonka-Excelsior	7	9	10
• K	2	2	2
• Grade 1	2	2	2
• Grade 2	2	2	2
• Grade 3	1	2	1
• Grade 4	a	1	2
• Grade 5	a	b	1
Minnetonka-Scenic Heights	7	10	13
• K	2	3	3
• Grade 1	2	2	3
• Grade 2	2	2	2
• Grade 3	1	2	2
• Grade 4	a	1	2
• Grade 5	a	b	1
St. Cloud	4	4	5
• K	1	1	1
• Grade 1	2	1	1
• Grade 2	1	1	1
• Grade 3	a	1	1
• Grade 4	a	b	1
Total	24	31	38

^aGrade level not offered in 2009-10.

^bGrade level not offered in 2010-11.

◆ Project Objectives

The MMIC project had two primary objectives related to providing immersion instruction in Mandarin Chinese and to the development of a curriculum with a focus on STEM. Outcome and process measures were established for each of the two objectives. These are shown below.

Objective 1: Build MMIC’s capacity to design, implement and evaluate a well-articulated K-12 sequence of instruction in the critical language of Mandarin that promotes global literacy with a content focus on Science, Technology, Engineering and Math (STEM).

Outcome Measures for Objective 1:

- 1.1 By the end of year 5, 90% of all Mandarin instructors will report enhanced knowledge and skill in providing a well-articulated curriculum for grades K-6 that attends to language and literacy development in Mandarin across content areas using STEM as a focal point, and create the capacity to continue this work in grades 7-12 after the grant period is complete.
- 1.2 By the end of year 5, the Program Assessment Team will demonstrate consistent inter-rater reliability in conducting programmatic assessments for measuring student proficiency in Mandarin at strategic points.

Process Measures for Objective 1:

- 1.3 By the end of year 5, develop, pilot and implement an articulated curriculum for Minnesota’s K-6 early total Mandarin Chinese immersion programs that attends to language and literacy development across content areas using STEM as a focal point. STEM themes will correspond to themes in language arts and social studies, creating an interdisciplinary, content-based Mandarin language curriculum.
- 1.4 By the end of year 5, develop, pilot and implement corresponding assessment measures that align with curriculum to measure sequential improvement in language proficiency in Mandarin for grades K-6.
- 1.5 By end of year 5, a professional development plan will be designed and implemented for Mandarin immersion teachers enabling them to teach content-based curriculum that will result in sequential improvement in language proficiency in Mandarin Chinese for grades K-6, and will create the capacity to continue this work in grades 7-12 after the grant period.
- 1.6 Each year, high-quality staff development opportunities will be developed and implemented to enhance the knowledge and skills of MMIC teachers.
- 1.7 By end of year 5, research and design an effective model for continuation of Mandarin immersion instruction at the middle and high school levels with continued focus on STEM that will provide students with an opportunity to continue learning through Mandarin after grade 6 and reach the advanced level of proficiency by grade 12.
- 1.8 By end of year 5, develop a framework for a content-based Mandarin curriculum for the secondary level with a continued focus on STEM that will provide immersion students with an opportunity to continue learning through Mandarin in grades 7-12 and begin an accelerated program for acquiring a second critical language (after the grant period is completed).
- 1.9 Each year, MMIC staff will provide web-based curriculum dissemination of content-based lesson plans that enhance students’ language proficiency and content knowledge with other foreign language programs across the country and internationally. This project will make use of the existing CoBaLTT (Content-Based Language Teaching and Technology) framework through the Center for Advanced Research on Language Acquisition (CARLA) at the University of Minnesota, which provides a unique and innovative online portal for web-based curriculum sharing.

Objective 2: Expand foreign language study in a critical language for students served by FLAP (GPRA Objective #2) by increasing the numbers of elementary (K-6) students enrolled in one of the four MMIC Mandarin immersion programs.

Outcome Measures for Objective 2:

- 2.1 Each year, the number of students enrolled in each of the four MMIC programs will meet or exceed projections (**GPRA Measure 2.1**).
- 2.2 Each year, the average number of minutes per week of foreign language instruction in Mandarin will meet or exceed projections (**GPRA Measure 2.2**).

Process Measures for Objective 2:

- 2.3 Each year, the Mandarin immersion instruction program will expand by one grade level in each of the four MMIC programs.
- 2.4 Each year, a marketing and recruitment plan will be developed and implemented with the MMIC primary service area to promote the awareness of Mandarin language immersion program available at the elementary level.

◆ Data Sources

Data regarding enrollment, classes, and teachers were provided by the principals of the four participating schools and by Molly Wieland, Ph.D., the Project Manager. CAREI evaluators, in consultation with Dr. Wieland, developed the parent survey and the English teacher survey.

The English teacher questionnaire was administered online from May 8 to June 11, 2012. The survey link was sent via email by the principals to the non-immersion instructional staff at their schools. The responses went directly to CAREI for analysis. The total number of respondents was 65, and the response rate was 41%. The survey instrument is provided in Appendix A, and response rate calculations are displayed in Appendix B.

The parent survey was administered in April 2012 as a paper-pencil questionnaire to parents of students enrolled at Madison Elementary in St. Cloud, and as an online survey questionnaire to parents of students enrolled at Eisenhower Elementary, Excelsior Elementary, and Scenic Heights Elementary. At Madison Elementary, the questionnaire was sent home with the students. Self-addressed, stamped envelopes were provided for the Madison parents to mail their completed questionnaires directly to CAREI for analysis. The survey link was sent via email to parents of students at Eisenhower, Excelsior, and Scenic Heights, and completed survey responses were accessible only by the CAREI evaluators. The total number of respondents was 226. The response rates for Eisenhower, Excelsior, Scenic Heights, and Madison were approximately 29% (66/228), 27% (52/196), 28% (61/218), and 41% (47/115), respectively. These response rates were based on number of students rather than number of families. Because 30% of the parents responding to the survey indicated that they had more than one child enrolled in Chinese immersion, the response rates are most likely underestimates. The parent questionnaire is provided in Appendix C, and descriptive information about the respondents is presented in Appendix D.

◆ Results

➤ Enrollment and Retention

Enrollment. The total enrollment in Chinese immersion classes in the baseline school year of 2008-09, aggregated across the three participating districts, was 318 students (see Table 2). From 2008-09 to 2011-12, total enrollment increased from 318 to 757. Annual increases from the 2008-09 baseline were 42%, 92%, and 138%. The percentage increases from the 2008-09 baseline to 2011-12 at Hopkins, Minnetonka, and St. Cloud were 145%, 131%, and 150%, respectively. Note that Minnetonka's enrollment was somewhat higher than that of the other two districts because two of its elementary schools offer Chinese immersion and also because it offers one more grade level.

Table 2. Enrollment in Chinese Immersion Programs, 2008-09 (Baseline) through 2011-12

District/Grade Level	2008-09 (Baseline)	2009-10	2010-11	2011-12	% Change in Enrollment Baseline to 2011-12
Hopkins	93	139	189	228	145%
• K	51	47	53	41	
• Grade 1	42	51	48	53	
• Grade 2	a	41	49	45	
• Grade 3	a	b	39	50	
• Grade 4	a	b	c	39	
Minnetonka	179	246	333	414	131%
• K	67	70	108	90	
• Grade 1	61	64	68	106	
• Grade 2	51	63	61	68	
• Grade 3	a	49	61	55	
• Grade 4	a	b	35	62	
• Grade 5	a	b	c	33	
St. Cloud	46	65	87	115	150%
• K	29	22	24	29	
• Grade 1	17	27	22	26	
• Grade 2	a	16	25	21	
• Grade 3	a	b	16	23	
• Grade 4	a	b	c	16	
Total	318	450	609	757	138%

^aGrade level not offered in 2008-09.

^bGrade level not offered in 2009-10.

^cGrade level not offered in 2010-11.

Retention. Retention data are summarized in Table 3 by enrollment cohort for each of the three districts. From initial year of enrollment to 2011-12, the retention from one grade level to the next was generally high across all three districts. The average retention rate for the enrollment cohorts displayed in Table 4 was equal to 93%, and 10 of the 13 immersion cohorts had a retention rate greater than 90%. However, it is noted that a cohort in Minnetonka comprised of students who were fifth graders in 2011-12 had 65% retention, and a cohort in St. Cloud comprised of students who were third graders in 2011-12 had 79% retention. Also, two cohorts gained students from baseline enrollment, and these retention rates are greater than 100%.

Table 3. Retention from Initial Year of Enrollment Through 2011-12 by District

Enrollment Cohort	Baseline 2008-09	2009-10	2010-11	2011-12	Percent Retention from Initial Year of Enrollment
Hopkins					
• K to Grade 1	a	a	K=53	Gr. 1=53	100%
• K to Grade 2	b	K=47	Gr. 1=48	Gr. 2=45	96%
• K to Grade 3	K=51	Gr. 1=51	Gr. 2=49	Gr. 3=50	98%
• Grade 1 to Grade 4 ^c	Gr. 1=42	Gr. 2=41	Gr. 3=39	Gr. 4=39	93%
Minnetonka					
• K to Grade 1	a	a	K=108	Gr. 1=106	98%
• K to Grade 2	a	K=70	Gr. 1=68	Gr. 2=68	97%
• K to Grade 3	K=67	Gr. 1=64	Gr. 2=61	Gr. 3=55	82%
• Grade 1 Grade 4 ^c	Gr. 1=61	Gr. 2=63	Gr. 3=61	Gr. 4=62	102% ^d
• Grade 2 to Grade 5 ^c	Gr. 2=51	Gr. 3=49	Gr. 4=35	Gr. 5=33	65%
St. Cloud					
• K to Grade 1	a	a	K=24	Gr. 1=26	108% ^d
• K to Grade 2	a	K=22	Gr. 1=22	Gr. 2=21	95%
• K to Grade 3	K=29	Gr. 1=27	Gr. 2=25	Gr. 3=23	79%
• Grade 1 to Grade 4 ^c	Gr. 1=17	Gr. 2=16	Gr. 3=16	Gr. 4=16	94%

^aThe school year of kindergarten enrollment for this cohort was 2010-11.

^bThe school year of kindergarten enrollment for this cohort was 2009-10.

^cRetention tracking began in the 2008-09 baseline school year.

^dAlthough the immersion program begins in kindergarten, students are permitted to enroll after kindergarten if they have been previously enrolled elsewhere in Chinese immersion and/or demonstrate sufficient proficiency in the Chinese language. This retention rate is greater than 100% because of new student enrollments occurring in a later grade.

➤ English Teacher Survey

A total of 65 persons responded to the English teacher survey, resulting in an overall response rate of 41%. Most respondents were teachers of only one grade level (n = 45). The others were teachers of two or more grade levels (n = 14), special education teachers (n = 2), or were specialists or support staff (n = 4). Additional information regarding the sample is provided in Appendix B. Note that the term English teacher is used in this report to refer to a teacher of any grade or subject other than Chinese immersion. The questionnaire included sections on types of assistance provided to Chinese immersion teachers, successful interactions with Chinese immersion teachers, and suggestions regarding the establishment of a strong professional community among all the school's programs. The results are summarized by these topics.

Assistance Provided to Chinese Immersion Teachers

The English teachers were asked to indicate whether or not they provided assistance to the Chinese immersion teachers at their schools during the past two years with respect to 18 different instructional areas. Sixty-one of the 65 survey respondents indicated that they had assisted Chinese immersion teachers in at least one of the areas. Table 4 summarizes the responses of these 61 teachers.

The area where English teachers were most likely to provide assistance to Chinese immersion teachers was maintaining student discipline. Seventy-seven percent stated they assisted the Chinese immersion teachers in this area. Between 60% and 70% said they assisted Chinese immersion teachers with obtaining instructional resources (69%), organizing and managing a classroom (67%), understanding the curriculum (67%), communicating with parents (66%), becoming familiar with the school's mandatory testing program (61%), and diagnosing student needs (61%). To a somewhat lesser extent, the English teachers provided assistance with areas such as becoming aware of special services provided by the school district for students (49%), dealing with individual differences among students (46%), evaluating student progress (44%), assisting students with special needs (41%), and motivating students (41%).

Table 4. Instructional Areas in Which English Teachers Have Provided Assistance to the Chinese Immersion Teachers at Their Schools

<i>Instructions: What types of assistance have you provided to the Chinese immersion teachers at your school? When you respond to the questions, please think about the last two school years (2010-11 and 2011-12). Did you provide assistance (e.g., information, suggestions, etc.) concerning . . . ?</i>	N of Respondents	% Yes
Instructional Area		
• Maintaining student discipline	61	77%
• Obtaining instructional resources	61	69%
• Organizing and managing a classroom	60	67%
• Understanding the curriculum	58	67%
• Communicating with parents	61	66%
• Becoming familiar with the school's mandatory testing program (e.g., MCA, MAP)	61	61%
• Diagnosing student needs	61	61%
• Planning for instruction	61	57%
• Using a variety of teaching methods	59	51%
• Becoming aware of special services provided by the school district for students	61	49%
• Dealing with individual differences among students	61	46%
• Evaluating student progress	61	44%
• Assisting students with special needs	61	41%
• Motivating students	61	41%
• Managing time and work	61	34%
• Completing administrative paperwork	61	31%
• Understanding the teacher evaluation process	61	28%

• Facilitating student group work	61	16%
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The teachers were asked to write any comments they would like to make about assisting the Chinese immersion teachers in the areas listed on the questionnaire. The responses of the 13 teachers who provided a comment are summarized in Table 5. Four teachers described negative reactions to assisting Chinese immersion teachers or to the Chinese immersion program in general. These comments generally concerned the time needed to provide assistance, the Chinese immersion teachers taking on fewer responsibilities than the English teachers, or the disproportionate amount of resources received by the Chinese immersion program compared to the rest of the school. Some English teachers also commented that they had assisted in many different ways such as explaining things whenever an immersion teacher did not understand something. A few teachers stated that they believed the immersion teachers would benefit from training on classroom management. A couple teachers indicated that interactions with Chinese immersion teachers were enjoyable, or that more interaction needed to occur between the English and Chinese teachers.

Table 5. English Teachers’ Comments Regarding Providing Assistance to Chinese Immersion Teachers

<i>Please the space below to write any comments you have about the areas listed above [regarding providing assistance to Chinese immersion teachers].</i>	n
Negative reactions <i>(e.g., It has been our experience that supporting teachers in the Chinese program takes an immense amount of our prep time. We are also not seeing the immersion teachers taking on grade level responsibilities such as planning field trips and taking major roles on school wide committees.)</i>	4
Assisted in many different areas <i>(e.g., We have always included our Chinese teacher in our activities and plans. We have explained things whenever she does not understand something. We have helped with testing and assessing.)</i>	3
Immersion teachers need training on classroom management <i>(e.g., I feel it's important for the immersion teachers to be instructed on classroom management to help assist them in dealing with behaviors in their classroom that interfere with instruction and learning.)</i>	3
Positive reactions <i>(e.g., It has been a joy to be a mentor this year and collaborate with the Chinese Immersion program.)</i>	2
English and Chinese immersion teachers need to interact more <i>(e.g., I think we need to be collaborating much more than we do. That being said, it is incredibly difficult to do when our schedules are so very different.)</i>	2
Other <i>(e.g., Along with working full time, they [the Chinese immersion teachers] are also working on finishing degrees which is extremely difficult to do.)</i>	2

*Thirteen teachers provided a comment. Because comments could be coded in more than one category, the sum is greater than 13.

Successful Interactions with Chinese Immersion Teachers

In an open-ended question, the English teachers were asked to describe the most successful or most important interactions they had had with a Chinese immersion teacher. Seventy-one percent (46 of 65) of the English teachers wrote a response to the question. These comments are summarized in Table 6. The three types of interactions mentioned most frequently involved: Modeling, mentoring, and/or discussing instructional strategies (n = 9); informal conversations (n = 9); and PLC’s or grade-level meetings (n = 8).

Other interactions identified as successful or important by two or more English teachers concerned working together on extracurricular activities, assisting with classroom management, helping with parent communication, sharing materials and resources, discussing individual students, explaining testing programs, and working with the special education program.

Table 6. English Teachers' Most Successful or Most Important Interactions with Chinese Immersion Teachers

<i>Describe one or two of the most successful or most important interactions you have had with a Chinese immersion teacher.</i>	Number of Responses
Type of Interaction	
Modeling, mentoring, and/or discussing instructional strategies <i>(e.g., I had a few Chinese Immersion teachers observe my teaching. After they observed we had some really great conversations about instruction.)</i>	9
Informal conversations <i>(e.g., On a personal level, it has been fun to get to know them through lunch times together.)</i>	9
PLC's or grade-level meetings <i>(e.g., In our PLC's sharing ideas with each other. Our Chinese Immersion teacher always wants to learn more about how to improve her teaching and she does a great job sharing ideas herself.)</i>	8
Working together on extracurricular activities <i>(e.g., Cooperatively, the immersion teachers and myself produced a concert for the community this past winter. It was a tremendous experience for all involved!!!)</i>	6
Assisting with classroom management <i>(e.g., Helping a teacher with classroom management, organizing a classroom.)</i>	6
Helping with parent communication <i>(e.g., I have weekly meetings with a Chinese teacher to talk specifically about parent communication. I feel this has helped this teacher to be more effective.)</i>	5
Sharing materials and resources <i>(e.g., Helping the Immersion teacher gather resources for teaching kindergarten centers.)</i>	4
Discussing individual students <i>(e.g., Talking about how to meet the needs of individual students.)</i>	4
Explaining testing programs <i>(e.g., Also, helping her to understand our testing routines and that testing here is different from testing in China. In China, tests for elementary students determine which Junior High they go to which directly impacts their whole future. The immersion teachers take the testing VERY seriously and personally if students do not meet growth targets, etc.)</i>	3
Working with the special education program <i>(e.g., Participated as a member of an IEP team for a student with an articulation disorder.)</i>	2
Other <i>(e.g., Supporting students and teachers as they explore and learn to use new technology tools.)</i>	6

*A total of 46 respondents provided a comment. Because comments could be coded in more than one category, the sum is greater than 46. The Other category contains response categories with a frequency of one.

How to Establish a Strong Professional Community

An open-ended question asked the English teachers to share their thoughts on what is especially effective for establishing a strong professional community among all the programs offered at their school. The comments of the 47 teachers responding to the question are summarized in Table 7. In their comments, the English teachers primarily expressed that the establishment of a strong professional community needs interaction, collaboration, and team-building across programs and teachers (n = 17). They also noted the importance of good communication among all staff (n = 13), and equity between Chinese immersion and regular school programming (n = 10). Equity issues mentioned by the respondents concerned class size, resources, expectations, attention given by administration, and student access to enrichment classes.

Table 7. English Teachers’ Responses to “What Is Especially Effective for Establishing a Strong Professional Community Among all the Programs Offered at Your School?”

<i>What do you think is especially effective for establishing a strong professional community among all the programs offered at your school?</i>	Number of Responses
Interaction, collaboration, and team-building <i>(e.g., Interactions socially and professionally across programs.)</i>	17
Good communication among all staff <i>[e.g., Making sure there is clear and consistent communication between ALL staff (administration, etc.) There have been many gaps in communication (i.e. discipline, classroom management, routines) because of the language barrier. The Immersion Staff is open about this and has shared this with us/team.]</i>	13
Equity between Chinese immersion and regular school programming <i>(e.g., Having the same expectations and opportunities for all programs no matter if they are English or Chinese.)</i>	10
Time to meet <i>(e.g., TIME, TIME, TIME. Time to meet and talk about school, time to meet and get to know one another on a personal level.)</i>	8
Professional development on best practices for all teachers; high-quality classroom instruction <i>(e.g., Best practices and strategies for instruction accompanied by highly trained professionals who strive to create a very caring school community with the main goal being what is best for children!)</i>	7
Respect and empathy <i>(e.g., Cultivating a climate of respect and mutual appreciation.)</i>	4
Other <i>(Intertwining the classrooms helps build social connections for the students.)</i>	1

*A total of 47 teachers provided a response. Because responses could be coded in more than one category, the sum is greater than 47. The Other category contains a topic mentioned by only one respondent.

Additional Comments and Suggestions

In an open-ended question, the English teachers were asked to share any additional comments or suggestions they had about working with the Chinese immersion program. The responses provided by 24 teachers are summarized in Table 8. The most frequently occurring theme was the expression of positive sentiments regarding the Chinese immersion program, teachers, or students (n = 10). The next most frequently occurring theme was the Chinese immersion teachers' need for training, especially on classroom management (n = 6). In addition, a few teachers expressed a need for equity between programs (n = 4).

Table 8. English Teachers' Additional Comments and Suggestions Regarding Working with the Chinese Immersion Program

<i>Please use the space below to write any final comments or suggestions you would like to share about working with the Chinese immersion program at your school.</i>	Number of Respondents
General positive comments (e.g., <i>I value our Chinese Immersion Program immensely! It has become an integral part of our school community and I consider it a privilege to work with our students, parents, and teachers!</i>)	10
Immersion teachers need more training, especially on classroom management (e.g., <i>Management of students is a significant need. ... The Chinese teachers have not been trained on how to handle this. Student teaching and methods classes would be very helpful for them.</i>)	6
Need equity between programs (e.g., <i>We would like to see the program as an equal and not an elitist group in our school.</i>)	4
Need more personal interaction with Chinese immersion teachers (e.g., <i>I feel like I do not know the Chinese teachers as well as I know the English teachers. I wish I knew them better so I was able to collaborate with them more.</i>)	3
Takes time to learn to teach (e.g., <i>Many of them [Chinese immersion teachers] are learning a ton these few years. And they are expected to be awesome right away. I have been teaching 15 years, and I think I sort of understand how to teach but I have MUCH to learn.</i>)	2
Other (e.g., <i>I wish that more Chinese was woven into the general ed. curriculum to benefit all students' learning, and to make the program a more solid part of the general school.</i>)	5

*A total of 24 teachers provided a response. Because responses could be coded in more than one category, the sum is greater than 24.

Summary of the English Teachers Survey

- The area in which English teachers were most likely to assist the Chinese immersion teachers was maintaining student discipline. Assistance was also provided fairly often with respect to obtaining instructional resources, organizing and managing a classroom, understanding the curriculum, communicating with parents, becoming familiar with the school's mandatory testing program, and diagnosing student needs.
- In open-ended comments about providing assistance, the most prominent theme was that the English teachers felt they not only spent a great deal of time supporting the Chinese immersion teachers in many areas, but that they also took on a disproportionate amount of responsibility regarding other roles in the school, such as serving on school-wide committees.

- The English teachers were asked to describe the most successful or most important interactions they had had with Chinese immersion teachers at their school. The interactions described most often involved modeling, mentoring, and/or discussing instructional strategies or engaging in informal conversations that provided an opportunity to get to know the immersion teachers better on a personal level. Other settings described fairly often were PLC's or grade-level meetings, working together on extracurricular activities, assisting with classroom management, and helping with parent communication.
- An open-ended question asked the English teachers to share their thoughts on what is especially effective for establishing a strong professional community among all the programs offered at their school. The responses stressed a need for interaction, collaboration, and team-building across programs. Importance was also placed on ensuring good communication among all staff and striving for equity between Chinese immersion and regular school programming.
- Overall, the additional comments and suggestions provided by the respondents were quite positive, with teachers expressing praise for the Chinese immersion program at their school and a desire for more opportunities to get to know the immersion teachers better. However, the English teachers also repeated concerns stated elsewhere in the survey that the Chinese immersion teachers seemed to lack sufficient training on classroom management and that there needed to be greater equity among the programs offered by the school.

➤ Parent Survey

The parent survey results presented in this report are aggregated across the four schools and include a summary of responses to items concerning the following:

- Child's enjoyment of the program
- Child's progress
- Quality of instruction
- Opinion of selected program features
- Overall satisfaction
- Re-enrollment decision
- Recommendations for changes to the program.

If parents had more than one child enrolled in their school's immersion program, they were instructed to think of the oldest child when responding to survey items. A copy of the survey is provided in Appendix C. Information about the parent respondents is provided in Appendix D.

Child's Enjoyment of Chinese Immersion Program

Parents were asked to rate how much their child enjoyed eight specific aspects of the immersion program. These aspects are presented in Table 9 along with the percent of parents reporting a high or medium level of enjoyment. When aggregated across grade levels, the results indicate that the children especially enjoyed studying social studies (99%), studying science (98%), learning about Chinese culture (97%), speaking Chinese with the teacher (97%), studying math (95%), and writing Chinese (91%). The areas associated with the lowest enjoyment were reading Chinese (89%) and speaking Chinese with classmates (86%). The largest increases between the 2009-10 and 2011-12 ratings were for studying math (an

increase of 7 percentage points), studying social studies (an increase of 5 percentage points), speaking Chinese with the teacher (an increase of 5 percentage points), and studying science (an increase of 4 percentage points). Ratings in only one area decreased in the same time period; reading Chinese decreased by 3 percentage points.

When categorized by the child’s grade, the results indicate that, for some academic activities, enjoyment of fourth and fifth graders was lower than that of children in the other grades. In particular, the fourth graders’ enjoyment was markedly lower for reading Chinese and speaking Chinese with classmates, for which 76% and 78%, respectively, of parents reported that their child experienced a high or medium level of enjoyment. The fifth graders’ enjoyment was also distinctly lower for reading Chinese and speaking Chinese with classmates, with 57% of parents reporting that their child experienced a high or medium level of enjoyment of each of these two activities.

Table 9. Parents’ Rating of Child’s Enjoyment of the Chinese Immersion Program by Child’s Grade

<i>Please indicate how much your (oldest) child enjoys the following aspects of his/her Chinese immersion program.</i> <i>How much your child enjoys ...</i>	Total N ^a (2011-12)	% High or Medium ^b								
		By Grade in 2011-12						Across Grades by School Year		
		K	1	2	3	4	5	2009-10	2010-11	2011-12
Speaking Chinese with the teacher	214	100%	96%	100%	100%	90%	100%	92%	97%	97%
Speaking Chinese with classmates	201	97%	91%	80%	87%	78%	57%	85%	82%	86%
Writing Chinese	222	90%	91%	97%	95%	83%	86%	90%	92%	91%
Reading Chinese	223	89%	95%	95%	95%	76%	57%	92%	88%	89%
Learning about Chinese culture	212	100%	96%	95%	98%	95%	100%	95%	95%	97%
Studying math	221	100%	93%	98%	93%	90%	100%	88%	96%	95%
Studying science	209	100%	98%	100%	100%	98%	100%	94%	99%	98%
Studying social studies	188	100%	100%	100%	100%	90%	100%	94%	97%	99%

^aThe total N for each item does not include participants who selected the Don’t Know option, the N/A option, or participants who gave no response.

^bRating scale was *High, Medium, Low, None, Don’t Know, and Not Applicable*.

On the year-three survey, parents of third-grade students were asked to rate enjoyment of an engineering unit on sound specific to that grade level (see Table 10). Fifty-six percent of parents of third graders reported their child had a high or medium level of enjoyment of the unit while the other 44% did not know if their child enjoyed the unit.

Table 10. Parents’ Rating of Third Grade Child’s Enjoyment of the Engineering Unit on Sound

<i>ONLY FOR STUDENTS IN THIRD GRADE: An engineering unit on SOUND was included in the third-grade curriculum this year. In the SOUND unit, students learned about a boy named Kwame who used acoustical engineering to create a visual representation of a drum rhythm. Students then applied what they learned when they designed visual representations of bird calls. How would you rate your child’s enjoyment in studying the SOUND unit?</i>	Total N^a	% High or Medium^b	% Don’t Know
	39	56%	44%

^aThe total N for each item does not include participants who selected the N/A option or participants who gave no response.

^bRating scale was *High, Medium, Low, None, Don’t Know, and Not Applicable*.

Child’s Progress in the Chinese Immersion Program

On the second and third year surveys, but not on the first, parents were asked to indicate how satisfied they were with their child’s progress in seven subjects and activities. Table 11 presents the percent reporting they were satisfied with their child’s progress. Across grade levels (the two rightmost columns), the satisfaction rate was 91% or higher for all seven areas in both school years. However, from one school year to the next, the ratings for five of the eight subjects decreased. The decreases seem to be due to lower ratings given by parents of fourth and fifth graders.

When categorized by grade level, the results were similar to those regarding the child’s enjoyment of the program. Namely, the parents’ satisfaction with their children’s progress, with the exception of learning about Chinese culture for fifth graders, was lower for fourth and fifth graders than for children in the other grades. The level of satisfaction with fourth graders’ progress, as compared to the other grades, was particularly low for studying math, where 72% of parents reported they were satisfied. The level of satisfaction with fifth graders’ progress, as compared to the other grades, was especially low for studying science and social studies, where 67% of parents reported they were satisfied. The declining satisfaction with students’ progress as they advance into fourth and fifth grades should be monitored carefully by administration and investigated to identify possible explanations.

Table 11. Parents' Satisfaction with Child's Progress in the Chinese Immersion Program by Child's Grade

Please indicate how much your (oldest) child enjoys the following aspects of his/her Chinese immersion program. How much your child enjoys ...	Total N ^a (2011-12)	% Satisfied ^b							
		By Grade in 2011-12						Across Grades by School Year ^c	
		K	1	2	3	4	5	2010-11	2011-12
Speaking Chinese	219	100%	100%	100%	98%	88%	83%	97%	97%
Writing Chinese	221	97%	95%	100%	98%	88%	83%	97%	95%
Reading Chinese	216	100%	93%	98%	95%	80%	86%	95%	93%
Learning about Chinese culture	209	97%	94%	100%	100%	88%	100%	99%	96%
Studying math	221	97%	95%	93%	100%	90%	86%	94%	95%
Studying science	199	93%	100%	100%	97%	72%	67%	94%	92%
Studying social studies	189	100%	98%	97%	92%	74%	67%	94%	91%

^aThe total N for each item does not include participants who selected the Don't Know option, the N/A option, or participants who gave no response.

^bResponse options were *Very Satisfied*, *Satisfied*, *Dissatisfied*, *Very Dissatisfied*, *Don't Know*, and *Not Applicable*. The percent satisfied reported in the table was calculated by summing the number who selected the *Very Satisfied* and *Satisfied* response options.

^cThese questions were not included in the 2009-10 questionnaire.

Quality of Instruction

Parents were asked to rate the quality of instruction received by their child in each of five subjects. Table 12 presents the percent reporting the quality of instruction was excellent or good. Across grade levels, the percent of parents giving a rating of excellent or good to quality of instruction ranged from 88% to 98% for the 2011-12 school year. Across the three school years, the ratings were most stable for Chinese language, Chinese culture, and math, differing at most by three percentage points from one year to the next. The ratings were more variable for science and social science where increases were noted from 2009-10 to 2010-11 and decreases in the next school year.

When analyzed by child's grade level, the lowest ratings across all subjects were given for fourth and fifth grade children. For fourth grade children, quality of instruction provided in science was rated lowest, receiving an excellent or good rating from 66% of the parents. For fifth grade children, quality of instruction provided in science and social studies was rated lowest, receiving an excellent or good rating from 67% of the parents.

Table 12. Parents' Opinion of Quality of Instruction by Child's Grade

How would you rate the quality of instruction received by your (oldest) child in the following subjects?	Total N ^a (2011-12)	% Excellent or Good ^b								
		Grade in 2011-12						Across Grades by School Year		
		K	1	2	3	4	5	2009-10	2010-11	2011-12
Chinese language	220	100%	98%	100%	98%	73%	86%	97%	98%	98%
Chinese culture	203	97%	96%	100%	97%	91%	83%	93%	96%	96%
Math	220	97%	95%	92%	98%	79%	86%	92%	92%	92%
Science	190	100%	87%	94%	100%	66%	67%	82%	93%	88%
Social studies	182	100%	89%	97%	95%	71%	67%	82%	93%	88%

^aThe total N for each item does not include participants who selected the Don't Know option, the N/A option, or participants who gave no response.

^bResponse options were *Excellent, Good, Fair, Poor, Don't Know, and Not Applicable*.

Opinion of Chinese Immersion Program Features

Parents were asked to express their opinion about selected features of the Chinese immersion program. These features are presented in Table 13 along with the percent of parents responding Too Many/Too Much, About Right, and Not Enough. The responses given by parents for the 2011-12 school year indicated that they were generally satisfied with the amount of technology used in their child's classroom, the amount of communication about events and activities taking place in the immersion program, and the number of opportunities their child had to interact informally with other immersion students; although 17% of parents did indicate they felt there were too few opportunities for their child to interact informally with other immersion students. The areas where parents indicated the most concern in the 2011-12 school year were class size, opportunities for their child to interact with children not in the immersion program, communication about their child's progress, and amount of homework. Thirty-one percent of parents indicated that their child's class size was too large. More than 25% of parents indicated they would like to see an increase in the amount of communication about their child's progress in the immersion program (26%) and an increase in the opportunities their child had to interact with children at the school who were not in the immersion program (27%). Parents who expressed concern about amount of homework were evenly divided between feeling it was too much (17%) and feeling it was not enough (16%).

From 2009-10 to 2011-12, the percent of parents selecting About Right increased for only one of the seven program features listed on the questionnaire, and that was the amount of communication about events and activities taking place in the Chinese immersion program (83% to 90%). The two largest decreases from 2009-10 to 2011-12 were for class size (86% to 67%) and amount of homework (79% to 67%).

Table 13. Parents' Opinion of Chinese Immersion Program Features

Program Feature	School Year	Total N*	Too Many/Too Much %	About Right %	Not Enough %
Number of students in your child's class	2009-10	208	13%	86%	<1%
	2010-11	314	20%	76%	3%
	2011-12	222	31%	67%	2%
Amount of homework your child receives	2009-10	206	12%	79%	9%
	2010-11	314	13%	73%	14%
	2011-12	220	17%	67%	16%
Technology used in your child's classroom	2009-10	196	2%	95%	3%
	2010-11	300	2%	92%	6%
	2011-12	210	1%	89%	11%
Opportunities your child has to interact informally (e.g., playing games, chatting) with other children who are in the Chinese immersion program	2009-10	181	1%	85%	14%
	2010-11	285	0%	83%	17%
	2011-12	200	0%	83%	17%
Opportunities your child has to interact with children at the school who are <u>not</u> in the Chinese immersion program	2009-10	170	3%	75%	22%
	2010-11	251	1%	74%	25%
	2011-12	191	2%	71%	27%
Communication about events and activities taking place in the Chinese immersion program	2009-10	208	0%	83%	17%
	2010-11	307	<1%	86%	13%
	2011-12	219	3%	90%	8%
Communication about your child's progress in the Chinese immersion program	2009-10	206	<1%	75%	25%
	2010-11	313	<1%	77%	23%
	2011-12	220	1%	73%	26%

*The total N for each item does not include participants who selected the Don't Know option or participants who gave no response.

Overall Satisfaction with the Program

Responses regarding overall satisfaction with the Chinese immersion program in the 2011-12 school year indicate that most parents were pleased. Across grades, 68% of parents reported that they were very satisfied with the program and 27% said they were satisfied (see Table 14).

The results disaggregated by grade show that, in 2011-12, the percent of parents who selected the Very Satisfied option declined from kindergarten to grade 5 (84% to 14%). The decrease was especially marked for grade 3 (78%) compared to grade 4 (38%), a difference of 40 percentage points. At the same time, the percent of parents selecting the Satisfied option increased from kindergarten (16%) to grade 5 (71%). These results suggest that parents continue to be generally satisfied with the immersion program as their children advance from one grade level to the next, but their level of satisfaction experiences a fairly systematic decrease. Explanations for the decline in satisfaction should be investigated.

Table 14. Parents' Overall Satisfaction with the Program

<i>Overall, how satisfied are you with the Chinese immersion program?</i>	Grade in 2011-12						% Across Grades ^{a,b}	
	K	1	2	3	4	5	2010-11	2011-12
Very satisfied	84%	73%	78%	78%	38%	14%	71%	68%
Satisfied	16%	22%	23%	22%	43%	71%	28%	27%
Dissatisfied	0%	4%	0%	0%	17%	14%	1%	5%
Very dissatisfied	0%	2%	0%	0%	2%	0%	<1%	1%

^aPercentages in the 2010-11 and 2011-12 school years are based on a total of 314 and 223 respondents, respectively.

^bThis question did not appear on the 2009-10 survey.

Recommendations for Changes to the Program

In an open-ended question, parents were asked what, if anything, they would change so that the Chinese immersion program would be more effective for their child. Fifty percent (112 of 226) parents wrote a response to the question. Their recommendations are summarized in Table 15. The most frequently recommended changes pertained to the teachers in regard to their teaching methods and their communication with parents. Some parents requested improved teacher strategies, while others indicated a need for more timely feedback about student progress. Other recommendations made by at least 8% of the respondents concerned English language curriculum and instruction (11%), class size (9%), support for struggling students (8%), and amount of homework (8%). It should be noted that 20% of the respondents used the answer space to write a comment indicating that they were generally quite satisfied with the program.

Table 15. Parents' Recommendations for Changes to the Program, 2011-12

What, if anything, would you change about the Chinese immersion program so that it would be more effective for your child?	%*
General satisfaction (e.g., <i>We are very satisfied with the Chinese Immersion Program.</i>)	20%
Improved teacher strategies (e.g., <i>Less stress by the teachers on competition between the students with grades.</i>)	13%
Parent-teacher communication (e.g., <i>Earlier communication about student progress. We didn't get too much info until the first conference and then it was overwhelming and negative.</i>)	12%
English instruction (e.g., <i>Better "safety net" for English learning. I feel there are a lot of students who are behind in English reading and writing.</i>)	11%
Class size (e.g., <i>Much smaller class size so the teacher could actually teach and have time to give individual attention and frequent, specific feedback to parents. The early years are too important to allow such large class sizes.</i>)	9%
Support for struggling students (e.g., <i>We need extra help for the kids that are struggling or they are simply not going to be able to keep up.</i>)	8%
Amount of homework (e.g., <i>A bit less homework.</i>)	8%
Program leadership (e.g., <i>I think the program needs a director that only deals with this program rather than a principal of both programs.</i>)	7%
Parents need help assisting child (e.g., <i>As a parent it is increasingly difficult to assist the child with the Chinese. If there was perhaps a recording of the word sheets that we could "test" them from?)</i>	6%
Problems with classroom management (e.g., <i>Teachers have very little understanding of classroom management. Often, the classroom is very chaotic.</i>)	6%
More opportunities to speak Chinese (e.g., <i>More evening or weekend opportunities for Chinese speaking.</i>)	5%
Curriculum (e.g., <i>Better curriculum for preparing student for life. (i.e. managing a daily calendar, managing finances, etc.)</i>)	4%
Personnel turnover (e.g., <i>More consistency with teachers. There seems to have been a fair amount of turnover, and I think some of the hires have been rather inexperienced teachers that are not managing the classroom well.</i>)	4%
Teacher training (e.g., <i>There should be a requirement for all immersion teachers to have basic "cultural" training in how local parents approach the education of their children and what parents will be expecting from the classroom.</i>)	4%
Instruction, materials in science and/or social studies (<i>Improve Social Studies and Science textbooks/classroom materials and if not available, utilize technology to deliver materials on an individual student basis – not a few lap-tops shared by all.</i>)	4%
Other (e.g., <i>Physical classroom space needs to be reasonable. This year it was not.</i>)	12%

*Percentages are based on a total of 112 respondents. Because responses could be coded in more than one category, the sum of the percentages is greater than 100.

Re-enrollment Decision

Responses regarding their decision to re-enroll their child in the Chinese immersion program for the 2012-13 school year indicate that, overall, most parents were satisfied with the Chinese immersion program. Eighty-eight percent of the parents reported that they had definitely decided to re-enroll their child and 9% said that they probably would re-enroll (see Table 16). These results are very similar to those of the previous two school years.

When examining the 2011-12 responses by grade level, it was noted that the percent indicating they definitely would re-enroll their child dropped considerably from kindergarten to grade 5 (92% to 57%), while the percent indicating they probably would re-enroll increased (8% to 14%). Additionally, the percent indicating they probably would not re-enroll increased markedly from kindergarten to grade 5 (0% to 29%). The changes were especially noticeable after third grade.

Table 16. Parents' Re-enrollment Decision by Child's Grade

<i>How likely are you to re-enroll your child?</i>	Grade in 2011-12						Across Grades by School Year ^a		
	K	1	2	3	4	5	2009-10	2010-11	2011-12
Definitely will	92%	84%	100%	98%	76%	57%	91%	90%	88%
Probably will	8%	9%	0%	2%	21%	14%	7%	9%	9%
Probably will not	0%	7%	0%	0%	2%	29%	2%	1%	3%
Definitely will not	0%	0%	0%	0%	0%	0%	<1%	<1%	0%

^aPercentages in the 2009-10, 2010-11, and 2011-12 school years are based on a total of 310, 208, and 223 respondents, respectively.

Reasons for the Re-Enrollment Decision

An open-ended question asked the parents to describe the most important reasons for their re-enrollment decision. Forty-eight percent (109 of 226) parents wrote a response to the question. These reasons are summarized in Table 17. The most common reason, provided by 27% of the respondents, was a statement indicating that they and/or their child were pleased with the program. Other reasons provided by 10% or more of the respondents included the importance of foreign language proficiency (18%), commitment to the program (17%), the high quality education provided by the immersion program (16%), satisfaction with teachers and the learning environment (12%), and satisfaction with the child's progress (10%). In addition, respondents expressed a variety of concerns, including preparation for middle school (5%) and the need for additional support for struggling students (4%). The content of many of these responses expressed a hope that improvements would be made (e.g., *I hope that as this program gets more established things like math and English education get figured out!!*).

Table 17. Parents' Reasons for Their Re-Enrollment Decision

Topic of Response	%*
Child/parent is pleased with the program <i>(e.g., My child's love of the program is why (s)he will stay in the program.)</i>	27%
Importance of Chinese/foreign language proficiency <i>(e.g., It is such a gift for her to be fluent in a second language, it will open so many doors in the future. It will have a great economic and social value to her.)</i>	18%
Committed to the program <i>(e.g., We are committed to the program – moving them would be difficult for them academically.)</i>	17%
Program provides high quality, rigorous education <i>(e.g., I think the education quality and rigor is better than surrounding schools.)</i>	16%
Satisfaction with teachers and learning environment <i>(e.g., The teachers and students are terrific.)</i>	12%
Child is making progress <i>(e.g., We are extremely pleased with her progress.)</i>	10%
Important to learn about another culture <i>(e.g., Throughout their education, they come to appreciate other languages and cultures.)</i>	8%
Beneficial to learn in an immersion program at an early age <i>(e.g., We believe in early language education. We believe our child is thriving in this program, and we see the class as a whole working towards acquiring excellent language skills.)</i>	7%
General concerns <i>(e.g., Our child has been unhappy this year. With the lack of progress in Chinese, lack of interaction and very teacher-centered environment- it has been very uninspiring.)</i>	6%
Middle school concerns <i>(e.g., I am concerned that he will not be prepared for the middle school curriculum.)</i>	5%
Enrolling more children <i>(e.g., We are also enrolling our youngest in the Kindergarten program next year.)</i>	5%
Support for struggling students <i>(e.g., Not receiving support for my son who is struggling in math and reading. Parents are getting private tutors and I feel that we were not told what to expect at the beginning of the program.)</i>	4%
Child is learning heritage language <i>(e.g., My daughter was born in China. It helps her to connect with her heritage.)</i>	4%
Other <i>(e.g., Changes are needed to make science and social studies more effective. Curriculum translation from English to Chinese not working well.)</i>	9%

*Percentages are based on a total of 109 respondents. Because responses could be coded in more than one category, the sum of the percentages is greater than 100.

Summary of the Parent Survey

- Results of the parent survey for the 2011-12 school indicated that most children experienced a fairly high level of enjoyment in their Chinese immersion classes. When analyzed by grade level, however, it was noted that the enjoyment of some academic activities was lower for fourth and fifth graders than for children in the other grades. In particular, parents reported lower enjoyment on the part of their fourth and fifth graders for reading Chinese and speaking Chinese with classmates.
- When asked specifically about third graders' enjoyment of an engineering unit appearing for the first time in the 2011-12 curriculum, the parents either reported that they did not know how much their child enjoyed the unit (44%) or that their child enjoyed the unit at a medium or high level (56%).
- The majority of parents said they were satisfied with their child's progress in the Chinese immersion program. Across grades in 2011-12, the satisfaction ratings ranged from 91% for progress in social studies to 97% for progress in speaking Chinese. Similar to results regarding the child's enjoyment, however, the parents reported less satisfaction with the progress of fourth and fifth graders than for children in kindergarten through third grade.
- Overall, the percent of parents giving a rating of excellent or good to the quality of instruction received by their child in five academic areas ranged from 88% to 98% for the 2011-12 school year. The quality ratings were consistently high across three school years for instruction in Chinese language, Chinese culture, and math, but the ratings exhibited an up-and-down pattern for quality of instruction in science and social studies. When examined by grade level, it was noted that the quality of instruction ratings were somewhat lower for fourth and fifth graders in the areas of science and social studies.
- When evaluating specific program features, the only area where parents consistently increased their ratings from one year to the next was communication about events and activities taking place in the Chinese immersion program. Although the ratings for 2011-12 indicated that parents were generally satisfied, areas where they seemed most concerned were class size, opportunities for their child to interact with children not in the immersion program, communication about their child's progress, and amount of homework.
- In response to a question asking about overall satisfaction with the Chinese immersion program, the majority of parents in 2011-12 responded that they were very satisfied. However, when results were disaggregated by grade, it was noted that the percent of parents selecting the Very Satisfied option declined from Kindergarten to grade 5 by 70 percentage points. The pattern of responses indicated that, although parents continue to be generally satisfied with the immersion program as their children advance from one grade to the next, their overall satisfaction experiences a fairly consistent decline.
- Nearly all parents (97%) reported that they definitely or probably would re-enroll their child in the Chinese immersion program for the coming school year. Parents of fourth and fifth graders, however, seemed less certain of a decision to re-enroll than parents of children in the earlier grades. When describing the reasons for their re-enrollment decision, the most frequently occurring reasons mentioned being pleased with the program, the importance of proficiency in a foreign language, a commitment to the program, or the high quality, rigorous education offered in Chinese immersion. The parents who expressed concerns specifically mentioned fears regarding

inadequate preparation for middle school, lack of sufficient support for struggling students, as well as a general dissatisfaction with the program.

- A wide variety of recommendations were made with respect to changes to the program. Some of the areas identified as needing change included teacher strategies, parent-teacher communication, English instruction, class size, support for struggling students, and amount of homework.
- Survey responses indicate less satisfaction on the part of parents of fourth and fifth graders than of parents of children in earlier grades. Relatively low ratings of parents of fourth and fifth graders were noted in the areas of child's enjoyment, child's progress, quality of instruction, and overall satisfaction with the program. It is recommended that program administrators investigate these results further to identify possible explanations.

◆ Overall Summary

- In 2009, a Foreign Language Assistance Program (FLAP) grant was awarded by the U.S. Department of Education to the Minnesota Mandarin Immersion Collaborative (MMIC) for the project *Global Literacy Through Mandarin Immersion and STEM*. The funding was expected to continue for a period of 5 years, however, in 2011, Congress voted to discontinue all FLAP funding. Therefore, the MMIC was funded by a FLAP grant for a period of only 3 years. The grant supported early elementary immersion instruction in Mandarin Chinese that begins at the kindergarten level and the development of a curriculum that has a content focus on Science, Technology, Engineering, and Math (STEM). The districts participating in the MMIC were Hopkins, Minnetonka, and St. Cloud.
- In 2011-12, the third year of the grant-funded project, the Hopkins and St. Cloud school districts offered Chinese immersion for students in kindergarten through grade 4. Minnetonka also offered grade 5 immersion. The total enrollment in Chinese immersion classes in the baseline school year of 2008-09, aggregated across the three participating districts, was 318 students. In 2010-12, the total enrollment was 757, an increase of 138% from baseline. The percentage increases from the 2008-09 baseline to 2011-12 at Hopkins, Minnetonka, and St. Cloud were 145%, 131%, and 150%, respectively.
- From the initial year of enrollment through 2011-12, the retention rates for all three districts were generally quite high, with an average of 93% across immersion cohorts. However, two outliers were noted. One enrollment cohort in Minnetonka comprised of students who were fifth graders in 2011-12 had 65% retention, and a cohort in St. Cloud comprised of students who were third graders in 2011-12 had 79% retention.
- For evaluation of the third year of the MMIC project, information regarding implementation of the Chinese immersion programs was obtained via a survey of the non-immersion instructional staff (English teachers) and a survey of the parents.
- Maintaining student discipline was the area in which English teachers reported they were most likely to provide assistance to the Chinese immersion teachers. The English teachers also provided assistance fairly often with respect to obtaining instructional resources, organizing and managing a classroom, understanding the curriculum, communicating with parents, becoming familiar with the school's mandatory testing program, and diagnosing student needs.

- The most prominent theme in their open-ended comments was that the English teachers felt they not only spent a great deal of time supporting the Chinese immersion teachers in many areas, but that they also took on a disproportionate amount of responsibility regarding other roles in the school, such as serving on school-wide committees. However, many positive comments were also made in which the English teachers expressed praise for the Chinese immersion program's teachers, students, and achievements.
- In response to a question about the most successful or most important interactions with immersion teachers, the interactions described most often by the English teachers involved modeling, mentoring, and/or discussing instructional strategies or engaging in informal conversations that provided an opportunity to get to know the immersion teachers better on a personal level
- In order to establish a strong professional community among all programs offered at their schools, the English teachers stressed the need for interaction, collaboration, and team-building. They also placed importance on ensuring good communication among all staff and striving for equity between Chinese immersion and regular school programming.
- Results of the 2012 parent survey indicated that most children experienced a fairly high level of enjoyment in their Chinese immersion classes. In addition, the majority of parents indicated they were satisfied with their child's progress in the Chinese immersion program. Aggregated across grades, the satisfaction ratings for the 2011-12 school year ranged from 91% for progress in social studies to 97% for progress in speaking Chinese.
- Although the parents' responses indicated they were generally satisfied, the areas where they seemed most concerned in the 2011-12 school year were class size, opportunities for their child to interact with children not in the immersion program, communication about their child's progress, and amount of homework.
- Nearly all parents (97%) reported that they definitely or probably would re-enroll their child in the immersion program for the coming 2012-13 school year. Parents of fourth and fifth graders, however, seemed less certain of their decision to re-enroll than parents of children in the earlier grades. When describing the reasons for their re-enrollment decision, the most frequently reasons mentioned being pleased with the program, the importance of foreign language proficiency, a commitment to the program, or the high quality, rigorous education offered in Chinese immersion. The parents who expressed concerns specifically mentioned fears regarding inadequate preparation for middle school, lack of adequate support for struggling students, as well as a general dissatisfaction with the program.
- Survey responses indicated less satisfaction on the part of parents of fourth and fifth graders than of parents of children in earlier grades. Relatively low ratings of parents of fourth and fifth graders were noted in the areas of child's enjoyment, child's progress, quality of instruction, and overall satisfaction with the program. It is recommended that program administrators investigate these results further to identify possible explanations.

English Teachers at Schools with Chinese Immersion Programs

Note: Survey was administered online using Zoomerang.

Background Information

1. What is the name of your school?

- Eisenhower Elementary, Hopkins, MN
- Excelsior Elementary, Excelsior, MN
- Madison Elementary, St. Cloud, MN
- Scenic Heights Elementary, Minnetonka, MN

2. What grade(s) are you teaching this year? Check all that apply.

- Kindergarten
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Other, please specify

Assistance Provided to Chinese Immersion Teachers

What types of assistance have you provided to the Chinese immersion teachers at your school? When you respond to the questions, please think about the last two school years (2010-11 and 2011-12). Did you provide assistance (e.g., information, suggestions, etc.) concerning . . . ?

Question 3

3. Communicating with parents

Yes

No

4. Organizing and managing a classroom

Yes

No

5. Maintaining student discipline

Yes

No

6. Obtaining instructional resources and materials

Yes

No

7. Planning for instruction

Yes

No

Appendix A. English Teacher Questionnaire

8. Managing time and work	<input type="radio"/> Yes	<input type="radio"/> No
9. Diagnosing student needs	<input type="radio"/> Yes	<input type="radio"/> No
10. Evaluating student progress	<input type="radio"/> Yes	<input type="radio"/> No
11. Motivating students	<input type="radio"/> Yes	<input type="radio"/> No
12. Assisting students with special needs	<input type="radio"/> Yes	<input type="radio"/> No
13. Dealing with individual differences among students	<input type="radio"/> Yes	<input type="radio"/> No
14. Using a variety of teaching methods	<input type="radio"/> Yes	<input type="radio"/> No
15. Facilitating student group work	<input type="radio"/> Yes	<input type="radio"/> No
16. Understanding the curriculum	<input type="radio"/> Yes	<input type="radio"/> No
17. Becoming familiar with the school's mandatory testing program (e.g., MCA, MAP)	<input type="radio"/> Yes	<input type="radio"/> No
18. Completing administrative paperwork	<input type="radio"/> Yes	<input type="radio"/> No
19. Understanding the school's teacher evaluation process	<input type="radio"/> Yes	<input type="radio"/> No
20. Becoming aware of special services provided by the school district for students	<input type="radio"/> Yes	<input type="radio"/> No
21. Please the space below to write any comments you have about the areas listed above.		

Appendix A. English Teacher Questionnaire

22. What types of interactions have you had with the Chinese immersion teachers at your school during the last two school years (2010-11 and 2011-12)? Check all that apply.

- Grade level meetings
- Meetings for all professional staff at the school
- Committee work
- Having lunch or other meals together
- Informal conversations about school-related topics
- Informal conversations about topics other than school
- Field trips
- Other, please specify

23. Describe one or two of the most successful or most important interactions you have had with a Chinese immersion teacher.

24. What do you think is especially effective for establishing a strong professional community among all the programs offered at your school?

25. Please use the space below to write any final comments or suggestions you would like to share about working with the Chinese immersion program at your school.

Thank you

Appendix B. Information about the Sample Responding to the 2012 English Teacher Survey

The English teachers at the four schools were invited to participate in an online survey (Appendix A) that asked questions about the teachers' experience with the Chinese immersion program. Note that the term "English teacher" refers to a teacher of any grade or subject other than Chinese immersion. The survey was launched on May 8, 2012, and closed on June 11, 2012. A total of 65 English teachers responded to the survey, resulting in an overall response rate of 41%. The response rate calculations are summarized in Table B1. Information about the teachers' assignments is given in Table B2.

Table B1. Survey Response Rate by School

School	Number of Potential Respondents	Number Responding	% Responding
Hopkins – Eisenhower Elementary/XinXing Academy	14	8	57%*
Minnetonka – Excelsior Elementary	51	16	31%
Minnetonka – Scenic Heights Elementary	43	17	40%
St. Cloud – Madison Elementary/Guang Ming Academy	50	24	48%
Overall	158	65	41%

*The principals at the four schools were asked to send the Zoomerang survey link to all teachers except the Chinese immersion teachers. At Eisenhower Elementary, however, the link was sent to only the 14 kindergarten through grade 4 teachers. Therefore, the response rate for Eisenhower Elementary was calculated using 14 as the total possible respondents.

Table B 2. Grade Levels/Positions of the English Teacher Respondents

Grade Level/Position	N
Kindergarten	9
Grade 1	8
Grade 2	8
Grade 3	7
Grade 4	8
Grade 5	5
Two or more grade levels	14
Special education	2
Specialist/Support staff	4
Total	65

Appendix C: Parent Questionnaire

Note: The questionnaire was reformatted for inclusion in this report so that it would take up fewer pages.

If you have more than one child enrolled in the Chinese immersion program, please think about the OLDEST child when you answer the questions in the survey.

1. Your (oldest) child's school (check one)

<input type="checkbox"/>	Hopkins Eisenhower Elementary/ XinXing Academy
<input type="checkbox"/>	Minnetonka Excelsior Elementary
<input type="checkbox"/>	Minnetonka Scenic Heights Elementary
<input type="checkbox"/>	St. Cloud Madison Elementary/Guang Ming Academy

2. How many of your children are currently enrolled in the Chinese immersion program at this school?

3. Your (oldest) child's grade (check one)

<input type="checkbox"/>	Kindergarten
<input type="checkbox"/>	Grade 1
<input type="checkbox"/>	Grade 2
<input type="checkbox"/>	Grade 3
<input type="checkbox"/>	Grade 4
<input type="checkbox"/>	Grade 5

4. Your (oldest) child's ethnicity (check all that apply)

<input type="checkbox"/>	Native Indian
<input type="checkbox"/>	African American
<input type="checkbox"/>	African (Somalia, Ethiopia, etc.)
<input type="checkbox"/>	Asian (other than Chinese)
<input type="checkbox"/>	Chinese
<input type="checkbox"/>	Hispanic
<input type="checkbox"/>	White
<input type="checkbox"/>	Other, please specify: _____

YOUR CHILD’S ENJOYMENT OF THE IMMERSION PROGRAM

Please indicate how much your (oldest) child enjoys the following aspects of his/her Chinese immersion program this school year. Use the scale *High, Medium, Low, None* to indicate your child’s degree of enjoyment.

Select *Don’t know* for subjects or activities your child has experienced but for which you don’t know your child’s degree of enjoyment. Select *Not Applicable (N/A)* for subjects or activities that your child has not experienced.

How much your (oldest) child enjoys...	Degree of Enjoyment				Don’t know	N/A
	High	Medium	Low	None		
5. Speaking Chinese with the teacher	<input type="checkbox"/>					
6. Speaking Chinese with classmates	<input type="checkbox"/>					
7. Writing Chinese	<input type="checkbox"/>					
8. Reading Chinese	<input type="checkbox"/>					
9. Learning about Chinese culture	<input type="checkbox"/>					
10. Studying math	<input type="checkbox"/>					
11. Studying social studies	<input type="checkbox"/>					
12. Studying science	<input type="checkbox"/>					
ONLY FOR STUDENTS IN THIRD GRADE: An engineering unit on SOUND was included in the third-grade curriculum this year. In the SOUND unit, students learned about a boy named Kwame who used acoustical engineering to create a visual representation of a drum rhythm. Students then applied what they learned when they designed visual representations of bird calls. How would you rate your child’s enjoyment in studying in the SOUND unit.						
13. How much your child enjoyed studying the SOUND unit	<input type="checkbox"/>					

14. Use this space to write any comments you would like to make about your child’s enjoyment of the subjects and activities that you just rated.

YOUR CHILD’S PROGRESS IN THE IMMERSION PROGRAM

Please indicate how satisfied you are with your (oldest) child’s progress in the Chinese immersion program this year. Use the scale *Very satisfied, Satisfied, Dissatisfied, Very dissatisfied* to indicate your degree of satisfaction.

Select *Don’t know* for subjects or activities that are part of your child’s education but for which you feel you don’t have enough knowledge to provide a rating. Select *Not Applicable (N/A)* for subjects or activities that your child has not experienced.

How satisfied are you with your (oldest) child’s progress in...	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don’t Know	N/A
15. Speaking Chinese	<input type="checkbox"/>					
16. Writing Chinese	<input type="checkbox"/>					
17. Reading Chinese	<input type="checkbox"/>					
18. Learning about Chinese culture	<input type="checkbox"/>					
19. Math	<input type="checkbox"/>					
20. Social studies	<input type="checkbox"/>					
21. Science	<input type="checkbox"/>					

22. Use this space to write any comments you have about the immersion program features you just rated.

QUALITY OF INSTRUCTION RATINGS

In this section, you are asked to rate the quality of instruction received by your (oldest) child this school year. Use the scale *Excellent, Good, Fair, Poor*.

Select *Don't know* for subjects or activities that are part of your child's education but for which you feel you don't have enough knowledge to provide a quality rating. Select *Not Applicable (N/A)* for subjects or activities that your child has not experienced.

How would you rate the quality of instruction received by your (oldest) child in the following subjects?

Quality of instruction received by your child in...	Quality				Don't know	N/A
	Excellent	Good	Fair	Poor		
23. Chinese language	<input type="checkbox"/>					
24. Chinese culture	<input type="checkbox"/>					
25. Math	<input type="checkbox"/>					
26. Social studies	<input type="checkbox"/>					
27. Science	<input type="checkbox"/>					

28. Use this space to write any comments you have about the subject areas you just rated.

YOUR OPINION OF CHINESE IMMERSION PROGRAM FEATURES

In this section, you are asked your opinion about some features of your (oldest) child’s Chinese immersion program this school year. Use the response scale *Too many/Too much*, *About right*, *Not enough*, and *Don’t know*.

	Too Many/ Too Much	About Right	Not Enough	Don’t Know
29. Number of students in your child’s class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Amount of homework your child receives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Technology used in your child’s classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Opportunities your child has to interact informally (e.g., playing games, chatting) with other children who are in the Chinese immersion program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Opportunities your child has to interact with children at the school who are <u>not</u> in the Chinese immersion program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Communication about events and activities taking place in the Chinese immersion program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Communication about your child’s progress in the Chinese immersion program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36. Use this space to write any comments you have about the immersion program features you just rated.

YOUR OVERALL SATISFACTION WITH THE PROGRAM

37. Overall, how satisfied are you with the Chinese immersion program this school year?

<input type="checkbox"/>	Very satisfied
<input type="checkbox"/>	Satisfied
<input type="checkbox"/>	Dissatisfied
<input type="checkbox"/>	Very dissatisfied

38. What, if anything, would you change about the Chinese immersion program so that it would be more effective for your child?

YOUR RE-ENROLLMENT DECISION

39. How likely are you to re-enroll your child in the Chinese immersion program this coming school year? (Check only one.)

<input type="checkbox"/>	Definitely will
<input type="checkbox"/>	Probably will
<input type="checkbox"/>	Probably will not
<input type="checkbox"/>	Definitely will not

40. Use this space to describe the most important reasons for your decision.

BACKGROUND INFORMATION

Please rate the highest level of proficiency of Mandarin Chinese of any adult member of your household with respect to speaking and writing.

	Native or Native-like	Advanced	Intermediate	Beginner	No Ability
41. Speaking Mandarin Chinese	<input type="checkbox"/>				
42. Understanding spoken Mandarin Chinese	<input type="checkbox"/>				
43. Writing Mandarin Chinese	<input type="checkbox"/>				
44. Understanding written Mandarin Chinese	<input type="checkbox"/>				

45. What is your relationship to the child enrolled in the Chinese immersion program?

<input type="checkbox"/>	Mother
<input type="checkbox"/>	Father
<input type="checkbox"/>	Other: _____

46. Your ethnicity (check all that apply)

<input type="checkbox"/>	African American	<input type="checkbox"/>	African (Somalia, Ethiopia, etc.)
<input type="checkbox"/>	Asian (other than Chinese)	<input type="checkbox"/>	Chinese
<input type="checkbox"/>	Native Indian	<input type="checkbox"/>	Hispanic
<input type="checkbox"/>	White	<input type="checkbox"/>	Other, please specify: _____

47. Please use this space to write any additional comments or suggestions you have regarding the Chinese immersion program.

Note: If parents had more than one child enrolled in Chinese immersion, they were instructed to think of the oldest child when responding to the survey items.

Table D1. Child’s School (n=226)

<i>Your oldest child’s school (check one)</i>	%
• Hopkins – Eisenhower Elementary/XinXing Academy	29%
• Minnetonka – Excelsior Elementary	23%
• Minnetonka – Scenic Heights Elementary	27%
• St. Cloud – Madison Elementary/Guang Ming Academy	21%

Table D2. Number of Respondent’s Children Enrolled in Chinese Immersion (n=224)

<i>How many of your children are currently enrolled in the Chinese immersion program at Hopkins, Minnetonka, or St. Cloud?</i>	%
• One	70%
• Two	27%
• Three	4%

Table D3. Grade of Oldest Child Enrolled in the Chinese Immersion Program (n=226)

<i>Your (oldest) child’s grade (check one)</i>	%
• Kindergarten	17%
• Grade 1	25%
• Grade 2	18%
• Grade 3	18%
• Grade 4	19%
• Grade 5	3%

Table D4. Ethnicity of the Oldest Child (n=226)

<i>Your (oldest) child’s ethnicity (check all that apply)</i>	%
• Native America	1%
• African American	2%
• African (Somalia, Ethiopia, etc.)	<1%
• Asian (other than Chinese)	8%
• Chinese	16%
• Hispanic	3%
• White	81%
• Other	1%

*Because some respondents selected more than one ethnicity, the sum of the percentages is greater than 100.

Table D5. Chinese Language Proficiency of Any Adult Member of the Household

Proficiency in speaking Mandarin Chinese (n=221)	
Native or native-like	4%
Advanced	1%
Intermediate	5%
Beginner	19%
No ability	72%
Proficiency in understanding spoken Mandarin Chinese (n=221)	
Native or native-like	4%
Advanced	2%
Intermediate	5%
Beginner	20%
No ability	69%
Proficiency in writing Mandarin Chinese (n=222)	
Native or native-like	5%
Advanced	0%
Intermediate	2%
Beginner	10%
No ability	83%
Proficiency in understanding written Mandarin Chinese (n=219)	
Native or native-like	5%
Advanced	0%
Intermediate	3%
Beginner	10%
No ability	82%

Table D6. Ethnicity of the Respondent (n=222)

<i>Your ethnicity (check all that apply)</i>	%*
Native America	1%
African American	1%
African (Somalia, Ethiopia, etc.)	<1%
Asian (other than Chinese)	5%
Chinese	4%
Hispanic	2%
White	91%
Other	0%

*Because some respondents selected more than one ethnicity, the sum of the percentages is greater than 100.

Table D7. Respondent's Relationship to the Child Enrolled in Chinese Immersion, n=222

<i>Relationship to child enrolled in Chinese immersion</i>	%
Mother	75%
Father	24%
Other	1%