#### MEMORANDUM

- TO: Connie Smith, Ph.D. Officer, Secondary Curriculum and Instruction
- FROM: Allison Matney, Ed.D. Executive Officer, Research & Accountability

#### A RETROSPECTIVE STUDY EXPLORING DISTRICTWIDE K-12 WORLD SUBJECT: LANGUAGES, THEIR IMPACT ON STUDENT ACADEMIC SUCCESS, AND EQUITY IN LANGUAGE LEARNING, 2021–2022

Attached is a copy of the World Languages program evaluation for the 2021–2022 academic year. The evaluation explored whether persistence of elementary students in school-wide foreign language programs consistently correlated with better academic outcomes compared to their non-foreign language program peers. The evaluation also assessed academic outcomes for middle and high school students who enrolled in foreign language courses.

Key findings include:

- The study found that students who participated in language programs during elementary school tended to outperform students on the state-mandated reading and math STAAR subtests at sixth grade compared to students who did not participate in language programs. This finding was more prevalent on the STAAR reading test.
- The highest average grades earned was for middle-school students enrolled in German, French, and Chinese courses, with fluctuations, from 2016–2017 to 2020–2021.
- The percentage of students who scored 80% and above on Credit by Exams increased on the Spanish 2A and the Spanish 2B paper exams from 2020 to 2021.
- There was a slight decline in the percentage of middle and high-school students who scored • 3 or above on Advanced Placement Languages Other than English (LOTE) tests in spring 2019 compared to spring 2021.
- Surveyed eleventh and twelfth grade students acknowledged the need to enroll in foreign language courses to meet graduation requirements and emphasized their motivation to capitalize on the social benefits of learning another language, including obtaining a better job, traveling, and learning more about cultures and communities of the language of study.
- HISD should consider vertically aligning K-12 world languages programs districtwide in addition to providing dual language and immersion programs, given the complexity of language learning, benefits identified by students, and findings in this report.

Further distribution of this report is at your discretion. Should you have any further questions, please contact me at 713-556-6700.

Action & Matnu

AEM

Attachment

cc: Millard L. House, III

Shawn Bird, Ed.D. Rahshene Davis, Ed. D. Gabi Frunza-Tanca

#### INDEPENDENT SCHOOL DISTRICT HOUSTON

# RESEARCH **Educational Program Report**

**A RETROSPECTIVE STUDY EXPLORING DISTRICTWIDE K-12 WORLD LANGUAGES, THEIR IMPACT ON STUDENT ACADEMIC SUCCESS, AND EQUITY IN LANGUAGE LEARNING, 2021-2022** 

# HISD Research and Accountability ANALYZING DATA, MEASURING PERFORMANCE.



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# EVALUATION REPORT BUREAU OF PROGRAM EVALUATION

A Retrospective Study Exploring Districtwide K-12 World Languages, Their Impact on Student Academic Success, and Equity in Language Learning, 2021–2022

Prepared by Venita R. Holmes, Dr.P.H.

#### Abstract

Learning another language is a complex process, that takes into consideration a variety of factors that impact how well students acquire proficiency skills in verbal and written communication, as well as cultural competence. This study hypothesized that elementary students' persistence in school-wide foreign language programs from first to fifth grades consistently correlated with better academic outcomes compared to their non-foreign language program peers. Three cohorts detected academic benefits at the middle-school level (sixth grade) based on student participation in dual, hybrid (dual and immersion in Chinese, French, and Spanish), or no language programs. While the percentage of dual language program students decreased from Cohort I (2012–2013) to Cohort III (2014–2015) (2.3% to 1.6%); the percentage of hybrid language students increased (46.2% to 48.3%). For Cohort I, the largest positive change in the mean STAAR reading scale scores, from fifth (pretest) to sixth grades (posttest), was among dual language (+23.741), followed by hybrid (+18.699), then no language program students (+7.607). Cohort I hybrid and no language students posted larger gains on STAAR math than dual language students. Similar to Cohort I, better outcomes were observed among Cohort II dual language students on the reading STAAR compared to other groups. The largest positive scale score change in math, from fifth to sixth grade, for Cohort II was among dual language (+18.214), then no language program students (+7.171), while the scores of hybrid students decreased (-1.358). There were fluctuations in the highest average grade earned for middle-school students enrolled in German, French, and Chinese courses from 2016–2017 to 2020–2021. There was a slight decline in the percentage of middle and high-school students who scored 3 or above on Advanced Placement LOTE tests in spring 2019 compared to spring 2021. The percentage of students who scored 80% and above on Credit by Exams increased on the Spanish 2A and the Spanish 2B paper exams from 2020 to 2021. Surveyed secondary students emphasized their motivation to capitalize on employment opportunities, and the social benefits of learning languages and cultures. Given the complexity of language learning, and the benefits identified by students, HISD may consider vertically aligning K-12 world languages districtwide.

#### Introduction

There has been growing interest among nations toward building proficient language learners (Marcos & Peyton, 2000). Multilingualism encourages effective communication and judgment across communities (American Academy of Arts and Sciences Commission on Language Learning, 2016) and prepares language learners "for life in an increasingly interdependent world that is ethnically and linguistically diverse" (Thomas, Collier, & Abbott, 1993, p. 170). A multilingual workforce strengthens economic competitiveness, "helps maintain political and security interests, and promotes tolerance and intercultural awareness" (Marcos & Peyton, 2000, p. 4).

Kim (2020) emphasized that significant benefits are attained by educating the whole student, which



involves active engagement in the culture where the language lives. High levels of social, emotional, and ethical immersion stimulates new prospects for dialogue,

analytic orientation toward language, intellectual development, and self awareness among language learners (Maher, 2017). Foreign language exposure during early education may provide the greatest opportunity for children to acquire a high level of language proficiency. Further, exposure in course sequences may strengthen language skills through extended practice among a community of foreign language learners (American Academy of Arts and Sciences Commission on Language Learning, 2016).

The American Council on the Teaching of Foreign Languages (ACTFL) (2013) determined that world language-learning instruction should be based on five standards, known as the five Cs (Figure 1). These standards emphasize learning a language beyond the instructional setting, which prepares students to apply skills to be globally-competent for their future careers and experiences.

While there is research that purports the benefits of learning foreign languages, there is minimal research that considers persistence and motivation to learn languages among students at different academic levels as they progress through school. Less research is available that considers equity in language learning considering social contexts and students' background characteristics. While Texas law and school districts provide guidance for educating and recognizing students who receive instruction in world languages, this research will build on the body of knowledge regarding learning languages other than English.

#### Background

HISD is committed to the belief that learning languages is a fundamental component of education that prepares students to take their place as global citizens in the 21st Century. Consequently, the district's World Language Program is aligned with the Texas Languages Other Than English Program (LOTE). Language learners can reach different ranges of performance contingent upon the instructional setting, type of instruction, the impact of the learner's age and cognitive development on the speed of reaching each range of performance, and motivation by extrinsic factors such as grades and requirements or intrinsic factors such as heritage or intended uses of the language. The curriculum is designed to help students meet proficiency levels to become: (1) communicative, (2) determined, (3) globally competent, (4) resilient, and (5) curious (See Appendix A, p. 14 for Profile of a *World Language Learner* and *Timeline of Language Performance* Development of Students; For video of World Readiness Standards Overview by ACTFL, go to: https://youtu.be/GIDCLE-JsM4).

Any world language other than English, including American Sign Language (ASL), is considered a LOTE in Texas kindergarten through 12 education. Currently, in the state of Texas, students may earn credit by enrolling in ASL, Arabic, Chinese, French, German, Hindi, Italian, Japanese, Korean, Latin, Portuguese, Russian, Spanish, Turkish, Urdu, or Vietnamese (Texas Education Agency, 2019). In addition, some computer programming languages can be used to fulfill the LOTE two-credit high-school graduation requirement. In TAC §§74.2 and 74.3, districts are required to offer and teach the TEKS for LOTE at kindergarten through grade 8 to the extent possible. At grades 9-12, districts must offer Levels I, II, and III or higher of the same language in at least one language (Texas Education Agency, 2020).

Award of Credit: The University of Texas at Austin (UT Austin) and Texas Tech University are authorized to provide Credit by Exams (CBEs) in Texas. In January 2022, the HISD Board of Trustees authorized Avant as a CBE provider. At the time of this



Figure 1: World Readiness Standards for Learning Language - Goal Areas (Adapted by the HISD World Languages department from ACTFL, 2012). (Click image to view ACTLF World Readiness Standards video.)

report, HISD relied on UT Austin for CBEs. With local board approval, a district may also purchase or develop examinations that thoroughly test the essential knowledge and skills in the applicable course level for the purposes of credit by examination. (Refer to TAC <sup>(2)</sup>(3) and (4) for details.) The passing score for students who have not had any prior instruction on a CBE is 80%. The passing score for students who have had prior instruction is 70% (Texas Education Agency, 2020).

A student may satisfy one credit of the two LOTE credits required for high school graduation by successfully completing a dual language immersion program at elementary school (Texas Education Agency, 2020). To successfully complete a dual language immersion program, a student must satisfy the following three requirements.

1. The student must have participated in a dual language immersion program for at least five consecutive school years.

2. The student must achieve high levels of academic competence as demonstrated by performance of meets or masters grade level on the State of Texas Assessments of Academic Readiness (STAAR®) in English or Spanish, as applicable.

3. The student must achieve proficiency in both English and a language other than English as demonstrated by scores of proficient or higher in the reading and speaking domains on language proficiency or achievement tests in both languages. The second LOTE credit must be in the same language as the successfully completed dual language immersion program. Students may also be awarded credit for a language studied abroad with district approval and if the selected course includes the Texas Essential Knowledge and Skills (TEKS) for the corresponding LOTE course

Delivery of Instruction: Texas law indicates that the school district may provide LOTE instruction in a variety of arrangements and settings. However, the instructional materials used for a course must address all the TEKS for the course and provide students the opportunity to demonstrate the required proficiency level upon completion of the course. LOTE instructors must be appropriately

certified to deliver course content.

Graduation Requirements: Two levels of the same language were achieved by foreign language students compared to students are required for graduation on the Foundation High School who did not study a foreign language in high school (Olsen and Program. A student cannot combine different levels from different Brown, 1992, p. 47). languages to meet the LOTE requirement. Students may also Curtain and Dahlberg (2004) maintains that building meet the LOTE requirement by earning two credits in computer foreign language proficiency is dependent on the amount programming languages selected from Computer Science I, II, and of time spent learning the language. Consequently, learning III, AP Computer Science A, AP Computer Science Principles, languages during early years may provide more practice IB Computer Science Standard Level, and IB Computer Science opportunities for students to build fluency skills. Moreover, a Higher Level. study conducted in Slovenian found that preschool early language Endorsements: Beginning in 2014-2015, students could earn one or more endorsements as part of their high school learners exhibited positive attitudes to learn foreign languages and were receptive to the learning context (Brumen, 2011). graduation requirements. Endorsements consist of a related World language classes provide students access to other series of courses that are grouped together by interest or skill set. cultures, developing their ability to use language appropriately They provide students with in-depth knowledge of a subject area in social situations, gain insights, and broaden their worldview. (Texas Education Agency Graduation Toolkit, n.d.). Students Heining-Boynton and Haitema's research (2007) documented must select an endorsement in the ninth grade. Students earn an that foreign language students developed positive perceptions of endorsement by completing the curriculum requirements for the foreign language speakers, their cultures, and future study of foreign endorsement, including a fourth credit of math and science and languages. Bartley (1970) found that attitudes toward language two additional elective credits (Texas Education Agency, 2020). study for non-continuing students was significantly lower than

#### **Research Ouestions**

- · What was the profile of cohort students who persisted in language programs during elementary school compared to their non-language program peers?
- Did cohort students who persisted in dual language programs during elementary school demonstrate higher gains in reading and math at middle school compared to hybrid and non-language cohort students?
- What were the trends in language course performance for middle and high school students over the past five years (2016–2017 to 2020–2021)?
- Did students enrolled in Advanced Placement (AP) language courses demonstrate academic benefits based on their AP exam performance in 2020-2021 compared to 2018-2019 (post vs. pre-COVID 19 pandemic)?
- What percentage of high school students met the foreign language graduation requirement through Credit by Exam (CBE)?
- What were the perceived benefits and motivations of secondary students regarding enrollment in foreign language courses?

#### **Review of the Literature**

The support for language learning is grounded on extensive that individuals learn a language, such as meeting graduation years of research. Specifically, one study found a positive association between second language proficiency, cognitive or college entrance requirement, or employment opportunities. Gardner (1985, 2010) later proposed that individuals' motivation development, academic ability, creativity, and problem-solving reflects their positive attitudes toward the language community. skills among students who acquired a second language compared Rammage (1990) surveyed high school students studying to those who did not (Bamford & Mizokaw, 1991). Marcos and French and Spanish. The research found that intrinsic factors, Peyton (2000) cited studies that correlated bilingual proficiency with higher scores in reading and math on standardized exams, such as an interest in the culture or an authentic desire to learn the as well as verbal and nonverbal intelligence tests (Caldas & language, distinguished continuing students from discontinuing students. Extrinsic factors, such as fulfilling a college entrance Boudreaux, 1999; Hakuta, 1986; Thomas, Collier, & Abbott, requirement, characterized the discontinuing student. There was 1993; Armstrong & Rogers, 1997; Saunders, 1998; Rafferty, a positive correlation between students' course grade and grade 1986; Andrade, 1989). A study conducted with eleventh grade level when taking the second-year course, suggesting that "the students in Maryland found that, when verbal ability is controlled, earlier the students start to study a foreign language, the more students who study foreign languages for longer periods of time likely they are to continue beyond level II" (Rammage, p. 209). attained higher SAT scores on some subtests relative to students who studied foreign language for a shorter period of time (Eddy,

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1981). Olsen and Brown's (1992) research on the American College Test (ACT), revealed that higher English and math scores

that of students who continued their study of foreign languages. Speiller (1988) sought to catalogue and compare students' reasons for continuing or discontinuing study of French and Spanish into their second, third, or fourth year of high school study. The most commonly cited reasons for continuing were getting into college, daily use, getting a job, and travel. The most commonly cited reasons for abandoning study were course conflicts, difficulty of the subject, lack of progress (or proficiency), and lack of opportunity to use the language. The study also confirmed the decrease in the number of continuing students as course levels advanced.

Motivation to learn languages and to benefit from the educational experience may be driven by personal, social, familiar, and cognitive characteristics that contribute to the learning process (Guerrero, 2015). Moreover, interest to learn may change over time, being influenced by globalization, which offers students more opportunities to interact with other language communities and to access more learning resources (King, 2014). Guerrero (2015) explores Gardner and Lambert's (1972) theory of motivation to explain language learning. Integrative orientation refers to the positive disposition of an individual to learn a language, its culture, and its community. Integrative motivated learners may have a strong desire to learn another language. Instrumental orientation refers to the practical reasons

# Methods

### **Study Population**

There were several student groups of interest in this study. Specifically, three cohorts of elementary-level students were established based on when they enrolled in first grade and their successive progression to fifth grade in the district. The use of multiple cohorts allowed for data triangulation and validation of study findings to determine whether outcomes examined in the study were consistently observed over time. The Public Education Information Management System (PEIMS) was used to identify students in each cohort. Cohorts were, subsequently, categorized by "language program status", i.e., persistence in either a: (1) dual language program, (2) hybrid (dual language/ immersion program), or (3) no language program.

In addition, middle and high-school student groups were targeted for this study based on participation in state-approved LOTE courses during the 2016–2017 through the 2020–2021 academic years, and whether they took Advanced Placement LOTE exams in 2019 vs. 2021, and Credit by Exams in 2019-2020 and 2020–2021. A sample of eleventh and twelfth graders during the 2021–2022 academic year served as a student survey sample. Targeting student groups at different educational levels helped to identify trends associated with language exposure and to assess in-depth knowledge gained in languages over time.

#### **Data Collection and Analysis**

Background characteristics of cohort students, including race/ethnicity, gender, economic status, and whether students were classified as at risk, English learners (ELs), special education, and gifted/talented (G/T) were extracted from PEIMS. These background characteristics were captured at first grade for cohort students.

State of Texas Assessment of Academic Readiness (STAAR) performance was analyzed at sixth grade in reading and math for Cohort I and Cohort II students who successively transitioned to middle school. Similar analysis for Cohort III was not conducted because STAAR was not administered in spring 2020, when these students would have reached sixth grade. A pretest measure at fifth grade was used as a predictor variable. A paired t-test was conducted to detect statistically significant differences. When the exact p value is less than 0.001, it is conventional to state merely p < 0.001. Hedges' g effect size analyses assessed the strength of the relationship between variables. Hedges' g is interpreted as Cohen's d, which is: small (d = 0.2), medium (d = 0.5), and large (d = 0.8) (Cohen, 1988). Numbers in figures are rounded.

The number and percentage of students who earned high school foreign language credit through CBEs were presented. In addition, the average course grade for middle and high school students in LOTE courses over the past five years were tracked. These trend analyses allows for comparisons of practices that occurred over the years to inform future practices.

Descriptive statistics were calculated on study variables, including means and standard deviations. Social indicators consisted of attendance and disciplinary actions (in-school and out-of-school suspensions). Academic and social outcomes were compared among language program status, the district, or at the national level.

A modified version of the Foreign Language Learning Motivation Questionnaire (FLLMQ), consisting of 15 items, was administered to seniors in spring 2022 using the HUB platform.

The original FLLMQ developed by Gonzales (2006) consisted of 50 survey items (Gonzales & Lopez, 2015). The reliability of entire questionnaire is  $\alpha = .982$  and the range of alpha coefficient of the factors is  $\alpha = .451$  to .714. At least 3 items from each subscale was included to explore students' motivation in the following areas: (1) desire for career and economic enhancement/ career-economic need, (2) desire to become global citizen/need for cultural understanding, (3) desire to communicate and affiliate with foreigners/communicative affiliation need), (4) desire for self-satisfaction in learning/need for self-satisfaction, (5) selfefficacy, and (6) desire to be integrated with other cultures/ need for cultural integration. The survey also assessed students' perceptions of their foreign language skills. Correlational analyses were conducted to determine if there was a correlation between motivation and perceptions of foreign language skills.

#### **Study Limitations**

There were several limitations to the study. Specifically, the study only examined data for cohorts of elementary students who were successively promoted in five years and who were enrolled in HISD during the five years. However, the use of multiple cohorts helped to validate findings and mitigate this limitation. There were also limitations associated with using grade averages, considering that grades may be inflated, subjective, and influenced by the level of courses taken by students (Hurwitz & Lee, 2018). Finally, research has shown that students' aspirations, expectations, and motivations may influence their post secondary pursuits. Exploring these issues among high school students may provide more in-depth understanding of the benefits of learning languages and how it relates to future academic, career, and social performance.

#### What was the profile of cohort students who persisted in language programs during elementary school compared to their non-language program peers?

Table 1 (p. 5) presents the total number of Cohort I, II, and III elementary school students in first through fifth grades by language program status and cohort year. It is evident that the number of students in each cohort and their program status fluctuated over the years. Specifically, among the 10,177 students in Cohort I, 2.3% persisted in a dual language program (N = 234); 46.2% in a hybrid language program (dual language or immersion) (N = 4,706), and 51.5% persisted in no language program (N = 5,237). Comparatively, 11,055 students were identified in Cohort II. Among these students, 1.7% maintained their dual language program status (N = 190), while 47.0% persisted in a hybrid language program (N = 5,193), and 51.3% in no language program (N = 5,672). Finally, 10,811 students comprised Cohort III, with 1.6% in dual language programs (N = 171), 48.3% in hybrid language programs (N = 5,225), and 50.1% in no language program. These findings revealed a shift in the language program status of students across cohort years as evidenced by progressive decrease in the percentage of dual language program students in Cohort I to Cohort III (2.3% to 1.6%) and the progressive increase in the percentage of hybrid language students (46.2% to 48.3%). This finding may be related to the development of immersion programs across the district over the years.

The demographic profile of students by cohort can be found in Table 2. There was a moderate increase in the percentage of males

entage of itus, 2012	Studen 2–2013 (	ts in Stu to 2018–	dy Sam 2019	ple by C	Coho
Coh	ort I	Coh	ort II	Coho	ort III
2012- (Gra 2016- (Gra	-2013 de 1) -2017 de 5)	2013–2014 (Grade 1) 2017–2018 (Grade 5)		2014–201 (Grade 1) 2018–201 (Grade 5)	
N	%	N	%	N	9
234	2.3	190	1.7	171	1
4,706	46.2	5,193	47.0	5,225	4
5,237	51.5	5,672	51.3	5,415	50
10,177	100.0	11,055	100.0	10,811	10
	N         2012           (Gra         N           234         4,706           5,237         10,177	N         %           234         2.3           4,706         46.2           5,237         51.5           10,177         100.0	Number of Students in Stutents, 2012–2013 to 2018–           Cohort I         Cohort I           2012–2013         2013–           (Grade 1)         (Grade 1)           2016–2017         2017–           (Grade 5)         (Grade 5)           N         %           234         2.3           4,706         46.2         5,193           5,237         51.5         5,672           10,177         100.0         11,055	Name         Study Sam           Cohort I         Cohort II           2012–2013         2013–2014           (Grade 1)         2013–2014           (Grade 1)         2017–2018           (Grade 5)         (Grade 1)           N         %           234         2.3           190         1.7           4,706         46.2         5,193           5,237         51.5         5,672         51.3           10,177         100.0         11,055         100.0	N         %         N         %         N         %         N         234         2.3         190         1.7         171         4,706         46.2         5,237         51.5         5,672         51.3         5,415           10,177         100.0         11,055         100.0         10,177         100.0         10,177         100.0         10,175         100.0         10,811

Notes: Students in the study were progressively promoted from grade 1 to grade 5 over cohort years. \*Language Immersion Programs: Arabic Immersion Magnet School (Grades PK-7); French Dual Language Immersion Program at White Elementary School (Grades PK-4); Mandarin Immersion Magnet School (includes elementary grades PK-5 and middle school grades 6-8) Elementary school consisted of grades 1–5, middle school included grades 6–8, and high school grades were 9-12

Source: PEIMS

in dual language programs (47.4% vs. 49.1%) and a negligible increase in the percentage of males in no language program (50.2% vs 50.5%) from Cohort I to Cohort III. At the same time, there was a negligible increase in the percentage of females in hybrid language programs over the cohort years (50.2% vs 50.3%).

The percentage of Black students in dual language programs rose dramatically from 7.7% to 10.5%, and rose slightly in hybrid language programs (1.3% to 1.6%). It should also be noted that the percentage of Asian students in hybrid language programs increased moderately (2.9% to 3.4%). There was a decline in the percentage of Hispanic students in all language groups, with the largest decline reflected among dual language program students across cohort years (82.1% to 77.8%). The percentage of White students increase in all language groups, with the highest increase represented in dual language programs (6.8% vs 8.8%).

Student groups also posted gains in STAAR math as they progressed from elementary to middle school. Specifically, Figure Table 3 (p. 6) shows that the percentage of economically-3 (p. 6 and Appendix B, p. 16) depicts an increase in the mean math disadvantaged students decreased from Cohort I to Cohort III scale scores of dual language students from fifth (M = 1677.33; SD among dual, hybrid, and no language program students. The = 133.907) to sixth grades (M = 1679.84; SD = 142.014), t (191) largest drop was among dual language program students (80.3% = .311, p = .756 (two-tailed test). Comparatively, the performance vs. 61.4%). There was also a large decline in the percentage of of hybrid language program students also increased from fifth at risk dual language program students (87.2% vs. 69.0%); (M = 1640.18; SD = 144.535) to sixth grades (M = 1650.70; SD)whereas, the proportion of at risk no language program students = 145.404), t (3360) = 5.824, p = .000 (two-tailed test). Similar rose substantially (37.2% vs. 51.4%). Representation of special findings were observed for no language program students from education students decreased across cohort years for all groups, fifth (M = 1658.62; SD = 153.253) to sixth grades (M = 1662.17; more importantly, for dual language (3.0% to 1.8%) and hybrid SD = 148.939), t (3761) = 2.177, p = .030 (two-tailed test). The

Table 2: Cohort I, II, and III Baseline Characteristics by Language Program, Gender, and Race/Ethnicity																					
			Gen	ıder							Ra	Race/Etnicity									
Student Baseline Characteristics		Male			Female			Black			Asian		1	Hispanic	;		White			Other	
Cohort Assignment	Ι	Π	III	Ι	II	III	Ι	II	III	Ι	II	III	Ι	II	III	Ι	II	III	Ι	II	III
Language Program Status	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Dual Language Program (DLP)	47.4	42.6	49.1	52.6	57.4	50.9	7.7	17.9	10.5	1.3	0.0	0.6	82.1	71.6	77.8	6.8	8.4	8.8	2.1	2.1	2.4
Hybrid Language Program (Dual or Lan- guage Immersion) (HLP)	49.8	48.9	49.7	50.2	51.1	50.3	1.3	1.8	1.6	2.9	3.2	3.4	94.0	93.1	92.5	1.3	1.5	2.1	3.4	.4	0.3
No Language Program (NLP)	50.2	50.3	50.5	49.8	49.7	49.5	33.8	34.9	32.9	3.7	3.8	4.6	47.1	45.5	46.5	13.5	13.7	14.0	1.9	2.1	2.0

Notes: Cohort baseline years: Cohort I (2012-2013), Cohort II (2013-2014), Cohort III (2014-2015) Notes: Cohort baseline years: Cohort 1(2012–2013), Cohort II (2013–2014), Cohort III (2013–2014), Cohort III (2013–2014), Cohort III (2013–2014), Students in the study were progressively promoted from grade 1 to grade 5 over cohort years. Number of students by cohort: Cohort 1 – DLP (n = 234), HLP (n = 4,706), NLP (n = 5,237); Cohort II: DLP (n = 190), HLP (n = 5,193), NLP (n = 5,672); Cohort III: DLP (n = 171), HLP (n = 5,225), NLP (n = 5,415) \*Language Immersion Programs: Arabic Immersion Magnet School (Grades PK–7); French Dual Language Immersion Program at White Elementary School (Grades PK–4); Mandarin Immersion Magnet School (includes elementary grades PK–5 and middle school grades 6–8) Elementary school consisted of grades 1–5, middle school included grades 6–8, and high school grades were 9–12.

Source: PEIMS

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language (3.4% to 3.0%) students. Simultaneously, gifted/talented students were more represented in dual language programs over the years. The percentage of English language learners dropped for all language program groups, especially, among dual language program students (70.5% vs 50.3%).

Did students who persisted in dual language programs during elementary school demonstrate higher gains in reading and math at middle school compared to hybrid and non-language cohort students?

The state-mandated STAAR reading and mathematics subtests were used to demonstrate the influence of language or no language exposure on students' academic performance as they successfully progressed to sixth grade after elementary school. Students' fifthgrade performance was used as the pretest measure and their sixthgrade performance was the posttest measure. The findings are as follows.

Figure 2 (p. 6) and Appendix B (p. 15) reveals a statistically significant increase in the STAAR reading mean scale scores of dual language students from fifth (M = 1599.0; SD = 141.729) to sixth grades (M = 1622.740; SD = 137.923), t (188) = 3.504, p = .000 (two-tailed test). Comparatively, the performance of hybrid language students also increased from fifth (M = 1548.28; SD = 130.307) to sixth grades (M = 1566.98; SD = 131.734), t (3332) = 12.061, p = .000 (two-tailed test). Similar findings were observed among no language students when comparing their fifth and sixth grade scores (M = 1599.26; SD = 143.527 vs. M = 1606.87; SD = 148.926), t (3762) = 4.741, p = .000 (two-tailed test)). However, the largest positive scale score change in reading was observed for dual language students (+23.741), followed by hybrid language (+18.699), then no language program students (+7.607).

Table 3: Cohort I, II, and III Baseline Characteristics by Language Program, and Other Background Characteristics															
	Eco.	Disadvan	taged		At Risk		Spee	cial Educa	ation	Gi	fted/Talen	ited	Eng	glish Learn	ners
Cohort	Ι	II	III	Ι	П	III	Ι	II	III	Ι	Π	III	Ι	П	III
Language Program Status	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Dual Language Program	80.3	68.9	61.4	87.2	81.1	69.0	3.0	1.6	1.8	23.5	30.0	28.1	70.5	48.9	50.3
Hybrid Language Program (Dual or Language Immersion*)	94.5	94.0	90.0	98.2	98.3	97.8	3.4	2.7	3.0	24.1	23.1	20.6	97.3	94.6	94.8
No Language Program	70.0	71.3	64.8	37.2	67.7	51.4	6.5	6.4	5.9	22.6	21.6	22.0	8.2	6.2	5.6
Note: Baseline years: Cohort I (2012-2013), Coho	rt II (2013–	-2014), Coh	ort III (201	4-2015)											

Note: Database devias: Contort 11 (2012-2013), Contort 11 (2012-2013) (Contort 11 (2012-2013)), Contort 11 (2012-2013) (Contort 11 (2012-2013)), Contort 11 (2012-2013), Cont \*Language Immersions Programs: Arabic Immersion Magnet School (Grades PK-7); French Dual Language Im includes elementary grades PK-5 and middle school grades 6-8) ry School (Grades PK-4): Mandarin Immersion Magnet School ion Program at White Ele

largest positive scale score change in mathematics was observed for hybrid language students (+10.529), followed by no language (+3.557), then dual language program students (+2.516).

The Hedges' g effect size analyses in Figure 4 reveals that the dual language program had the largest impact on STAAR reading performance for Cohort I students over time (g = 0.169, small) compared to hybrid (g = 0.143, negligible), and no language program students (g = 0.051, negligible). Effect size analyses in Figure 5 shows negligible impact of language and no language programs on Cohort I students' math performance.

Figure 6 (p. 7) depicts comparisons of Cohort I language program students with students districtwide on STAAR reading and math subtests when cohort students were enrolled in sixth grade (post measure). The mean STAAR reading scale score for students districtwide was 1600.0. Thus, dual language and no language program students exceeded the performance of students districtwide at the post measure in sixth grade (Figure 6 vs. Figure 2). For STAAR math, Cohort I dual, hybrid, and no language program students outperformed students districtwide when cohort students were enrolled in sixth grade (Figure 3 vs. Figure 6).

Figure 7 (p. 7) and Appendix C (p. 17) show a decrease in the STAAR mean reading scale scores of Cohort II dual language students from fifth (M = 1625.03; SD = 132.990) to sixth grades (M = 1622.60; SD = 129.991), t (132) = .318, p = .751 (twotailed test). Comparatively, the performance of hybrid language students in Cohort II reflected a statistically significant decrease from fifth (M = 1561.06; SD = 136.946) to sixth grades (M = 1555.39; SD = 132.295), t (3575) = 3.874, p = .000 (two-tailed test). Similar findings were observed among no language students when comparing their fifth to sixth grade scores (M = 1606.99;



Cohort I: STAAR Reading

Figure 2: Cohort I reading STAAR pre-(fifth grade, spring 2017) and post-(sixth grade, spring 2018) performance by language program

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Figure 3: Cohort I math STAAR pre-(fifth grade, spring 2017) and post-(sixth grade, spring 2018) performance by language program



Figure 4: Cohort I Hedges' g effect size, paired STAAR reading (small: g = 0.2; medium: g = 0.5, and large: g = 0.8 < .02 = negligible)



Figure 5: Cohort I Hedges' g effect sizes, paired STAAR math (small: g = 0.2; medium: g = 0.5, and large: g = 0.8; < .02 = negligible)



Spring 2018 (Cohort I Post) ■Reading (6th Grade) ■Math (6th Grade)

Figure 6: Districtwide STAAR, spring 2018, results as a post comparison measure for Cohort I

1580.0



Figure 7: Cohort II reading STAAR pre-(fifth grade) and post-(sixth grade) performance by language program

SD = 155.089 vs. M = 1606.87; SD = 148.926, t (4034) = 6.915. p = .000 (two-tailed test)). Thus, better outcomes were observed among Cohort II dual language students on the STAAR math subtest from elementary to middle school (-2.432, NS), compared to hybrid language (-5.670\*\*\*), and no language program students (-10.834\*\*\*).

Cohort II dual language and no language student groups showed gains in math as they progressed from elementary to middle school. Specifically, Figure 8 and Appendix C (p. 17) depict an increase in the mean math scale scores of Cohort II dual language students from fifth (M = 1683.83; SD = 123.824) to sixth grades (M = 1702.04; SD = 153.231), t (140) = 1.963, p = .052 (twotailed test). Comparatively, the performance of hybrid language program students decreased slightly from fifth (M = 11649.41; SD = 138.812) to sixth grades (M = 1648.05; SD = 147.687), t (3640) = .817, p = .414 (two-tailed test). In addition, there was a statistically significant increase in the math scores of no language program students from fifth (M = 1655.83; SD = 147.401) to sixth grades (M = 1663.00; SD = 161.809), t (4028) = 4.420, p = .000 (two-tailed test). The largest positive scale score change in math for Cohort II was among dual language students (+18.214), followed by no language students (+7.171). At the same time, the scores of hybrid language program students decreased (-1.358).

The Hedges' g effect size analyses was conducted based on Cohort II students' math scores, considering that reading scores decreased for all groups from the pre- to posttest measure. Figure 9 reveals that the impact on STAAR math performance for Cohort II dual language and no language program students was negligible



Figure 8: Cohort II math STAAR pre-(fifth grade, spring 2019) and post-(sixth grade, spring 2020) performance by language program

Figure 9: Cohort II Hedges' g effect sizes, paired STAAR math (small: g = 0.2; medium: g = 0.5, and large: g = 0.8; < .02 = negligible)

Program

over time (g = 0.130 and g = 0.143, respectively).

Figure 10 provides comparisons of Cohort II's performance with students districtwide on STAAR reading and math subtests when cohort students were enrolled in sixth grade (post measure). The mean STAAR reading scale score for the district was 1553.0, which was below the performance of dual, hybrid, and no language program students (Figure 10 vs. Figure 7). The district's mean math scale score was also lower that the math score of sixth grade Cohort II students (Figure 10 vs. Figure 8).







The trends in language course performance for middle and high school students are presented over a five-year time span (2016-2017 to 2020-2021). The number of students enrolled in LOTE courses as well as the average course grades are also presented. Level IV LOTE courses are, typically, Advanced Placement (AP) courses. Key findings are discussed.

#### Middle School LOTE Courses

Table 4 and Appendix D (p. 19) summarize the performance of middle school students in LOTE courses. In 2016–2017, middle school students enrolled in Level I - German achieved the highest average grade (93.4), followed by Level I - Chinese (88.2), and Level II - Chinese (87.8). Comparatively, in 2017–2018, students in Level I - French (90.2), Level I - Chinese (89.9), and Level I Italian (89.6) attained the highest average grade. Among Level II courses, students enrolled in Level II - Chinese attained the highest average grade (88.9). The average grade for students in Level IV -Spanish for Spanish Speakers was 78.9 compared to 80.9 for Level III students. In 2018–2019, students in Level III - Chinese (97.3), Level I - Italian (93.6), and Level II French (90.3) achieved the highest average grade. The average grade for students in Level IV -Spanish for Spanish Speakers was 76.9 compared to 80.6 for Level III students. In 2019–2020, students in Level IV - Chinese (97.6), Level I - Italian (93.7), and Level III Chinese (93.2) attained the highest average grade. The average grade for students in Level IV -Spanish for Spanish Speakers was 77.1 compared to 83.7 for Level III students. In 2020–2021, students in Level IV - Chinese (96.8), Level III - Chinese (94.0), and Level II French (93.6) achieved the highest average grade. The average grade for Level III - Spanish for Spanish Speakers was 77.9. Grades for Level IV - Spanish for Spanish Speakers were not in the data.

#### **High School LOTE Courses**

High school LOTE results are depicted in Appendix E (pp. 20–21). The average grades by course are shown in **Table 5a** (p. 9) and Table 5b (p. 9). In 2016–17, students enrolled in Level V - German achieved the highest average grade (98.4), followed by Level VI - Russian (96.8), and Special Topics in Language and Culture (94.8). In 2017–18, high school students in Level V - Italian (97.2), Hindi - Level III (96.2), and Other Foreign Language - IV (Hebrew) (95.8) attained the highest average grade.

#### Did students enrolled in Advanced Placement (AP) language courses demonstrate academic benefits based on their AP exam performance in 2020–2021 compared to 2018–2019 (post vs. pre-COVID 19 pandemic)?

The Advanced Placement (AP) program provides opportunities for high school students to learn college-level material. Students who perform well on AP tests may be granted credit by a university and/or be exempted from taking introductory courses in college. AP LOTE test results for spring 2019 (pre-COVID pandemic) and spring 2021 (post COVID 19 pandemic) are shown in Table 6 (p. 10). These years are presented because they represent the most recent results where students were administered the tests in a similar testing environment. Chinese Language and Culture along with Spanish Language and Culture were the only tests that included both middle and high-school students' results.

Overall, there was a slight decline in the percentage of students HISD Department of Research and Accountability

2016–17 to 2020–21					
Academic Year	2016-17	2017-18	2018-19	2019-20	2020-21
Middle School Students - Language Courses	Average Grade	Average Grade	Average Grade	Average Grade	Average Grade
Languages Other Than English Level I - French	88.6	90.2	88.9	90.9	88.0
Languages Other Than English Level I - German	93.4	88.9	85.3	86.2	75.8
Languages Other Than English Level I - Italian	85.7	89.6	93.6	93.7	89.6
Languages Other Than English Level I - Latin	86.2	82.5	88.3	90.9	91.8
Languages Other Than English Level I - Spanish	83.2	83.9	83.6	86.4	76.6
Languages Other Than English Level I - Spanish For Spanish Speakers	83.5	83.9	82.7	82.9	66.9
Languages Other Than English Level I - Chinese	88.2	89.9	88.0	90.2	89.1
Languages Other Than English Level II - French	80.0	87.6	90.3	91.4	93.6
Languages Other Than English Level II - Spanish	86.3	87.6	88.6	87.1	78.4
Languages Other Than English Level II - Chinese	87.8	88.9	90.2	88.7	89.9
Languages Other Than English Level II - Spanish For Spanish Speakers	82.5	84.0	79.7	84.2	68.1
Languages Other Than English Level III - Spanish				86.1	68.5
Languages Other Than English Level III - Chinese			97.2	93.2	94.0
Languages Other Than English Level III - Spanish For Spanish Speakers		80.8	80.6	83.7	77.9
Languages Other Than English Level IV - Spanish For Spanish Speakers		78.9	76.9	77.1	
Languages Other Than English Level IV- Chinese				97.6	96.8
Languages Other Than English Level II - Latin	80.5	80.1			

Table 4: Average Middle School Students' Language Course Grades

Note: Darker shades indicate higher performance, which is based on academic year. Source: PowerSchool

who scored 3 or above on AP LOTE tests (75.3% vs. 66.1%) (Table 6). More specifically, a higher percentage of high-school students compared to middle school students scored 3 or above on the Chinese Language and Culture test in spring 2019 (80.4% vs 77.8%) and in spring 2021 (83.7% vs 55.8%). Moreover, there was an increase in the percentage of high-school students who attained 3 or above from 2019 to 2021 (80.4% to 83.7%).

In contrast, a higher percentage of middle school students compared to high school students scored 3 or above on the Spanish Language and Culture test in spring 2019 (83.8% vs 74.4%) and in spring 2021 (73.8% vs 66.7%). Both student groups showed a decline in test performance over the two-year period; however, the difference was 7.7 percentage points for high school students relative to 10 percentage points for middle school students. Although the sample sizes were small (26 students in 2019 and 16 students in 2020); there was an increase in the percentage of high school students who scored 3 or above on the Italian Language and Culture test (88.5% vs. 93.8%). The largest drop in performance was on the French Language and Culture test completed by high school students (71.4% vs. 47.7%).

Table 5a: Average High	School Students	' Language	Course	Grades,
2016–17 to 2020–21				

Academic Year	2016-17	2017-18	2018-19	2019-20	2020
High School Students – Language Courses, Part I	Average Grade	Average Grade	Average Grade	Average Grade	Avei Gra
Discovering Languages and Cultures		95.5	95.0	97.5	66
Level I - Russian	77.9	78.8	80.6	82.2	94
Level I - French	79.0	80.2	83.2	84.3	77
Level I - German	73.2	76.0	80.3	80.7	82
Level I - Italian	80.7	79.9	85.3	82.4	77
Level I - Latin	83.1	84.9	85.1	85.2	78
Level I - Spanish	76.0	77.9	79.6	80.8	73
Level I - Spanish For Spanish Speakers	80.4	80.9	80.4	81.1	68
Level I- American Sign Language	79.8	82.1	85.6	86.7	84
Level I - Arabic	78.4	81.8	83.0	84.3	73
Level I - Chinese	81.1	80.5	83.2	81.2	82
Level I- Japanese	79.6	81.0	72.8	81.1	73
Level II French	81.4	80.8	82.3	83.7	81
Level II - Spanish	78.3	80.7	81.2	83.5	77
Level II - Chinese	83.1	84.6	81.3	85.7	83
Level II - German	77.8	79.5	80.6	82.4	80
Level II - Italian	82.2	81.8	83.1	87.4	79
Level II - Latin	83.5	84.4	85.7	90.0	79
Level II - Russian	82.3	80.9	78.1	81.3	83
Level II - Spanish For Spanish Speakers	78.8	80.5	78.8	83.7	69
Level II- American Sign Language	76.4	76.8	81.8	82.9	80
Level II-Arabic	85.6	82.0	83.7	83.2	75
Level III - French	83.8	85.7	87.5	90.1	85
Level III - Latin	85.5	88.5	90.7	87.3	85
Level III - Russian	84.4	83.3	85.7	92.9	89
Level III - Spanish	84.7	84.9	83.5	83.8	81
Level III - Chinese	86.6	86.3	88.1	90.0	88
Level III - German	86.0	84.8	84.1	84.4	80
Level III - Italian	84.7	85.4	86.7	84.8	82
Level III - Spanish For Spanish Speakers	78.9	83.0	79.1	83.1	76
Level III - American Sign Language	88.6	81.3	91.9		
Level III -Arabic	81.0	91.3	93.2	83.8	88

Note: Darker shades indicate higher performance, which is based on academic year. Source: PowerSchool

#### What percentage of high school students met the foreign language graduation requirement through Credit by Exam (**CBE**)?

HISD students who previously took a LOTE course could meet foreign language requirements with a score of 70% and above on the CBE. If the student did not have course experience, a score of 80% and above was required to receive foreign language credit. The results for the 2020 and 2021 academic years are shown in Table 7a and Table 7b (p. 11). In 2020 and in 2021, students either took a paper exam or a remote proctored exam. Comparatively, in 2021, students took a paper exam, a district proctored exam, or a remote proctored exam. Spanish and French were the only languages with CBE data for the years explored in this study. Only Spanish exam results are shown, because this exam had a sufficient

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number of students to draw conclusions. Larger numbers of students took paper exams and district proctored exams; therefore, the discussion will focus on those student groups.

Tables 7a and 7b (p. 11) reveal that students' passing rates in 2020 and 2021 at 70% or 80% and above tended to be higher when students were tested using paper exams in Spanish 1A, 1B, 2A, 2B, 3A, and 3B compared to remote proctored and district proctored exams. Table 7a shows a slight decline in the passing rates of students at 70 or above from 2020 to 2021 who were tested using paper exams in Spanish 1A, 1B, and 2A. There was an increase in the percentage of students who passed at 70% and above in Spanish 2B (84.9% vs 85.4%) on paper exams. Comparatively, in 2021, there was an increase in the percentage of students who scored 80% and above on the paper exams in Spanish 1B (80% vs. 82.5%), 2A (77.3% vs. 78.0%), and 2B (75.3% vs. 82.9%) from 2020 to 2021. Relative to district proctored exams, at least 50%

#### Table 5b: Average High School Students' Language Course Grades, 2016-17 to 2020-21

Academic Year	2016-17	2017-18	2018-19	2019–20	2020-21
High School Students – Language Courses, Part II	Average Grade	Average Grade	Average Grade	Average Grade	Average Grade
Level III-Japanese	87.4	83.7	86.3	86.7	78.1
Level II-Japanese	81.5	87.3	75.7	80.5	76.0
Level IV - Italian	88.0	88.7	79.8		57.5
Level IV - Latin	83.8			81.5	81.9
Level IV - Spanish	87.3	88.9	87.9	85.0	
Level IV - American Sign Language		86.9	86.8		85.7
Level IV - French	83.9	91.4	93.7	78.7	77.6
Level IV - German	79.5	78.3	77.8	82.2	83.4
Level IV - Russian	92.4	86.0	83.5		
Level IV -Arabic	80.5	82.3	87.9	89.9	87.3
Level IV- Chinese	80.1	86.0	84.9	85.2	83.8
Level IV-Japanese	85.5	79.8	79.1	75.5	72.8
Level IV - Spanish For Spanish Speakers			79.2	88.3	77.8
Level V - French	92.3	91.5	89.8	85.0	84.6
Level V - Italian	98.4	97.2	96.5	99.0	99.7
Level V - Spanish	63.9	86.4	83.5	80.2	80.9
Level V - German			87.7	93.5	87.0
Level V - Arabic			95.6	97.0	
Level VI - Italian				98.0	
Level VI - Russian	96.8	95.5	91.8	98.8	77.9
Level VI - Spanish	89.9	89.4		93.5	88.7
Hindi Level I	91.9	95.7	94.1	95.5	95.0
Hindi Level II	92.7	91.7	96.2	95.4	91.4
Hindi Level III	96.2	96.2	94.7	95.9	93.0
Vietnamese Level III		90.3			
Other Foreign Languages Level I		77.6	83.4	82.8	71.0
Other Foreign Languages Level II		88.6	85.8	87.4	92.0
Other Foreign Languages Level III		92.8	91.3	89.8	88.4
Other Foreign Languages Level IV		95.8	92.5	89.1	83.9
Other Foreign Languages Level V					85.5
Special Topics in Language and Culture	94.8		96.0	97.9	
Seminar in Languages Other Than English, Advanced (First Time Taken) - Spanish				87.1	81.3

Note: Darker shades indicate higher performance, which is based on academic year Source: PowerSchool

Table 6. Advanced Placement Exams Participation and Results, 2020-2021									
			Spring 2019	)	S	pring 2021			
		Houston ISD	Middle Schools	High Schools	Houston ISD	Middle Schools	High Schools		
Chinese Language and Culture	# Exams>=3	59	14	45	70	29	41		
	# of Exams	74	18	56	101	52	49		
	% Exams>=3	79.7	77.8	80.4	69.3	55.8	83.7		
French Language and Culture	# Exams>=3	50	-	50	21	-	21		
	# of Exams	70	-	70	44	-	44		
	% Exams>=3	71.4		71.4	47.7	-	47.7		
German Language and Culture	# Exams>=3	19	-	19	12	-	12		
	# of Exams	23	-	23	17	-	17		
	% Exams>=3	82.6	-	82.6	70.6	-	70.6		
Italian Language and Culture	# Exams>=3	23	-	23	15	-	15		
	# of Exams	26	-	26	16	-	16		
	% Exams>=3	88.5		88.5	93.8*	-	93.8		
Japanese Language and Culture	# Exams>=3	10	-	10	8	-	8		
	# of Exams	10	-	10	10	-	10		
	% Exams>=3	100.0	-	100.0	80.0	-	80.0		
Latin	# Exams>=3	10	-	10	3	-	3		
	# of Exams	15	-	15	6	-	6		
	% Exams>=3	66.7	-	66.7	50.0	-	50.0		
Spanish Language and Culture	# Exams>=3	2,170	508	1,662	1,287	284	1,003		
	# of Exams	2,839	606	2,233	1,888	385	1,503		
	% Exams>=3	76.4	83.8	74.4	68.2	73.8	66.7		
Spanish Literature and Culture	# Exams>=3	251	-	251	122	-	122		
	# of Exams	387	-	387	246	-	246		
	% Exams>=3	64.9	-	64.9	49.6	-	49.6		
Total AP Exams	Total # >=3	2,592	522	2,070	1,538	313	1,225		
	Total # Exams	3,444	624	2,820	2,328	437	1,891		
	Total % >=3	75.3	83.7	73.4	66.1	71.6	64.8		

of students passed all exams in 2020 at 70% or above, with the highest percentage passing Spanish 3A and 3B (73.1% and 75.0%, respectively). In addition, at least 50% of students passed exams at 80% or above, except Spanish 3A (42.3%).

#### What were the perceived benefits and motivations of secondary students regarding enrollment in foreign language courses?

A survey was conducted with eleventh and twelfth grade HISD secondary students to gather their perceptions concerning benefits and motivations for enrolling in foreign language courses. A total of 962 students completed the survey. **Table 8** (p. 12) shows the number and percentage of students who took foreign language courses to meet graduation requirements. The largest percentages of survey respondents took Spanish (76.1%), followed by French (11.5%).

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with others using the foreign language that they completed to meet graduation requirements. The results are shown in Figure 10a (p. 12). The largest percentage of students rated their listening skills as "excellent" (38.5%). Comparatively, 31.8% rated their reading skills as "excellent", followed by their speaking skills (29.7%), then their writing skills (24.5%). Further, the highest percentage of students rated their writing skills as "very poor" (10.0%).

An overwhelming majority of survey respondents "strongly agreed" that learning a foreign language was fun (81.3%), rewarding (80.8%), and easy (69.9%). (See Figure 10b, p. 12, for results.)

Secondary students were asked to indicate the benefits of enrolling in foreign language courses. The findings can be found in Figure 10c (p. 12). The highest percentages of students indicated that foreign language will be useful as they travel abroad (84.3%), and to socialize with people from other countries (80.7%). At least Students were asked to rate their skill level to communicate 70.0% of students agreed that they enrolled in foreign language

Exam/Format	Scored Test	Passed (>=70)	% Passed	Mear
	I	2	020	
Paper Exam				
SPN 1A	91	75	82.4	84.8
SPN 1B	85	71	83.5	85.5
SPN 2A	141	123	87.2	84.3
SPN 2B	166	141	84.9	83.8
SPN 3A	15	13	86.7	81.6
SPN 3B	15	11	73.3	78.1
Remote Proctored				
SPN 1A	8	2	25.0	40.5
SPN 1B	10	4	40.0	63.4
SPN 2A	10	3	30.0	55.4
SPN 2B	8	3	37.5	67.0
SPN 3A	5	1	20.0	62.0
SPN 3B	5	1	20.0	63.6
		20	)21	
Paper Exam				
SPN 1A	26	21	80.8	82.3
SPN 1B	29	24	82.8	83.1
SPN 2A	41	34	82.9	82.4
SPN 2B	41	35	85.4	83.4
District Proctored				
SPN 1A	100	56	56.0	73.5
SPN 1B	101	68	67.3	79.6
SPN 2A	112	73	65.2	76.8
SPN 2B	110	76	69.1	76.4
SPN 3A	26	19	73.1	72.8
SPN 3B	24	18	75.0	76.8
Remote Proctored				
SPN 1A	32	20	62.5	70.2
SPN 1B	27	16	59.3	66.0
SPN 2A	2	0	0.0	36.0
SPN 2B	3	1	33.3	46.7
SPN 3A	2	1	50.0	71.0
SPN 3B	1	0	0.0	65.0

in school-wide foreign language programs from first to fifth grades consistently correlated with better academic outcomes courses because it gives them employment opportunities over compared to their non-foreign language program peers. Three other applicants (79.4%), to better understand other cultures in the cohorts of elementary school students provided a means to detect United States and abroad (79.0%), a desire to communicate and academic benefits at the middle school level (sixth grade) based affiliate with foreigners (79.3%), for self-confidence to understand on participation in dual, hybrid, or no language programs. Further, other cultures (75.9%), to communicate with people from other this study analyzed the performance of middle and high school countries through social media (75.7%), to gain respect for people students in LOTE courses, on LOTE AP exams, and on Credit by from other countries who are different from them (75.0%), to Exams. Finally, eleventh and twelfth-grade students were surveyed improve their chances of getting a good job (74.5%), and foreign to explore the academic benefits and motivations for enrollment in language helps them relate to people from other countries (73.6). foreign language courses.

#### Discussion

This study hypothesized that elementary students' persistence HISD Department of Research and Accountability

Table 7b. Credit by Exam Res	ults, Passin	g Rate >= 8	0	
Exam/Format	Scored Test	Passed (>=80)	% Passed	Mean
		20	20	
Paper Exam				
SPN 1A	91	73	80.2	84.8
SPN 1B	85	68	80.0	85.5
SPN 2A	141	109	77.3	84.3
SPN 2B	166	125	75.3	83.8
SPN 3A	15	11	73.3	81.6
SPN 3B	15	10	66.7	78.1
Remote Proctored				
SPN 1A	8	2	25.0	40.5
SPN 1B	10	3	30.0	63.4
SPN 2A	10	3	30.0	55.4
SPN 2B	8	3	37.5	67.0
SPN 3A	5	0	0.0	62.0
SPN 3B	5	0	0.0	63.6
		20	021	
Paper Exam				
SPN 1A	26	20	76.9	82.3
SPN 1B	29	24	82.8	83.1
SPN 2A	41	32	78.0	82.4
SPN 2B	41	34	82.9	83.4
District Proctored				
SPN 1A	100	52	52.0	73.5
SPN 1B	101	65	64.4	79.6
SPN 2A	112	65	58.0	76.8
SPN 2B	110	69	62.7	76.4
SPN 3A	26	11	42.3	72.8
SPN 3B	24	15	62.5	76.8
Remote Proctored				
SPN 1A	32	19	59.4	70.2
SPN 1B	27	11	40.7	66.0
SPN 2A	2	0	0.0	36.0
SPN 2B	3	0	0.0	46.7
SPN 3A	2	1	50.0	71.0
SPN 3B	1	0	0.0	65.0

Consistent with the research, the study found that students who participated in language programs during elementary school

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vey Respondents to Meet Graduation Requirements, Spring 2022							
	n	%					
American Sign Language	46	4.8					
Arabic	7	0.7					
Chinese	20	2.1					
French	110	11.5					
German	8	0.8					
Italian	6	0.6					
Japanese	5	0.5					
Korean	1	0.1					
Latin	15	1.6					
Portuguese	3	0.3					
Russian	5	0.5					
Spanish	729	76.1					
Urdu	2	0.2					
Vietnamese	1	0.1					



Figure 10a: Secondary students' survey results on communication skill level after completing foreign language courses





tended to outperform students on the state-mandated reading and math STAAR subtests at sixth grade compared to students who did not participate in language programs. This finding was more prevalent on the reading test. Consequently, enrollment in languages courses may help to strengthen students' academic skills in core content areas.

Historically, students who advance in foreign languages have increasingly better performance over time. Thus, the average HISD Department of Research and Accountability

#### Although foreign language is a graduation requirement, please indicate the extent that you agree with the following statements about why you enrolled in a foreign language course

1. To improve my chances of getting a good job.	74.5	1	1.6 13.9
2. Knowing a foreign language gives me employment opportunities over other applicants.	79.4		9.9 10.7
3. To get a job that primarily uses another language (government agent, translation, teaching, etc.)	62.1	19.0	18.9
4. To help me get into a good college.	56.3	23.3	20.4
5. To better understand other cultures in the United States and abroad.	79.0		11.0 10.0
6. Foreign language gives me self-confidence to understand other cultures	75.9		14.7 9.4
7. To gain respect for people from other countries who are different than me.	75.0		14.3 10.7
8. Desire to communicate and affiliate with foreigners	79.3		14.1 <b>6.7</b>
9. To communicate with people from other countries through social media and in person.	75.8		14.0 10.2
<ol> <li>Foreign language will be useful when I travel abroad.</li> </ol>	84.3		10.9 4.8
<ol> <li>Foreign language helps me relate to people from other countries.</li> </ol>	73.6	1	6.4 10.0
12. I enjoy learning a foreign language to get Advanced Placement Credit for college.	56.6	22.3	21.1
13. I enjoy learning a foreign language to pass a college entrance examination.	54.5	24.7	20.9
<ol> <li>My classmates are having a good time learning a foreign language with me.</li> </ol>	61.4	24.1	14.5
15. I enjoy learning a foreign language because I am good at it.	63.5	20.9	15.5
16. I relate well to others in my foreign language class.	60.6	24.0	15.4
17. I feel comfortable speaking in my foreign language class.	64.6	18.2	17.1
18. To live in a foreign country.	55.6	21.3	23.0
19. To be able to socialize with people from other countries.	80.7		11.8 7.6
	20.0 40.0 60	).0 80	0.0 100

■Agreement ■Undecided ■Disagreement

Figure 10c: Secondary students' survey results on why they enrolled in foreign language courses

course grades, AP exam, and CBE performance for secondary students were explored. These trend analyses allowed for comparisons of practices that occurred over the years to inform future practices. This study found inconsistencies in this pattern, particularly, for students who took the Spanish for Spanish speakers course. Further, the success rate for students earning CBE could only be assessed for Spanish courses due to the small sample sizes and students not taking tests in other languages. CBE performance tended to be more correlated with the language being tested and with the test format (i.e., paper vs. proctored). More investigation is needed to understand these finding to ensure that students are successful as they advance to higher levels of language learning.

Motivation to learn languages and to benefit from the educational experience may be driven by personal, social, familiar, and cognitive characteristics that contribute to the learning process. To explore this phenomenon, eleventh and twelfth-grade students' perceptions were captured through survey research. The findings were consistent with the research. While students acknowledged the need to meet graduation requirements, they also emphasized their motivation to capitalize on the social benefits of learning a learning, including to travel, learn more about cultures, and the community of the language of study.

Given the complexity of language learning, and the benefits identified by students, HISD may consider vertically aligning

K-12 world languages districtwide. This will ensure that equity in language enrollment across subgroups of the student population and improvements in academic performance will be realized as

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Appendix A



#### Timeline of Language Performance Development of Students



Cohort I Pre- Post STAAR Reading Performance (Fifth to Sixth Grade, Spring 2017 vs. Spring 2018)						
		Mean	N	Std. Deviation	Std. Error Mean	
Dual Language Program	Pre Reading Scale Score	1599.00	189	141.730	10.309	
	Post Reading Scale Score	1622.74	189	137.923	10.032	
Hybrid Language Program	Pre Reading Scale Score	1548.28	3333	130.307	2.257	
	Post Reading Scale Score	1566.98	3333	131.734	2.282	
No Language Program	Pre Reading Scale Score	1599.26	3763	143.527	2.340	
	Post Reading Scale Score	1606.87	3763	148.926	2.428	

Cohort I Reading Correlations, (Fifth to Sixth Grade, Spring 2017 vs. Spring 2018)					
	Ν	Correlations	Sig.		
Dual Language Program	189	.778	.000		
Hybrid Language Program	3333	.767	.000		
No Language Program	3763	.774	.000		

Cohort I Reading Correlations, (Fifth to Sixth Grade, Spring 2017 vs. Spring 2018)								
	MeanStd.Std. ErrorLowerUppertdfSigDevia.MeanC.I.C.I.							
Dual Language Program	23.741	93.151	6.776	-37.107	-10.375	3.504	188	.001**
Hybrid Language Program	18.699	89.504	1.550	-21.739	-15.659	12.061	3332	.000***
No Language Program	7.607	98.416	1.604	-10.752	-4.461	4.741	3762	.000***

Adapted from The American Council on the Teaching of Foreign Languages, 2012. ACTFL Performance Descriptors

### Appendix **B**

Significance: \* < .05; \*\* < .01; \*\*\* < .001

Cohort I Pre- Post STAAR Math Performance, (Fifth to Sixth Grade, Spring 2017 vs. Spring 2018)						
		Mean	N	Std. Deviation	Std. Error Mean	
Dual Language Program	Pre Math Scale Score	1677.33	192	133.907	9.664	
	Post Math Scale Score	1679.84	192	142.014	10.249	
Hybrid Language Program	Pre Math Scale Score	1640.18	3361	144.535	2.493	
	Post Math Scale Score	1650.70	3361	145.404	2.508	
No Language Program	Pre Math Scale Score	1658.62	3762	153.253	2.499	
	Post Math Scale Score	1662.17	3762	148.939	2.428	

Cohort I Math Correlations, (Fifth to Sixth Grade, Spring 2017 vs. Spring 2018)						
N Correlations Sig.						
Dual Language Program	192	.671	.000			
Hybrid Language Program	3361	.739	.000			
No Language Program	3762	.780	.000			

Cohort I Math Correlations, (Fifth to Sixth Grade, Spring 2017 vs. Spring 2018)								
MeanStd.Std. ErrorLowerUppertdfSig.Devia.MeanC.I.C.I.C.I.								Sig.
Dual Language Program	2.516	112.074	8.088	-18.469	13.438	.311	191	.756
Hybrid Language Program	10.529	104.799	1.808	-14.073	-6.984	5.824	3360	.000***
No Language Program	3.557	100.201	1.634	-6.760	354	2.177	3761	.030*

Significance: \* < .05; \*\* < .01; \*\*\* < .001

Cohort II Reading Correlation	ns, (Fifth to	Sixth Grad	
	Mean	Std. Devia.	
Dual Language Program	-2.432	87.955	
Hybrid Language Program	-5.670	87.517	
No Language Program	-10.834	99.506	

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Cohort II Pre- Post STAAR Reading Performance, (

Cohort II Reading Correlation

Dual Language Program Hybrid Language Program No Language Program

Dual Language Program

Hybrid Language Program

No Language Program

### pendix C

ing Performance, (Fifth to Sixth Grade, Spring 2018 vs. Spring 2019)						
	Mean	N	Std. Deviation	Std. Error Mean		
Pre Reading Scale Score	1625.03	132	132.990	11.575		
Post Reading Scale Score	1622.60	132	129.991	11.314		
Pre Reading Scale Score	1561.06	3575	136.946	2.290		
Post Reading Scale Score	1555.39	3575	132.295	2.213		
Pre Reading Scale Score	1606.99	4034	155.089	2.442		
Post Reading Scale Score	1596.16	4034	151.211	2.381		

s (Fifth to Sixth Grade, Spring	g 2018
---------------------------------	--------

Ν	Correlations	Sig.
132	.777	.000
3575	.789	.000
4034	.789	.000

, Spring 2018 vs. Spring 2019)								
Std. Error Mean	Lower C.I.	Upper C.I.	t	df	Sig.			
7.656	-12.713	17.576	318	131	.751			
1.464	2.801	8.540	-3.874	3574	.000***			
1.567	7.762	13.905	-6.915	4033	.000***			

Significance: \* < .05; \*\* < .01; \*\*\* < .001

Cohort II Pre- Post STAAR Math Performance, (Fifth to Sixth Grade, Spring 2019 vs. Spring 2020)										
		Mean	N	Std. Deviation	Std. Error Mean					
Dual Language Program	Pre Math Scale Score	1683.83	140	123.824	10.465					
	Post Math Scale Score	1702.04	140	153.231	12.950					
Hybrid Language Program	Pre Math Scale Score	1649.41	3640	138.812	2.301					
	Post Math Scale Score	1648.05	3640	147.687	2.448					
No Language Program	Pre Math Scale Score	1655.83	4028	147.401	2.323					
	Post Math Scale Score	1663.00	4028	161.809	2.550					

Cohort II Math Correlations, (Fifth to Sixth Grade, Spring 2019 vs. Spring 2020)									
N Correlations Sig.									
Dual Language Program	140	.705	.000						
Hybrid Language Program	3640	.757	.000						
No Language Program	4028	.782	.000						

Cohort II Math Correlations, (Fifth to Sixth Grade, Spring 2019 vs. Spring 2020)											
	Mean	Std. Devia.	Std. Error Mean	Lower C.I.	Upper C.I.	t	df	Sig.			
Dual Language Program	18.214	109.809	9.281	-36.564	.135	1.963	139	.052			
Hybrid Language Program	-1.358	100.287	1.662	-1.901	4.617	817	3639	.414			
No Language Program	7.171	102.977	1.623	-10.352	-3.990	4.420	4027	.000***			

Significance: \* < .05; \*\* < .01; \*\*\* < .001

Middle School Students' Enrollment in LOTE Courses, 2016–2017 through 2020–2021										
Academic Year	2016-2017		2017-2018		2018-2019		2019-2020*		2020-2021	
	n	Average Grade	n	Average Grade	n	Average Grade	n	Average Grade	n	Average Grade
Middle School	8,922	84.3	8,705	84.8	8,427	84.4	7,978	86.2	8,340	76.7
Languages Other Than English Level I - French	710	88.6	737	90.2	709	88.9	681	90.9	624	88.0
Languages Other Than English Level I - German	158	93.4	89	88.9	62	85.3	48	86.2	43	75.8
Languages Other Than English Level I - Italian	42	85.7	22	89.6	20	93.6	18	93.7	52	89.6
Languages Other Than English Level I - Latin	304	86.2	373	82.5	332	88.3	304	90.9	166	91.8
Languages Other Than English Level I - Spanish	3,679	83.2	3,667	83.9	3,600	83.6	3,233	86.4	4,329	76.6
Languages Other Than English Level I - Spanish For Spanish Speakers	2,158	83.5	1,546	83.9	1,552	82.7	1,532	82.9	1,031	66.9
Languages Other Than English Level I- Chinese	329	88.2	311	89.9	236	88.0	295	90.2	278	89.1
Languages Other Than English Level II - French	203	80.0	129	87.6	123	90.3	98	91.4	74	93.6
Languages Other Than English Level II - Spanish	677	86.3	731	87.6	602	88.6	575	87.1	564	78.4
Languages Other Than English Level II - Chinese	29	87.8	45	88.9	32	90.2	41	88.7	84	89.9
Languages Other Than English Level II - Spanish For Spanish Speakers	496	82.5	489	84.0	449	79.7	499	84.2	704	68.1
							104	86.1	219	68.5
					22	97.2	34	93.2	38	94.0
			401	80.8	525	80.6	408	83.7	112	77.9
			71	78.9	79	76.9	98	77.1		
							10	97.6	22	96.8
Languages Other Than English Level II - Latin	137	80.5	94	80.1						

# Appendix D

# Appendix E

High School Students' Enrollment in LOTE Courses, 2016–2017 through 2020–2021										
Academic Year	2016	5-2017	2017	-2018	201	8–2019	2019-	-2020*	2020-	-2021
	n	Average Grade								
Discovering Languages and Cultures			27	95.5	23	95.0	20	97.5	42	66.2
Languages Other Than English Level I - Russian	237	77.9	143	78.8	182	80.6	186	82.2	22	94.2
Languages Other Than English Level I - French	2,697	79.0	2,859	80.2	2,284	83.2	2,296	84.3	2,222	77.1
Languages Other Than English Level I - German	372	73.2	412	76.0	288	80.3	304	80.7	311	82.2
Languages Other Than English Level I - Italian	173	80.7	220	79.9	183	85.3	184	82.4	101	77.6
Languages Other Than English Level I - Latin	189	83.1	119	84.9	189	85.1	158	85.2	145	78.3
Languages Other Than English Level I - Spanish	11,311	76.0	11,301	77.9	11,496	79.6	12,541	80.8	13,853	73.1
Languages Other Than English Level I - Spanish For Spanish Speakers	2,057	80.4	1,743	80.9	1,528	80.4	1,703	81.1	1,516	68.8
Languages Other Than English Level I- American Sign Language	1,384	79.8	1,577	82.1	1,272	85.6	1,077	86.7	856	84.6
Languages Other Than English Level I -Arabic	155	78.4	121	81.8	162	83.0	79	84.3	62	73.5
Languages Other Than English Level I- Chinese	893	81.1	898	80.5	757	83.2	489	81.2	660	82.8
Languages Other Than English Level I- Japanese	142	79.6	90	81.0	102	72.8	88	81.1	106	73.0
Languages Other Than English Level II - French	2,480	81.4	2,345	80.8	2,328	82.3	2,120	83.7	2,281	81.5
Languages Other Than English Level II - Spanish	12,020	78.3	12,674	80.7	12,813	81.2	12,863	83.5	14,023	77.4
Languages Other Than English Level II - Chinese	609	83.1	678	84.6	630	81.3	533	85.7	328	83.9
Languages Other Than English Level II - German	263	77.8	251	79.5	291	80.6	230	82.4	261	80.6
Languages Other Than English Level II - Italian	139	82.2	106	81.8	86	83.1	110	87.4	121	79.5
Languages Other Than English Level II - Latin	115	83.5	131	84.4	128	85.7	146	90.0	108	79.9
Languages Other Than English Level II - Russian	84	82.3	113	80.9	107	78.1	127	81.3	45	83.0
Languages Other Than English Level II - Spanish For Spanish Speakers	2,036	78.8	1,688	80.5	1,569	78.8	1,557	83.7	1,592	69.1
Languages Other Than English Level II- American Sign Language	412	76.4	582	76.8	954	81.8	652	82.9	638	80.8
Languages Other Than English Level II-Arabic	48	85.6	99	82.0	79	83.7	116	83.2	69	75.6
Languages Other Than English Level III - French	749	83.8	915	85.7	660	87.5	471	90.1	428	85.6
Languages Other Than English Level III - Latin	48	85.5	73	88.5	27	90.7	32	87.3	31	85.6
Languages Other Than English Level III - Rus- sian	84	84.4	40	83.3	52	85.7	35	92.9	10	89.9
Languages Other Than English Level III - Span- ish	4,568	84.7	3,889	84.9	3,597	83.5	3,411	83.8	3,186	81.3
Languages Other Than English Level III - Chinese	377	86.6	276	86.3	304	88.1	225	90.0	221	88.1
Languages Other Than English Level III - German	84	86.0	81	84.8	83	84.1	76	84.4	70	80.3
Languages Other Than English Level III - Italian	96	84.7	70	85.4	63	86.7	45	84.8	75	82.7
Languages Other Than English Level III - Spanish For Spanish Speakers	284	78.9	321	83.0	435	79.1	482	83.1	498	76.8
Languages Other Than English Level III- American Sign Language	71	88.6	43	81.3	39	91.9				
Languages Other Than English Level III -Arabic	17	81.0	26	91.3	46	93.2	28	83.8	48	88.9
Languages Other Than English Level III-Japanese	33	87.4	41	83.7	38	86.3	23	86.7	31	78.1
Languages Other Than English Level II-Japanese	93	81.5	82	87.3	52	75.7	52	80.5	56	76.0

High School Students' Enrollment in LOTE Courses, 2016–2017 through 2020–2021, cont'd										
Academic Year	20	16-2017	201	7–2018	2018	8–2019	2019	-2020*	2020	-2021
	n	Average Grade	n	Average Grade	n	Average Grade	n	Av- erage Grade	n	Average Grade
Languages Other Than English Level IV - Italian	83	88.0	56	88.7	6	79.8			4	57.5
Languages Other Than English Level IV - Latin	20	83.8					2	81.5	4	81.9
Languages Other Than English Level IV - Spanish	160	87.3	153	88.9	143	87.9	143	85.0	145	
Languages Other Than English Level IV - Amer- ican Sign Language			20	86.9	4	86.8				85.7
Languages Other Than English Level IV - French	42	83.9	31	91.4	53	93.7	30	78.7	39	77.6
Languages Other Than English Level IV - German	10	79.5	6	78.3	4	77.8	9	82.2	5	83.4
Languages Other Than English Level IV - Russian	14	92.4	10	86.0	16	83.5				
Languages Other Than English Level IV -Arabic	2	80.5	6	82.3	20	87.9	10	89.9	17	87.3
Languages Other Than English Level IV- Chinese	22	80.1	50	86.0	45	84.9	57	85.2	98	83.8
Languages Other Than English Level IV-Japanese	16	85.5	4	79.8	15	79.1	6	75.5	6	72.8
Languages Other Than English Level IV - Spanish For Spanish Speakers					238	79.2	371	88.3	327	77.8
Languages Other Than English Level V - French	3	92.3	4	91.5	6	89.8	2	85.0	2	84.6
Languages Other Than English Level V - Italian	12	98.4	12	97.2	4	96.5	2	99.0	2	99.7
Languages Other Than English Level V - Spanish	12	63.9	33	86.4	22	83.5	13	80.2	18	80.9
Languages Other Than English Level V - German					6	87.7	8	93.5	16	87.0
Languages Other Than English Level V -Arabic					5	95.6	2	97.0		
Languages Other Than English Level VI - Italian							2	98.0		
Languages Other Than English Level VI - Russian	8	96.8	4	95.5	6	91.8	4	98.8	2	77.9
Languages Other Than English Level VI - Spanish	19	89.9	44	89.4			2	93.5	50	88.7
Languages Other Than English-Hindi Level I	33	91.9	12	95.7	17	94.1	20	95.5	10	95.0
Languages Other Than English-Hindi Level II	29	92.7	38	91.7	31	96.2	28	95.4	16	91.4
Languages Other Than English-Hindi Level III	16	96.2	26	96.2	24	94.7	28	95.9	18	93.0
Languages Other Than English-Vietnamese Level III			13	90.3						
Other Foreign Languages Level I			42	77.6	23	83.4	33	82.8	24	71.0
Other Foreign Languages Level II			21	88.6	44	85.8	20	87.4	24	92.0
Other Foreign Languages Level III			11	92.8	16	91.3	22	89.8	8	88.4
Other Foreign Languages Level IV			4	95.8	2	92.5	10	89.1	10	83.9
Other Foreign Languages Level V									2	85.5
Special Topics in Language and Culture	4	94.8			6	96.0	14	97.9		

# Appendix E (cont'd)

# Appendix F

Secondary Students' Foreign Language Survey, Spring 2021-	-2022				
	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. To improve my chances of getting a good job.	38.6	35.9	11.6	8	5.9
2. Knowing a foreign language gives me employment opportuni- ties over other applicants.	41.4	38	9.9	5.8	4.9
3. To get a job that primarily uses another language (government agent, translation, teaching, etc.)	31.4	30.7	19	10.5	8.4
4. To help me get into a good college.	25	31.3	23.3	13.2	7.2
5. To better understand other cultures in the United States and abroad.	39.9	39.1	11	6.1	3.9
6. Foreign language gives me self-confidence to understand other cultures.	37.3	38.6	14.7	4.4	5
7. To gain respect for people from other countries who are different than me.	37	38	14.3	6.9	3.8
8. Desire to communicate and affiliate with foreigners	41	38.3	14.1	4.2	2.5
9. To communicate with people from other countries through social media and in person.	37.4	38.4	14	6.8	3.4
10. Foreign language will be useful when I travel abroad.	47.2	37.1	10.9	2.3	2.5
11. Foreign language helps me relate to people from other countries.	35.6	38	16.4	6	4
12. I enjoy learning a foreign language to get Advanced Place- ment Credit for college.	28.2	28.4	22.3	13	8.1
13. I enjoy learning a foreign language to pass a college entrance examination.	25.5	29	24.7	13.3	7.6
14. My classmates are having a good time learning a foreign language with me.	25.3	36.1	24.1	8.7	5.8
15. I enjoy learning a foreign language because I am good at it.	30.5	33	20.9	8.9	6.6
16. I relate well to others in my foreign language class.	27.6	33	24	9.4	6
17. I feel comfortable speaking in my foreign language class.	30.5	34.1	18.2	9.9	7.2
18. To live in a foreign country.	28.4	27.2	21.3	12.9	10.1
19. To be able to socialize with people from other countries.	41	39.7	11.8	3.4	4.2