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ARTICLE

Why (Not) Learn Languages? Student Perspectives on Language Learning in Higher Education

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This study explores undergraduate attitudes toward world language learning at a large U.S. research university, with a focus on how career orientation, perceptions of English as a lingua franca, and the rise of translation technologies shape enrollment decisions. While language departments often frame declining enrollments as evidence of diminished student motivation and interest, recent research emphasizes the need to foreground student voices. Building on this work, we conducted a mixed-methods survey of 920 students at Iowa State University, including students enrolled and not enrolled in language courses. Quantitative analysis (mixed-effects logistic regression) revealed that perceptions of career relevance and access to enrollment information were the strongest predictors of participation in world language courses and in the institution's career-oriented Languages and Cultures for Professions (LCP) program. Qualitative analysis of open-ended responses revealed tensions between students' personal values and perceived labor market demands; while many view language learning as enriching and increasingly relevant in light of growing linguistic diversity in the U.S., they also see English dominance and translation technologies as diminishing its necessity. Rather than signaling student disinterest, our findings underscore the role of institutional barriers and career narratives in shaping enrollment trends, suggesting new strategies for sustaining language programs in higher education.

Institutions of higher education increasingly strive to equip students to be global citizens by emphasizing skills, competencies, and experiences that prepare students for an international workforce. At the same time, students and administrators alike often question the value of language learning in this pursuit, given that English is a global lingua franca. World language departments in the United States, in turn, are facing the consequences of this monolingual orientation towards globalization in the form of sinking enrollments (Looney & Lusin, 2016; Lusin et al., 2023), disappearing and reduced language requirements (Rios-Font, 2017), and the proliferation of study abroad and exchange programs without pre-departure language requirements (Engle & Engle, 2004; Gala 2008). While recent studies have emphasized the career relevance of language study as a positive motivating factor for students (, e.g., Henderson et al., 2020; Lusin et al., 2023; Murphy et al., 2022), this study focuses more specifically on how students conceptualize the role of language in global professional contexts, particularly the status of English as a lingua franca of global business and the

perceived importance of language learning in the face of new translation technologies. This study, therefore, aims to examine the attitudes and beliefs that shape students' decisions about enrolling in college-level language courses within a higher-education landscape that simultaneously promotes global competence as essential for career readiness while increasingly de-emphasizing sustained language study.

While these are questions that faculty who teach languages have long discussed in academic venues (cf. Gilman 2000, Melin 2014), the answers to these questions must be student-legible and student-centered. For this reason, this study consists of a large-scale student survey of students who are and are not enrolled in language courses at Iowa State University, developed in conversation with faculty who teach in Iowa State's Languages for Cultures and Professions (LCP) program. Iowa State University, the institutional context in which this research takes place, is a large midwestern R1 university, and our home department of World Languages and Cultures has hosted the LCP program for 25 years, making it one of the most long-established Language for Specific Purposes programs in the United States (for documentation of the program theory and design, see Gasta, 2008; Weber-Fève, 2014). LCP works as a secondary or additional major for students who are majoring in programs from one of our seven colleges, Agricultural and Life Sciences, Business, Engineering, Design, Human Sciences, Liberal Arts and Sciences, and Veterinary Medicine.

Rooted in the applied linguistic study of student attitude and motivation in language learning (Ouroujlou & Vahedi, 2011), paired quantitative and qualitative analysis of student voices reveals some of the underlying factors that drive or deter enrollment, beyond structural or curricular issues. By aligning language programs with students' goals and values, institutions can design more compelling offerings and promotional information that sustain interest and participation in language learning for the 21st century.

Literature Review

The Role of Student Attitudes and Motivations in Enrollment Decline

Recent scholarship on language program resilience and sustainability has increasingly emphasized the importance of centering student voices in understanding enrollment trends. The edited volume *Language Program Vitality in the United States: From Surviving to Thriving in Higher Education* dedicates substantial attention to student perspectives, reflecting a broader disciplinary shift toward learner-centered accounts of language program viability (Heidrich et al., 2023). Across this body of work, a consistent finding is that students generally value language learning but do not always translate this valuation into sustained enrollment.

Survey research by Murphy and colleagues (2022) and Murphy and Martin (2023) shows that students prioritize courses that feel relevant to their academic and professional trajectories, particularly those emphasizing contemporary spoken language and personalized content. Similarly, interview-based work by D'Amico & Sterline (2023) demonstrates that students often recognize the importance of language learning while simultaneously encountering institutional and personal barriers, including scheduling constraints and prior negative educational experiences, which prevent continued enrollment. Cinaglia (2023) further complicates this picture by showing that language requirements may inadvertently frame language study as a credential to be completed rather than an ongoing academic pursuit, contributing to early discontinuation once requirements are fulfilled.

Taken together, these studies reveal a persistent disconnect between positive student attitudes toward language learning and actual enrollment behavior, suggesting that motivational value alone is insufficient to sustain participation without supportive institutional and curricular structures.

Why Students Persist or Withdraw: Classroom and Motivational Influences

Research on students already enrolled in language courses further emphasizes the role of instructional environments and learner psychology in shaping engagement and retention. Across studies, a central pattern emerges: motivation is not static but is continuously shaped by classroom experience, institutional context, and access to learning opportunities.

Davis (2022) and Rutemeyer (2024) both suggest that engagement in language learning is shaped by factors extending beyond students' initial interest in the language itself. Davis shows that supportive classroom climates characterized by competence, relatedness, and autonomy can encourage students to continue language study beyond requirements. Rutemeyer likewise finds substantial engagement among students enrolled in required courses but notes that many are unaware of opportunities available outside the classroom. Taken together, these findings suggest that retention is fostered not only through motivational support within courses but also through institutional structures that help students recognize and access pathways for continued involvement in language learning.

Song and Turner (2025) extend this perspective by showing that among Chinese heritage learners, mismatches between expectations and course experiences, as well as limited perceived future value of language study, strongly influence decisions to discontinue enrollment. Knouse and colleagues (2021) further demonstrate that learner characteristics such as prior language experience, travel exposure, and course level shape evolving attitudes over time, underscoring the dynamic nature of motivation.

Finally, Diao and Liu (2021) highlight structural constraints that operate beyond the classroom itself, including the marginal positioning of languages relative to STEM fields, the framing of language study as a requirement to be completed, and limited access to flexible course formats. These factors suggest that even highly motivated learners may disengage when institutional structures do not support sustained participation.

Across this literature, a shared theme emerges: persistence in language study is shaped not only by individual motivation but by the interaction between classroom experience, institutional design, and access to meaningful opportunities for continued engagement.

Enrollment Decisions beyond the Classroom

Extending beyond enrolled learners, recent research has increasingly examined the broader population of undergraduates, including both language enrollers and non-enrollers. Van Gorp et al. (2024), in a large-scale survey of 4,458 undergraduates, find that enrollment decisions are shaped not only by intrinsic interest but also by perceived relevance of language study to students' academic majors and career trajectories.

This work signals an important shift in the literature toward understanding language enrollment as a rationalized decision embedded within broader academic and professional planning. However, much of this research still emphasizes attitudes and motivation while giving less attention to the external considerations that may shape enrollment decisions, including perceptions of career relevance, the role of English as a lingua franca, and advances in translation technology. Building on this approach, the present study examines both enrollers and non-enrollers to investigate how such career-related and technological considerations influence students' decisions about language study.

This emphasis on career relevance also reflects broader trends in higher education. As institutions increasingly foreground career readiness and workforce preparation, students are often encouraged to evaluate academic programs in terms of their perceived professional utility and return

on investment (Martin & Lomperis, 2002). Recent scholarship in language education likewise emphasizes the importance of helping students recognize and articulate the career-relevant competencies developed through language study, including communication, intercultural competence, and problem-solving (Simonsen, 2022). However, researchers have noted persistent challenges in communicating these connections to students, contributing to ongoing questions about the relevance and marketability of language study within contemporary higher education contexts (Hadour, 2021). These findings suggest that enrollment decisions may be shaped by their perceptions of how language study aligns with future professional goals.

The perceived sufficiency of English as a global lingua franca presents a related challenge for language enrollment. In their introduction to the MLA special issue *Beyond Global English: Motivation to Learn Languages in a Multicultural World*, Ushioda and Dörnyei (2017) note that more than 70% of recent language motivation research has focused on English and argue that the field has paid comparatively little attention to motivation for learning languages other than English. They identify as a central question the extent to which the global dominance of English affects motivation to learn additional languages in an increasingly multilingual world. Rather than assuming that motivation for language learning operates similarly across languages, they suggest that the widespread perception of English as a "must-have" global skill may reshape how learners evaluate the relevance and necessity of studying other languages.

Subsequent work in Anglophone contexts has further explored these dynamics. The authors of the introduction to the volume Language Learning in Anglophone Countries: Challenges, Practices, Ways Forward argue that the global success of English has fostered monolingual mindsets and reinforced the belief that "English is enough" (Lanvers et al., 2021). They suggest that Anglophone learners of languages other than English face distinctive motivational challenges at multiple levels, including lower perceived returns on investment, limited opportunities to use the target language, and educational environments that often accord language learning relatively low priority. The authors further characterize declining language enrollment in many Anglophone countries as part of a broader "language-learning crisis" rooted in these sociolinguistic and educational conditions. These perspectives suggest that students' beliefs about the adequacy of English play an important role in language enrollment decisions and may influence how learners evaluate the necessity and value of studying additional languages.

Emerging Influences on Language Enrollment: Technology and AI

A more recent and still developing strand of research in language program sustainability has begun to consider the impact of artificial intelligence on student perceptions of language learning. Some scholars suggest that the increasing accessibility of machine translation tools may shift beliefs about the practical necessity of foreign language study (Crossley, 2018). Related research on machine translation in language education has examined how students use tools such as Google Translate and DeepL for reading comprehension, writing support, and vocabulary learning, often finding that students adopt these technologies strategically rather than as complete substitutes for language learning (e.g., Klimova, 2025; Niño, 2009; Polakova & Klimova, 2023; White & Heidrich, 2013).

While there is a growing body of research on how students use and evaluate machine translation (MT), much of this work, mapped in a recent review by Jolley and Maimone (2025), falls into five main strands: (1) use and perceptions of MT and language learning, (2) MT and academic dishonesty, (3) instructional applications of MT to promote learning, (4) its impact on L2 writing, and (5) contributions of MT use to language development and proficiency gains. Within the first strand, learner perceptions are typically framed in terms of accuracy, usefulness, and appropriateness of

machine translation tools themselves. Fewer studies, however, move beyond these tool-focused evaluations to examine how such perceptions shape broader educational decisions, such as whether students choose to enroll in or continue formal language study, a gap identified by Crossley (2018) and central to the present study's focus on how beliefs about language technologies influence students' commitment to language learning more generally.

Summary and Research Questions

Across these strands of research, three consistent themes emerge. First, students generally value language learning but do not always act on this valuation in enrollment decisions. Second, engagement and persistence are strongly shaped by classroom environment, institutional structure, and access to resources. Third, students increasingly evaluate language study in relation to career goals, the perceived sufficiency of English as a global language, and emerging language technologies, yet these considerations remain underexplored in research on enrollment decisions.

This study addresses these gaps by examining both enrollers and non-enrollers, with particular attention to career-related motivations and the perceived role of translation technologies in shaping language study decisions. By integrating motivational, institutional, and emerging technological perspectives, we seek to provide a more comprehensive account of contemporary undergraduate language enrollment behavior.

Therefore, considering the previously discussed literature, this study set out to explore (1) how students' attitudes toward career orientation, English as a lingua franca, and technology relate to their decisions to enroll or not enroll in college-level language courses, and (2) how these attitudes may influence their enrollment in standard world language courses and courses explicitly associated with career orientation, i.e., courses in the Language and Cultures for Professions program.

Materials and Methods

We conducted a large-scale survey targeting 920 students at Iowa State University, both those who were enrolled in language courses and those who were not. The survey was structured around the framework of student attitudes and motivation in language learning, as described by Oroujlou and Vahedi (2011). Our study examines students' beliefs about the learning environment. Specifically, we adopt Wesely's (2012) definition of beliefs as opinions and ideas regarding the task of learning a foreign language. Wesely's (2012) review highlights that self-report instruments, such as surveys, can be problematic because participants often provide responses they believe are expected rather than their actual beliefs. To address this issue, Wesely suggests that researchers must uphold confidentiality and anonymity and employ valid empirical measures. To minimize this risk, we ensured complete anonymization of survey responses and emphasized the voluntary and confidential nature of participation. In addition, the survey combined closed-ended items with open-ended responses, allowing us to compare patterns across forms of data and identify areas of convergence or discrepancy. Nevertheless, as with all self-report research, the findings should be interpreted as participants' reported beliefs and perceptions rather than direct measures of actual behavior.

Participants

Participants were 920 undergraduate students currently enrolled in degree programs at Iowa State University. Eligibility criteria required that participants be at least 18 years of age and actively enrolled as undergraduates at the time of data collection.

Of the 920 participants, 291 reported having been enrolled in at least one language course at Iowa State University, while 701 indicated that they had not taken any language courses at the institution. Among those with language course experience, the most commonly studied language was Spanish (n = 178), followed by French (n = 36), German (n = 29), Russian (n = 23), American Sign Language (n = 19), Chinese (n = 18), Arabic (n = 10), Latin (n = 8), and Portuguese (n = 5). An additional 25 participants reported studying other languages, primarily those offered irregularly or only within study abroad programs, as well as participants who indicated English due to its status as a non-native language.

With regard to degree programs, 35 participants reported being enrolled in a Language and Culture Program (LCP) degree. An additional 78 participants indicated that they were enrolled in a language-related degree program but were unsure whether their program was part of the LCP track.

Data Collection

Data were collected via an online survey administered through Qualtrics. The survey was distributed during the Spring 2024 semester. Participants were eligible if they met two inclusion criteria: (1) current enrollment in an undergraduate degree program at Iowa State University, and (2) being at least 18 years of age.

Participants were recruited through multiple channels to reach both language enrollers and non-enrollers. Recruitment methods included announcements sent via a university-wide listserv, physical posters displayed on campus, and direct distribution by individual language instructors to students enrolled in their courses. Participation was voluntary, and no course credit was offered.

As an incentive, the first 100 participants to complete the survey received a $10 Amazon gift card. The survey link directed participants to an informed consent form outlining the purpose of the study, eligibility criteria, and data confidentiality procedures. Only participants who provided consent were able to proceed to the survey.

The study protocol was reviewed and approved by the Institutional Review Board (IRB) at Iowa State University prior to data collection.

Survey Design

The survey aimed to investigate how students' preconceptions about language and language learning relate to their decisions to enroll in language courses. The questions focused on identifying the ideological and practical incentives and barriers that students encounter in pursuing language education. The survey also collected data examining the types of promotional outreach that affect their choices to engage in language study; the resulting data were used for internal purposes but are referenced in this paper where they are relevant to the research questions at hand. The survey was developed through an iterative, practice-informed design process that combined insights from recent research with the experiential knowledge of faculty in the Languages and Cultures for Professions working group. Initial question development was guided by findings in the literature highlighting the importance of career orientation for language-learning motivation, which served as a starting point for confirming shared working group hypotheses. At the same time, the survey was intentionally designed to explore forms of student resistance that faculty had repeatedly observed anecdotally. Specifically, faculty report encountering the student perception that advances in translation technologies reduce the need for language learning in the workplace and that English increasingly functions as a sufficient lingua franca for global careers, which is also referred in the literature as linguistic myopia (Lanvers et al., 2021). To examine these issues systematically, targeted quantitative items addressing career

relevance, translation tools, and English were placed prior to open-ended questions, with the expectation that this sequencing would sensitize respondents to these themes while still allowing for unprompted elaboration. The qualitative questions were framed broadly, asking students what influenced their decisions to enroll (or not enroll) in language courses and whether they perceived languages as becoming more or less important for career preparation, thereby supporting both hypothesis-driven inquiry and inductive analysis. Consistent with best practices in mixed-methods survey design, this approach allowed structured items to anchor key constructs while open-ended responses captured emergent perspectives beyond the research team's initial assumptions (Creswell & Plano Clark, 2018). The final sample size was guided by the principle of saturation, with data collection concluding once no new codes or themes emerged from the qualitative data (Hennink & Kaiser, 2022).

For the quantitative portion of the study, students rated their agreement with questions using a 7-point Likert scale and semantic differentiation questions (refer to Appendix 1 for the complete survey questions). The Likert scale was chosen to provide a sufficient number of response options to capture nuanced attitudes while minimizing respondent fatigue and indecision. The 7-point semantic differential scale complemented the Likert scale questions by capturing students' overall attitudes toward language learning along evaluative dimensions (e.g., useful–useless, fun–boring), offering insight into affective and cognitive associations. Used together, these two quantitative scales enabled a multifaceted understanding of both the beliefs and attitudes shaping student decision-making. The semantic differential dimensions were selected through an iterative, construct-informed process. Dimension selection drew on two sources: prior literature on evaluative attitudes toward language learning, and recurring patterns identified by faculty in the LCP working group through sustained interaction with students across courses and advising contexts. For items addressing general orientations toward language learning (e.g., "Learning a language is…"; "Our language course offerings are…"), evaluative pairs such as *boring–fun*, *pointless–useful*, and *confusing–clear* were chosen to capture tensions faculty had repeatedly observed in student talk, in which instrumental value was often acknowledged alongside affective disengagement. For the item related to translation technologies, additional dimensions (*inaccurate–accurate*, *difficult–easy to use*, *easy to detect–difficult to detect*) were included to probe students' perceptions of technological efficacy and reliability, particularly as these perceptions relate to judgments about the necessity of language learning. Together, these dimensions were intended to capture both affective and instrumental evaluations while remaining sensitive to contradictions in students' experiences with language study and language technologies.

Data Analysis

After collecting the data, we conducted a mixed-effects logistic regression analysis in R (Hothorn et al., 2006) to assess the statistical significance of differences in respondent ratings within the Likert scale and the semantic differential question blocks. We ran two separate models: one using the Likert scale data and another using only the semantic differential data, in order to address the distinct nature of the questions and their measurement approaches.

We had participant and item as random intercepts in all models, to account for repeated measures and potential item-based variation. We employed the ANOVA function, a likelihood ratio test, to select the best fitted models and normalized the scores to ensure comparability across the different scales each student used and to facilitate a meaningful interpretation of our results.

We conducted two types of analyses to explore how students' 7-point scale and semantic differentiation ratings of language learning attitudes influenced their enrollment status in (factor 1) world language courses and (factor 2) the Language for Cultures and Professions (LCP) program. To achieve this, we developed four models that included factors 1 and 2 as dependent variables for each

block of questions in order to conduct an exploratory analysis. The objective was to identify any differences in students' overall interest in enrolling in world language courses compared to the specific LCP program. Additionally, quantitatively measuring the factors that influence their decision to enroll or not in these programs directly addresses our research questions providing valuable insights for our department and program's future initiatives. Furthermore, the findings from this analysis could offer guidance to similar language programs across higher education institutions in The United States.

Qualitative analysis of the data consisted of two cycles of coding of responses to open-ended questions. The methodological approach for the first cycle of coding was provisional and hypothesis coding (Saldaña, 2009, pp. 118-123). Provisional coding applies an initial set of theory-informed codes drawn from prior literature and research questions to assess and refine expectations in relation to the data. Hypothesis coding similarly examines whether anticipated patterns (such as the role of career orientation or perceptions of translation technologies) are supported or challenged by participants' responses. Together, these approaches suited a study designed to test faculty-identified hypotheses while remaining open to unanticipated themes in students' explanations of their enrollment decisions.

A list of 19 codes was generated both inductively and deductively on the basis of word frequency, previous findings of literature on student attitude and motivation for language learning in higher education, and from our hypotheses based on the quantitative analysis. In a second round of coding, these codes were categorized into motivating and amotivating factors. This resulted in overlaps for some codes. For example, the code CAREER FUTURE**,** which tagged passages where students discussed the relevance of language learning to their future careers, was sometimes an amotivating factor for language learning (because students perceived languages as unnecessary for their career) and sometimes a motivating factor (because students perceived languages as useful for their career). A list of all codes, grouped by motivating and amotivating factors, yielding a final total of 27 codes, is found in Table 1 below. Codes generated from previous research are marked with an asterisk.

Table 1
Qualitative Codes, Categorized by Motivating and Amotivating Factors

Motivating Factor Codes	**Both Motivating and Amotivating Factor Codes**	**Amotivating Factor Codes**
EASY	CAREER FUTURE*	ANXIETY*
FRIENDS	CHALLENGE	BORING
FUN*	INFORMATION	GLOBAL DOMINANCE OF ENGLISH
HERITAGE*	PREVIOUS STUDY*	MONEY
INCREASING LINGUISTIC DIVERSITY	PERSONAL FUTURE*	TOO LITTLE SPEAKING
TRAVEL*	REQUIREMENT*	
	SCHEDULING	
	TECHNOLOGY	

Some of these codes reference motivational factors that are largely institution-specific (e.g., INFORMATION; students cite either a lack of information on campus or information from a specific source on campus which (de)motivated language study). Given the research questions of this study, our presentation of findings in context emphasizes the motivating and amotivating codes CAREER

FUTURE, GLOBAL DOMINANCE OF ENGLISH, INCREASING LINGUISTIC DIVERSITY, and TECHNOLOGY, though other codes are considered as they intersect with these.

Results

Quantitative Results

Likert Scale Results

In this subsection we introduce the results of the block of questions in which students rated their attitudes towards six statements related to language learning. The first model included the factors FUTURE (L1)[1], STEMHUM (L2), TRANSL (L3), CULTURE (L4), ENGLISH (L5), and INFORMATION (L6), see Table 2 for reference, and the dependent variable LANGENROL which stands for the question Have you ever been or are you currently enrolled in a language course at Iowa State University?

Table 2
Factor Codes and their Respective Meanings

Factor Code	**Meaning as Seeing in the Likert Scale Block**
FUTURE	Learning a language is important for my future career.
STEMHUM	Learning a language is just as important for STEM students as for humanities students.
TRANSL	Learning a language is just as important as it was before translation programs such as google translate.
CULTURE	You must understand another language to understand the culture of the people who speak it.
ENGLISH	In the future, most people will only need English for their careers.
INFORMATION	If I wanted to take language courses at ISU, I would know where to find information about what courses are available and what level I should enroll in.

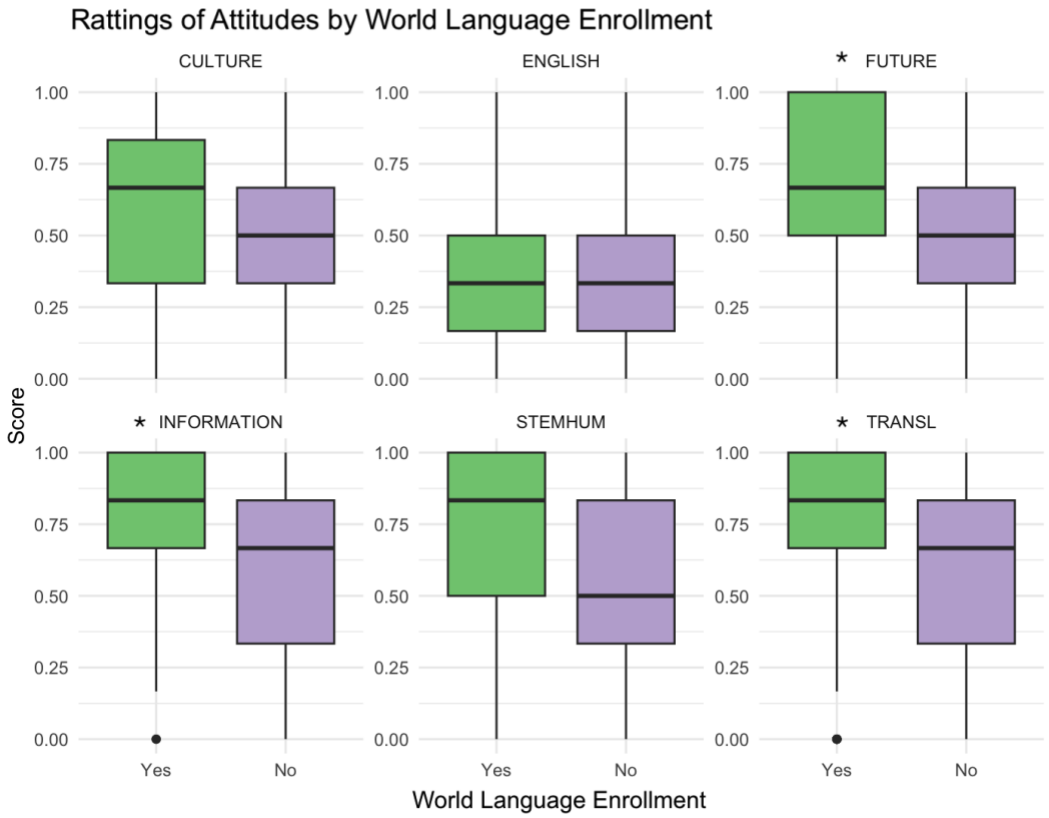
The logistic regression results (see Table 2 and Figure 1)[2] indicate that FUTURE, TRANSL, and INFORMATION are significant predictors of enrollment in a world language course. This means that students are more likely to enroll in world language courses if they believe that learning a language is essential for their future careers, that its importance has not diminished since the introduction of translation programs, and that they can easily access information about enrollment.

[1] Please refer to Appendix for the Likert Scale block questions.
[2] The asterisks in the box plots indicate the significant factors in each model analyzed.

Table 3
Logistic Regression Results for Likert Scale Questions: World Language Enrollment

	Estimate	Std. Error	z value	Pr(>|z|)
(Intercept)	-4.897206	0.434962	-11.259	< 2e-16 ***
FUTURE	0.183622	0.060668	3.027	0.00247 **
STEMHUM	0.003497	0.064797	0.054	0.95696
TRANSLATION	0.263693	0.063414	4.158	3.21e-05 ***
CULTURE	0.067744	0.049650	1.364	0.17243
ENGLISH	0.011647	0.048709	0.239	0.81102
INFORMATION	0.293007	0.048870	5.996	2.03e-09 ***
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

Figure 1
Box Plots for Likert Scale Questions: World Language Enrollment

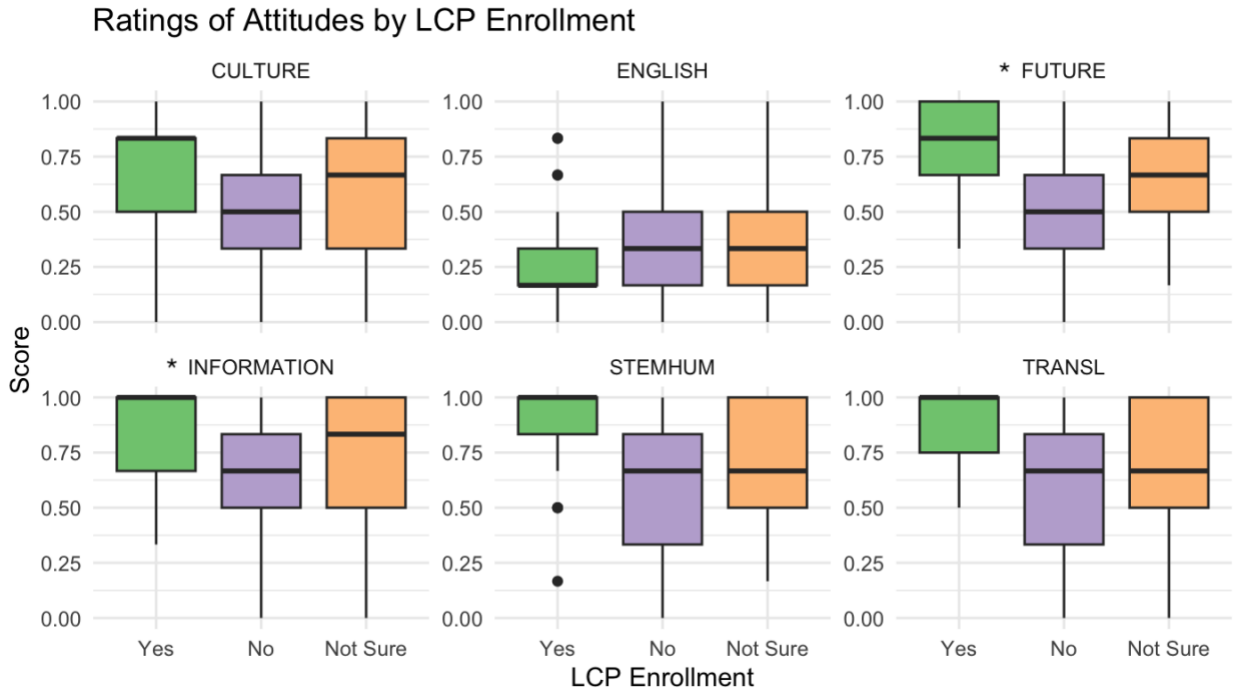


The second model incorporated the same factors, with the dependent variable being LCP, which refers to whether students are completing a secondary major or a minor in our LCP program. The logistic regression results (see Table 4 and Figure 2) show that FUTURE and INFORMATION are significant predictors of enrollment in the LCP program. Specifically, students who view language learning as crucial for their future careers and find enrollment information easily accessible are more likely to enroll in the program.

Table 4
Logistic Regression Results for Likert Scale Questions: Languages and Cultures for Professions Program Enrollment

	Estimate	Std. Error	z value	Pr(>|z|)
(Intercept)	-9.14117	1.29526	-7.057	1.7e-12 ***
FUTURE	**0.41321**	**0.16422**	**2.516**	**0.0119 ***
STEMHUM	0.20408	0.18665	1.093	0.2742
TRANSLATION	0.29081	0.18656	1.559	0.1191
CULTURE	-0.01126	0.11309	-0.100	0.9207
ENGLISH	-0.16535	0.11465	-1.442	0.1492
INFORMATION	**0.27598**	**0.12947**	**2.132**	**0.0330 ***
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

Figure 2:
Box Plots for Likert Scale Questions: Languages and Cultures for Professions Program Enrollment



To address our Research Questions which focus on the factors and differences regarding to enrollment in general world language courses and our language for specific purposes program (LCP), the only significant finding was that students' interest in enrolling in a world language course has not declined since the introduction of translation programs (cf. Tables 3 and 4). This result suggests that the availability of translation technologies has not reduced students' motivation to enroll in general world language courses, likely because students continue to value broader linguistic and cultural competencies that go beyond what translation tools can provide. In contrast, for students in the LCP program, the TRANSLATION tools was not a significant factor, which may reflect the more targeted, instrumental nature of the LCP. However, this interpretation should be pursued in a more in-depth exploration of the relationship between students' perceptions on translation tools and language learning.

The results regarding the relationship between enrollment decisions and future careers provide important insights into the idea that linking world language learning to students' future career goals bears a strong weight when students are deciding to enroll in a world language course generally. This means that investing in creative ways to establish this link is highly beneficial for the health of world language programs.

Furthermore, we found that access to information was selected as significant in both models analyzed for the Likert-scale questions block. These results reflect those of D'Amico and Sterling (2023), Murphy and Martin (2023), Van Gorp et al. (2024), and many others who also reported that students find institutional roadblocks as one of the main impediments for world language courses or programs enrollment. The latter study, for instance, goes further in suggesting that an institutional commitment to language learning could lead to a stronger student interest in language learning (Van Gorp et al., 2024, p. 195). These quantitative results point out that students may not have adequate access to enrollment or program information, which may prevent them from fully committing to enrolling in a world language course or declaring a major or minor in our LCP program.

Semantic Differentiation Results

In this section, we present the logistic regression results of the semantic differentiation question block. The first model we built included **LANGENROL** (world language enrollment prospective or status) as a dependent variable, and the **LANGLEARN_FUN** (Learning a language is boring (low rating scores) or fun (higher rating scores)), **LANGLEARN_USEFUL** (Learning a language is pointless (low rating scores) or useful (higher rating scores)), **LANGLEARN_EASY** (Learning a language is difficult (low rating scores) or easy (higher rating scores)), **TRANS_ACC** (Language translation software is inaccurate (low rating scores) or accurate (higher rating scores)), **TRANS_EASY** (Language translation software is difficult to use (low rating scores) or easy to use (higher rating scores)), **TRANS_DET** (Language translation software is easy to detect (low rating scores) or difficult to detect (higher rating scores)) as independent factors.

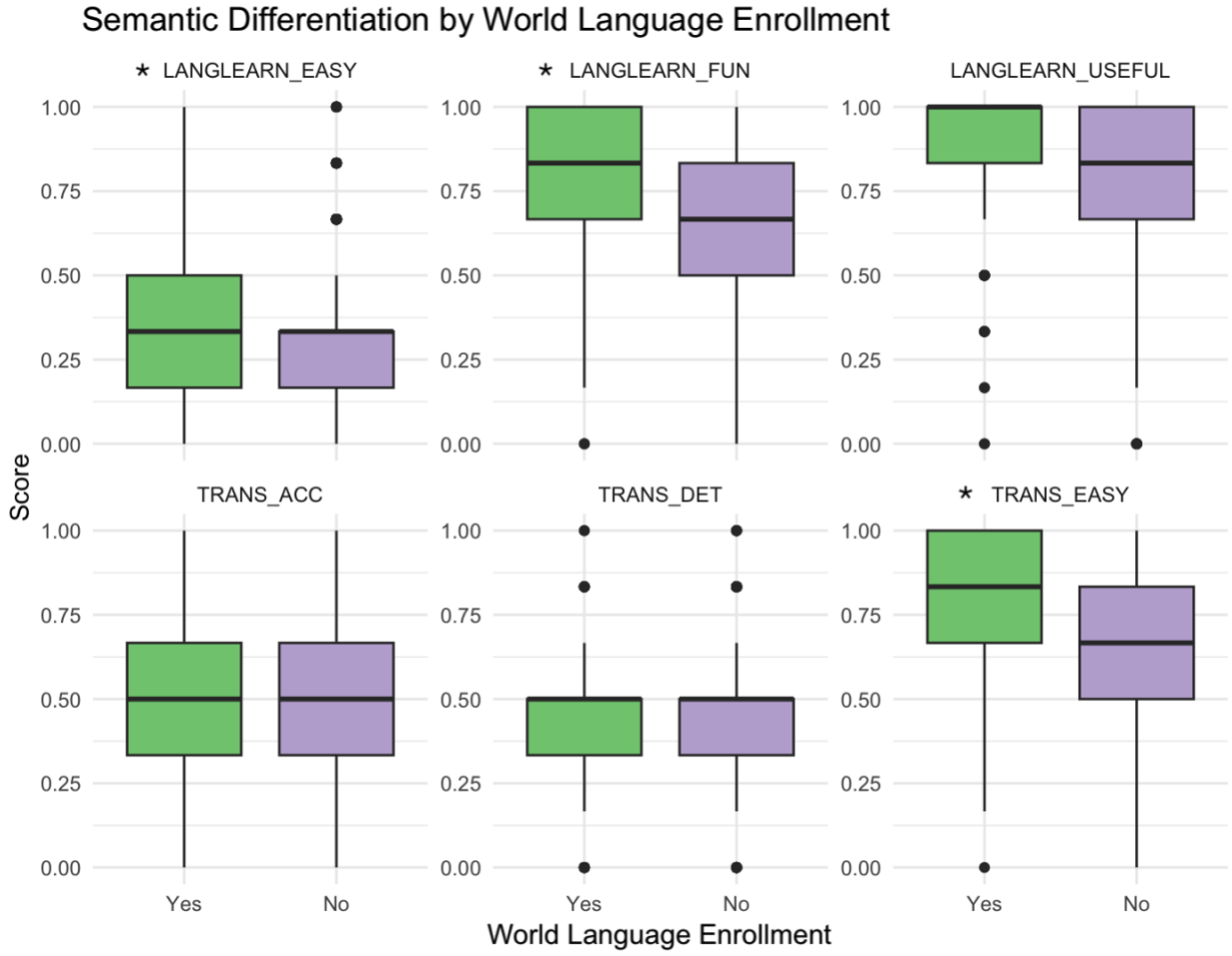
The variables described above cover Semantic Differentiation Blocks 1 and 2 (see Appendix for reference); however, we chose not to include answers for Block 3 because they were more specific to our course offerings and intended for internal use. With that in mind, we instructed participants to leave the question blank if unsure, which ultimately led a substantial portion of respondents (454 of 920) to not answer. Therefore, to ensure consistency in our quantitative results, it was not productive to report these results.

Table 5 and Figure 3 show that, first, the strongest predictor in this model is if students find language learning fun, they are much more likely to enroll in a world language course. Other than that, considering that language learning is easy and thinking that translation programs are easy to use also have positive and significant effects on the odds of students enrolling in a world language course.

Table 5
Logistic Regression Results for Semantic Differentiation Questions: World Language Enrollment

	Estimate	Std. Error	z value	Pr(>|z|)
(Intercept)	-3.74334	0.50540	-7.407	1.29e-13 ***
LANGLEARN_FUN	**2.37491**	**0.40957**	**5.799**	**6.69e-09 *****
LANGLEARN_USEFUL	0.41142	0.46550	0.884	0.37678
LANGLEARN_EASY	**0.98594**	**0.33799**	**2.917**	**0.00353 ****
TRANS_ACC	-0.06512	0.37977	-0.171	0.86384
TRANS_EASY	**0.82409**	**0.35616**	**2.314**	**0.02068 ***
TRANS_DET	-0.42351	0.38973	-1.087	0.27719
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

Figure 3
Logistic Regression Results for Semantic Differentiation Questions: World Language Enrollment

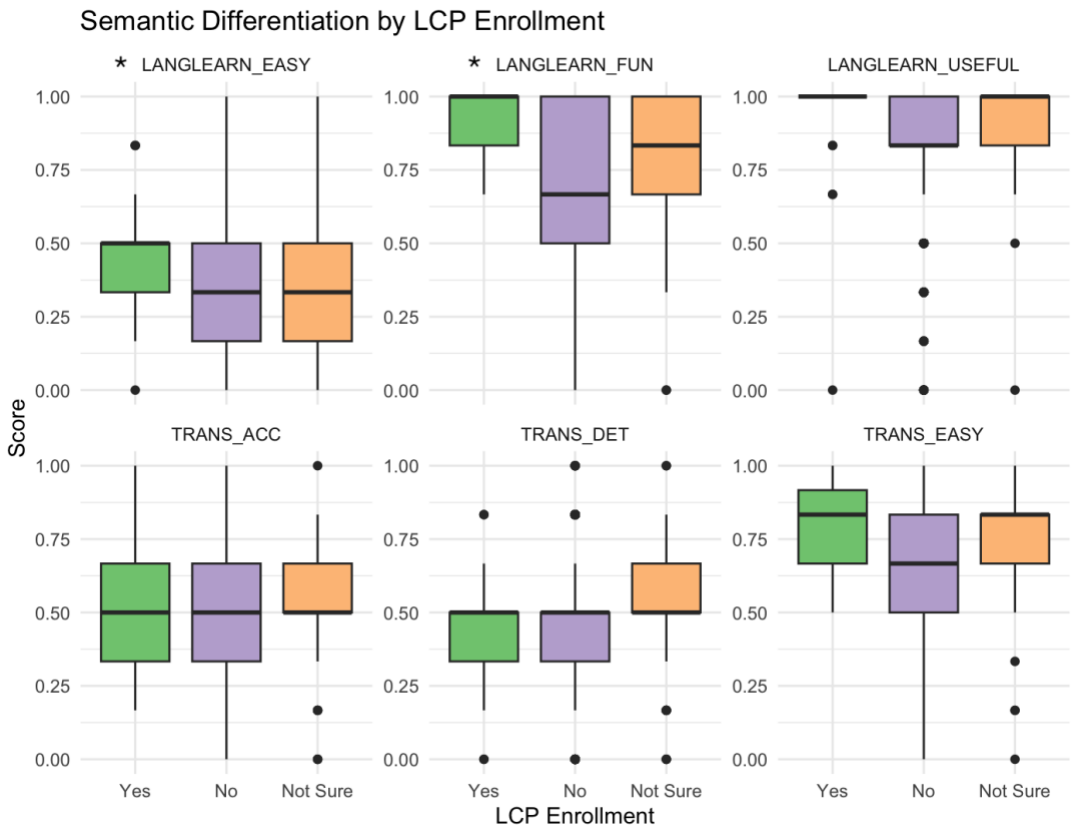


Below we present the logistic regression results for the second model we built using the semantic differentiation questions, in which LCP (enrollment prospective or status) was included as a dependent variable (see Table 6 and Figure 4). In this model, similarly to the results of the previous one, when students find language learning to be fun and easy, they are more likely to enroll in the LCP program.

Table 6
Logistic Regression Results for Semantic Differentiation Questions: Languages and Cultures for Professions Enrollment

	Estimate	Std. Error	z value	Pr(>|z|)
(Intercept)	-5.4673	0.7452	-7.337	2.18e-13 ***
LANGLEARN_FUN	**1.9489**	**0.6020**	**3.237**	**0.00121 ****
LANGLEARN_USEFUL	0.3222	0.6846	0.471	0.63796
LANGLEARN_EASY	**1.2190**	**0.4498**	**2.710**	**0.00673 ****
TRANS_ACC	0.1508	0.5194	0.290	0.77159
TRANS_EASY	0.9563	0.5221	1.832	0.06702 .
TRANS_DET	0.8951	0.5446	1.643	0.10029
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

Figure 4
Logistic Regression Results for Semantic Differentiation Questions: Languages and Cultures for Professions Enrollment



Finally, the quantitative findings suggest that students perceive a connection between world language learning to future career trajectories. Furthermore, the data indicate that many students perceive translation tools as easy to use, and their use does not appear to reduce students' willingness to enroll in a world language course or hinder their learning process. This is supported by the fact that the TRANSL item ("Learning a language is just as important as it was before translation programs such as Google Translate") was not statistically significant in our analysis. In the next section, we will present the qualitative results to complement the quantitative results presented above.

Qualitative Results

The quantitative data suggests that students' enrollment in world language courses and the LCP program is positively predicted by perceptions that language learning is fun, easy, and relevant to future careers, as well as by accessible enrollment information, while factors such as translation tools or English as a global lingua franca do not significantly deter enrollment. The qualitative data presented in this section provides additional insight into these findings, allowing for a more fine-grained analysis of these factors. The subsequent section first presents a holistic overview of student responses to each open-ended question, while the section that follows gives an in-context analysis of the codes most relevant to the research questions of this study (CAREER FUTURE, GLOBAL DOMINANCE OF ENGLISH, INCREASING LINGUISTIC DIVERSITY, and TECHNOLOGY).

Summary of Responses to Open-Ended Questions

The first open-ended question asked students "What factors influenced your decision to study language (or not study language) at Iowa State University?" Students who indicated that they were already studying language or planned to study language overwhelmingly stated that they were motivated by previous study of a language (83 students, or 8.6% of respondents) and a desire to learn language for their future career (56 students, or 5.8% of respondents). Secondary motivating factors included meeting requirements (38 students, or 3.9% of respondents) and a perception of language courses as "fun" (35 students, or 3.6% percent of respondents). Students who did not plan on taking language also cited previous study as the main amotivating factor (210 students, or 21.6% of respondents), with various institutional logistical barriers (scheduling, lack of language requirements) coming in as secondary amotivating factors. Career (ir)relevance came up less often as an amotivating factor than a motivating factor.

The second open-ended question directly relevant to this study asked students "Do you think language learning is becoming more or less important for career preparation? Why or why not?" In addition to the provisional and hypothesis-based qualitative coding, this question specifically was tagged for positive, negative, and neutral responses. 504 students (52%) responded that language learning was becoming more important for career preparation, 181 students (18.7%) responded that language learning was becoming less important for career preparation, and 129 students (13.3%) provided mixed or neutral responses. Students who believed that language learning is becoming more important for career preparation discussed increasing linguistic and cultural diversity within the US and in the world and the increasing presence of technology in the workplace as reasons for this belief. Students who believed that language learning is becoming less important for language learning cited the global dominance of English and the rise of technology in the workplace as reasons for this. The ways that students view the same factors as both motivational and amotivational will be elucidated in the subsequent section where these codes are analyzed across the data set.

Two additional questions (see appendix; Questions 2 and 4) asked students about institution-specific factors influencing their decisions about taking language courses.

While Questions 2 and 4 were designed primarily to inform local program development, responses nevertheless provide relevant context for interpreting the quantitative findings. Responses to Question 2 ("Where have you heard about Iowa State University's language programs?") indicate that students most commonly learned about language programs through advisors, orientation activities, peers, university websites, posters, email communications, and social media. At the same time, 93 respondents (11.4% of those who responded) reported little or no awareness of language programs, stating that they had "not heard much" about available opportunities or encountered information only after actively seeking it out. These responses support the quantitative finding that access to information was among the strongest predictors of enrollment.

Responses to Question 4 ("What would make you more likely to enroll in language courses at Iowa State University?") likewise echoed themes identified elsewhere in the survey. Students most frequently cited scheduling constraints, heavy major requirements, and difficulty fitting language study into four-year degree plans. Respondents also emphasized the need for clearer information about available pathways, stronger connections between language study and career preparation, and more flexible course formats, including online, lower-credit, and beginner-oriented options. Although these responses reflect the local institutional context, they reinforce the broader conclusion that enrollment decisions are shaped not only by attitudes toward language learning itself but also by students' perceptions of accessibility, visibility, and fit within the curricula for other degree programs.

Analysis of Qualitative Coding

With the aims of this study in mind, this section provides a closer qualitative analysis of the responses coded career future, global dominance of English, increasing linguistic diversity, and technology.

The code CAREER FUTURE appeared 121 times over all open-ended response questions. However, it appeared slightly more often as an amotivational than motivational factor. Students who cited career future as an amotivational factor often elaborated by stating their career specific or broad career fields, including business, cyber security, engineering, healthcare, landscape architecture, marketing, and STEM. Other students grounded their claim of irrelevance to their career in the fact that they planned on working in the United States, stating, for example, "I'm a stem major so I didn't think I would really need it in my field. I plan to live and work in the United States where the primary language is English." Where career future was coded as an amotivational factor, the code previous study often also occurred as an amotivational factor. Students who had previously studied Spanish, for example, often stated that they perceived their skills from high school language courses as adequate for the United States job market, stating, for example, "I did Spanish in high school and thought that was enough since I don't plan to work overseas."

As hypothesized, the codes GLOBAL DOMINANCE OF ENGLISH, INCREASING LINGUISTIC DIVERSITY, and TECHNOLOGY also commonly occurred in tandem with the code CAREER FUTURE, providing specific evidence that perceptions of technology and English as a global lingua franca intersect with students' career-oriented motivations for language learning. Students framed INCREASING LINGUISTIC DIVERSITY as a motivational factor more than twice as often as they framed the GLOBAL DOMINANCE OF ENGLISH as an amotivational factor. Recognizing patterns in the data, the code INCREASING LINGUISTIC DIVERSITY was recoded for INCREASING LINGUISTIC DIVERSITY (US) and INCREASING LINGUISTIC DIVERSITY (GLOBAL) in a second round of coding, revealing that double the number of students regarded increasing linguistic diversity in the United States as a motivational factor for language learning vis-a-vis increasing linguistic diversity globally. Many responses coded as Increasing linguistic diversity (US) made specific reference to increasing immigration or the role of Spanish, specifically. These students often discussed the specific relevance of these factors to their own future career fields, stating, for example:

> For civil engineering, languages like Spanish could be very useful and I think are being more and more recognized as a useful skill, specifically if you work out on job sites. Often times there are a lot of Spanish speakers on job sites who might not know English, so knowing some Spanish is very useful.
>
> ...more and more people coming to America who may not know our language. I am going to be an elementary teacher and I do think that knowing other languages would be really helpful to connect with my students and their families who speak different languages.
>
> I think for my career it is beneficial but not necessary. I am looking to work in a hospital setting so while I will be confident to help someone out in Spanish, giving them their diagnosis in Spanish [I] would leave to a professional.

Responses coded for INCREASING LINGUISTIC DIVERSITY (GLOBAL) tended to focus on globalization, technology, and the rising importance of multinational corporations as motivating factors for language learning. One student stated, for example, "Globalization and the internet have made communicating with others from all around the world so much easier, and anyone who can speak another language will have a leg up in the working world." Some responses pointed specifically

to the failure of the U.S. to adequately prepare the workforce for this reality as an opportunity, stating, for example, "I think [language learning] is becoming more important, especially in the US, because we are one of the only cou[n]tries that doesn't prioritize world language learning in schools, making US students less competitive in the global job market."

The smaller number of students who, in contrast to these students, framed GLOBAL DOMINANCE OF ENGLISH as an amotivating factor often hedged this as either an unfortunate development or stated that it should not negate the need to learn languages:

> I think language learning is unfortunately becoming less important for career preparation [sic.] because of the homogenization of language throughout the world, and the absolute dominance of English around the world as a language.

> I believe [language learning is] becoming less important, but by no means unimportant. English is the most commonly spoken language in the world (in terms of total speakers, not native speakers) so it's really easy to get by if you know English. However, it is important to have an understanding of different cultures, and understanding their language is an important step in that process.

> I believe it is becoming less important. More people are speaking English and therefore knowing a second language isn't as important. I would argue that it is more important for some careers than others. However, knowing a second language is always a benefit.

The codes INCREASING LINGUISTIC DIVERSITY (GLOBAL) as a motivational factor and GLOBAL DOMINANCE OF ENGLISH as an amotivational factor both coincided frequently with the code TECHNOLOGY as both a motivational and amotivational factor. Despite some students discussing technology as a driver of global interconnectedness necessitating languages skills as described above, the code TECHNOLOGY occurred more than three times more often as an amotivational than motivational factor. Many students stated that free or low-cost language learning software and apps negated their desire to enroll in language courses in college, stating specifically that they use Babbel, Duolingo, and Rosetta Stone for language learning. While many students also mentioned translation software and AI as factors that decreased the importance of language learning for them, they showed significantly more skepticism of these technologies. As evidenced in the quotations below, many students perceived that translation software had devalued language learning for employers and the general public, but not for themselves. They viewed translation software as having limited efficacy for non-written modalities and for harnessing the social and human aspects of language, with some students cynically questioning the long-term viability of language technologies in general.

> Although AI technology may heavily change machine translation as we know it, there is still an inherent human aspect to the formation of language peer to peer. After all this is why people go crazy for organic vegetables, untouched by pesticides and machines. Even though these listed aspects may not matter too much on the whole, many people have a genuine trust of the humanity put into products such as these

> I think that people are devaluing the importance of knowing a language because there is a lot of translation software out there, however I don't think that many people realize that it is not always accurate and many people are unaware of the necessity to understand a culture along with communicating in a different language.

> ....there is google translate and all that but one day we aren't going to have that so it's important to be able to communicate with others.
>
> In short, yes it is becoming more important, but specifically verbally. Business might be conductable through AI translation if it is solely in writing (e.g. E-mails).

Students who frame TECHNOLOGY as a motivating factor for language learning not only view technology as driver of globalization and a resultant need for multilingualism, but also see this perhaps premature trends toward monolingualism in the face of technology as an opportunity to fill an expanding gap for multilingual employees, with one student stating, for example, "I think with more technology and translation apps, knowing a language makes you stand out more on a resume."

Discussion

This study advances recent student-centered scholarship on world language enrollment by empirically demonstrating how undergraduate enrollment decisions emerge at the intersection of career narratives, institutional structures, and students' interpretations of English dominance and translation technologies. While prior research has consistently shown that students often express positive attitudes toward language learning even as enrollments decline (Murphy et al., 2022; Van Gorp et al., 2024), our findings clarify why this attitudinal support so often fails to translate into enrollment, particularly in institutional contexts that prioritize career readiness while implicitly framing language study as optional, supplemental, or externally oriented.

Enrollment Decisions as Career-Rationalized, Not Motivationally Deficient

One of the clearest contributions of this study is its confirmation and refinement of a central claim emerging across recent literature: declining enrollments should not be interpreted as evidence of diminished student motivation. Consistent with findings by Diao and Liu (2021), Murphy et al. (2022), and Rutemeyer (2024), both the quantitative and qualitative data show that students generally view language learning as valuable, enriching, and intellectually meaningful. However, our analysis suggests that enrollment decisions are increasingly based in career-focused rationales rather than driven by other motivations.

Specifically, perceptions of career relevance and access to information emerged as the strongest predictors of enrollment in both general world language courses and the Languages and Cultures for Professions (LCP) program. This aligns with Murphy and Martin's (2023) and Van Gorp et al.'s (2024) findings that students evaluate language study through its perceived alignment with degree progress and professional utility. Importantly, our qualitative data complicate this alignment by showing that career orientation can function as both a motivating and amotivating force. Students who anticipate international or multilingual workplaces often describe language learning as essential, while those who anticipate domestic careers frequently describe language study as unnecessary, despite expressing interest or ethical commitment to linguistic diversity.

This paradox helps explain an enduring pattern identified but not fully theorized in prior work: students may value language learning in the abstract, but abandon it when it appears misaligned with institutional and labor-market expectations. Rather than a lack of motivation, enrollment decline appears rooted in institutionally reinforced narratives about what "counts" as career-relevant knowledge. This finding also helps contextualize recent concerns raised by Ushioda and Dörnyei (2017) and Lanvers et al. (2021) regarding motivation for learning languages other than English in Anglophone contexts. Our findings suggest that students have largely internalized broader social

narratives that position English as the default language of professional mobility, consequently evaluating additional language study through a cost-benefit framework tied to specific career outcomes. Importantly, however, students did not simply adopt the perspective that English alone is adequate. Instead, many simultaneously acknowledged the value of multilingualism, intercultural competence, and linguistic diversity while questioning whether these competencies would be recognized or rewarded within their anticipated career paths. This distinction suggests that declining enrollments may be driven less by monolingual attitudes than by uncertainty about the institutional and labor-market value assigned to multilingual expertise.

Institutional Structures and the Visibility of Language Pathways

Our findings also reinforce and extend research highlighting institutional barriers as decisive factors in enrollment decisions. The strong predictive power of access to enrollment information confirms findings by D'Amico and Sterling (2023), Murphy and Martin (2023), and Cinaglia (2023), who document how opaque requirements, advising gaps, and fragmented curricular structures discourage sustained language study. In our study, students repeatedly described uncertainty about course sequencing, program structures, and relevance to their majors (particularly for non-humanities students) as reasons for not enrolling.

What this study adds is evidence that information access constitutes a structural gatekeeping mechanism rather than merely a logistical issue. Even students who express interest in language learning and acknowledge its long-term value may disengage when pathways are unclear or when language programs appear marginal to core degree planning. This finding is especially significant given that access to information predicted enrollment in the LCP program as strongly as career relevance itself, suggesting that professionalized language programs are not self-evidently legible to students without targeted institutional framing.

English, Technology, and the Myth of Obsolescence

Contrary to common assumptions within both public discourse and institutional decision-making, English dominance and translation technologies did not emerge as primary deterrents to enrollment. This finding aligns with earlier research suggesting that students often use machine translation as a supportive or strategic tool within language learning, rather than as a straightforward substitute for developing linguistic competence (Niño, 2009). More recent classroom-based studies further show that, under guided conditions, advanced learners may appropriate neural machine translation tools in ways that support revision, reflection, and skill development rather than bypassing language learning altogether (Polakova & Klimova, 2023). However, this study provides a more nuanced account of how students interpret these technologies in relation to formal language study.

Quantitatively, positive beliefs about translation technologies did not predict enrollment in the LCP program and, in some cases, were associated with greater willingness to enroll in general world language courses. Qualitatively, students frequently expressed skepticism about translation software's ability to support spoken interaction or culturally embedded communication. Notably, many students distinguished between their own evaluation of language skills and what they believed employers might value, expressing concern that institutions and workplaces, not students, were more likely to undervalue multilingual expertise in the face of translation technologies and English as a global lingua franca.

These findings challenge deficit narratives that position technology or English as rendering language education obsolete. Instead, they suggest a disconnect between students' nuanced

understandings of language, institutions' messaging about career readiness, and perceived employer expectations.

Implications for Language Programs and Institutional Practice

Taken together, these findings have clear implications for language programs seeking to address enrollment decline. First, efforts to frame language learning solely in terms of personal enrichment or generalized global competence may be insufficient in institutional contexts where students are required to justify coursework through narrowly construed career outcomes. Programs may need to articulate more explicitly how language study contributes to professional capacities such as collaboration, ethical engagement, interpersonal communication, and adaptability (capacities that students already value but struggle to connect to formal credentials). In other words, programs may be facing a communication challenge rather than a motivation challenge. Echoing work on the challenges of language education in anglophone contexts by Martin and Lomperis (2002) and Simonsen (2022), our results suggest that students appear to seek clearer evidence that language study translates into tangible professional competencies and opportunities. At issue may be not whether language programs provide career-relevant skills, but if students can recognize and articulate those skills within institutional environments that increasingly prioritize workforce preparation and return on investment.

Second, the results highlight the importance of institutional coherence and visibility. Improving advising structures, making language pathways legible across majors, and integrating language study into degree maps may have as much impact on enrollment as curricular reform. The success of career-oriented programs like LCP depends not only on content but on sustained, visible institutional support that positions language expertise as integral and not simply supplemental.

Finally, the findings suggest that language programs should resist reinforcing the idea that language study belongs "elsewhere"—abroad, in international careers, or outside domestic professional life. Students in this study repeatedly cited increasing linguistic diversity in the United States as a motivation for language learning. Programs that foreground domestic multilingual realities may be especially well positioned to align students' values with enrollment behavior.

Implications for Research and Future Directions

Methodologically, this study demonstrates the value of examining enrollment decisions as dynamic and relational rather than static reflections of attitude. By including both enrollers and non-enrollers and combining quantitative modeling with qualitative analysis, the study captures tensions and contradictions that remain invisible in single-method designs. At the same time, the present study grouped current language-course enrollers and former enrollers into a single category of students with language-course experience. As a result, the analysis cannot distinguish between factors associated with initial enrollment and those associated with persistence or continued participation over time. Future research could examine current enrollers, former enrollers, and non-enrollers as separate populations to understand how motivations, perceptions, and enrollment trajectories evolve across different stages of language-study participation. Future research would benefit from longitudinal approaches that track how students' perceptions of career relevance, English dominance, and technologies evolve over time, particularly as generative AI continues to shape language learning and teaching. An additional implication emerging from these findings is that students appear to perceive employers as not valuing language study as part of employability or career preparation; however, it remains an open empirical question whether this perception reflects actual employer expectations or

a broader misalignment in how career relevance is communicated. More research is needed to examine the accuracy and sources of this belief across institutional and labor-market contexts.

The study's single-institution context and limited demographic detail constrain generalizability, but its findings resonate strongly with patterns identified across recent multi-institutional research. As language programs face continued pressure in higher education, sustained attention to student-centered, institutionally grounded explanations of enrollment behavior remains critical not only for program survival, but for the future of linguistically and culturally responsive education.

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Appendix

Survey

Why (not) learn language?

Start of Block: Screening Questions

Screening 1 Are you currently enrolled in an undergraduate degree program at Iowa State University?
- o Yes (1)
- o No (2)

Screening 2 Are you age 18 or older?
- o Yes (1)
- o No (2)

End of Block: Screening Questions

Start of Block: Consent

Consent **INFORMED CONSENT**
Title of Study: Beyond English as a Lingua Franca: Language Education for a Globalized Professional Workforce
Investigators: Dr. Lindsay Preseau and Dr. Luana Lamberti
Invitation to be Part of a Research Study: You are invited to participate in a research study. This page has information to help you decide whether or not you wish to participate—please review it carefully. Research studies include only people who choose to take part—your participation is completely voluntary and you can stop at any time. Please ask the project staff any questions you have about the study or about this form before deciding to participate.
Purpose of the Study: The purpose of this study is to understand the motivations and attitudes that underlie students' decision to study or not study language at Iowa State University. Eligibility to Participate: You are eligible to participate in this study if you are a student enrolled in an undergraduate degree program at Iowa and you are 18 or older.
Description of Study Procedures: If you agree to participate, you will be asked to take a short survey consisting of multiple choice and short-answer questions.
Expected Time or Duration of Participation: The survey will take approximately 10-15 minutes to complete.
Risks or Discomforts: While participating in this study, we do not anticipate that you will experience any risks or discomforts.

Benefits to You and to Others: The information gained in this study will benefit society by contributing to a better understanding of why students are interested in studying language and the barriers they face to doing so. This will help us develop better curricula, courses, and materials for language students.
Compensation: The first 100 participants will be compensated for participating in this study in the form of a $10 Amazon gift card. You do not have to answer all survey questions to receive the gift card. You will need to provide your email to receive payment. Please know that payments may be subject to tax withholding requirements, which vary depending upon whether you are a legal resident of the U.S. or another country. If required, taxes will be withheld from the payment you receive.
Your Rights as a Research Participant: Participating in this study is completely voluntary. You may choose not to take part in the study or to stop participating at any time, for any reason, without penalty or negative consequences. You can skip any questions that you do not wish to answer. If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office of Research Ethics, Iowa State University, Ames, Iowa, 50010.

Confidentiality: To protect your confidentiality when results of the study are reported, no potentially identifying information will be requested, and any potentially identifying information that you disclose will be permanently removed from the data prior to analysis.

Questions: If you have questions about this study, please contact [PI].
- o By clicking here, you are agreeing to participate in this study. Make sure you understand what the study involves before you agree. If you have questions about the study after you agree to participate, you can contact the research team using the information provided above. (1)

End of Block: Consent

Start of Block: Demographics

Demographic 1 Have you ever been or are you currently enrolled in a language course at Iowa State University?
- o Yes (1)
- o No (2)

Demographic 2 In what languages have you taken or are you currently taking courses at ISU?
- ☐ ASL (1)
- ☐ Arabic (2)
- ☐ Chinese (3)

- ☐ French (4)
- ☐ German (5)
- ☐ Latin (6)
- ☐ Portuguese (7)
- ☐ Russian (8)
- ☐ Spanish (9)
- ☐ Other (please list) (10) _____
- ☐ None (11)

Demographic 3 Are you a major or minor in any of the following World Language and Culture programs?

- o Chinese minor (1)
- o French minor (2)
- o French major (3)
- o German minor (4)
- o German major (5)
- o Classical Studies minor (6)
- o Classical Studies major (7)
- o Middle Eastern Studies minor (8)
- o Russian Studies minor (9)
- o Spanish minor (10)
- o Spanish major (11)
- o None of the Above (12)

Demographic 4 Are you completing a secondary major or a minor in the Languages and Cultures and Professions program (LCP)?

- o Yes (1)
- o No (2)
- o Not Sure (3)

End of Block: Demographics

Start of Block: Likert Scale

Likert 1 Please rate your level of agreement with each of the following statements on a 7-point scale, where 1 means "strongly disagree" and 7 means "strongly agree."

	Strongly disagree 1 2 3 4 5 6 7 Strongly agree
Learning a language is important for my future career. (L1)	
Learning a language is just as important for STEM students as for humanities students. (L2)	
Learning a language is just as important as it was before translation programs such as google translate. (L3)	
You must understand another language to understand the culture of the people who speak it. (L4)	
In the future, most people will only need English for their careers. (L5)	
If I wanted to take language courses at ISU, I would know where to find information about what courses are available and what level I should enroll in. (L6)	

End of Block: Likert Scale

Start of Block: Semantic Differentiation

Semantic 1 (S1) Learning a language is...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Boring	○	○	○	○	○	○	○	Fun
Pointless	○	○	○	○	○	○	○	Useful
Difficult	○	○	○	○	○	○	○	Easy

Semantic 2 (S2) Language translation software is…

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Inaccurate	○	○	○	○	○	○	○	Accurate

Difficult to use	○	○	○	○	○	○	○	Easy to use
Easy to detect	○	○	○	○	○	○	○	Difficult to detect

Semantic 3 (S3) Iowa State University's language course and program offerings are... (leave blank if unsure)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Boring	○	○	○	○	○	○	○	Fun
Confusing	○	○	○	○	○	○	○	Clear
Challenging	○	○	○	○	○	○	○	Easy

End of Block: Semantic Differentiation

Start of Block: Short Answer 1

Short Answer 1 What factors influenced your decision to study language (or not study language) at Iowa State University?

_____

_____

Short Answer 2 Where have you heard about Iowa State University's language programs? (For example: at orientation, posters on campus, from my advisor, on social media…)

_____

_____

Short Answer 3 Do you think language learning is becoming more or less important for career preparation? Why?

Short Answer 4 What would make you more likely to enroll in language courses at ISU?

End of Block: Short Answer 1