

# Worcester Polytechnic Institute

An Interactive Qualifying Project

## Promoting services and support for International Students at WPI



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# WPI

# Interactive Qualifying Project

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by  
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# WPI

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*This report represents work of one or more WPI undergraduate students submitted to the faculty as evidence of a degree requirement. WPI routinely publishes these reports on its web site without editorial or peer review.*

## **ABSTRACT**

The goal of this project was to investigate the services and support at WPI for international students and assist WPI faculty in developing an effective strategy to encourage students to use these resources. We identified and evaluated resources for international students and offered recommendations on how to improve and promote these services and support at WPI to international students. The project resulted in finding about WPI's international students' needs and a final set of recommendations to improve international students' experience.

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## **EXECUTIVE SUMMARY**

Over the years, international students have contributed to the United States not only financially but also culturally. Despite of their contributions, their problems remained unsolved. These challenges can be categorized as 'Academic' and 'Non-academic' problems and they affect students' academic success and well-being. International students often underestimate the academic preparedness in language proficiency to be successful in their studies in the United States.

Worcester Polytechnic Institute (WPI) is a place that 1,009 international undergraduate and graduate students called home in 2020. With the high demand for quality services and support for international students, the goals of this project were to investigate the services and support at WPI for international students and assist WPI faculty in developing an effective strategy to encourage international students to use the available resources. We identified and evaluated services and support for international students in the United States and at Worcester Polytechnic Institute (WPI) and offered recommendations on how to improve and promote these services to international students.

### **Methodology**

To achieve our goal, we investigated the challenges that international students face in the United States and how other universities helped students to encounter those challenges by conducting secondary research. The collected information helped us identify what features of services and support for international students could be applied at WPI.

The team then utilized a survey questionnaire and interviews to find out from current and former students the services and support that are in demand and how to improve the current ones.

The information we collected helped us make recommendations for WPI and HUA department to promote their English language courses and other services. The survey was distributed to international students at WPI through emails and social media channels. Our team then conducted interviews with two English language program professors, current international students, and alumni to learn more about WPI's international students' needs. The interviews were conducted through Zoom and email.

Once the interviews were completed, we analyzed the interview transcript, compared with our survey responses, and categorized the information we collected according to features that we identified. The analysis helped us to draw conclusions and provide a set of recommendations for improving services and support at WPI.

## **Findings**

From reviewing published studies, articles and information on universities' websites, we found that services and support for international students typically included English language program, academic services, social events, employment resources to meet the needs of international students.

From the data we collected from our survey and interviews, international students who are confident about their English skills due to their education in English will not choose to take English language courses as it will limit them from taking courses that they are interested in. Most of WPI's international students reported that they have a prior education in English. Students who only had English as a subject in school are more likely to sign up for English language courses at WPI. These are possible reasons for the decrease in enrolments for the English language courses.

Other finding is that international students at WPI indicated the necessity for additional academic services and support especially toward planning for classes and what courses to take for their future career. We also found that except the English language program, WPI shared many programs with other universities in the United States or similar events with similar topics. These programs satisfied students at a certain area but still need more improvements to meet the demands of international students at WPI. These findings helped us suggest changes and improvement for future resources at WPI.

## **Recommendations**

Our recommendations were made for the English language support offered in the Humanities and Arts Department, and International House. We also offer suggestions for future study that may be taken up as an IQP project:

- Promote English courses digitally.
- Update the information frequently.
- New naming strategy and course description
- Reschedule the courses.
- Collaboration with other language program or classes
- Past students' stories
- Influence students' parents.
- Welcome Video

We end this report with suggestions for future IQP projects such as investigating international students' mental health issues, career development services for international students, several programs for future development. With these recommendations, we hope

that WPI's international students will have a better experience at WPI and help WPI attract more students to the school and its courses.

## CHAPTER 1: INTRODUCTION

The United States has the largest population of international students, who choose it as a place for them to broaden their knowledge and life experience to become global citizens. According to Open Doors report (2020), a comprehensive information resource on international students and scholars studying or teaching at higher education institutions in the United States, 1,075,496 international students studied in the U.S in the academic year 2019 – 2020. International students coming to the United States not only contributed \$45 billion to the U.S. economy in 2018, according to the U.S. Department of Commerce but also are responsible for bringing a multi-cultural, international perspectives into America.

However, despite their important contributions to American life and economy, international students in the United States have encountered many problems that prevent them from academic success. Although there are many issues and obstacles that international students share with their American peers, there are also numerous challenges that are unique to the international student experience. Grayson (2008) found 74% of international students reported academic difficulties in studying for classes, taking exams, and explaining their thoughts to professors, which is 9% greater than domestic students. Previous research found all students are affected by academic concerns, but international students are more concerned about academic issues than domestic students (Rodgers & Tennison, 2009). Many students have to handle life-changing events such as cultural differences and living in a different language environment while also trying to adapt to the academic adjustment in an American universities, such as understanding requirements and the class structure. These are some of the factors that impact international students' experience in both learning American culture and achieving good grades. Other problems may include language barriers, and changes in academic systems, teaching methods, and student-teacher relationships.

Although international students' contributions to their institute are substantial in terms of diversity, revenue, investment, and research, the existing campus services are not designed to help international students. Most international students are concerned about a perceived lack of effort in assessing student satisfaction with institutional services (Findlay, 2020). While they typically require much of the same support as domestic students, they usually face additional challenges, notably academic and cultural adjustment, proficiency in the English language, and complex immigration regulations. More recently, in a study exploring international students' views regarding campus support services, Alberts and Hazen (2013), Bista & Foster (2016), Gebhard (2010) and Jameson & Loper (2017) suggest altering student services to make provision for what international students demand in terms of academic help, social interactions, and cultural acceptance. In Redden's(2014) study on university administrators and professors' perceptions of international students, they identified and compared some of best student support practices in need. Students named financial support, career services, academic advising, and campus-life activities as highly important. The study also suggest that international students often underestimate the amount of academic preparation needed for success and overestimate the potential for employment. Shen and Herr

(2004) suggest that educators and administrators should provide needed services directly to this population of the academy considering their geographic and cultural needs to adjust to American society.

As students often underestimate the amount of academic preparation to attend college in the United States, international students often misjudge their English language ability. A significant proportion of international students consider English as their second or non-native language. Angelova & Riatzantseva(1999), two doctoral candidates in Foreign and Second Language Education and Cognitive Science at the State University of New York at Buffalo in 1999, mentioned in their research paper that although most students received a score on standardized English proficiency examination that meets the requirement of their applied schools, they still face some difficulties in understanding the lectures, expressing ideas, and writing for class. In their research, they found that despite the fact that four participants either had a degree in English or received a high score in English standardized tests, the participants showed that they had a difficult time writing or expressing themselves. Students come to the United States from different backgrounds and cultures where not only the language and the tradition are different but also in the ways people expressed their opinion, talking manners, and writing styles. Angelova & Riatzantseva concluded in their research that students with English as their second language faced some difficulties understanding, writing, and expressing themselves in English although they received a high score in the language tests. More recent research by Wongtrirat (2010) showed the relationship between the English language proficiency and academic achievement of international students in U.S. institutions of higher education. They found that the English language proficiency test score only has a small predictive ability on academic achievement of international students. Next, we discuss international students at WPI and our project topic.

Worcester Polytechnic Institute (WPI) is a place that 1,009 international undergraduate and graduate students called home in 2020. As can be seen from Figure 1, due to COVID-19 and other governmental policies in the past few years, the number of international enrollments has **decreased** slightly while the total enrollment has increased. However, WPI is still an attractive destination for international students all around the world. International students choose WPI as a place to get an excellent academic foundation, valuable professional development, and meaningful personal relationships.

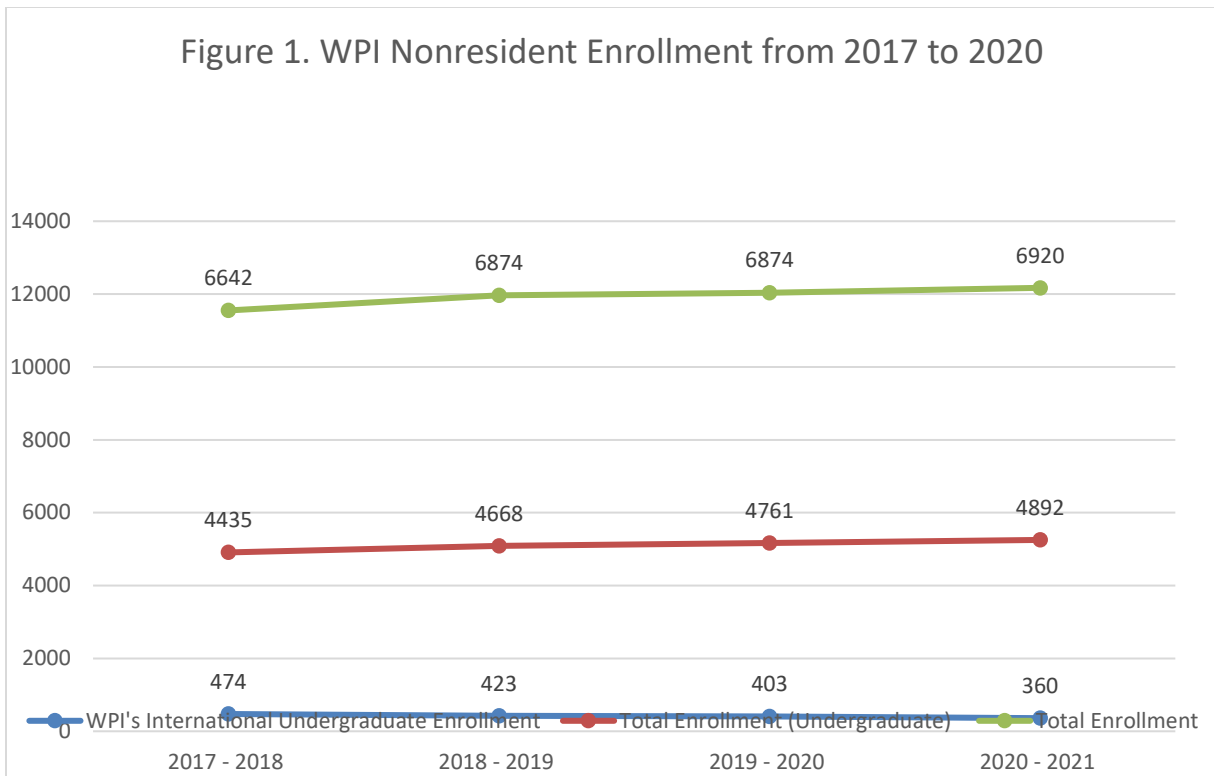


Figure 1 WPI non-resident enrollment records from 2017 to 2020 (Worcester Polytechnic Institute's Common Datasets, 2021)

However, international students at WPI for whom English is not their first language also face the same problems as with any other students coming to the United States. Communicating in a different language and socializing in a diverse culture are always the challenges international students face which may prevent some students from achieving academic success and a well-balanced personal life.

In 2013, to serve the English language needs of international non-native English speakers, the Modern Languages Division in the Humanities and Arts (HUA) Department began to offer language-based courses. Starting from 2019, students have had the option of taking seven integrated skills in English (ISE) courses to satisfy the HUA requirement. The curriculum offers three levels of writing instruction, and specialized courses in reading, listening, and speaking. However, the information about these courses do not reach in-coming first year students early enough to help them make informed decisions about course options. Most students are not aware about this academic support provided by the HUA department. Besides the lack of awareness, students report that they have difficulties in finding non-academic support that they need to help them address specific issues such as mental health issues, home sickness, adjusting to the school environment and struggles in using services that are not designed for international students.

We recognize the importance of US universities addressing the needs of international students, especially at WPI. On that account, universities can provide more appropriate services

and support for students to achieve overall satisfaction for students in both academic study and school involvement. By doing so, the universities not only improve the support services to address international issues but also make the university attractive so that internationals will choose them from among ever-increasing options. Previous research found that students who are satisfied with their experience will recommend the courses or their school for fellow students, friends, or potential applicants (Ammigan,2019).

The goals of this project were to investigate the services and support at WPI for international students and assist WPI faculty in developing an effective strategy to encourage international students to use the available resources. To achieve these goals, we developed three project objectives:

1. To identify services and support other universities provide international students.
2. To evaluate current services and support offered at WPI for international students.
3. To provide recommendations for how WPI could promote the support and services available for international students.

To understand the general problems that international students face in the United States we reviewed the literature on international students' problems in the United States in two aspects: academic and non-academic. With this knowledge, we explored what resources universities in the US offer their students to ensure a healthy educational environment and a strong development for their international students. To learn more about specific issues related to WPI's international students, we talked to HUA faculty who work directly with international students at WPI. We learned that there are low enrollments in the English language (ISE) courses for international students and the resources for international students are under-utilized.

To learn about the international students' experience accessing online resources, we conducted a Think-Aloud exercise to determine the time and the efficiency of the current website for the international students. Our user experience on the accessibility and user satisfaction was used to help us develop a strategy to improve existing resources. The description and findings on user accessibility and satisfaction can be found in Appendix H.

In the next chapter, we identify some major issues that international students in the United States are facing and provide some background research on the needs of international students.



## CHAPTER 2: BACKGROUND

In this chapter we briefly summarize the impact of international students in the United States and highlight common challenges faced by international students, such as academic and non-academic challenges. In addition, we discuss the English language courses at Worcester Polytechnic Institute (WPI) and include a brief description of other colleges that provide services and support for international students' needs.

### 2.1. Impact of International Students in the United States

The value of international students on U.S college campuses cannot be underestimated. Though many universities can pinpoint the impact of enrolling international students, many of them fail to grasp the influence and diversity international students bring to colleges. This component is essential to education because it enriches the school environment intellectually and culturally (Martirosyan, 2018). The United States is the top chosen country for international students, where its high-quality education, value in the labor market and job opportunities are attractive to non-domestics' students. According to Open Doors report (2020), 1,075,496 international students studied in the U.S in the academic year 2019 – 2020. More than a million students come to the United States each year and contributed almost \$45 billion to the U.S. economy in 2018 through spending on retail, dining and transportation. These students typically pay higher tuition than domestic students, making many American universities dependent on the revenue. Figure 2 illustrates the population growth of international students from 2003 to 2019 in the United States.

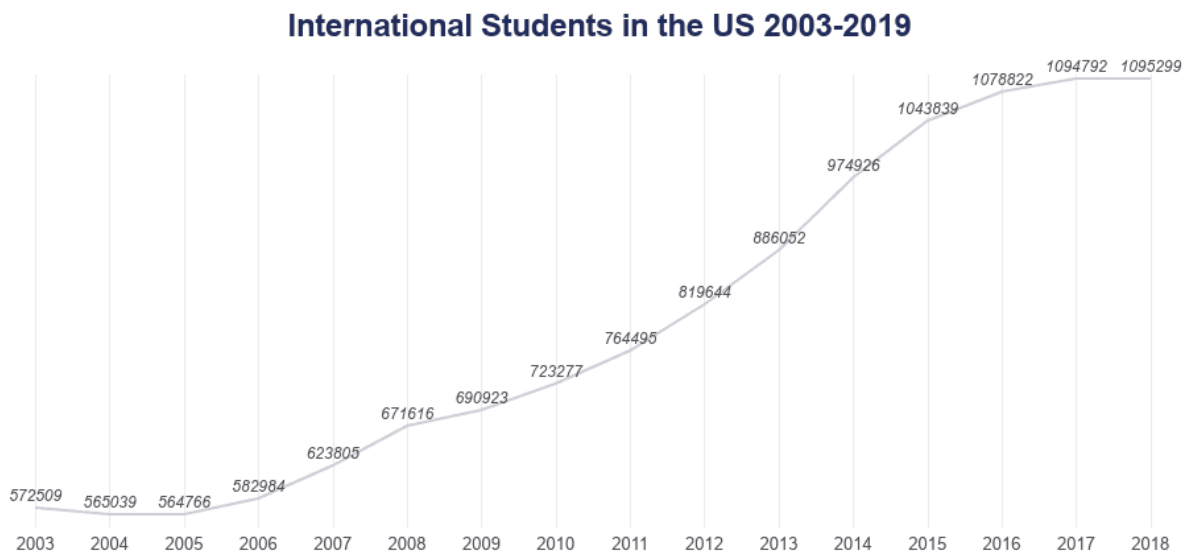
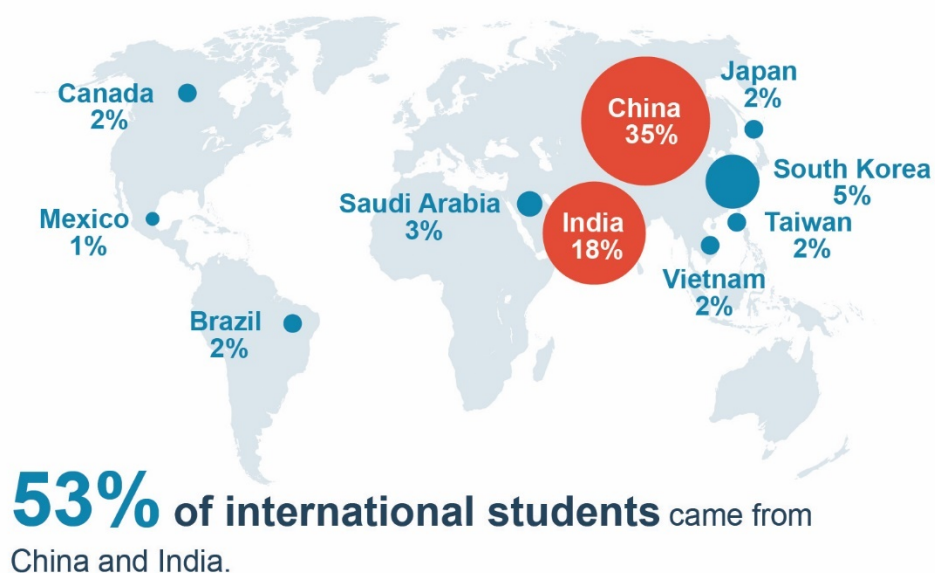


Figure 2. International students and share of total enrolment (International Student Enrolment Statistics 2021)

According to the Open Doors report (2020), students from China, India, South Korea make up 55% of international students in the United States. (Figure 3)

#### TOP 10 PLACES OF ORIGIN FOR INTERNATIONAL STUDENTS



Source: The *Open Doors Report on International Educational Exchange* is a comprehensive information resource on international students in the United States and U.S. students studying abroad. It is sponsored by the U.S. Department of State with funding provided by the U.S. Government and is published by IIE. For more information, visit [www.opendoorsdata.org](http://www.opendoorsdata.org).

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Figure 3. Top Places of Origin for International Students (Open Doors Reports, 2020)

International students do not only contribute to economic growth of the United States, but also increase cultural diversity in classrooms. Culture diversity goes beyond classrooms, in our communities, ethnicity, race, religious groups, etc. With the wide culture diversity on-campus, universities can offer both domestic and international students a richer experience in learning outcomes and more engaged in classes (Gurim et al, 2002). According to U.S. News & World Report, “diversity prepares students for work in a global society. By experiencing diversity in college, you are laying the groundwork to be comfortable working and interacting with a variety of individuals of all nationalities.”

## 2.2. International Students’ Challenges

Despite their positive impacts to the United States, international students face numerous challenges when coming to a new country. The challenges range from adjusting to new places, culture, language to discrimination due to their nationalities, among others. We categorized these challenges into academic and non-academic challenges. Good academic results are often the pursuit of international students. However, due to the language barriers

and differences in culture, international students face communication problems trying to express themselves in a United States classrooms' environment.

### Academic Challenges

#### 2.2.1. Communication

Communication is one of the most important skills that everyone should put their effort towards, particularly for those who are not native English speakers especially when without effective communication skills, things can get difficult not just in terms of socializing but also one's professional/career opportunities. Communications skills is the act of giving and receiving different kinds of information and is perhaps the most important of all life skills to obtain success in any field of studies.

International students must learn English as a communication skill to better adapt to the new environment and getting involved with new people. There are 3 types of communication: verbal, written, and social communication (Iksan et al., 2012). Reading, writing, listening, and speaking carefully are the most important communication skills for students. International students need to master all those three types of communication in order to be successful in any career in the United States and any English-speaking country. Communication skills not only affect students but also teachers in an academic environment where teachers have a positive expectation on those students with higher willingness to communicate and negative one toward those who do not. Studies also showed that teachers' attitude, involvement, immediacy and teaching style influence participation and the willingness to communicate (Zarrunabadi, 2014). Students with a higher eagerness to communicate with others reported to have more friends, more satisfied with school experience and higher academic performance compared to those with lower will – who are seen as negative in the view of their peers (Palos & Petrovici, 2014). Their research also found that the teacher's use of regulatory and referential communication skills explains a significant amount of the variance in the academic performance, the students' interaction involvement with their teachers providing a further explanation for the performance achieved by students. Suggest in Frymier's research (2005), interaction can increase the motivation to study and satisfaction with the classroom experiences. As a university student who is getting ready to start on their chosen career, the students should take the opportunity in any activities that developed communication skills in a wider and complete aspect so that communication skills can be fully developed, especially international students. Students need to put in effort to develop their communication skills to be able to succeed in their chosen profession (Ihmeideh, et al. 2010).

#### 2.2.2. Communicating in a Foreign Language

Communicating in a foreign language makes it challenging, especially taking accounts on the competency of understanding the principles of communication (Terui, 2012). Language barriers and cultural difference are the direct reason of the problem that non-native speakers face difficulties in communicating in a foreign language. East Asian international students, in their home countries, seldom speak up on their own or ask questions during lectures out of fear

for challenging the authority of the teacher or losing face in front of their classmates if the answer is wrong or the question is something obvious (Hing, 2013). Lee suggested that the difference in classroom cultures may affect international students in general and East Asian students in particular learning styles and interactions in an English-as-medium-of-instruction school. Students from a country speaking a language other than English tends to focus on learning grammar, reading, and writing in English rather than communicating in English to pass English standardized tests to arrive to the U.S. Tang & Tian (2015) stated in their research that students' attitude that grammar is the most important factor when learning English may limit their development in communicating in English.

International students often show a low willingness to communicate when they are free to do so and students with high will in that matter are more likely to use their second language (in this situation, English) in actual communication. This factor is called WTC or the "Willingness to Communicate", defined as "the probability of speaking when free to do so" (MacIntyre, 2007). WTC impact the psychological adjustments, academic performance, and professional success. Students who have high WTC level show better psychological adjustment, learn more English and better relationship with domestic students. This element is affected by multiple factors. Non-native English speakers tend to associate with people speaking the same language as communicating in English with a domestic student may cause anxiety as they do not have enough oral English practice. International students coming to the United States with insufficient knowledge on the culture of American or have an excessively optimistic view often face a shock in communication. Before coming to the U.S, the major goal of students is to pass the English tests with good grades and have a good transcript to submit. The examination and admission process often overlook the cultural adaptability factor in many applications and focus solely on the linguistic knowledge of the students. This leads to the fact that students focus more on getting a good grade than studying about multicultural communication.

### 2.2.3. International Students' Class Participation

By admitting international students, universities in the United States aim for a cross-cultural learning environment. Some studies show that students who benefit more from interpersonal interaction tend to have a better learning experience. However, this relationship tends to be different depending on the country where the students come from, and cross-cultural communication requires an effective interaction between international students and their American peers or the student and teacher. For an international student, the educational contact of the American university is "very different" or "different" from that of their country of origin and that the break is very strong for specific Asian students. In the research of Yildirim (2017), international students tend to prefer answering questions with short-answer than longer-answer or those questions that request for reclarifications. Non-native English speakers tend to need more time than Americans to organize their thoughts. Most international students are worried about their ability to understand and answer the question correctly, and afraid of being laughed at for their English skills. In the observations conducted (Yildirim, 2017) on the differences related to the questions asked by the students, international students never asked questions that will raise a discussion among the class or contribute to an ongoing discussion.

Multiple research studies emphasized the importance of the cultural background related to the reason of the reticence of international students. While teachers expect students to participate in the class by raising a critical question, international students often expect that the answers to the questions and explanations should come from the professor to confirm and educate students on the discussing matters. Non-native English speakers also think that they should focus on understanding information from the lecture rather than introducing confusing subjects into problem that they are still trying to understand (Wang, 2004). In Hing (2013) study, students in Asian countries were not encouraged or allowed to interrupt or cause a distraction during the lecture times, which can be counted as one of the reasons why students choose not to participate like American students. Cold calling in the classroom is an action that teachers call students to answer a posed questions whether the students raised hand or not, is also something that internationals are not familiar or associated with unpleasant feelings of international students. Cold calling in Asian countries often associated with oral or learn-by-heart tests that students often get graded about not knowing the discussing matter. This might problems for students who do not want to participate or be remembered by professors to avoid participating in a “losing face” situation. They might find these as threatening to their reputation and mental health. Not answering or joining in the discussion does not mean international students do not have anything to say, this is more of the thought organizing problems and they might require a little more time to speak up. Tompson and Tompson (1996) suggested that to improve the class participation of international students, American universities should identify the expectations and questions that can fit the needs of both resident and non-resident students, forming smaller group for discussion, using more of visual aid lectures, and discussing the expectations for participation at the beginning of the class in order to create a non-threatening environment.

#### 2.2.4. Speaking English with a non-standard accent

Edwards (1999), a scholar in social and personality psychology at Oregon State University stated in their “Refining Our Understanding of Language Attitudes” paper that accent is the manner of pronunciation and contained information about a person identity. Individual with a non-standard accent can be viewed as an outsider member of the society that they are trying to immerse in and are likely to experience bias views from native and negative evaluations. Yang (2012) researched on the impact of having an accent on employment, where the result emphasized that having an accent affecting perceptions of one’s verbal ability. While accent have different outcomes based on the gender, those people with the accent from a non-native English-speaking country are likely to get hired less than candidates with the background of English despite of their accent. Having a dialect can influence certain aspects of student academic experiences, as students, especially international students, feel like they have an additional barrier to overcome (Dunstan & Jaeger, 2015). Changing to a more “standard” sounding speech might be one difficult to step through and many students when entering an American education environment choose to do so. But this change can also be much than what it sounds like for those students whom the accent/ dialect is an identity marker of who they are, where they come from battling with the burden of blending in a society that they are now stepping in.

### 2.2.5. Student Relationship with Domestic Students

According to a literature review by Colleen Ward from Victoria University of Wellington (2001), most international students desire the interaction with domestic peers when they go to foreign schools. However, most investigations describe domestic students have less interests in initiating contact with international students. There is also evidence indicating that few educators change their teaching approach and plans for international students. Non-English speaker students usually afraid to ask questions in the classes because they do not want to ask questions that are “wasting” time. Therefore, the attitude for most international students is remaining silent. Although there is a large-scale of in-coming international students and they expect interaction with domestic students, international students themselves are hardly achieving this goal without the help from schools. Peer-pairing programs in many schools entail collaboration of international students and domestic students, so that there are large chances that they can build friendships and have international understanding. Intercultural group works also help to reduce stereotypes. Many students are willing to cooperate cross-nationally after they had such experience. There are a lot of studies about friendship between domestic students and international students. Most of them concluded that many international students do not have domestic friends. The study in the U.S also concluded the same situation that nearly 40% international students do not have American friends (Jaschik, 2012).

### Non-Academic Challenges

In addition to academic challenges, international students also face other challenges, such as cultural shock and social barriers, financial constraints, and mental health.

### 2.2.6. Culture shock and social barriers

The term “cultural shock” was introduced by Kalervo Oberg an anthropologist in 1950’s. According to Oberg, “culture shock” is the defined as culture shock resulted from the loss of well-known cultural signs and symbols, causing individuals to experience anxiety, frustration, and helplessness.” (Befus, 1988; Searle & Ward, 1990) When international students arrive in the United States, they do have to adjust to the American culture which is now their new home. Although American culture may be very familiar at first, students will eventually feel frustrated by the differences. With the new changes in dialect, campus food and lifestyle, international student's gradual accept this transformation.

Due to language limitations, reticence, and cultural shock many international students are less likely to join other organizations besides their own ethnic groups. They tend to be quiet in their classes compared to domestic students who are often expressive.

### 2.2.7. Financial Constraints

Some international students come to study abroad under tremendous financial pressure. There are quite a number of international students from families with average income. Take the largest international student group, Chinese students, as an example.

According to the *Report on Chinese Students' Overseas Study*, 42% of students who want to study abroad consider themselves from ordinary families (New Oriental Education, 2021). Another report from EIC Education (2019) indicates that the family annual income of intending international students is 110k-200k (23.45%), 210k-300k (16.43%) and 310k-400k (9.81%). 62.4% of the families had an annual income of 500k or less, and 8.78% had an annual income of 510k or more. Chinese international students are paying full price of their educations and the exchange rate between RMB and US dollar is about 6.8:1. They are not eligible for the normal set of low-interest student loans in the U.S. Under financial pressure, the international students have been decreased. In 2020, with 35% international students, Chinese are the largest international student group, followed by 18% India students, 5% South Korea students, and 3% Saudi Arabia students. Indian international students decreased 4% and South Korean students decreased 5% compared with 2019. International students from Saudi Arabia have the largest decrease of 17% fewer students because of the reduced financial assistance for its students to study abroad (International Student Enrolment Statistics, 2021).

### 2.2.8. Mental Health

Mental health is a serious problem for university students. According to John Elflein(2020), a research expert covering health and health care, about 37% university students suffer depression, and 18% of them suffer a severe depression. The depression rate is generally higher for international students. In a survey from Yale University in 2013, 45% Chinese students who took the survey in Yale University reported they had symptoms of depression (Han et al., 2012). The conclusion for this study suggests that school and students should make effort on improving the relationship between students and their advisors.

### **2.3. International Students at Worcester Polytechnic Institute**

Worcester Polytechnic Institute (WPI) is a private research university located in Worcester, Massachusetts, focusing on the instruction and research of technical arts and applied sciences. Founded in 1865 as one of the United States' first engineering and technology universities, WPI now has 14 departments and over 50 undergraduate and graduate degree programs in science, engineering, technology, social sciences, arts, with Bachelor's, Master's, and PhD degrees.

WPI welcomes many international students. As a school with a rich history of receiving international students, WPI strives to make the experience of international students better. According to WPI common data set, international students' enrolment has decreased from 474 to 360 students in 2020 -2021. The likely causes of this decline in international enrolment is due to the COVID-19 pandemic, which issued global travel bans in many countries.

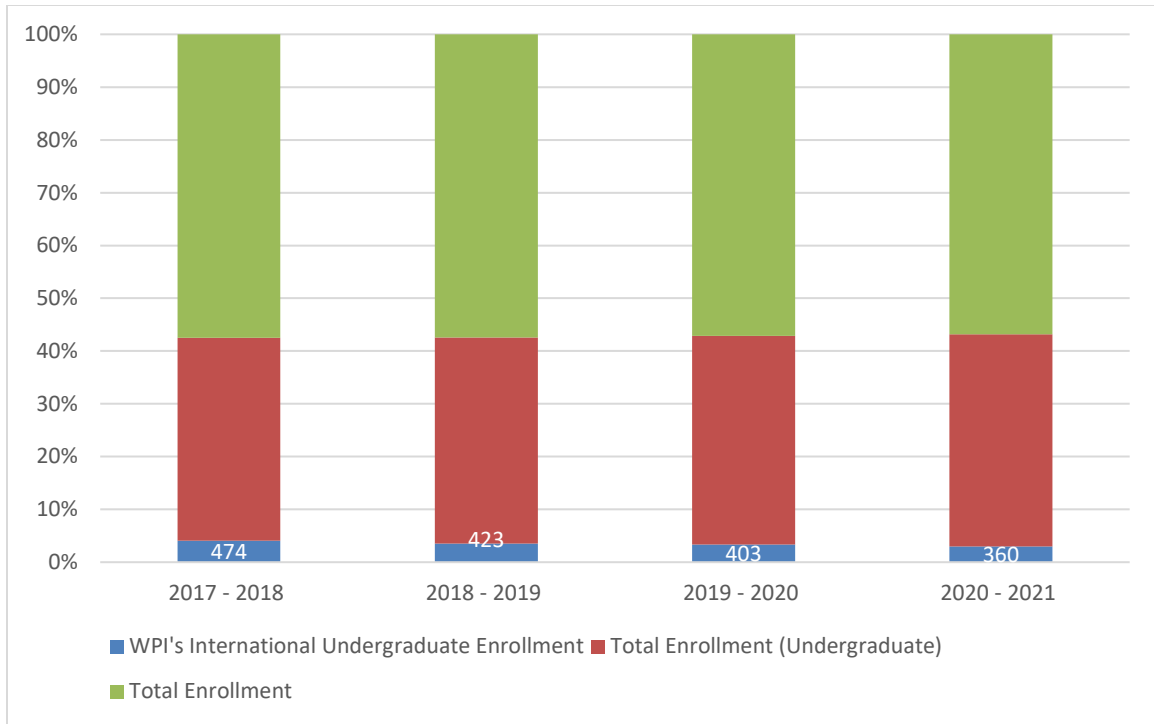


Figure 4. WPI Enrolment Chart (Worcester Polytechnic Institute, 2021)

The number of WPI international students' enrolment has decreased from 2017- 2021 according to Figure 4. To address the decreased number of international students' enrolment, WPI can look for better ways to attract international students to promote cultural diversity.

WPI has a variety of campus organizations that are culture in nature which many international students join. Figure 5 is a list of all the cultural organizations at WPI.



- African Percussion & Dance Ensemble (APDE) [africa-drum@wpi.edu](mailto:africa-drum@wpi.edu)
- African Student Association (ASA)
- Armenian Student Association (ASA) [armenianstudentsassociation@wpi.edu](mailto:armenianstudentsassociation@wpi.edu)
- Black Student Union (BSU) [wpibsu@wpi.edu](mailto:wpibsu@wpi.edu)
- Brazilian Student Association (BRASA) [brasaexecs@wpi.edu](mailto:brasaexecs@wpi.edu)
- Burmese Student Association [burmesestudents@wpi.edu](mailto:burmesestudents@wpi.edu)
- Chinese Student Association (CSA) (Undergraduate Students) [csa@wpi.edu](mailto:csa@wpi.edu)
- Chinese Student and Scholars Association (CSSA) (Graduate Students) [cssa@wpi.edu](mailto:cssa@wpi.edu)
- French Circle (Cercle Français) [frenchcircle@wpi.edu](mailto:frenchcircle@wpi.edu)
- German Club (Deutschklub) [deutsch@wpi.edu](mailto:deutsch@wpi.edu)
- Hellenic Student Association (HSA) [wpihsa@wpi.edu](mailto:wpihsa@wpi.edu)
- Hillel [hillel-officers@wpi.edu](mailto:hillel-officers@wpi.edu)
- Hispanic Caribbean Student Association (HCSA) [hcsa@wpi.edu](mailto:hcsa@wpi.edu)
- Iranian Student Association (ISAWPI) [aghasemi@wpi.edu](mailto:aghasemi@wpi.edu)
- Japanese Culture Club (JCC) [jclub-exec@wpi.edu](mailto:jclub-exec@wpi.edu)
- Korean Student Association (KSA) [ksa-off@wpi.edu](mailto:ksa-off@wpi.edu)
- Muslim Student Association (MSA) [msaofficers@wpi.edu](mailto:msaofficers@wpi.edu)
- Russian-Speaking Students and Scholars Association (RSSA) [rssa@wpi.edu](mailto:rssa@wpi.edu)
- South Asian Student Association (SASA) [sasa-exec@wpi.edu](mailto:sasa-exec@wpi.edu)
- Turkish Student Association (TSA) [turkish@wpi.edu](mailto:turkish@wpi.edu)
- Vietnamese Student Association (VSA) [vsaofficers@wpi.edu](mailto:vsaofficers@wpi.edu)

Figure 5 Cultural Students Organization (WPI International Student Handbook 2020-2021)

2.3.1. English Language courses.

WPI offers several languages for students to study. These include Arabic, Chinese, German, Spanish, and English. Students have the option to fulfil their Humanities and Arts (HUA) requirements in a language or complete a minor in these languages (except English). The English language courses are designed for non-native English speakers who want to perfect their fluency and confidence in English communication. Non-native English speakers are usually encouraged during international students' orientation to take any of the English language courses to raise their proficiency. Faculty in this area do not only provide academic support for students they also provide social support as well. For example, International House staff, holds evening conversations with students focusing on improving English skills and activities. These sessions are structured to cultivate and educate international students to understand American culture. Descriptions of the English language courses can be found in Appendix A.

**Chapter Summary**

This chapter explains the challenges faced by international students in the United States. We identified the academic and non-academic issues they encounter. We describe the WPI international student population and the English language courses for non-native speakers. As providing excellent support and services for international students are detrimental for their academic success and life in the United States, we aim to investigate how well WPI meets the needs of our students. In the next chapter, we describe our project objectives, data gathering methods and discuss the information we collected to meet our project goals.

## CHAPTER 3: METHODOLOGY

### Goal Statement and Objectives

The goals of this project were to investigate the services and support at WPI for international students and assist WPI faculty in developing an effective strategy to encourage international students to use the available resources. To achieve these goals, we developed three project objectives:

1. To identify services and support other universities provide international students.
2. To evaluate current services and support offered at WPI for international students.
3. To provide recommendations for how WPI could promote the support and services available for international students.

To accomplish these objectives and goals, we utilized surveys and interview methods to gather related information. In this chapter, we discuss the reason and how we used these methods to collect the data to accomplish the three listed objectives. First, we discuss about how we achieved our first objective by doing a desktop research on four different universities. We then evaluated the current services and support at WPI for international students by surveying and interviewing current students and alumni. Lastly, the results from our surveys and interviews were assessed to provide recommendations to WPI's departments to improve and promote services and support to international students.

#### **Objective 1: Identify services and support other universities provide international students.**

In order to meet our first objective, we did literature reviews on the problems that international students face in the United States. We also conducted a secondary research on what other universities provide their international students to find the resources that can potentially solve the challenges we found in our literature reviews.

##### 1.1 International students' challenges

We categorized the challenges that international students are facing into 'Academic' and 'Non-academic.' For academic problems, we focused specifically on the language or communication problems that non-native English-speaking students face at US schools. As our project targets English services and support, we identify that those academic problems are the main focus of our project. However, we also see the importance of the ability to communicate in English to solve some of the social problems that students are facing.

## 1.2 Other university programs

We wanted to learn more about what other schools have done to help their international students to adapt in the United States. We decided on four universities in the United States with some similarities with WPI or with higher number of international students to see what program they offer that attract students in choosing their schools and how they advertised those programs. Our schools list involves Clark University, Carnegie Mellon University, Indiana University Bloomington, and Boston University. The descriptions of these universities can be found in Appendix L. We chose Clark University and Boston University because they are universities in the Massachusetts area. Clark University shared a similar population of international students with WPI. While for Carnegie Mellon University and Boston University, these schools have a high rate in the percentage of international students, so we can learn their strategies in attracting and influencing international students. Lastly for University of Indiana Bloomington, the school shares the same percentage of international students and similar ranking with WPI according to the US News. To learn how these universities support their students, we reviewed their websites and other published reports these universities have about their international students' resources.

## 1.3 Identify the features of services and support that needed by international students.

We determined the features of services and support that fit the need of international students and international applicants that WPI can apply to solve our international students' problems. Our literature reviews focused on the problem that international students are facing, and these data is used to help us identify which features that WPI could offer to international students. The detailed of the features for programs for international students at WPI can be found in Chapter 4, section 4.1.

### **Objective 2: Evaluate Current Support and Services at WPI**

To successfully evaluate if the current support and services at WPI meet the needs of international students, our team distributed surveys and conducted interviews with WPI's international students and alumni.

We also wanted to build an understanding of the population of international students at WPI and identified the available resources for the international students' needs, learned from our focus students to determine how well the English language courses promotion in the past has been working. More specifically, we wanted to understand the background of the students that have taken the courses and the effectiveness of the current academic support programs for those students. We gathered data from published reports on the common datasets of WPI. We formed a focus group to help us learn how well the promotion of resources in the past has been working. Focus group is used to aid us in this research as they are WPI's international students who have experience in using WPI services and support, who are clear about the current services and how these services work. We investigated international students' perspective on how students decide which courses to take to satisfy the HUA requirement.

From a questionnaire survey, we also want to learn from students their perspective on what factors contribute to their academic success and if the available resources for students are satisfactory to them.

## 2.1 Questionnaire

In order to conduct an effective survey, we determine the sample of survey, design, and distribution method. Only then we will distribute the questionnaire accordingly and collect and analyze the results. The sample of survey participants is international students at Worcester Polytechnic Institute and our aim is to have a total of fifty students' responses to obtain a statistically significant sample size. Our survey selection targeted on international students at WPI and does not discriminate based on age, major, physical location, or any other factors aside from their status as an international student at WPI.

Before distribution of our survey, we piloted the questionnaire and sent it to five different international students. Our main reason in doing so is to confirm that our survey is easy to understand, and our questions are clear to the audiences. A problem occurred in our initial survey was solved by enabling the option for responders to go back and view their previous answers, changed in wording, and made the questions to appear along with its follow-up question at the same time as the final version of the questionnaire.

A copy of our questions can be found in Appendix B.

We designed the questionnaire using WPI Qualtrics to our students and distributed it using email lists along with social media networks like Discord and Reddit. We also seek out the help of our advisors, the International House, and multicultural students' organizations at WPI to distribute the survey to the public and get the attention of international students needed for responses.

## 2.2 Interviews

We recruited interviewees by reaching out to students that have taken at least one of seven English language courses via email and asking our advisors to propose a list of potential candidates for interviews. We also asked for a follow up in the survey if the students are willing to participate in the interviews. Our plan was to get a group of five to seven students and our advisors. We choose this size of interviews as this size should be sufficient to get the responses we need, and we are concerned about conducting interviews during the summer and the number of students willing to do interviews is limited to their physical locations and motivations.

When interviewing students, our goal is to get a deeper understanding in the reason for choosing which subject to count as depth in the Humanities and Arts Requirement. We also want their suggestion on improvement to make the courses more attractive to international students. We then analyze this data to identify a pattern in the intention of international students on taking a HUA course to fulfill their requirements and their reason on why the

courses are low in enrollment. The student interviews could help us validate how our English language courses helped them in other courses or success at WPI.

Our main reason in choosing interviewing as a method of research is because we want to learn students' personal experiences regarding learning and using ISE courses and services. The students that we choose to interview are those with the experience within ISE classrooms and have a clear perspective about the classes and how to help us target more students' enrollment. Their observations while taking the classes would prove valuable as it could help us to discover more detail that we might not be able to catch while analyzing the survey data or would explain why the enrollment decreased.

Each interview was conducted through Zoom and based on a general script. With the verbal consent of the interviewees, the video was recorded for further analysis. If the interviewees cannot attend to a live interview, we gave them the options to answer the questions list in their own time. Most of the interviewees chose to do a document interview, instead of a live one due to multiple reasons. Each recording and answers sent back to us was carefully analyzed multiple times by each member of our team, and we compared notes to identify details that some of us might miss. Our interview questions can be found in Appendix D, E.

**Objective 3: Provide recommendations for how WPI could promote the support and services available for international students.**

Our final objective was to deliver to our advisors a recommendation on a strategy for the future promotion of English language courses and attracting more students to our services. After collecting the survey data and statistical data, we analyzed our results to determine ways to improve the current services and support. Our surveys were created to identify student interest, the experience on current services and support that are in demand of the international population. After analyzing our data and identifying these areas, we gave recommendations for the English language program, the International House and WPI for future development, which can be found in Chapter 5.

**Limitations**

For our survey, the first limitation is that this project took place in the summer when many students are not available and may not check their emails. The second concern would be the trouble distributing the survey to students who are currently outside of the United States as they might not have access to the survey due to limited access to the internet. The last and most important concern is that it would be difficult to manage and guarantee responses. We did offer a \$25 Amazon gift card as a raffle prize for participants.

There are also some limitations in doing interviews as methods of research. Conducting an interview is quite time-consuming, and we are limited by the duration of our project. The

other weakness that we also take in consideration is that participants might have the stress to provide answers that follow the researcher bias. We will be careful not to introduce the researcher bias into each interview section and in the analysis. In order to do so, we will not collect any identifying information of students take part in our survey will be keep as anonymous. It is crucial for the interviewees to remain transparent in their opinion and provide a true feedback about their perspective without worry about the consequence related to the result. A record of our interviews or transcript will help us prevent any bias or mislead in the information shared among members which we can compare our hypotheses with the responses of participants.

### **Ethical Considerations**

We are cautious of ethical consideration about our study. Therefore, we will not collect any identifying information of students take part in our survey will be keep as anonymous. Each participant in the survey or interview will be given a consent preamble to aware them of the intension of the study and their right on their own privacy. All the participants information was protected.

The findings and analysis from the data we collected from the surveys, and interviews will be discussed in the next chapter. We collected a diverse number of responses and in-depth findings on understanding international students' problems, and challenges and their perspectives on the available resources. The information from websites and published reports helped us identify what features of good programming for international students can be created for WPI's international students. Overall, we wanted to understand the students' perspective on how to improve our services and support for them to achieve academic and professional success in the United States.

## CHAPTER 4: FINDINGS

This chapter elaborates on the results from the students' surveys and interviews as well as the secondary and website research. It begins with the description of the programs that we determined that would fit the needs of international students at WPI. We then discussed our findings or analysis about our research conducted on the other schools for our first objective. Next, we listed our finding for our second objects: evaluate the current services and support at WPI for international students.

### **Objective 1: Features of services and support for the needs of international students.**

To achieve our first objective of identifying the features of the programs in the needs of international students, we did literature reviews on what problems international students are facing in studying in the United States. We determined that the ideal programs for international students touch base on these problems: English language programs, academic support and student success initiatives, social and cultural events and professional development workshops.

#### 1.1. The Language Program

English language programs were the most prevalent programs offered at many campuses. Every institute has some types of programs to enhance their students' English proficiency including English classes, language exchange program, American culture and conversation, English conversation hour (ECH), practical English tutorials, and accent reduction sessions.

At **Carnegie Mellon University**, it is optional for students to take part in the English Language and Culture Support Program which students will pay fee for the programs. To work as a Teaching Assistant on campus at CMU, international students are required to take their ITA certificates. ITA certificates are the language assessment that is required for all non-native English-speaking students who want to work as teaching assistants (TAs) at Carnegie Mellon, in accordance with CMU policy and PA law. To earn the certificates, students have to take part in a test that assesses a candidate's ability to communicate with learners/ people outside their field. Students at CMU have the option to choose between having a 1-on-1 session with one of the department faculty in a specific topic. The language program at CMU also provided students with material to study on their own paces. Their program is not for credits and are not courses that offered in classroom environment.

**University of Indiana Bloomington** required Indiana Academic English Test for all undergraduates who are not native speaker. The test takes four hours, including oral interview, multiple choice for listening and reading skills, composition, and integrated skill task. There are three results for the test. Many international students are able to begin their academic studies without taking any language courses. There are some students need to take one or a few language courses called Second Language Studies for English support in certain areas. Those

courses, ELIP, are 8 weeks and they are at the same time with regular academic studies. Undergraduate English Language Improvement Courses (ELIP) worth 2/3 of other regular courses. There are a few students need to take an Intensive English Program. The goal of the program is to support the development of academic English skills for non-native English speakers. There is a placement test before students are assigned to different level of instruction, and instructors for each course will also carefully make adjustment for students. IEP not only contributes to language skills for international students, but also helps the community to accept global citizens. IEP requires full time study on the English language and the cost for an international student who take the IEP is \$5667. Besides academic English courses, University of Indiana Bloomington also offers an initiative called Conversation Partners where an international student is paired with a native English speaker to practice language skills. This program also serves domestic students who want to practice their foreign language skills, where students got expose to a native speaker of that foreign language to improve their communication skills.

**Clark University's** American Language & Culture Institute (ALCI) offer two program options for undergraduate students: International Pathway Program and English for Academic Success. The International Pathway Program is a one semester program for students with high-level English skills. Students are required to take this course before they begin their area of study. Students receive two academic units for credit and take two English courses to supplement their learning. When students successfully complete this program, they can start their undergraduate degree. On the other hand, the English for Academic Success Program is for students who need more intensive English language skills. Students can be placed into one of the four levels of this program. Each level takes one semester to complete. Students can receive credits towards their degree completion. The ALCI offers free support services for students such as one-on-one tutoring, workshops, and skills sessions for students.

**Boston University** has customized Professional English Language courses for students. English courses for specific disciplines (e.g., engineering, business, law) are offered in addition to generic English courses available to students who want to improve their English language skills. (Martirosyan, 2018) The university's Center for English Language & Orientation Programs (CELOP) offers Intensive English program to undergraduate international students to strengthen their proficiency and University Preparation programs that introduce students to higher education studies. Student often combine one CELOP English course with one credit-bearing BU Metropolitan College (MET) course. Students do not receive credits for these courses towards their undergraduate studies. According to Boston university the CELOP program has over 40 years of proven success rate.

### 1.2. Academic and Student Success Support

According to Martirosyan, Bustamate and Saxon (2019) research on international services at top 20 schools (Figure 6) in the United States, most of the schools in the U.S. system offer a variety of academic support and student success support to international students including international students' orientation, new students' orientation, academic advising and



counselling, tutoring, workshops and webinars on U.S. academic life. The services are available to all students and not just international students.

**Table 1.** International student enrollment at top 20 institutions.

<b>University name</b>	<b>International student enrollment</b>
New York University	15,543
University of Southern California	13,340
Arizona State University - Tempe	12,751
Columbia University	12,740
University of Illinois–Urbana-Champaign	12,085
Northeastern University–Boston	11,702
University of California–Los Angeles	11,513
Purdue University	10,563
Boston University	8,455
University of Washington	8,259
Michigan State University	8,256
University of Texas–Dallas	8,145
Penn State University–University Park	8,084
University of Michigan–Ann Arbor	7,630
University of California–San Diego	7,556
University of California–Berkeley	7,313
Indiana University–Bloomington	7,159
Ohio State University–Columbus	7,117
Carnegie Mellon University	7,051
University of Minnesota–Twin Cities	7,037

Figure 6. International students’ enrollments at top twenty institutions. (Journal of International Students’ Studies, 2019)

### 1.3. International Resources Website

International Students’ Resources Websites are the place where students at the school and international applicants applied to the school looking for the information about the school they are interested at or got accepted to. The websites served as a cloud-based storage for all the data that can be helpful and accessible for international students to find a reasonable solution for the problem that they are facing. According to Martirosyan, Bustamate and Saxon

(2019), the top 20 schools in the United States according to the US News have user-friendly websites with detailed handbook, guides, FAQs including both academic related information but also non-academic details like housing, traveling, getting to know the community provided. Moreover, all top 20 schools' website included quick links to additional resources can be found through the international offices' websites to resources that offer to undergraduate students and higher-level education students. In some cases, links to specific resources of each group of students are helpful and easy to navigate for students. Some international offices even offered live chats, virtual tours, newsletter for international students as some additional features for the International Life.

We identified that a user-friendly website is one of the features that international students needed is the ability to access to relevant information. In the four universities that we chose to investigate, we analyzed their website to see what they have done for the website to create a user-friendly environment for international students to search for information related to four different topics: Language Program, Academic Support, Career Development and Extracurricular Activities.

We measured the time needed for a new user to find information on Carnegie Mellon University (CMU)'s website and found that on average a user will need 48 seconds to find the information that they need. It can be seen clearly in the layouts of CMU Foreign Students Resources website that they displayed the information according to the needs of international students interested in CMU and provided details not only for academic success but also non-academic information. The information displayed in the main page had an easy navigation to the resources that students need to get more insightful information and FAQs related to that topic. (Figure 7)

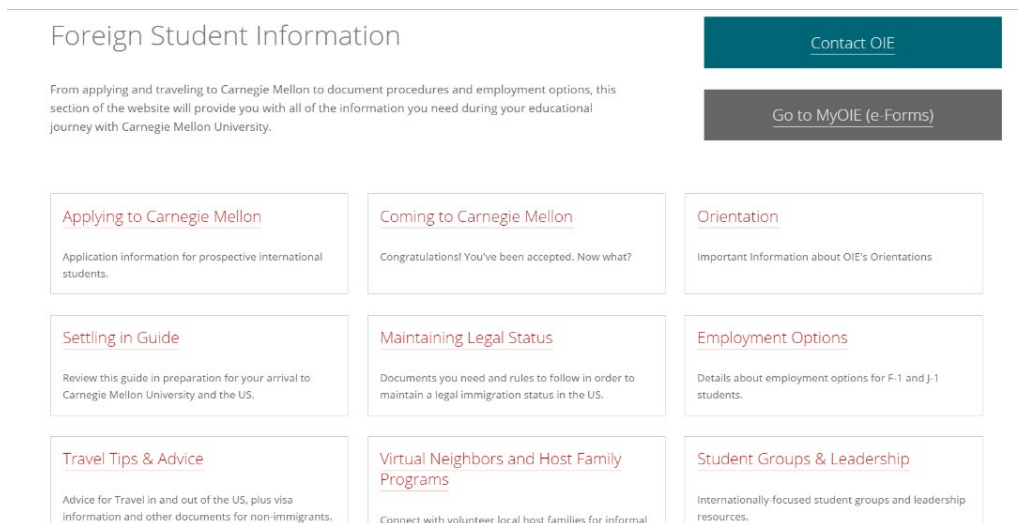


Figure 7 CMU's Foreign Students Resources Layout. (Carnegie Mellon University, 2021)

The average time a user spent on the Boston University website was 1 minute 10 seconds. In this website the information is displayed in form of section under the main bar

menu. The website has a different setting from the main website of Boston University. One interesting finding on their website is that they have news updates for international students and one welcoming video.

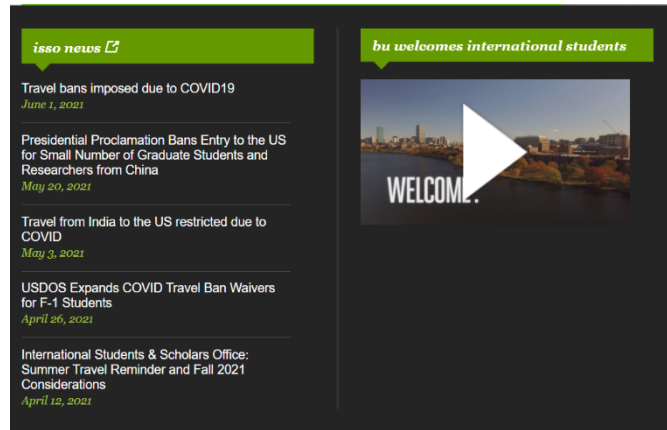


Figure 8 Boston University Website Footer (Boston University, 2021)

The international services website of University of Indiana Bloomington indicates most of the information international students need. There are four categories of students, including freshman students, graduate students, transfer students, and intercampus transfer students. Every student can identify themselves within one of four categories and follow the instructions by each category. The interesting program IU offers is International Student Ambassadors, so that visitors can connect with current students at IU.



Figure 9 IU's International Services Layout. (University of Indiana Bloomington, 2021)

On the Clark University International Center website, as shown in Figure 10, there is a welcome video, news and events updates, immigration, life in the U.S, international programs,

living essentials and other student support such as Center for counselling and personal growth etc.

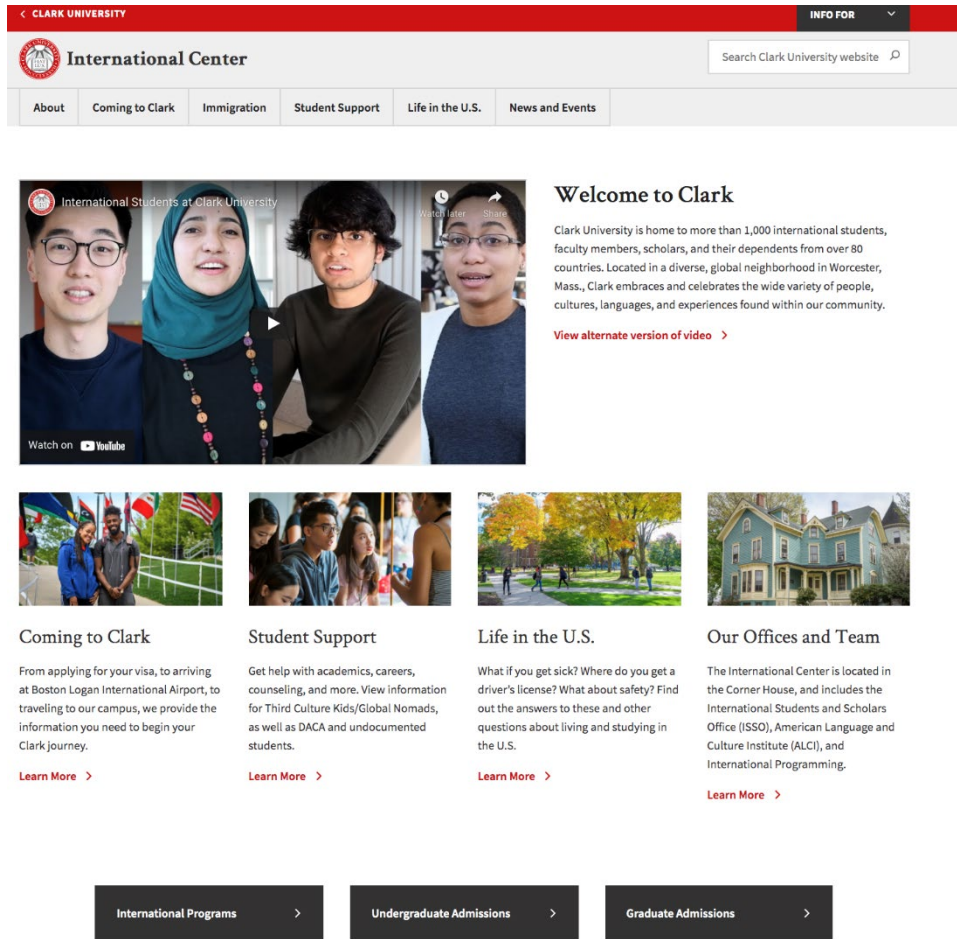


Figure 10. Clark University Language Program Website (Clark University, 2021)

Based on our research, Clark University provides number of programs for their international students. The International Center which is located in the Corner House, includes International Students and Scholars Office (ISSO), American Language and Culture Institute (ALCI) and International Programming.

## **Objective 2: Evaluate current services and support at WPI**

In this section, to evaluate the current services and support at WPI from the responses of faculty and students and the team observations, we collected 40 responses from our survey and interviewed 9 students and alumni.

Most universities in the United States of America have a designated administrative unit overseeing services offered for international students, commonly called Office of International

Students or in WPI's case, the International House. The information about the services toward international students is often displayed in the main page of the Office for International Student. Martirosyan, Bustamante and Saxon (2019) analysed the academic and social support services offered by 20 top institutes in the USA, which yielded six themes: English language programs, academic support and student success initiatives, targeted writing support, social and cultural events, professional development workshops and family member programs. We determined that the first three themes fall under the 'Academic' categories while the others are 'non-academic' help. WPI shares the same themes when it comes to the support and services for international students, whether it is academic support like our English language program (ISE courses), program for general students' success, The Writing Center, Tutoring Center, or 'non-academic' services for example the Career Development Center, The Visa Workshop from the International House, and some events in collaboration with Students Club celebrating cultural events.

### 2.1. The English Language Program

In 2013, to serve the English language needs of international non-native English speakers, the Modern Languages Division in the Humanities and Arts (HUA) Department began to offer language-based courses. Starting in 2019, students have the option of taking seven integrated skills in English (ISE) courses to satisfy the HUA requirement. The curriculum offers three levels of writing instruction, and specialized courses in reading, listening, and speaking.

However, the information about the English language program provided by the International House was not effective at giving students a sense of what language services WPI offered for students. A comprehensive research of what information about the English language program at WPI is accessible to the public is available in Appendix L, page 4.

In our survey, we asked WPI's international students if international students need English language support at WPI. As can be seen in the Figure 11 below, 62% of students chose Maybe as their answer. To explain for their decision, students said that it depends on the situation of that students. If students have received an education in English prior coming to WPI, this support might not be necessary. However, they still stated there is definite a need for this support that some might struggle to communicate in a new language. The 20% of responses chose "yes" shared the same reason as above. For those who chose "No" as their answers, elaborated their answers as they thought to get accepted to WPI, students are qualified enough in English or their fluency in English is good enough for them to study at WPI therefore no English language supports is needed.



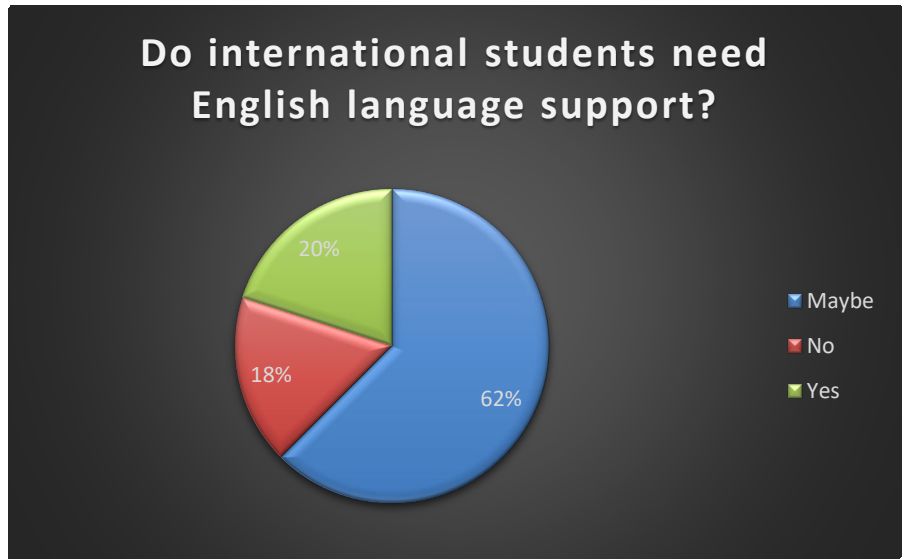


Figure 11. Pie chart of responses toward the need of international students for English language support.

To validate the responses of students on the aspect of background influences on their decision on taking an English language support courses, we collected the data on the demographic of international students at WPI’s high school experienced which can be seen in Figure 12.

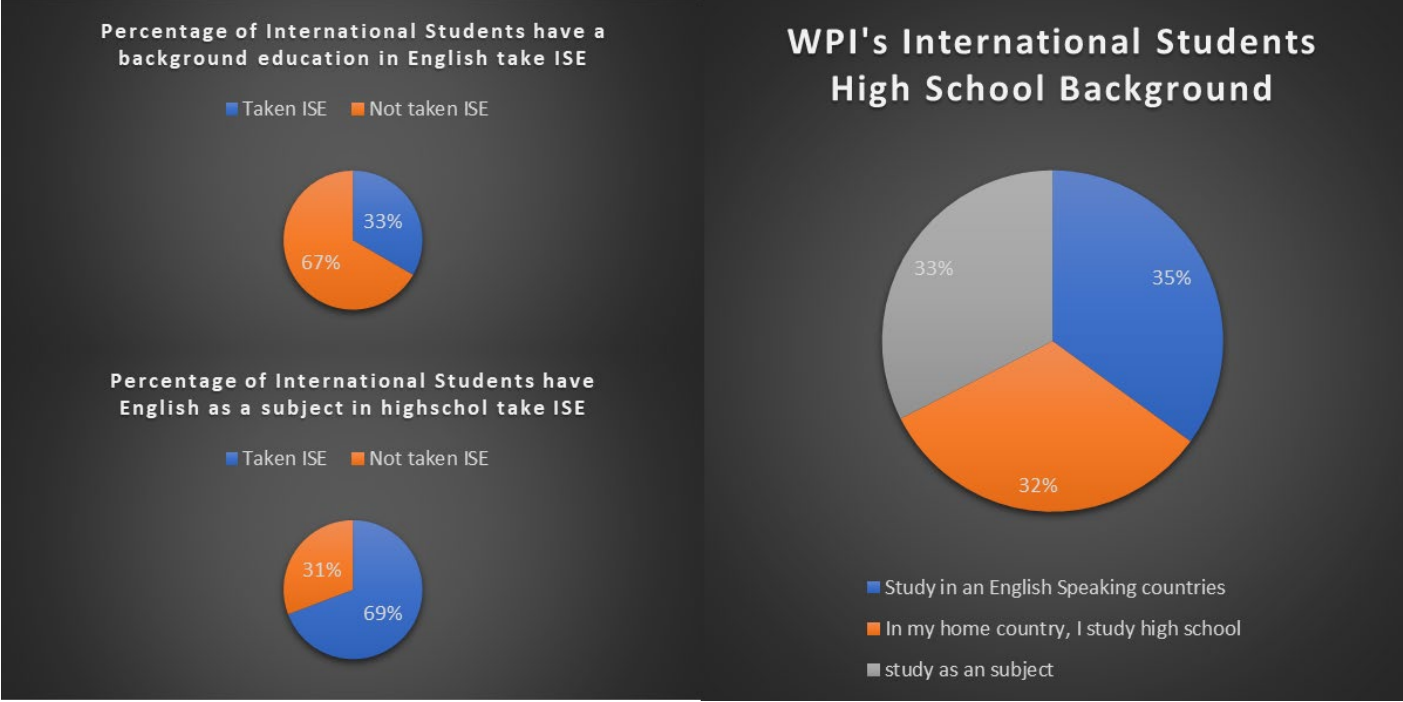


Figure 12. Chart of WPI’s International Student High School Background and the likeliness of taking an ISE course from different groups.

Seventy percent of sample population of International Students received an education in English prior coming to WPI. We investigated this population to see the likeliness in taking an English language course of those students that have a background in English speaking education compared to those who did not. Out of the sixty-eight percentage of students, who have background education in English, only 31% of them have taken at least one ISE course. In comparison, those students who had English as a subject only in high school have a higher percentage of taking ISE courses. In conclusion, we recognized that students who have not received a prior education in English show they are not confident in their skills which explains why they have a high chance of taking ISE courses. In contrast, students with background education in English show a higher level of confidence in their English skill which results in not registering for the course.

## 2.2. Academic Support and Student Success Support

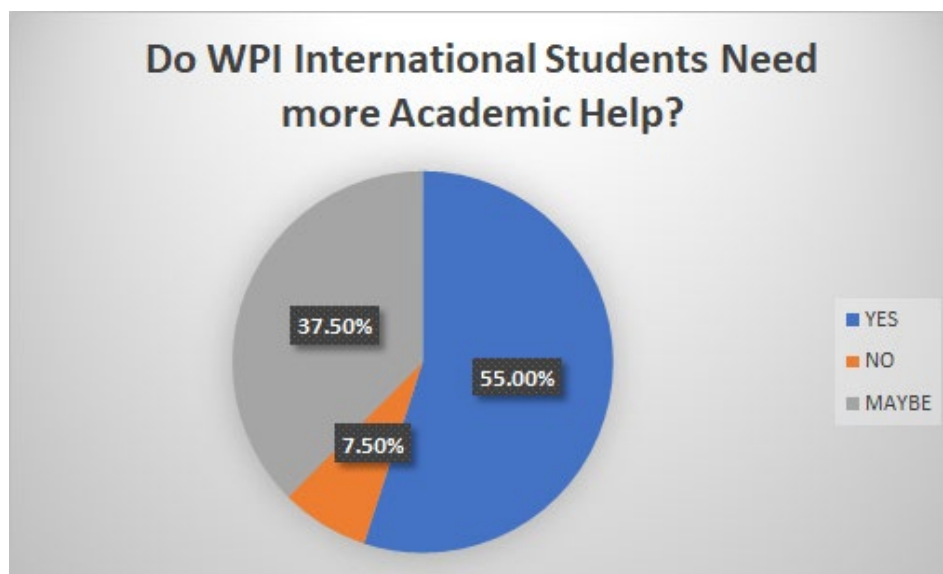


Figure 13. The percentage of the needs for academic support

55 percentage of the responses we got from international students indicated a certain need for academic support at WPI while 38 percentage showed some indecision in whether international students need additional help for academic success. Only 7.50% said that international students do not need help academically and specified that WPI already provide enough help already.

The 92 percentage who agree that additional academic help is needed to some extend all agree that the current services are helpful, however, international students might need some more help due to their culture and language difference. The most suggest service is academic advising for international students as they listed that they faced some difficulties picking classes for themselves as they might not know anyone to suggest or the content of the course to take. International students also said that they need advices on what course to take that can benefit them getting a career in their interested area of their major. The second

needed support is the help related to get familiar with the difference in teaching and academic styles at WPI with their high school or their countries' education styles and culture shock in general. Students expressed that that support are needed in their process of adapting to a new diverse culture like the United States of America.

Distinct from the students' response, two professors have different understandings on English language courses. Professors of ISE courses not only see them as teachers who "provide international students with the language training and support for the academic success at WPI", but also "see our role as helping them to navigate this culture of ours here in the United States so that they feel comfortable living here and can successfully integrate their lives here".

Many international students go to training institutions to learn English in order to take standardized English exams and get high scores. However, the language that is used in the life of studying abroad is different from the dialogues in the textbook. It has nothing to do with how good the standardized English test scores are. Language is a way to communicate with others, but in countries where English is not a native language, few students will deliberately exercise their academic English skills. Therefore, for studying abroad, communication is far more important than getting a higher score in the exam. The only way to overcome this obstacle is to listen more and speak more.

For many students who have just come to study abroad, the most challenging problem must be academic pressure. Even if some students have strong language ability in daily life, their professional writing skills are weak. Almost every international student studying abroad has experienced a lot of writing: essay, report, dissertation, and some in-class quizzes. Essay is one of the main assessment methods of American universities. The idea is to assess the ability of students to absorb information and output ideas. However, for international students who have just entered an American university, writing an essay is inevitably struggle. The problems encountered by each student are more individualized. Some of them do not use references correctly, some of them do not understand the topics correctly, and even some students do not know what academic writing is. Professor Boucher-Yip is worried that "some of them do not realize they need ISE courses".

To help international students, ISE courses at WPI offer cross-cultural studies to approach student's cultural confidence and help to create "a safe place where people can express their feelings". These are students' expectation for ISE courses and professor's goals.

### 2.3. Social & Cultural Events

We asked students what they missed about their countries and did WPI offer any assistance toward that aspect. Most students indicated that what they missed most were the traditional food of their hometown in their countries. Students recognized the efforts of the Dining Services at WPI on recreating the food of their countries, however, the food that they craved were traditional foods to only unique to their hometown and hard to find in the United States. Some students that the list of restaurants that the international house distributed to



students about the restaurants in Worcester were helpful for them to find a place to find the cuisine of their countries to help solve a part of their home sickness.

Students that arrived years before the pandemic also listed that WPI's International Students Council and the cultural clubs at WPI as the support for their social and cultural needs. Their services were showed as success as students said that with the events that ISC and clubs at WPI held, they felt closer to home.

#### 2.4. Professional Development

A career after college and even during school is the target of every student at WPI. However, this need for international students was not satisfied by any services at WPI. When we asked about any additional services that they wished WPI had, students said they wished for a support service for career finding specific for international students. Their reasons are "it's harder for international students to find an internship in the USA compared to domestic students, especially as an undergraduate" or "job on campus only offered for domestic students as they need work-study or federal funding". When asked if the International House or the Career Development Center (CDC) helped them in the process, they said those services unfortunately did not have the resources for that and students often have to find the offers themselves.

#### 2.5. International Resources Website

A detailed analysis about the user experience of WPI websites can be found at Appendix L including the measurement of time and how to conduct the section. On average, a user takes 4 minutes 56 seconds to find the information they need on WPI International House website, and a high level of frustration is indicated among users about their experience with the website. A more detailed explanation including figure data can be found at Appendix L.

We asked our interviewees: "Do you think the information that you need provided by the international House is easy enough to access and help you to find answer for your problem?" Five out of our 9 responses reported that the information on the website was not easy to find and after some experiences finding information online, they found that it is easier for them to reach out directly through email to the International House or walk-in hours for help rather than finding the information online. The other responders said they did not remember or never actually experienced the International House website as they found it is easier to get in-person help from the International House.

#### 2.6. Other findings

For those students that have taken ISE courses before, we realized a pattern in those have taken two or more courses. These students tend to take courses from the same professor they previously had for their first ISE classes. Other pattern is that students learned more about the information about the English language programs or other supports through verbal communications from their peers or teachers than the advertisement of the department or WPI

of the program. If one student that previously took ISE courses and enjoy the experience or pass the class easily, that person would introduce the classes for their peers.

Other finding is that students tend to take classes for HUA requirements based on their preference of what subjects will be interested and are afraid that taking English language course will prevent them from taking the courses that they were interested in. We also asked if time or the names of the courses are the reason why some students might not choose a course. Some agreed that the time the English courses take placed as early in the morning and they did not want to wake up at that time to take the course. Some said that the names of the courses sounded intensive and required a lot of works than other courses. Students also indicated that they at first do not actually know the courses and thought the English language program is similar with the classes that they took in the past to pass the English language proficiency tests.

### **Objective 3: Create a strategy to promote and improve the services and support for international students**

To create a strategy to promote and improve the services and support for international students, we compared the services of WPI to other schools that we analyzed to see what is unique about WPI, the area for improvement and what program that other schools offered that WPI can learn from.

#### 3.1. English Language Program

WPI's English Language courses are unique to WPI and international students. The courses can be counted for credits to fulfil the HUA requirements for the degree and students do not have to pay additional fee to enroll in the courses. Like most undergraduate courses at WPI, the English language courses take place during the regular 7-week terms, while in comparison with other school are year-long or semester-long which can prevent students from taking the courses that they like. WPI's English language courses give students a lot of flexibility to experience more courses and interact with more faculty members and have more options to try different courses. International students can succeed easily as the courses load is smaller and easier to focus. WPI's English Language courses also offer to WPI's international students a safe place for cultural exchange and supportive community for global development. Students are exposed to controversial topics where they are safe to express their feeling or thoughts on the matter and learn more about the topic and how to voice their opinion safely in public.

However, not all international students have an idea that WPI has this resource offers for its students. Marketing is one of the aspects that the HUA department need improvements on, to make the courses more accessible for international students at WPI.

From the students' perspective, the courses have two of the greatest teachers at WPI who are not only willing to help students with their courses work but also with personal matters and other classes problem. However, the name of the courses offered and the time when the courses took place are the obstacles that prevent students to register for the courses.

One of the reasons is that international students usually suffer from time zone differences as they tried to stay connected with their family in their home countries while studied in the United States. A study in the *“Journal of Adolescent Health”* found that college students have more on their hand to do and tend to stay up late or pulls all-nighter and as ISE courses often offer in the early in the morning from 8 am, college students tend not to choose these courses.

### *Other schools*

Unlike other schools where the courses are under International Studies or Undergraduate Studies Department, Carnegie Mellon University language program is under the student Academic Success Center. Different from WPI, the program cannot be counted for credits. Students have three options to improve their language skills: one on one consultation, ITA certificate program and self-pace option which all are free of charge. These services are not seamless and cannot help students to develop in a highly interactive, student-centered classroom environment in preparation for academic, business, and personal goals. However, Carnegie Mellon University does a good job on giving their students the description of the language programs they offered. A student outside of CMU can find the information clearly and understand their program without any additional help or reach out. This would be one main point that the program from WPI can take in account to promote their service to wider population of students.

Boston University, Center for English language & Orientation Programs (CELOP) has various options for student's needs. The three options for students are: Intensive English, Professional English, and University Preparation. This program can be in-person or remote. Students are able to gain intercultural competence, which is reflected in the learning outcomes. CELOP values, professional instructions, and standards globally.

University of Indiana Bloomington offered an initiative called Conversation Partners where an international student is paired with a native English speaker to practice language skills. This program also serves domestic students who want to practice their foreign language skills, where students got expose to a native speaker of that foreign language to improve their communication skills. This is a program that WPI can model by partnering up with other modern languages at WPI to initiative similar program.

Clark University ALCI offers various program options for students to meet their English language goals. The two-program options for undergraduate international students are International Pathway Program and English for Academic Success. These programs strive to improve student’s English proficiency. An interesting fact about these programs are students can connect with peer mentors within their major or from their native country to better their professional language. International students in the ALCI program are encouraged to share their experiences on Clark University student blogs and student spotlight.

### 3.2. Academic Support and Student Success Support

In this area, WPI and many universities that we analyzed shared the same various of support to international students. WPI's International House offered an international student orientation prior to the new student orientation as well as other service like advising and counseling, academic tips, workshops and webinars on U.S. academic life, tutoring, and supplemental instruction. WPI also offered Cultural Immersion & Orientation Program workshop on living in Worcester, manner and networking in the United States which are unique to WPI.

However, WPI's international students need additional help in planning the courses and preparing for their career. International students do not often seek out for help as in some of their countries, asking for help is considered bothering other people. WPI should do a better job in advertising these resources to students and international students or have employees focus on first-year international students advising.

### 3.3. Social & Cultural Events

At WPI, multicultural exchange and knowledge is promoted through our Global Program, global events, and cultural celebrations. International students at WPI shared their culture through cuisine, festivals, and traditional clothing. WPI also offers sightseeing trip to Boston or Wachusett mountain to give international students opportunities to visit places and learn more about the view, culture, and people. The events are unique to WPI but similar in scale and purposes with the four universities that we investigated.

## **Chapter summary**

In conclusion, we found that WPI has most of the facilities that could potentially satisfy the needs of international students; however, these services are not designed for international students and those needs are not fully resolved by those services and support. International students who knew about English language courses proved to believe these courses are enjoyable and helpful. However, personal perspective is the main reason students chose not to take the courses. Students tend to overestimate the amount of preparation for academic success and choose to take courses that fit their personal interests or schedule. International students at WPI in general demanded more help in academic advising and career development during and after college due to the fact that the resources at WPI were poorly marketed to international students and did not meet the needs that they demanded.

## CHAPTER 5: RECOMMENDATIONS

This chapter discusses recommendations and improvements for the future of the program for international students at WPI. We also provide recommendations for a follow-up study.

### Recommendation for the English Language Program

The following recommendations were selected because of the substantial amount of supporting evidence present in our data. International students at WPI that we surveyed acknowledged these issues, and often had similar perspectives. We believe these suggestions will be beneficial to WPI in designing and developing programs for international students.

1. Creation of a platform for the English Language Program information

A landing page or a directory for the English Language courses at WPI that can be easily accessed by students would be helpful to both incoming and current international students. This directory can serve as a place where students can get the information and the descriptions of the courses. Digitally marketing the courses on the International House website can raise the awareness of international students about the courses and influence them to find out more information about the courses and how they can benefit from them.

We suggest this directory to be part of International House website to make it easy to view by international students. The current International House website uses Drupal so only the head of the departments or a member with Drupal training can access to edit and change the website, therefore we suggest HUA department contacts and works with International House's staff on creating and maintaining the information of English Language Program update.

As WPI uses Drupal as their platform, there will be a lot of limits in what can faculty members do for their website. We also suggest creating an external website for English program information. WPI partners with Amazon Web Services (AWS) so students and faculty can receive additional benefits using their services to host a website (Figure 14). Using AWS enables creation of cloud-based servers and storage, and access to AWS training and course materials. If the HUA department decides to follow this path, we still suggest collaborating with the International House and have them provide link to the resource on their website.

## Benefits

- Faculty receive \$200 worth of credits per year
- Each year, Students receive either:
  - \$100 worth of credits per year (with credit card attached)
  - A single-use account with \$75 worth of credits (no credit card required, but account expires once credits are used)

Figure 14. Benefits of WPI's members using AWS services.

A user testing prototype link is embedded [here](#). This prototype is made with Adobe XD and is interactable which means users can actually test and try all the available features of this prototype.

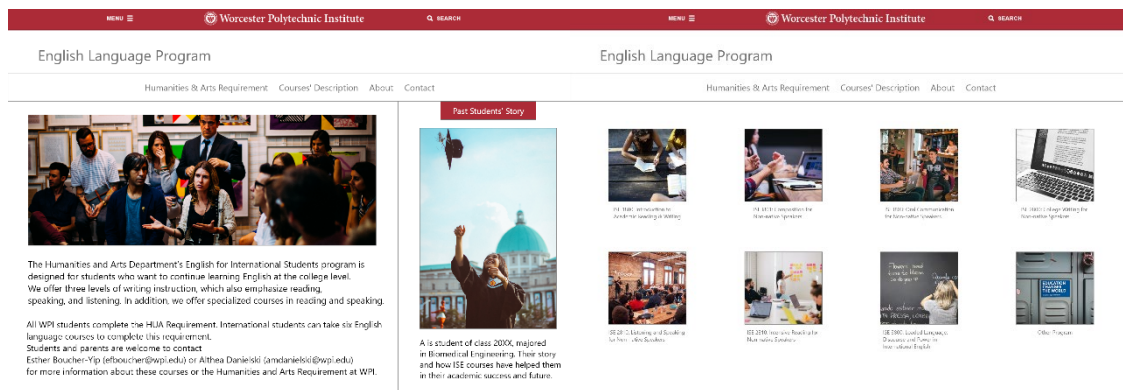


Figure 15. Pictures of the prototype websites.

## 2. Update the information

We suggest the HUA department updating and correcting the information about the English Language courses. In our desktop research, we found the information provided by WPI and English Language Faculty are quite different (Figure 16). With the information that the English Language program provided for us, there are seven English language courses at WPI while on WPI's HUA courses' website, there are only six of them. Having this information match up could prevent confusions among students about these courses.

- [INTL 4100. SENIOR SEMINAR IN INTERNATIONAL AND GLOBAL STUDIES](#)
- [ISE 1801. COMPOSITION FOR NON-NATIVE SPEAKERS OF ENGLISH](#)
- [ISE 2800. COLLEGE WRITING FOR NON-NATIVE SPEAKERS OF ENGLISH](#)
- [ISE 3800. LOADED LANGUAGE: DISCOURSE AND POWER IN INTERNATIONAL ENGLISH](#)
- [ISE 1800. INTRODUCTION TO ACADEMIC READING AND WRITING FOR NON-NATIVE SPEAKERS OF ENGLISH](#)
- [ISE 1803. ORAL COMMUNICATION FOR NON-NATIVE SPEAKERS OF ENGLISH](#)
- [ISE 2810. LISTENING AND SPEAKING FOR NON-NATIVE SPEAKERS](#)
- [MU 1511. INTRODUCTION TO MUSIC](#)

Figure 16. Information about English language courses on WPI website (Worcester Polytechnic Institute, 2021)

### 3. New naming strategy and course description

In business, a company's name gives their clients their first impressions about the company. This can apply to naming courses as well. Although our data is limited to a small population of international students at WPI, two of students stated that the name of the courses gave them a false definition of what the courses are about. One of the students took WR 1010 instead of ISE 1801, because the name of WR 1010 ("Elements of Writing") fulfilled the student's original expectations of a writing course. We think these comments are worth noting for our research. The current name of the courses may give the students the impression of the courses as purely academic and similar with the classes that they took for their English language tests. Some students that Professor Althea Danielski taught shared that courses including wording that indicates the level of knowledge required to take courses would make the students uninterested in taking the courses. For example, the course introduction to Academic Reading and Writing might give students the impression of a course similar with Writing classes that they took for the English Academic Writing tests. The name will carry the identity and value of the course. There are three approaches in marketing toward naming: the blank slate, the direct approach, and the coining a name. We suggest the second approach: "The direct approach" as the name will describe exactly what the courses is about. The English language courses are not just about the English language skills, but the faculty also teaches students about the culture of the United States of America and WPI for students to communicate successfully in classes and with their American peers while learn more about the culture surrounding us. The courses' description right now also only mentioned the skills that students might learn but did not mention the culture aspects of the English language courses. For example, the course ISE 1800 can change from Introduction to Academic Reading and Writing to Reading, Writing and Success (in the United States) or Intensive Reading course name can change to Cross-Curricular/Cross-Cultural Reading Comprehension. It is a good practice to indicate the result of the courses within the name of the courses for students to know what they would learn from the classes.

### 4. Course start time

Students are notorious for staying up late and sleeping in even later. The average time college students go to bed is 1 AM with an average of 7 hours sleep (Evans, Kelly & Kelly, 2017). At 8 a.m. – when most colleges start classes – students were at nearly half the functionality

they would be at if classes started around 11 a.m. However, we believed the case for international students could be worse as they suffer from time difference, and they might sometimes need to put more efforts in getting good grades in classes and still stay connected to their family in their hometown. The English language courses are mostly taking place in the morning which students counted as a reason they prevent to take the courses. During our study, some students mentioned the reason they chose not to take the courses is that some of the courses were too early and they didn't want to wake up at that time. We understand that there are some limitations in our study, however we believe this mention is worth to take in consideration. We suggest change the courses into afternoon schedule as in these classes, attendance is important in the grading process unless unexpected reason. Researchers found that colleges should, for the most part, start classes in the latter part of the morning, around 11 a.m. – a time when most students are "at their best. (Evans, Kelly & Kelly, 2017) In further research, a study in identifying the Best Times for Cognitive Functioning at universities, found students had higher rates of functionality during the later morning, around 11 a.m. and noon. Having afternoon classes, students are less likely to miss the classes due to oversleep and students have more time for study and prepare for homework. We also suggest doing a further research on the best time to start a class at WPI for both domestic and international students.

#### 5. Collaboration with other language program or classes

In the oral communication or composition classes, having a chance to express their thoughts to a well-diverse culture would be beneficial to both domestic students and international students to develop their languages skills and learn different perspective of a student from a different culture. For example, if the class discusses about a controversial topic, a collaboration with a Culture/Religion course would allow American students to learn more about the perspective of students from Asian, Caribbean, ... and the other way around. Students can gain knowledge through verbal and physical learning or tactile-kinesthetic learning, a style of learning by having hands-on experience, by observing the ways other students prepare for their presentation or debates, how domestic students organize their claim and arguments to prove their point. Another example is a collaboration with a language course, where a native student who for example did their depth in Chinese can be paired with a Chinese student who is in English language class to practice their language skills.

#### 6. Past students' stories

Most students learned more about the information about the English language programs or other supports through verbal communications from their peers or teachers than the advertisement of the department or WPI of the program. If one student that previously took ISE courses and enjoyed the experience or passed the class easily, that person would introduce the classes to their peers. If a directory for English language program is developed, we suggest for its to have an area to share past students' stories. This can help the students to learn more about the courses, know which courses will fit their purposes of study and what skills helped the past students to succeed at WPI and after. In the prototype link, we provided in "Creation of a platform for the English Language Program Information" section, which



included a feature to showcase past students' stories in the main page and users can view more details of the students' story in a separate site. Figures 17 & 18 are the artboards of the main page and Figure 19 is the visual design of a past students' stories site.

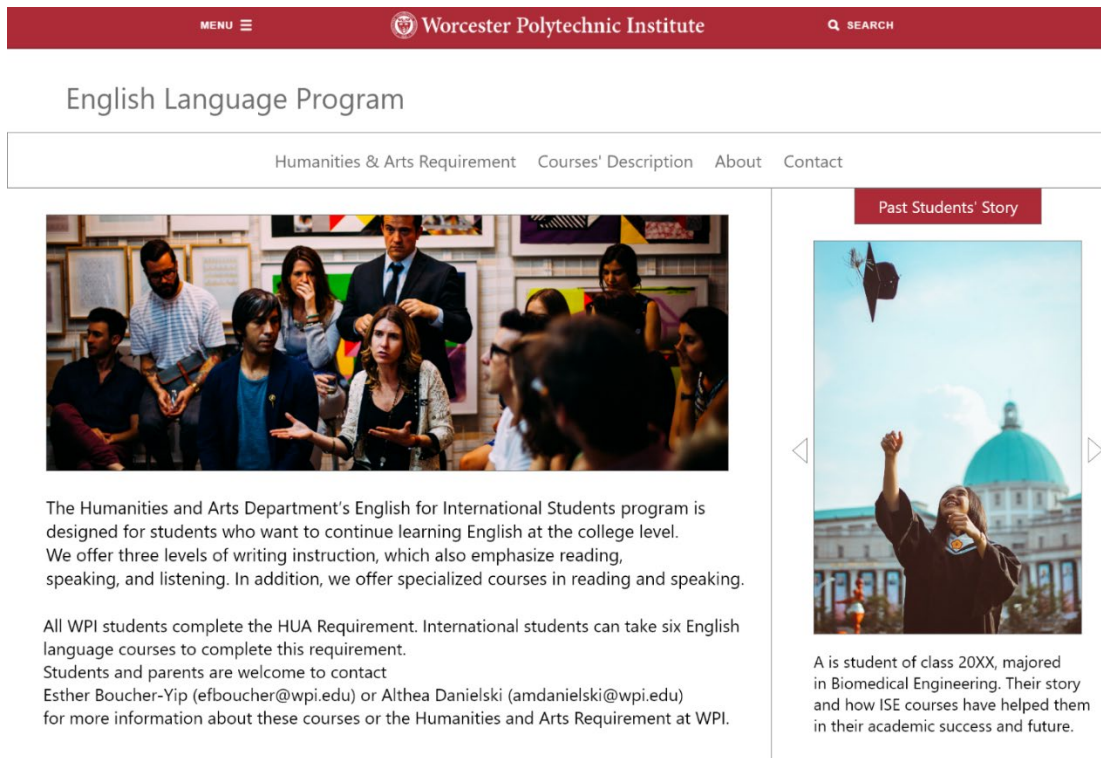


Figure 17. Landing page of the prototype

## English Language Program

[Humanities & Arts Requirement](#)
[Courses' Description](#)
[About](#)
[Contact](#)

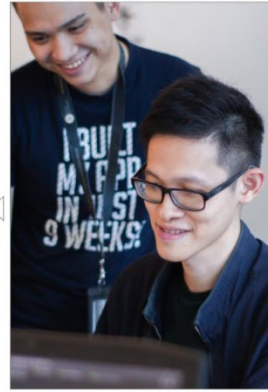


The Humanities and Arts Department's English for International Students program is designed for students who want to continue learning English at the college level. We offer three levels of writing instruction, which also emphasize reading, speaking, and listening. In addition, we offer specialized courses in reading and speaking.

All WPI students complete the HUA Requirement. International students can take six English language courses to complete this requirement.

Students and parents are welcome to contact  
 Esther Boucher-Yip (efboucher@wpi.edu) or Althea Danielski (amdanielski@wpi.edu)  
 for more information about these courses or the Humanities and Arts Requirement at WPI.

### Past Students' Story



B is student of class 20XX, majored in Computer Science. Their story and how ISE courses have helped them in their academic success and future.

Figure 18. Landing page of the prototype

## English Language Program

Humanities & Arts Requirement Courses' Description About Contact

### Past Students' Story

**Full Name:** A C  
**Nationality:** Lorem  
**Class of 20XX**  
**Major:**

**Coming to WPI:**

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**Courses taken:** ISE XXXX

**How ISE helped them:**

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**Contact:** abs@email.com



**Full Name:** A C  
**Nationality:** Lorem  
**Class of 20XX**  
**Major:**

**Coming to WPI:**

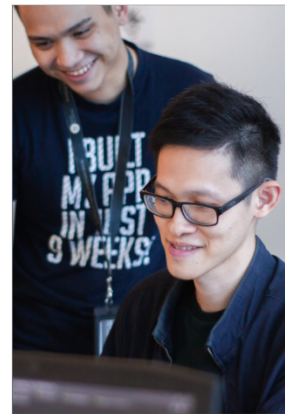
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**Courses taken:** ISE XXXX

**How ISE helped them:**

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**Contact:** abs@email.com



**Full Name:** A C  
**Nationality:** Lorem  
**Class of 20XX**  
**Major:**

**Coming to WPI:**

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**Courses taken:** ISE XXXX

**How ISE helped them:**

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**Contact:** abs@email.com



Figure 19. Prototype of past students' story site.

We suggest HUA department to contact those students in the contact list that we provided to get the content for these sites. These students had taken English language courses in the past and are willing to share their stories. For confidential purposes, we will not provide the students' list in our Appendix.

As we learned that HUA faculty send emails to international students about the English language courses as part of their promoting methods, we suggest keeping these methods to reach out to students. However, we suggest that after two-three days of the first email from HUA faculty members, a student follow up email can be served as a reminder but also tell students more about the courses in the perspective of a student. This format is similar with the Welcome email that the Undergraduate Admissions office organized when an international student is accepted to WPI. A current student, who participates in the International Email marathon, is given a list of students with the same or similar with country of origin of the participant and send those students a welcome email telling them about WPI. For our program, we recommended that in the email the current students send out, they first welcome the students and then process to tell their story about the English language program and their insights of what courses an incoming students should take. We suggest HUA departments work with the Undergraduate Admissions to get the international students mailing list and their country of origin at least two weeks prior to the registration day to sort out the email list and asked students who have taken the courses for their help.

#### 7. Influence students' parents

Parents serve as a major influence in their child's decision making. We recommend that the English language faculty emphasize to parents how the courses will help their children master their midterms, finals, job interviews, presentations, life in the United States. To connect with WPI's students' parents, we proposed the Parents of WPI Students' group (Figure 20) and WPI Parents on Facebook (Figure 21). The Parents of WPI Students' group is active on Facebook, which have about 6 posts a day. We suggest prior to registration day for Fall semester, Spring semester for first year students, and courses Registration Day for upperclassmen, HUA departments should post a post about them and the English language program with a picture of HUA faculty with international students on International Orientation Day. The picture will provide international students' parents a sense of involvement with the program as they saw their child in the picture and can influence their child to consider the program.



Figure 20. WPI’s Parents Group on Facebook

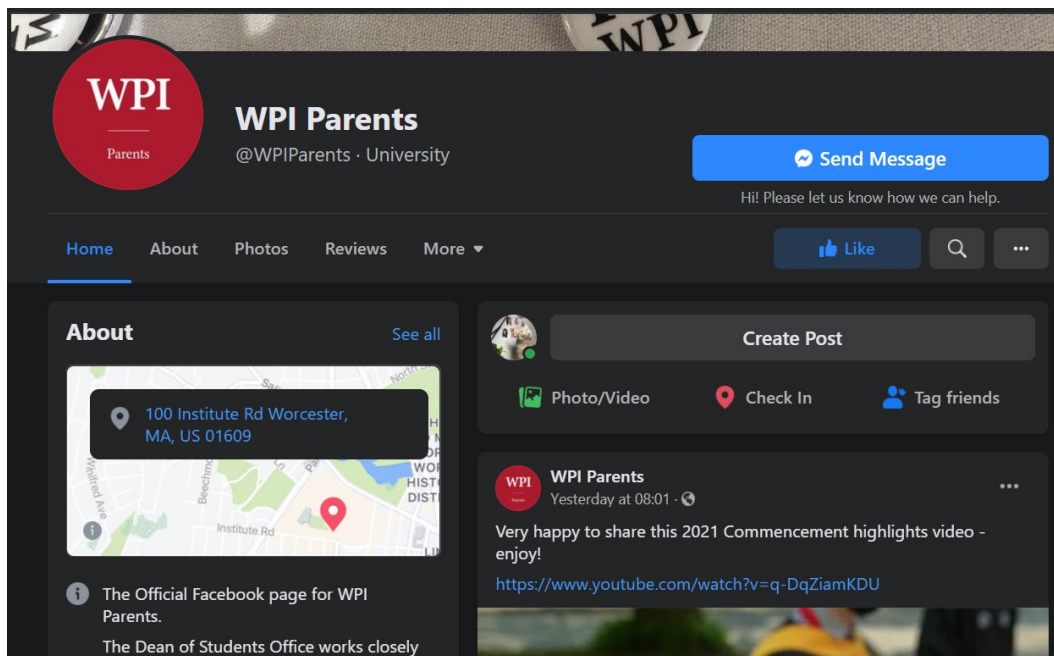


Figure 21. WPI’s Parents Page on Facebook

## Recommendation for International House

### 8. Website Design

According to our interviews with international students at WPI, the International House website does not provide enough information to students or that information was hard to find as it was not well-presented on the website. As WPI’s website uses Drupal, we suggest the

International House follow the Figure 22 wireframe to make a user-friendly website for international students.

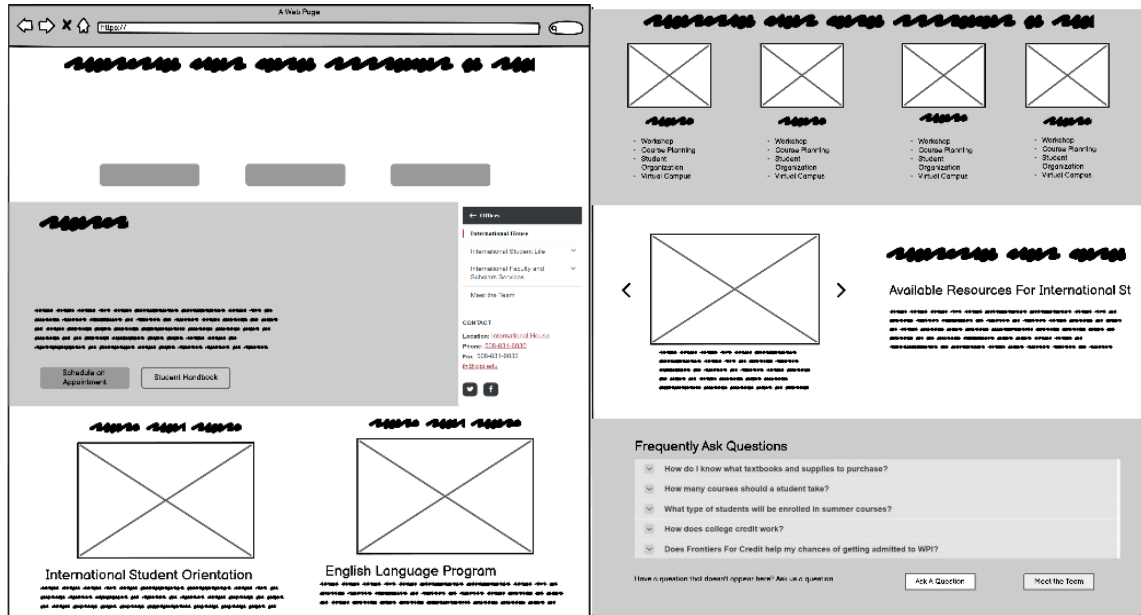


Figure 22. Wireframes for the main page of the International House Website

The main area should provide the students information about the International House and what services are available at the International House. This description should be 5 – 6 sentences long. The next section consists of the two main programs that the International House wants to promote to incoming students and the explanation of what these programs are about and how students can be benefit from it. The next four-column section is for additional services or information available at the International House such as: international clubs, visa workshops, applying to WPI, taxes. The slider area is to promote some additional resources at available at WPI that international students can use to make their life at WPI easier, for example: The Student Development & Counseling Center(SDCC), Tutoring Center, Writing Center, the Career Development Center(CDC). And at last, there should be a section for frequently asked questions that the international students often have. In Figure 22, the frequently asked questions are an example from the undergraduate studies office.



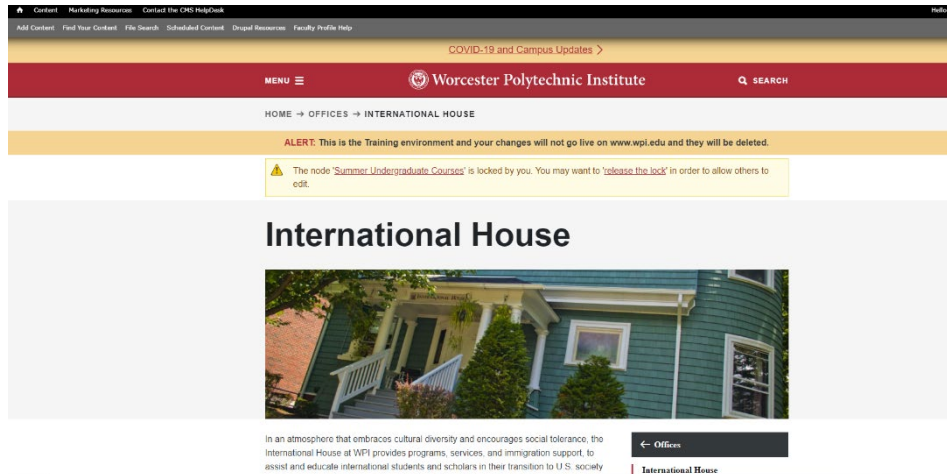


Figure 23. International House Websites in Drupal Environment. (Worcester Polytechnic Institute, 2021)

### 9. Welcome Video

Another recommendation our team proposed is a welcome video for international students. When students are provided the opportunity to get to know the environment beforehand, prior to the start of a new process, they are more likely to participate and engage more with the program. A short and concise video about the international house and what services they offer would be helpful for students to learn about what they can expect to find at the International House. The message included in the video should let the students know that WPI is excited to have them as an international student and an addition to WPI community. At the end of the video, let the students know that WPI and the International House are looking forward to interacting with them throughout their journey with WPI. This type of video could engage and excite students to participate in the international students' orientation. This video can be included in the main page of the international house and in the first reach-out email sent to international students.

### 10. Frequent Updates

In the olden times, colleges and universities benefited extensively from words of the mouth to build their reputations. Today, with technological advancement people can search on the internet and it brings them exactly what they need. For international students around the globe, instead of paying an expensive amount to visit prospective schools, people can visit the school's website. (Wendel, 2016)

Currently, due to the COVID 19 pandemic, it is necessary for WPI International House to update its website regularly. The effects of the pandemic remain quite fluid in many parts of the world. International students should be able to easily access travel information, quarantine, vaccination policies on WPI's International House website. The international student website is an important resource, and it is necessary to keep up with the latest information. Frequent

updates can boost WPI's enrolment and raise the school's profile and be a valuable platform for international students.

A follow-up study is recommended to obtain additional data that we were unable to collect due to time limitations and the areas that we did not manage to do an external research on such as: career development, financial support, and mental health issues for international students. Further research could support our findings and provide new information that would benefit the WPI in providing and improving the services for international students in the future.

11. Extend study on mental health services for international students.

We acknowledged mental health issues as one of the major challenges that international students faced entering the United States. However, due to the time constraints, we did not manage to touch base with the mental health issues of international students at WPI. We believe that a study on mental health issues of international students would be beneficial to WPI in creating an enjoyable college experience for international students and attract more students in the future. International students are more likely to suffer from depression, as they face more challenges on their own. Many of them still do not know the methods to release their pressure, and do not know a safe place to express themselves. The moment they step onto the airport, they are all alone. Many parents of international students do not know what life is like living in a foreign country, so except for financial aspects, they often can only provide limited support. WPI has an excellent psychological counselling Center, known as Student Development & Counselling Services. Future research group can work with SDCC to help international students' mental health.

12. Expand research on career development.

We found career related issues are the second most concerned problem that international students answered in our survey. We believed that a research on how international alumni and current students found jobs in the United States would help the Career Development Center prepare better international students in their career searching and partly solve the career concern and financial problem. We also suggest to research on how international students manage to get an on-campus job.

13. International Student Ambassadors.

Many schools have international student ambassadors who help new coming students to adapt academic environment and social life. Freshmen are faced with the changes of learning content, learning style and interpersonal environment, which are components for school adaptation. The International Student Ambassadors have experienced these as freshmen, so they can help the freshmen to improve their experience on school life. For example, Chinese WPI students have a WeChat group, and students rely on other students in



this group chat to answer their questions. However, parents are not in this WeChat group, so they do not have a place to share information and ask questions. Although WPI sends emails to update information frequently, it is difficult for parents who are not non-native speakers to fully understand the emails. In this case, an international student ambassador who speaks the same language can help them. The WeChat group is informal, and sometimes it may not always run well. An International Student Ambassadors program runs by the school will always be managed well.

There is International Student Ambassadors program at Indiana University Bloomington. As shown below in Figure 24 and Figure 25, students are from all over the world and different majors. For talking to ambassadors, people do not have to be enrolled students or parents, which means it is open for everyone. Ambassadors and students talk through the website, so that there is no requirement for any connection information. The messages are sent anonymously, which also protected the privacy of visitors.

WPI is competitive for its alumni salaries, but many parents from other countries do not know about that. If we can have ambassadors talking to visitor who is interested in getting a career in the U.S., it can help the enrollment.


# Students

Powered by UNIBUDDY

Since June 2020, 3233 questions have been answered by our Students.

Levels | Area Of Study | Countries

Active 9 hours ago



**Rhea**  
Kelley School of Business

[Chat with Rhea](#)


---

I COME FROM  
Mumbai, Maharashtra, India 🇮🇳

PREVIOUS QUALIFICATION  
Higher School Certificate (HSC)

ABOUT ME  
Hi, everyone! I'm Rhea, a senior studying Marketing, Digital & Social ...

[Read more about Rhea ...](#)



**Serra**  
Kelley School of Business

[Chat with Serra](#)

---

I COME FROM  
İstanbul, Turkey 🇹🇷 🇯🇲

PREVIOUS QUALIFICATION  
Lise Bitirme Diploması

ABOUT ME  
Hi! I'm a sophomore at the Kelley School of Business. Im originally fr...

[Read more about Serra ...](#)

[Match me with an ambassador](#)

Figure 24. University of Indiana Bloomington – Ambassadors Program

## Tell us a bit about you so we can find the right person to help

Send your message and get notified as soon as you receive a reply

Already have an account? [Log in](#)

**First name \***

**Last name \***

**Email \***

**Password \***

**Confirm password \***

[How do we use your information?](#)

I agree to Unibuddy's [Privacy Policy](#) and [Terms of Use](#), and the Institution's [Privacy Policy](#) \*

[Match me now](#)

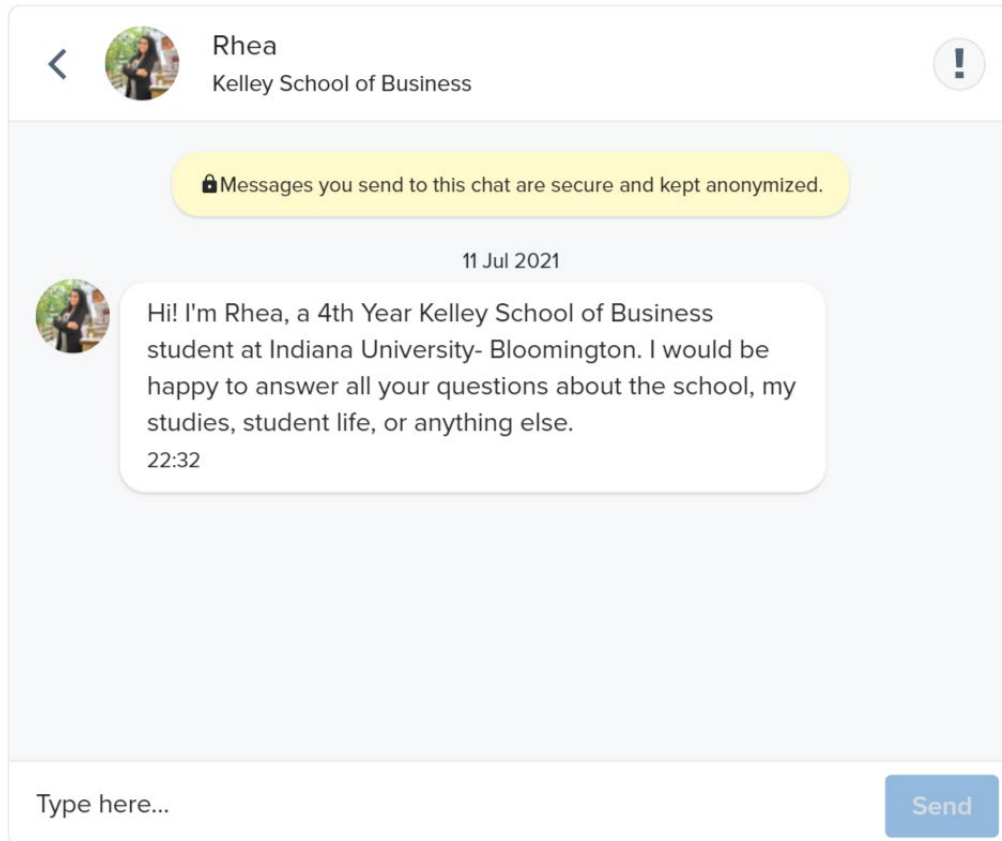


Figure 25. University of Indiana Bloomington – Ambassadors Program

## Chapter Summary

In this chapter, we recognized and analyzed the challenges that international students at WPI faces and made thirteen recommendations for the Humanities and Arts Department for their English language courses, for the International House and for future projects at WPI. With these recommendations, we hope that WPI’s international students will have a better experience at WPI and help WPI attract more students to the school and its courses.

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## APPENDIX A: ISE INFORMATION TO THE PUBLIC



### Definition

- Short for Integrated English Skills.
- English language courses for International Students



### Purpose

- Intensive English program for non-English speakers.
- Provide a supportive community.
- Environment for cultural development and exchange



### Audience

- International Students
- Students with English as their second language

# ISE INFORMATION TO THE PUBLIC

## WPI WEBSITE

When searched for ISE or English for International Students on WPI website using the provide search bar, there was barely any information about ISE rather than a page contained all the courses for Humanities and Arts and their descriptions. There was no information provide by WPI websites on what is ISE stand for or what is the mission or goal of these courses or to whom the courses offered.

## GOOGLE SEARCH

When Google search ISE at WPI or English for International Students at WPI, Appendix K appeared as the first result. Appendix K is an attachment document content for [fye.wpi.edu](http://fye.wpi.edu), a website for first year incoming students to find the information about coming to WPI. However, the date listed for the document was 2015/04, which meant that the information about ISE or English for international students at WPI have not been updated or re-introduce to first year students for many years on their website. Rather than that there is any more ISE information that can be searched on Google.

## INTERESTING FINDING

When a student arrived to WPI and checked in with the international house prior to COVID-19, a student handbook would be handed to them. The data that we were able to access from 2015 to 2019, ISE course was briefly mentioned under English-as-A-Second-Language section in the handbook without much information about the intention of the course. However, in 2020 Handbook, ISE was not mentioned any where in the book and there is only one slight appearance of ESL in the handbook.

### ENGLISH-AS-A-SECOND-LANGUAGE (ESL)

**Undergraduate Students:** The Humanities and Arts Department currently offers seven English courses especially designed for undergraduate international students:

**ISE 1800:** *Introduction to Academic Reading and Writing for Non-Native Speakers of English*

**ISE 1801:** *Composition for Non-Native Speakers of English*

**ISE 1803:** *Oral Communication for Non-Native Speakers of English*

**ISE 2800:** *College Writing for Non-Native Speakers of English*

**ISE 281X:** *Listening and Speaking for Non-Native Speakers of English*

**ISE 282X:** *Intensive Reading for Non-Native Speakers*

**ISE 380X:** *Loaded Language: Discourse and Power in International English*

International undergraduate students whose native language is not English and who have not studied extensively in English can complete 6 courses in ISE (English for Second Language Learners) to fulfil their Humanities Sufficiency requirement, or as part of the breadth component. For more information, contact Dr. Esther Boucher-Yip at [efboucher@wpi.edu](mailto:efboucher@wpi.edu) or in SL 109.

## APPENDIX B: SURVEY TEXT AND QUESTIONS

We are a IQP group of students from Worcester Polytechnic Institute in Massachusetts. We are conducting a study on the current English services and support at WPI for international student to learn more about the demographic of WPI's international students that can be benefit from using the available resources. We strongly believe that this kind of research will ultimately help to formulate valuable recommendations for the future directions for WPI's English language services and support.

Your participation in this quick five to ten minutes survey is completely voluntary and you may withdraw at any time. Please remember that your answers will remain anonymous. No names or identifying information will appear on the questionnaires or in any of the project reports or publications.

Your participation is greatly appreciated. If interested, we can share a copy of our results with you at the end of the project.

For more information about this research, contact Nguyen, Thi Quynh Ha <tnguyen5@wpi.edu>, Konadu, Mabel <mkonadu@wpi.edu>, Wu, Jing <jwu5@wpi.edu>/or IRB Manager (Ruth McKeogh, Tel. 508-831-4989, Email: gjohnson@wpi.edu).

1. Do you consider yourself an international student?
  - Yes
  - No
2. Is English your native language?
  - Yes
  - No
3. Which country/region are you from? Please enter your answer.
4. What best describes your high school experience? Choose one sentence below.
  - I went to a high school in an English-speaking country.
  - In my home country, I went to a high school where English is the language of instruction.
  - In my home country, I studied English as a subject in high school.
  - In my home country, I did not study English.
  - None of the above applied to me. (Please listed your situation below. )
5. I have studied English for:
  - 0 – 3 years
  - 3– 5 years
  - 5 – 7 years
  - 7 – 10 years
  - 10+ years
  - I have spoken English all my life.
6. What is your depth for Humanities and Arts requirement?
  - Art
  - Music

- ISE/English Language
  - English/Writing
  - English/Theater
  - Chinese
  - German
  - Spanish
  - Arabic
  - Philosophy/Religion
  - History
  - Other (Please list below)
7. Why did you choose this subject as your depth as a class to fulfill your HUA requirements?
8. What is your breadth for Humanities and Arts requirement?
- Art
  - Music
  - ISE/English Language
  - English/Writing
  - English/Theater
  - Chinese
  - German
  - Spanish
  - Arabic
  - Philosophy/Religion
  - History
  - None of the above/ I do not have a breadth for HUA requirement.
  - Other (Please list below)
9. What grades did you earn in these courses? (Multiple choices) (not required questions)
- A
  - B
  - C
  - NR
10. Prior coming to WPI, did you take the standardized English language tests? If yes, what tests were those?
- I did not take any language tests.
  - IELTS
  - TOEIC
  - TOEFL
  - Duolingo
  - Other: (Please list your answer)
11. Do you think international students should take an English test at WPI to help them pick courses?
- Yes

- No
  - Maybe (Please list your reason below)
12. Do international students at WPI need more academic support?
- Yes
  - No
  - Maybe (Please list your reason below)
13. Do international students at WPI need English language support?
- Yes
  - No
  - Maybe (Please list your reason below)
14. In using academic English in your courses, what is most difficult for international students:
- Writing
  - Speaking
  - Listening
  - Reading
  - Other
15. If you have taken one or more English language (ISE) courses, share your reasons below:
- Thank you for participating in our survey. If have any questions or would like to participate in our interview, please contact Nguyen, Thi Quynh Ha <tnguyen5@wpi.edu>, Konadu, Mabel <mkonadu@wpi.edu>, Wu, Jing <jwu5@wpi.edu>.

## **APPENDIX C: FACULTY MEMBERS' INTERVIEW**

We are a IQP group of students from Worcester Polytechnic Institute in Massachusetts. We are conducting a study on the current English services and support at WPI for international student. We strongly believe that this kind of research will ultimately help to formulate valuable recommendations for the future directions for WPI's English language services and support.

### **INTRODUCTION**

#### **Greeting, <Participates name>**

Thank you for participating in our interview on understanding the impact of WPI's Services and support for international students.

I will give you an overview of our interview. The process will take approximately 40-50 minutes. We are available for as long as you like, however, if you have any other schedules that are affected by the duration of the interview, please let us know.

- This interview will be recorded for research purposes. First, I'm going to ask you for your permission to record this interview. You have all the right to decline to answer any questions and you may ask me to stop the interview at any time.
- I'd like to first introduce myself to you. My name is <Interviewer Name>. I will be conducting this interview with you today.
- Now, I will inform you about the IQP Project and our intention for this interview.

WPI was home to approximately 1,285 international students in 2019. To serve the English language needs of international non-native English speakers, the Modern Languages Division in the HUA department offers three levels of writing instruction, and specializes courses in reading, listening, and speaking. However, online information provided by WPI about these courses is inconsistent and can be confusing for students.

The goal of this project is to investigate the English services and support at WPI and assist WPI faculty on developing an effective strategy to encourage international students to use the existing services and support to achieve better academic performance, gaining cultural competency in preparation for non-resident students to understand more about US culture and better navigate US society.

- I will then ask you some questions regarding your experience in teaching ISE courses and providing the support for international students at WPI. This will give us a better understanding of students' experiences with English language support & services and which area needs improvement. This information will help to improve the services we provide and identify gap/needs for future development. If you need me to rephrase or clarify any questions or if you don't want to answer a question, just let me know!

I will be recording your answers as well as taking notes throughout the process. If you find it difficult to answer a question, please let me know. That will actually be helpful for us to improve our study for the next time.

If during our interview, there is interruption due to unwanted causes like internet connection, please let us know. We will repeat or provide any clarifications needed or ask you to kindly repeat your response to the corresponded questions. We will reach out to you if we get cut off for some reason during the interview.

And now, I will ask you to read and sign the consent form.

### **<The time for users to sign the consent forms>**

Here are the questions that we will be asking you today. Please note that the questions are not in a specific order.

### **<Questions provided time>**

If you have trouble understanding or answering a question, please tell me about your struggle. I will provide clarification of the question in order to help you answer it.

### **<Starting the interview section>**

1. How long has ISE been established at WPI? How many years have you been part of the ISE program?
2. What is the goal & mission of the ISE department?
3. What programs in the past has been implemented to help international students adjust in the ISE department?
4. What do you think WPI can do to help international students in their transition ?
5. Why do you think international students should take ISE courses?
6. What is the success rate of a non-native speaker taking ISE Courses?
7. How did you promote the courses at the beginning of establishment?
8. Were there any changes in the methods of advertising the courses?
9. What is your perspective on what might be the reason of decrease in number of enrollments?
10. Are there any students come to you to seek for help outside the classroom? What are their problems/ difficulties?
11. What are some of the biggest challenges the ISE department faces and you as a faculty?
12. What kind of assistance is available within this department for students?
13. What things have you done on your own initiative to help prepare for international students' success?
14. What do you love about your students?

Thank you so much for answering all of our questions. Do you have any feedback or suggestions for our interviews?

Do you have any other comments or questions?

Thank you once again for your time and help today. Have a wonderful day!

## **APPENDIX D: STUDENTS' INTERVIEW**

We are a IQP group of students from Worcester Polytechnic Institute in Massachusetts. We are conducting a study on the current English services and support at WPI for international student. We strongly believe that this kind of research will ultimately help to formulate valuable recommendations for the future directions for WPI's English language services and support.

### **INTRODUCTION**

#### **Greeting, <Participates name>**

Thank you for participating in our interview on understanding the impact of WPI's Services and support for international students.

I will give you an overview of our interview. The process will take approximately 40-50 minutes. We are available for as long as you like, however, if you have any other schedules that are affected by the duration of the interview, please let us know.

- This interview will be recorded for research purposes. First, I'm going to ask you for your permission to record this interview. You have all the right to decline to answer any questions and you may ask me to stop the interview at any time.
- I'd like to first introduce myself to you. My name is <Interviewer Name>. I will be conducting this interview with you today.
- Now, I will inform you about the IQP Project and our intention for this interview.

WPI was home to approximately 1,285 international students in 2019. To serve the English language needs of international non-native English speakers, the Modern Languages Division in the HUA department offers three levels of writing instruction, and specializes courses in reading, listening, and speaking. However, online information provided by WPI about these courses is inconsistent and can be confusing for students.

The goal of this project is to investigate the English services and support at WPI and assist WPI faculty on developing an effective strategy to encourage international students to use the existing services and support to achieve better academic performance, gaining cultural competency in preparation for non-resident students to understand more about US culture and better navigate US society.

- I will then ask you some questions regarding your experience in teaching ISE courses and providing the support for international students at WPI. This will give us a better understanding of students' experiences with English language support & services and which area needs improvement. This information will help to improve the services we provide and identify gap/needs for future development. If you need me to rephrase or clarify any questions or if you don't want to answer a question, just let me know!



I will be recording your answers as well as taking notes throughout the process. If you find it difficult to answer a question, please let me know. That will actually be helpful for us to improve our study for the next time.

If during our interview, there is interruption due to unwanted causes like internet connection, please let us know. We will repeat or provide any clarifications needed or ask you to kindly repeat your response to the corresponded questions. We will reach out to you if we get cut off for some reason during the interview.

And now, I will ask you to read and sign the consent form.

### **<The time for users to sign the consent forms>**

Here are the questions that we will be asking you today. Please note that the questions are not in a specific order.

### **<Questions provided time>**

If you have trouble understanding or answering a question, please tell me about your struggle. I will provide clarification of the question in order to help you answer it.

### **<Starting the interview section>**

1. General questions:
  - a. What challenges do you/did you face as an international student in the United States and specifically at WPI?
  - b. Do you think WPI has any services or support that have helped you overcome the challenges? If so, were you able to use that support easily to get the help that you need?
2. Academic questions:
  - a. How many ISE Courses have you taken?
  - b. How did you know about our English support and services?/ How did you get access to the information of ISE courses?
  - c. What year did you take your first ISE Course?
  - d. Why do you take these ISE courses?
  - e. Which courses have you taken in the ISE department?
    - i. How have these courses helped you in general? Academically?
  - f. What is your depth and your breadth for Humanities and Arts requirement? Why did you take these courses for your requirement?
  - g. Would you recommend ISE courses to non-native English speakers?
  - h. Can you tell us about your experience in taking ISE courses? Did you enjoy them? Why or why not?
  - i. What do you think is the reason why there is a decrease in enrollments for the ISE courses in the past years?

- j. Do you have any concerns/ suggestions about this program?
3. Social questions:
- a. Did you face any social difficulties during your time in the United States due to your language skills?
  - b. Beyond learning English language skills, do you feel like ISE courses help in any ways to adjust or navigate to American culture? If so, can you state how?
  - c. How can WPI help you negotiate your academic and social problems?
  - d. Did any of the faculty help you outside of your course work or provide additional helps when you needed it? If so, please elaborate.

Thank you so much for answering all of our questions. Do you have any feedback or suggestions for our interviews?

Do you have any other comments or questions?

Thank you once again for your time and help today. Have a wonderful day!

## APPENDIX E: WEBSITE ANALYSIS



### Think Aloud

- A technique used in User Experience or Human – Computer Interaction Research
- Keep users involved throughout the design.
- Targeted at a user-centric design.



Participants verbalize their thoughts as they work :

- on a task that is interesting or important
- using a system or prototype on research
- while researchers observe



### Benefits

- Cheap to Operate in Time and Cost.
- Easy to see the pattern in the behavior of users on the learning objects.



# WEBSITE ANALYSIS

## WEBSITE

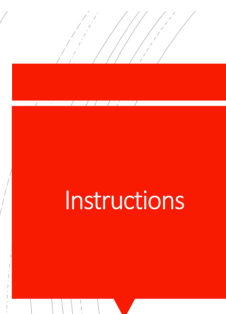
With the development of technology and World Wide Web, school website is the place where students first look for the information they need before reaching out to Faculty member. We want to learn how informative and accessible the resources for international students' website are term of providing students the support or help that they need. Moreover, we want to learn how much time on average a user (or in other case student) spent on the International House Website to achieve to information to find how well done is the current services for international student. As the language support and service is one of our main focus, we also want to investigate how accessible is the information about ISE to the general public.

## METHOD OF RESEARCH

We decided to do a search on some Search Platform about the information related to the English language courses and follow Think Aloud Technique used in Human-Computer Interaction to study the accessibility of the International House website. The user was assigned to a task that they need to complete using the product that was provide to them, in this case, the International House website. We decided on four tasks based on the most finding information for international students are VISA, Traveling Policy, Language Program for International Students and Extracurricular Activities that WPI offers for students.

## CONDUCTING THE STUDY

We will only conduct this technique of research among our team without recruiting outside sources. The result of this study combines with the answer of students from the interviews helped us to draw the satisfaction of international in finding the information they need. We understand that was only a minor research and might need a wider range of study in the future, but this helped to learn and predict the accessibility of information to international students at WPI.



"I'm going to ask you to think aloud. What I mean by 'think aloud' is that I want you to tell me everything that you are thinking from the time that you see the statement of the task until you finish the task. I would like you to talk aloud constantly from the time I give you the task until you have completed it."

Figure 1. Sample of an instruction for a Think Aloud section.

## APPENDIX F: ANALYSIS ABOUT WPI WEBSITE



### International House Website Analysis



International House Website

# ANALYSIS

The International House functions as a center for international education by drawing on the resources on campus, such as international students and scholars, faculty and students returning from overseas experiences, and international faculty members. For our international students and scholars, the International House also helps in creating a sense of community. As the International House serves as a resource to international students to WPI, we investigated how accessible the information provided by the international House on their website for users. The result and data table of the Think Aloud section is Appendix H.

## RESULTS

The time that took users to finish finding different information is varied from 1 minute to more than 8 minutes. There is 7 minutes difference between the shortest and the longest time which indicates that the accessibility of each information on the website varied by on its topic and might be accessible after one click from the main website. The information that users were assigned to look for cannot be access from the main page of the International House and users often have to spend more time to look for the information in the sub tab of the website. During the study, users surprised that the information was found in unexpected tab or unrelated tab or on the website that they expected to have the information on didn't provide any information related to that matter or link to an article that users can achieve the information from.

## FRUSTRATION

Throughout the Think Aloud section, most of the user expressed frustration finishing their tasks. The word or phrase that we used to measure the level of frustration is "Where is that?", "I do not know what to do", "It should be here", "I give up" or similar phrase. The chart for the frustration frequency during the section is included in the Appendix J. A high level of frustration is indicated among the users, showed that their experience was not satisfied. The phrase "I give up" or some sentences with the same expression as "I quit" or "I don't think I will find anything" pointed toward a conclusion that the website do not provide the information that in the need of users or in a wider scenario, the needs of international students at WPI. This also might lead to the problem of students does not have access or information they need in time for their problem.

**APPENDIX G: WEBSITE COMPARISON ANALYSIS**

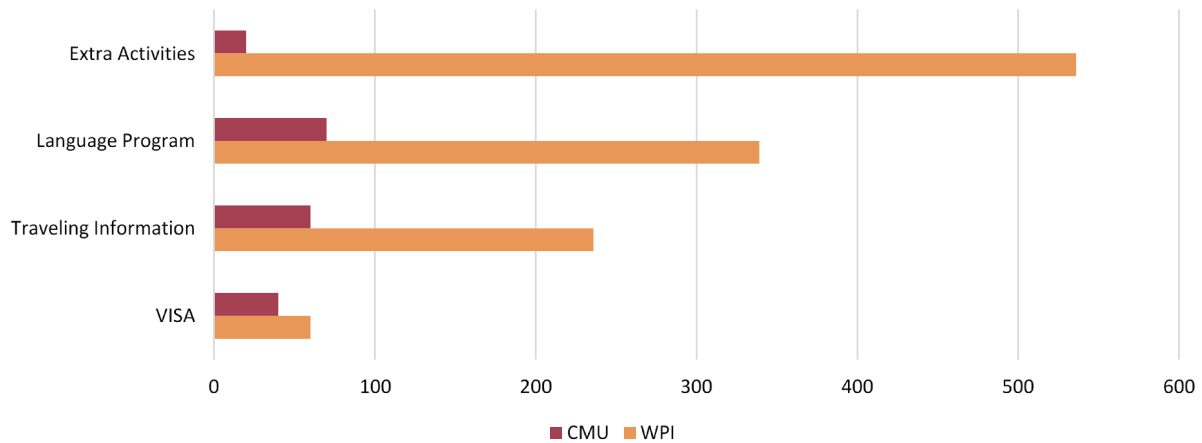
# WEBSITE COMPARISON ANALYSIS

After investigated the website of WPI’s International House, we measured the time for the same experience on Carnegie Mellon University website for International Students Resources to see if the experience was the same with other schools as well. Among the data collected from the user experience test on both websites, while the average timing for WPI was about 4 minutes 53 seconds (293 seconds), users only took 48 seconds on average on CMU website for resources for International Students for the same information. This could mean that students at WPI would take five times longer than students at CMU to find the information that they need for their student life at WPI.

	VISA	Traveling Information	Language Program	Extracurricular Activities
Worcester Polytechnic Institute	1:00 minutes	3:56 minutes	5:39 minutes	8:56 minutes
Carnegie Mellon University	0:40 minutes	1:00 minutes	1:10 minutes	0:20 minutes

**Figure 3. Table of time taken in finding information on International Students website**

**Figure 4. Time taken in finding information on International Students website**



# COMPARISON

One finding from this data was that the layouts of information providing helped users (students) at CMU get access to the information faster than WPI students. The information on CMU was organized and named according to those needs of international students interested at CMU and accepted by CMU. The resources for international students on the WPI website was not presented directly on the website, instead, it was compacted in the navigation side menu of the website. This explained why the experience on WPI website took more time as users had to search around the web to find the information that they need. This experience was measured with users that never or have less contact with the website which can explained why the time might seem to be long. This experience data will vary when there is an introduction of users that are familiar with the WPI websites. However, despite of that fact, the WPI website should be as easy to access and find information for a first-time user as for students who are familiar with website function.



**CARNEGIE MELLON UNIVERSITY – INTERNATIONAL RESOURCE WEBSITE**

Foreign Student Information

Contact OIE

Go to MyOIE (e-Forms)

From applying and traveling to Carnegie Mellon to document procedures and employment options, this section of the website will provide you with all of the information you need during your educational journey with Carnegie Mellon University.

[Applying to Carnegie Mellon](#)  
Application information for prospective international students.

[Coming to Carnegie Mellon](#)  
Congratulations! You've been accepted. Now what?

[Orientation](#)  
Important Information about OIE's Orientations

[Settling in Guide](#)  
Review this guide in preparation for your arrival to Carnegie Mellon University and the US.

[Maintaining Legal Status](#)  
Documents you need and rules to follow in order to maintain a legal immigration status in the US.

[Employment Options](#)  
Details about employment options for F-1 and J-1 students.

[Travel Tips & Advice](#)  
Advice for Travel in and out of the US, plus visa information and other documents for non-immigrants.

[Virtual Neighbors and Host Family Programs](#)  
Connect with volunteer local host families for informal

[Student Groups & Leadership](#)  
Internationally-focused student groups and leadership resources.

[COVID-19 and Campus Updates >](#)

MENU Worcester Polytechnic Institute SEARCH

HOME → OFFICES → INTERNATIONAL HOUSE

In an atmosphere that embraces cultural diversity and encourages social tolerance, the International House at WPI provides programs, services, and immigration support, to assist and educate international students and scholars in their transition to U.S. society and academic culture.

As of July 1, 2020 the International House is composed of two departments:

The Office of International Student Life (ISL) will serve all international student related immigration and cultural adjustment needs including new student orientations, work authorizations, travel signatures, and non-resident alien tax help.

The Office of Faculty and Scholar Services will work in collaboration with the Provost's Office to serve the international faculty and scholars with immigration paperwork and adjustment to Worcester questions.

The International House will help support the Humanities and Arts Department's course sequence for non-native speakers of English.

Resources for each department can be found in the right-side navigation menu.

← Offices

**International House**

International Student Life

International Faculty and Scholars Services

Meet the Team

CONTACT

Location: [International House](#)

Phone: 508-831-6030

Fax: 508-831-6032

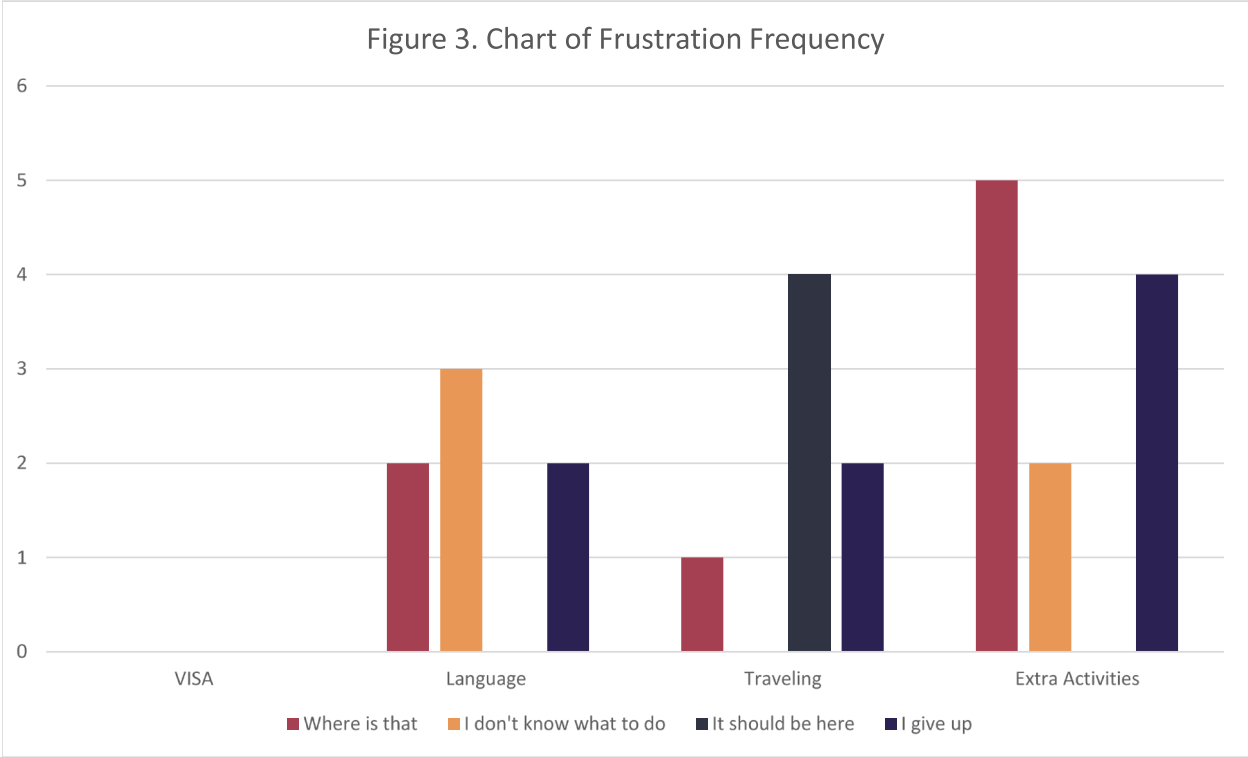
[ih@wpi.edu](mailto:ih@wpi.edu)

## APPENDIX H: THINK ALOUD SESSION NOTES

#	Prototype Screen	Reference	User's feedback/ critical incidence/ problem	Severity	Way(s) to rectify and any Tradeoffs (i.e., why the fix might not work)
1	VISA	1:00	User found the information immediately went entering the website.	Low as this problem does not prevent user from getting the information they want.	No changes or have a clear button in the main area of the page.
2	LANGUAGE Program	5:39	1:50 user announce that they cannot find anything. 2:54 user find the students handbook that have information about Language Program. ESL PROGRAMS IN THE International Handbook . 4:51 user announces that there should be more information about the program. 5:30 user said that there was not any and give up on the finding more information. User said they would just email the International House for information.	High as user had a hard time in finding the information. Dissatisfied.	Adding more information about the language program, clarify ISE and ESL, put the information in the front page.
3	TRAVEL TO THE United States	3:56	1m students found the Travel to the United Stated Website. 1:58 user stated the information is not what they expected to find. 2:42 user stated they cannot find the traveling information related to COIVID_19 for international students who will travel from outside the United States 3:45 users end their experience on the International House without finding link or any information related to international travel I the united Stated . User stated the website is not helpful at all. User said they would just email the International House for information.	High as user had a hard time finding more detail about COVID_19	Update the website or provide a link to the information within the WPI page.
4	Extracurricular Activities	8:56	0:40 users click on student life to find information. 2:40 user click on Traveling to the US AND WPI. 3:58 user state that they cannot find anything related to extra program for international students. 5:33 users started browsing through all the pages. AT 6;54 user was at international students forms and stated that they found a handbook and was not expected to find the handbook in this page. 8:15 user found the information within the handbook	High as users cannot find the task after a long time of struggle.	Provide information about the student activities in the main page or any landing page. Move the Handbook to the main page so that there will not be any confusion.

# APPENDIX J: THINK ALOUD FRUSTRATION FREQUENCY

Appendix J: Think Aloud Section Chart of Frustration Frequency





## APPENDIX K: ISE COURSES DESCRIPTION

### English for International Students at WPI

The Humanities and Arts Department's English for International Students program is designed for students who want to continue learning English at the college level. We offer three levels of writing instruction, which also emphasize reading, speaking, and listening. In addition, we offer specialized courses in reading and speaking.

*All WPI students complete the HUA Requirement. International students can take six English language courses to complete this requirement.*

Students and parents are welcome to contact.

**Esther Boucher-Yip** (efboucher@wpi.edu) or **Althea Danielski** (amdanielski@wpi.edu) for more information about these courses or the Humanities and Arts Requirement at WPI.

**ISE 1800 Introduction to Academic Reading and Writing** *1/3 Credit* The goal of this course is to provide international students for whom English is not their native language the necessary skills for academic success through reading and writing assignments. Emphasis is also given to a review of English grammar through intensive written and oral practice to promote accurate and appropriate language use.

**ISE 1801 Composition for Non-native Speakers** *1/3 credit* Students will concentrate on producing coherent paragraphs, developing short essays in a variety of rhetorical modes, and improving mechanics (grammar, punctuation) and vocabulary usage. Both personal and academic writing assignments provide practice in the process of writing and revising work for content and form.

**ISE 1803 Oral Communication for Non-native Speakers** *1/3 credit* Students practice formal and informal communication skills, including listening comprehension, pronunciation, and conversational and presentation skills. Students are encouraged to practice oral/aural exercises with the class as a whole and in small groups. Class work will build language skills and personal confidence levels.

**ISE 2800 College Writing for Non-native Speakers** *1/3 credit* In this course, students will practice analytical reading, writing, and thinking intensively, through a variety of exercises and assignments. The course also stresses the ability to understand, use, and document college-level non-fiction readings as evidence for effectively formulating and accurately supporting a thesis.

**ISE 281X Listening and Speaking for Non-native Speakers** *1/3 credit* This course addresses the academic needs of high-intermediate/advanced non-native English language learners by developing their listening and speaking skills. Students will engage in activities to practice and improve listening skills, and participate in speaking activities to improve comprehensibility through pronunciation improvement.

**ISE 282X Intensive Reading for Non-native Speakers** *1/3 credit* The goal of this course is to provide non-native English language students the skills to work with the highest levels of academic and professional reading. Students will develop active and critical reading skills by annotating self-selected textbook readings, academic journal articles, research reports, current news reports and essays. Students will also increase their vocabulary of high-level academic and professional terms.

**ISE 380X Loaded Language: Discourse and Power in International English** *1/3 credit* examines how the varieties of this global language can define identity, reflect social structures, and create and maintain power differentials. The course examines discourse, coded language and labels, accents, and strategies for communicating across cultures. We will explore the effects of World Englishes on our own minds, our classroom, our campus, our local community, and the global stage.

## **APPENDIX L: OTHER UNIVERSITIES**

International students face similar issues across the United States. To address these issues, we investigated Carnegie Mellon University, Boston University, University of Indiana Bloomington, and Clark University. The background information about these schools is provided in this section.

Carnegie Mellon University is a private research university located in Pittsburgh, Pennsylvania. Founded in 1900, its interdisciplinary programs included: arts, business, computing, engineering, humanities, policy, and science. The school ranked 26 in the National Universities provided by US News, has 14,799 students from 117 countries and employs 1,400 faculty members. 7,051 international students chose Carnegie Mellon University as a place to persuade their degree in 2016.

Boston University is a private research university in Boston, Massachusetts. The school founded in 1839 in Newbury, Vermont before moved to Boston in 1867, offers bachelor's degrees, master's degrees, doctorates, and medical, dental, business, and law degrees. The university now has nearly 34,000 students and home of 8,455 international students in 2016.

Indiana University – Bloomington is public research institute located in Bloomington, Indiana. The school is grounded in the liberal arts and sciences, and a world leader in professional, medical, and technological education. The school has over 40,000 students with 7,159 international students in 2016.

Founded in 1887, Clark University is a private research university in Worcester, Massachusetts. The university offers 46 majors, minors, and concentrations in the humanities, social sciences, natural sciences, and engineering and allows students to design specialized majors and engage in pre-professional programs. 3,122 students enrolled in Clark University with a total of 670 international students on campus.