Creating Student E-Resources for the London Project Center

An Interactive Qualifying Project submitted to the Faculty of WORCESTER POLYTECHNIC INSTITUTE in partial fulfilment of the requirements for the degree of Bachelor of Science by

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Report Submitted to:

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This report represents the work of WPI undergraduate students submitted to the faculty as evidence of completion of a degree requirement. WPI routinely publishes these reports on its website without editorial or peer review. For more information about the projects program at WPI, please see <u>http://wpi.edu/academics/ugradstudies/project-learning.html</u>

Abstract

Students attending the London Project Center (LPC) struggle to prepare for their IQP trip due to a lack of easily accessible information. We surveyed students and interviewed center directors, Global Experience Office staff, and representatives of the Association of International Educators and Forum on Education Abroad, to identify what information students need and how best to provide it. We created a website to more effectively address these informational needs before and during the IQP experience. Additionally, we made a promotional video for the LPC to use in cultivating project hosts. We recommend how the LPC director and GEO staff can improve the existing sources of information and methods of dissemination, and how to maintain and update the SharePoint website.

Acknowledgements

We would like to recognize the individuals that supported our group for the past fourteen weeks. Both preparing for our project in Worcester, Massachusetts and implementing our plan in London, England, these individuals' support helped immensely with our project success.

First, we thank our project host and advisor, Professor Dominic Golding, who provided us with continued guidance and assistance in completing our desired goals and objectives. We also thank our advisor Professor Bruce Bursten for his support and efforts to ensure that we completed our project to the best of our abilities. Thank you to Naomi Pollard for guiding us through UK GDPR and our promotional video.

We thank all the past and future students, center directors, GEO staff, Ms. Natalie Mello, NAFSA and Forum of Education Abroad staff, Mr. Charlie Morse, and past project hosts for taking the time to answer questions during interviews and surveys. Their responses gave our team the valuable knowledge needed to construct the project deliverables and reach our final recommendations.

Thank you to all the faculty of Worcester Polytechnic Institute who helped make this project possible. We thank Mariah Donahue, Nicholas McCarthy, and the IT department for their help providing us with a platform to host our website behind the desired firewall. We thank the Academic Technology Center for providing us with the audio and video equipment needed to create our promotional video.

Lastly, we thank all the students in our cohort for providing our team with the necessary feedback and information for our project as well as long-lasting memories.

Thank you.

Executive Summary

WPI offers students a unique experience with the Interactive Qualifying Project (IQP) by combining study abroad with their project-based learning approach. While students can choose from over 50 project centers around the world, the London Project Center (LPC), the first international project center, remains a popular destination. While students attending the LPC are provided with multiple resources, students still struggle to find information on life abroad including accommodations, food options, day-to-day life, and transportation.

Preparing for the IQP at the London Project Center can be an overwhelming experience for students. Students must complete a variety of tasks, that include learning about a new culture, conducting research, meeting with advisors and local project hosts, and planning cultural activities and trips. Many resources such as the LPC website, ID2050, and WPI's Global Experience Office (GEO) provide London students with the information to make the most of their experiences safely on-site. However, the information presented can be overwhelming, not available in a form that is appealing to most students, and incomplete.

To address these challenges, the goal of our project was to develop a suite of online multimedia tools and resources for students embarking on an IQP at the London Project Center. To achieve this goal, we identified four main objectives:

- 1. Identify the latest and most effective approaches in providing information to students participating in education abroad programs.
- Assess current, past, and future Worcester Polytechnic Institute (WPI) student preferences regarding content and delivery of material about the London Project Center experience.
- Construct and test preliminary tools and resources for students embarking on an IQP at the London Project Center.
- 4. Create a promotional video for the London Project Center project hosts.

To meet each objective, we interviewed WPI Global Experience Office (GEO) staff members, project center directors and advisors, and representatives from the Forum on Educations Abroad and the Association of International Educators (NAFSA) to identify the current and best practices in delivering information to students participating in education abroad. In addition, we surveyed past and future London IQP students to gauge their experience through the IQP process and determine their preferences for the types of information presented and delivery mode. We also conducted interviews with past students willing to participate and randomly selected six current students to attend a focus group. Based on the information collected, we created and tested preliminary tools and resources on a website for students traveling to their London IQP. Lastly, we interviewed LPC project hosts to identify who they and their organization were and their personal experiences with IQP. Given this information, we created a promotional video that best fits recruiting new project hosts for the LPC.

The existing LPC website is designed as a repository for past project reports and is aimed primarily at current and potential project hosts, but not students. Students have reported that the information presented by GEO and in ID2050 by advisors is often overwhelming and difficult to access. Also, students have found there is a lack of information on the topics of local cuisine, attractions, and travel options. These are especially helpful coming from previous London IQP students.

Contrary to expectations, we found that students prefer text-based forms of communication, such as factsheets and handbooks, rather than videos or presentations. Students say finding desired information from text entries is easier and quicker than scrolling through video clips.

We have created a website (see Figure ES1) based on the multitude of interviews with sponsors, students, WPI GEO staff, and project directors. The idea, stemming from the data collected, was a single space where students can find all the necessary information being provided to them by GEO, ID2050, advisors, and past students to help enhance their experience. Information often gets lost in the many mediums the different groups provide, and students cannot find the resources given when they are needed. Included is a section where past students can recommend attractions, restaurants, and travel destinations. The pages and information provided were designed based on what the students felt was missing, what directors and GEO felt was the most important, and recommendations from previous students.

The current London Project Center website lacks resources for students but is a great tool for project hosts. It is mostly used as an archive for past student projects. In recent years,

students have struggled to find resources in one convenient location and access them with ease. Our goal was to take advice from past and future students, project directors, and GEO staff to create a website focusing on the most important topics. We have updated the "For Students" tab on the LPC website with links to a SharePoint site. This site is blocked by the WPI firewall and will only be accessible to students who have been accepted to the London IQP for C, D, or E term. The site is navigable within, but this is a quick way for students to go to a specific page.



Figure ES1: Home page of the SharePoint website.

First, we recommend the London Project Center Handbook for C, D, and E term is posted to the new SharePoint website prior to ID2050 and preferably as early as possible. Past students and directors have said that they find accessing the handbook to be difficult through Canvas pages. This will also help students to buy tickets early and save money on travel.

Second, we also recommend a group meeting before ID2050 to allow students to contact one another. ID2050 can be an intimidating class as you plan to travel with 23 other students you have never met. Seven weeks may be enough time to get comfortable with the idea of traveling with them, but planning weekend trips will be difficult. This could also be accomplished with an activity or two during ID2050 that mix up the project groups.

Third, if possible, holidays should be avoided for the long weekend. This will allow students the time to travel and prices will not be higher than normal.

Fourth, students recommended that GEO makes the Canvas site more accessible for the handbook. There is a lot of information provided on the site, but much of it gets lost. Students and center directors suggested a quick link to the handbooks, since so many students found it difficult to find.

Lastly, the SharePoint website will need yearly upkeep. We have provided a document that details the necessary steps for this maintenance. Included is how to add/remove student access to the site, how to change access settings, how to update the handbook links, and how to view analysis reports for a given page.

Authorship

Written by: AS, RK, Edited by: AS, RK Abstract Acknowledgements Written by: AS, Edited by: RK **Executive Summary** Written by: BT, ZR, RK Edited by: ZR, RK Introduction Written by: AS, ZR, Edited by: RK, ZR, AS Background Study Abroad Written by: ZR, Edited by: RK, ZR, AS, BT Written by: ZR, Edited by: RK, ZR, AS, BT **Project-Based Learning** The WPI Plan Written by: RK, Edited by: RK, AS, BT Interactive Qualifying Project Written by: BT, Edited by: BT The London Project Center Written by: RK, Edited by: RK, BT Multimedia Tools for Student Engagement Written by: AS, Edited by: AS, RK Conclusion Written by: AS, Edited by: AS Methods Objective 1 Written by: ZR, Edited by: ZR, AS, RK Written by: RK, Edited by: RK, AS Objective 2 Objective 3 Written by: BT, Edited by: BT, AS, RK Objective 4 Written by: AS, Edited by: AS, RK Conclusion Written by: AS, Edited by: AS Analysis and Findings Past Student Surveys and Interviews Written by: BT, Edited by: BT, ZR, RK Focus Group with Current Cohort Written by: ZR, Edited by: ZR, RK Future Student Survey Written by: ZR, Edited by: ZR Center Director Interviews Written by: BT, Edited by: BT, RK Charlie Morse Written by: BT, Edited by: BT **GEO Staff Interview** Written by: RK, Edited by: RK, AS Natalie Mello Written by: AS, Edited by: AS NAFSA Written by: AS, Edited by: AS, BT Written by: ZR, Edited by: ZR Forum of Education Abroad Written by: RK, Edited by: RK, ZR **Project Host Interviews** Website Design Written by: ZR, Edited by: ZR, BT **Conclusion and Recommendations** Written by: ZR, Edited by: ZR, RK

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Introduction

WPI offers students a unique experience with the Interactive Qualifying Project (IQP) by combining study abroad with their project-based learning approach. While students can choose from over 50 project centers around the world, the London Project Center (LPC), the first international project center, remains a popular destination. Since 1987, the London Project Center has hosted 478 projects and 1687 students. Among these projects, the LPC has partnered with over 100 different sponsors from a variety of organizations— notably local authorities, museums, and charities. While students attending the LPC are provided with multiple resources, students still struggle to find information on life abroad including accommodations, food options, day-to-day life, and transportation.

Preparing for the IQP at the London Project Center can be an overwhelming experience for students. Students must complete a variety of tasks, that include learning about a new culture, conducting research, meeting with advisors and local sponsors, and planning cultural activities and trips. Many resources such as the LPC website, ID2050, and WPI's Global Experience Office (GEO) provide London students with the information to make the most of their experiences safely on-site. However, the information presented can be overwhelming, not available in a form that is appealing to most students, and incomplete.

Two previous IQP projects in 2018 and 2020 focused on providing resources for students at the London Project Center (Karavoussianis et al, 2018; Alonte et al, 2020). Because student preferences and the way the Global Projects Program (GPP) presents information have changed since these previous efforts, we focused on implementing a website for future students containing various e-resources requested by past, present, and future students post-COVID. The London Project Center tasked us to develop a promotional video for new potential project sponsors containing testimonials from previous project sponsors.

The goal of our project was to develop a suite of online multimedia tools and resources for students embarking on an IQP at the London Project Center. To achieve this goal, we identified four main objectives:

1. Identify the latest and most effective approaches in providing information to students participating in education abroad programs.

- Assess current, past, and future Worcester Polytechnic Institute (WPI) student preferences regarding content and delivery of material about the London Project Center experience.
- Construct and test preliminary tools and resources for students embarking on an IQP at the London Project Center.
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To meet each objective, we interviewed WPI Global Experience Office (GEO) staff members, project center directors and advisors, and representatives from Forum on Educations Abroad and the Association of International Educators to identify the current and best practices in delivering information to students participating in education abroad. In addition, we surveyed past, present, and future London IQP students to gauge their experience through the IQP process and determine their preferences for the types of information presented and delivery mode. We also conducted interviews with past students willing to participate, and randomly selected six current students to attend a focus group. Based on the information collected, we created and tested preliminary tools and resources on a website for students traveling to their London IQP. Lastly, we interviewed LPC project hosts to identify who they and their organization were and their personal experiences with IQP. Given this information, we created a promotional video that best fits recruiting new project hosts for the LPC.

Background

Differing from all other universities, WPI (Worcester Polytechnic Institute) has combined aspects of a normal study abroad with project-based learning to create a unique student experience called the Interactive Qualifying Project. This background section begins with a brief overview of study abroad programs across the country to show the distinctiveness of WPI's approach. We then look at project-based learning and its effectiveness, the WPI plan, and the infusion of project-based learning into WPI's curriculum. Next, we explain the history, purpose, and overall process of the IQP before looking more closely at the London Project Center (LPC). We look at the history of the LPC, the trends in its projects and project hosts, and finally the current online resources that the LPC offers. To conclude the background, we give an overview of best practices for multimedia resources and what current standards are most effective for communicating to students.

I. Study Abroad

Study abroad entails sending students to a foreign location for a period (typically one semester or less) to complete academic work part of the student's degree requirements. According to Faupel, the concept of traveling in search of knowledge dates to the Romans studying in Greece. German, French, and British universities first adopted a modular credit system, which allowed undergraduates to take classes in a foreign country and transfer credits to their home university (Faupel, 2021). The first study abroad programs in the U.S. were developed in the 1930s. The number of students and types of programs has continued to rise since then, with an estimated 90% of universities and colleges now offering a study abroad program in recent years (Savicki & Brewer, 2015). Between 2010 and 2020, US universities saw a 37.6% increase in study abroad programs for which students receive academic credit (Faupel, 2021).

U.S. STUDENTS STUDYING ABROAD

In 2021/22, the total number of U.S. students who studied abroad for academic credit increased to 188,753 students, a nearly 13-fold increase of 1,197%.

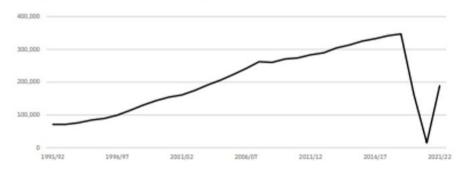


Figure 1: Trends in the participation of US (United States) students in education abroad programs (Faupel, 2021).

Early attempts to classify the variety of study abroad programs divided them into multiple criteria including duration, relationship to academic institution in host country, institution responsible for oversight, housing, student class standing, and selection criteria for participants (Faupel, 2021). Faupel outlines different types of study abroad program classifications in terms of duration, educational content, and logistical aspects based on the work of Engel and Engel (2003), as summarized in Table 1. As study abroad programs have evolved in many different universities across the country, three main types have formed: 'island,' 'foreign,' and 'hybrid.' First, students can participate in an 'island' or American program, which allows students to have the study abroad experience, but will attend a study center run by their US institution. This type of program allows the university to tailor its curriculum to best suit the needs of its students. These programs often allow other US universities to participate to defray costs. The WPI Global Projects Program falls loosely under this American style of program but is very different from every other program offered around the country because of its emphasis on project-based learning in collaboration with a local organization. Also, WPI does not allow other universities or colleges to participate in its programming, except for a small number of exchange students. Second, there is the 'foreign' or 'traditional' type of study abroad, where students directly enroll in a foreign university for the duration of their stay abroad. Students in such programs attend the same courses as local students led by faculty from the host institution. Sometimes these 'foreign' programs also entail an exchange relationship, meaning both universities will send students to the opposing school. Lastly, the 'hybrid' type of study abroad allows students to gain aspects of the other two study abroad types. Students will enroll in a local university to take classes but will also work in a study center provided by their US institution. This type of program is often offered in foreign locations where English is not commonly spoken. These study centers provide students with the resources and knowledge of foreign territory (Scally, 2015). Government funding allows more students to study abroad and more colleges and universities to offer study abroad programs (Scally, 2015).

Table 1: Classification of study abroad programs based on duration (Faupel, 2021).

| Program Components | Level 1: Study Tour | Level 2: Short- Term Study | Level 3: Cross- Cultural Contact Program | Level 4: Cross- Cultural Encounter Program | Level 5: Cross- Cultural Immersion Program |
|---|-----------------------------|--|---|--|---|
| Duration | Several days to a few weeks | 3 to 8 weeks | Semester | Semester to academic year | Semester to academic year |
| Entry target- language competence | Elementary to intermediate | Elementary to intermediate | Elementary to intermediate | Pre-advanced to advanced | Advanced |
| Language used in coursework | English | English and target- language | English and target- language | Predominately target language | Target-language in all curricular and extracurricular activities |
| Academic work context | Home institution faculty | In-house or institute for foreign students | Student group or with other international students | In house student group | Local norms, partial or complete direct enrollment |
| Housing | Collective | Collective and/or homestay | Collective, home stay visit, home stay rental | Home stay rental or integration home stay | Individual integration home stay |

Table 1.1. Engle and Engle Classification System of Study Abroad Programs (2003)

Assessing the true benefits of a study abroad program can be difficult (Savicki & Brewer, 2015), but the benefits have been broadly documented. Research suggests that studying abroad leads to better preparation for jobs post-graduation, higher paying salaries, and higher acceptance rates into top graduate programs. Additionally, connecting with people through different cultures and spreading awareness to their own countries helps unite this globalized world (Faupel, 2021). According to Movssaghi et al. (2014, p.75), "When asked about personal growth, nearly all (99%) agreed or strongly agreed that study abroad had enhanced their ability to deal with ambiguity and unfamiliar circumstance, 97% felt that it served as a catalyst for their increased maturity and independence, and 91% reported increased sense of self-confidence and tolerance of different points of view. When questioned about intercultural development, 97% of the respondents said that study abroad helped them better appreciate other cultures, 93% felt study

abroad instilled in them global mindedness, 92% reported that it increased their interpersonal skills." As noted by Milian, Birnbaum, Cardona, and Nicholson (2015), students reported having an increased quality of education and greater positive interactions with other individuals from differing cultures.

Critics of study abroad programs state that students would learn more staying at their home university compared to traveling since the standards of study abroad programs were difficult to set (Faupel, 2021). Therefore, many organizations geared toward education abroad were created to ensure more consistent quality and more standardized experiences and expectations.

II. Project-Based Learning

The idea of project-based learning (PBL) dates back a century to John Dewey and his advocacy of learning-by-doing (Noordin et al., 2011). With no concrete type or style of implementation, teachers at all levels and areas of education began creating their own adaptations. Projects, learning environments, and teacher involvement varied from program to program, but the general idea of challenging students to develop a better critical thinking process with real-world issues remained at the forefront of the design (Doles, 2012). Especially in recent years, colleges and universities have been leading the pack with a growing interest in project-based learning.¹

Project-based learning is a technique used to allow students to learn in a hands-on environment. Contributing to many different developmental skills such as social skills, motivation and interest, responsibility, and problem solving, PBL challenges students to solve tasks by working as a group (Zhang & Ma, 2023). Project-based learning is "learning [that] begin

¹ Problem-based learning shares many attributes with project-based learning and the terms are sometimes used interchangeably. Howard Barrows at McMaster University introduced problem-based learning for medical students in their residency programs. The concept was developed to learn by working towards a solution to a problem. Defined as, "a progressive active learning and learner-centred approach where unstructured problems are used as the starting point and anchor for the learning process" (Noordin et al., 2011). Problem-based learning is encompassed within project-based learning.

with an assignment to carry out one or more tasks that lead to the production of a final product a design, a model, a device, or a computer simulation. The culmination of the project is normally a written and/oral report summarizing the procedure used to produce the product and presenting the outcome" (Noordin et al., 2011). Requiring higher level thinking that emphasizes real-world situations, PBL allows students to make decisions, negotiate, and collaborate as a group with little assistance from teachers. Through monitoring the overall project and giving feedback, teachers can take a step back and provide the students with a learning environment unlike any other (Almulla, 2020).

According to Zhang and Ma (2023), many studies have shown that PBL improves students' basic interpersonal and thinking skills. However, the complexity and diversity of projects and research methods used in PBL leaves some professionals unconvinced. By comparing and analyzing many different independent studies, researchers can begin to determine the impact of certain factors associated with PBL. These factors include instructional design and material, learning environments, and project characteristics. The analysis of the problem and research conducted is often the most important piece since it will guide the design and environment of future PBL (Zhang, Ma, 2023).

Based on a study of 124 university students, Almulla (2020) found that PBL has positive impacts on five types of learning: collaborative learning (i.e. focus on teamwork), disciplinary subject learning (i.e. focus on the skills and thinking of a given subject), iterative learning (i.e. continuous attempts of problem solving), authentic learning (i.e. real-world applications), and student engagement learning (i.e. interactive activities). Almulla (2020) also found that PBL enhances student engagement and both students and teachers were in favor of the implementation of project-based learning.

According to Noordin, et al. (2011), project-based learning is "well-known among engineering education researchers" and is intended to be implemented directly into the teaching and learning of students. The hands-on approach allows students to become fully engaged with their learning while using the knowledge and skills taught by educators. PBL allowed students to also prepare for their respective industries better. This idea was also two-fold, benefiting both the universities with their graduates and future companies with their employees (Noordin et al., 2011).

In recent years, the role of technology has become increasingly important as it benefits students in a way that was not possible in the past (Zhang & Ma, 2023). Easily integrating language learning, cultural understanding, and different learning environments, technology allows for a better overall experience. It is often used as a tool for planning and conceptualizing ideas for research (Almulla, 2020). This new development in the world of project-based learning has allowed students of many more disciplines to engage in this learning model. Also, incorporating the use of newer technology to enhance the experience and environment of students. Technology will continue to change and expand the possibilities of projects studied by students.

III. The WPI Plan

Founded by John Boynton and Ichabod Washburn in 1865, Worcester Polytechnic Institute is the third-oldest private technological college in the United States. The founders emphasized teaching theory and practice (enshrined in the school motto as 'Lehr und Kunst') and WPI has emphasized hands-on approaches to learning for over 150 years (Theory and Practice: Our Founding Tradition., n.d.).

During the late 1960s, WPI's faculty were concerned about the lack of interest in traditional engineering programs. There was an additional concern among the staff about competition with other schools in New England because of the declining student enrollment. The staff wanted to focus on connecting social issues with the engineering curriculum to gain student interest in project–based learning. These concerns arose while WPI was already looking to revise its curriculum (Schachterle & Watkins, 1992).

In 1970, WPI decided to change the structure and content of the curriculum to fit students' needs and give everyone a chance to write their own journey. The new curriculum known as the WPI Plan emphasized project-based learning (Fifty Years of the WPI Plan, n.d.). The WPI Plan offered students a greater ability to customize their education, including the addition of Humanities minors. The most notable part of the plan was the two advanced-level projects that students must complete to graduate (A Miracle at Worcester, n.d.).

Believing in a hands-on teaching style, WPI has prepared students for decades to jump straight into the workforce following graduation. Students will continue to learn new information

in their future careers and the WPI Plan helps students to navigate learning through project work while in college (Project-Based Learning, n.d.). The WPI Plan includes two project opportunities for students: the Interactive Qualifying Project and the Major Qualifying Project (MQP) (Creating the WPI Plan, n.d.).

The IQP and MQP projects present students with open-ended problems, and they must create a finished product that tries to address the problem that the project presents (Schachterle & Watkins, 1992). Students complete the IQP during their junior year and the MQP during their senior year at WPI (Creating the WPI Plan, n.d.). These two required projects allow students the opportunity to practice working in a team on a real-world project with a sponsor. The open-ended design of the projects introduces students to the style of problems they will face in their professional careers. Multidisciplinary teams of staff lead the IQP project to help students see that all engineering faculty are concerned about the engineering impact on society (Schachterle & Watkins, 1992). The IQP project allows students to work with students from varying majors to complete a social science project (Interactive Qualifying Project, n.d.).

In 2014, Richard Vaz and Paula Quinn studied the impacts of off-campus project-based learning at WPI. They found that participating in an off-campus project experience had profound impacts on the worldviews and the personal and professional lives of the students and that these impacts were long-lasting, since many of the participating alumni completed their projects many years prior to the study (Vaz & Quinn, 2014).

In terms of worldviews, Vaz & Quinn (2014) found that the off-campus experience enhanced students' abilities to view issues from different perspectives and expanded their understanding of global issues, people of other cultures, people of different racial and ethnic backgrounds, and expanded their respect for cultures other than their own.

The alumni also felt that their off-campus project had a greater impact on their personal life. Of students who attended an off-campus project center, 70% felt that it enriched their lives. Students go to an off-campus IQP to be a part of an immersive experience in an unfamiliar culture, and this helps to improve their understanding of others and provides memories of their trip. Students who went off campus reported that the experience helped them develop a stronger personal character and enhanced their ability to achieve a work/life balance and feelings of being able to make a difference in the world (Vaz & Quinn, 2014).

The IQP and MQP projects emphasize research, writing, and presentation. During these projects, students on campus and off campus felt that their professional communication skills improved. Of all off-campus students, 64% felt that they could give more effective presentations due to their projects. During IQP and MQP, students must present to their sponsors regularly throughout the project process to keep them updated. The students refined this skill as they received feedback from advisors over the project terms and students have a better understanding of what makes presentations impactful for attendees. WPI alumni also believe the project improved their interpersonal skills and ethics. Of all off-campus students, 75% indicated that they could function as a team more effectively because of their project. Students worked with a team daily while off-campus and needed to learn how to function effectively during the project. On-campus students would go back to their normal day activities after their meetings, but the students off-campus would live in the same housing as their team members. This would create a stronger team bond between the groups. The findings from this survey indicate that students should consider attending an off-campus project center during their time at WPI (Vaz & Quinn, 2014).

More recently in 2021, Kimberly LeChasseur and Kris Wobbe completed another study focusing on the impact of all project-based learning at WPI (LeChasseur & Wobbe, 2024). WPI alumni received a similar survey to the one sent out in 2014. A greater percentage of students indicated that they felt their project had a greater impact on their personal lives (LeChasseur & Wobbe, 2024). Of these students, 83% felt their ideas were more valuable after their project. This was a significantly higher percentage than the 2014 WPI Alumni survey results where only 58% of off-campus students felt their ideas were more valuable after their off-campus project (Vaz & Quinn, 2014). Many alumni mention that the reason the WPI project-based learning projects were impactful for them was because they felt "more authentic" and there were higher standards for the completion of the projects (LeChasseur & Wobbe, 2024).

IV. Interactive Qualifying Project

WPI gives students the opportunity to participate in multiple project-based learning programs including Great Problems Seminar, Interactive Qualifying Project, and Major Qualifying Project. The purpose of the WPI plan is to teach students "how to learn" by consistently applying classroom knowledge to these projects (WPI Plan, n.d.). In contrast to the major specific MOP, the purpose of IOP was to bring students from different majors together to work on a project outside of the scope of their major whilst in addition developing the students' skills in project management and teamwork. Most IQPs are conducted off campus as part of the Global Project Program; this program began in 1974 with the Washington, D.C. project center and today there are project centers around the world on every continent except for Antarctica (Forming the WPI Plan, n.d.). Along with MQP, the IQP is one of the landmark moments in WPI's project-based learning model. Throughout the years, IQP has become widely recognized as an innovative approach to introducing liberal arts education into a STEM-based curriculum and has encouraged thousands of students to think critically to solve real-world problems worldwide. This experimental project-based way of learning encompasses professional readiness and personal growth (Vaz & Quinn, 2014). Each IQP group works with a local sponsor organization from the location, which has real projects that WPI students apply their skills towards. These projects vary in goals, implementation, and purpose but they have the common thread of having a tangible positive impact on the sponsoring organization. When working on their IQP project, students develop the skills detailed in the faculty-approved learning outcomes (Table 2). The students participating in the IQP also develop invaluable skills working with a team to complete such a project.

| 1 | Demonstrate an understanding of the project's technical, social and humanistic context. |
|---|--|
| 2 | Select and implement a sound approach to solving an interdisciplinary problem. |
| 3 | Demonstrate the ability to write clearly, critically and persuasively. |
| 4 | Define clear, achievable goals and objectives for the project. |
| 5 | Analyze and synthesize results from social, ethical, humanistic, technical or other perspectives, as appropriate. |
| 6 | Demonstrate strong oral communication skills, using appropriate, effective visual aids. |
| 7 | Critically identify, utilize, and properly cite information sources, and integrate information from multiple sources to identify appropriate approaches to addressing the project goals. |
| 8 | Maintain effective working relationships within the project team and with the project advisor(s), recognizing and resolving problems that may arise. |
| 9 | Demonstrate an awareness of the ethical dimensions of their project work. |

Table 2: Faculty approved learning outcomes for IQP (Interactive Qualifying Project, n.d.).

IQP projects usually involve working with sponsoring organizations such as government agencies, museums, and community service organizations. The sponsors are crucial to defining the projects scope but this partnership between students and sponsoring organizations also ensures that students are exposed to the nuances that come from working in a professional and cultural context (Vaz & Quinn, 2014). Sponsoring organizations offer to host IQP groups after they find out information about the program through online resources, word of mouth, or just a desire to try something new. Many sponsoring organizations continue their involvement and

offer new projects in successive years because they find the student research valuable (Schachterle & Watkins, 1992).

A WPI student will typically engage in their IQP during their junior year of college (Figure 2). Applications begin early in their sophomore year where they fill out an extensive application and preference form where they will rate centers from "Very Interested," "Interested," or "Not Interested," this application is due around the end of November. Students are placed in their respective project program in December of their sophomore year, although they have the chance to deny the project location and try to apply again in a reduced pool of projects. The term before their project departure they will participate in ID2050 and Pre-Qualifying Project (PQP).

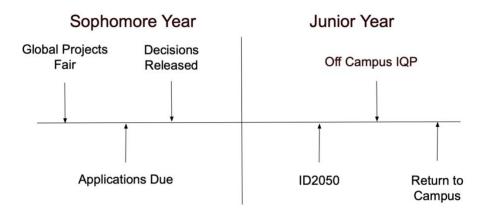


Figure 2: Timeline for IQP application process.

To help prepare for the IQP experience, students enroll in ID2050 the term before departure. This preparatory course enhances essential skills like research methodologies, project management, and teamwork. Students also begin their project proposals and drafts and familiarize themselves with their sponsors.

This course is combined with PQP in which students work with their advisors on their project proposal, consistently receiving feedback throughout the process (Puerto Rico Project Center, n.d.).

Project centers are the locations that students travel to for their IQP project, and these can be domestic or abroad depending on the preferences of the applicant. New project centers are implemented for various reasons, one being rising student demand for locations. As more students get involved with IQP projects abroad, the demand for more centers around the world escalates leading to new locations being added frequently. A crucial step towards the establishment of global project centers requires a faculty member to submit a proposal which encompasses student interest, housing, sponsors, safety of the area, and all other grounds for consideration to the Dean of the Global School, who will decide whether to move forward with implementing the location. Safety is paramount when sending students abroad. In response to safety concerns the students either complete their IQP domestically or their project center, which moved to Cadiz, Spain in the wake of the war in Ukraine. Another example is the Israel Project Center which was moved to Berlin, Germany due to conflict in the area. This flexible and strategic approach ensures that the educational journey of each student remains rich, safe, and aligned with the ever-evolving global landscape (Golding, Dominic, personal interview, February 26, 2024).

V. The London Project Center

The London Project Center is one of more than 50 off-campus WPI project centers. The first off-campus project center was established in 1974 in Washington, DC (Washington, D.C. Project Center, n.d). London was established as the second WPI project center and first international location informally as an exchange program in 1974 and formally as a residential project center in 1987 (London Project Center, n.d.). These off-campus project centers provide an immersive program in an unfamiliar culture for current WPI students (Global Project Program, n.d.). The London Project Center has hosted more than 450 student research projects since its formal establishment in 1987 (Figure 3), although several projects were conducted by students as part of the WPI exchange program in London between 1974 and 1987 (London Project Center, n.d.).

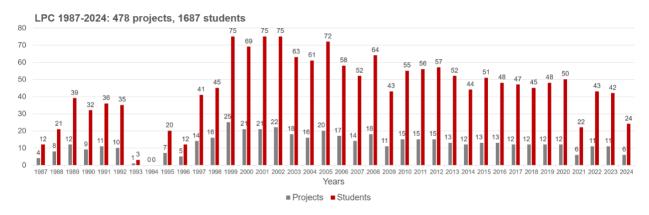


Figure 3: Number of projects completed and number of students at the London Project Center by year (London IQP Database, 2024).

Between 1974 and 1987, WPI Professor Lance Schachterle and The City University Professor Maria Watkins hosted a foreign exchange program together where The City University students would study at WPI while WPI students studied at The City University (Schachterle & Watkins, 1992). Using the connection Schachterle had made with Watkins, WPI Professor John Zeugner founded the London Project Center (Zeugner, 1987). Zeugner and Watkins created the LPC to offer students an immersive study-abroad experience while attending WPI. London was chosen because of the connections with Professor Watkins and the assumption that students would adjust more easily in a country with English as the primary language. Professor Zeugner took on the role of Faculty Resident Advisor while Professor Watkins' had the role of Resident Director. They reached out to several London-based organizations and pitched the IQP experience to them to ask if they would host a 7-week project for the first group of London IQP students. Together Professor Watkins and Professor Zeugner were able to recruit the first four project sponsors in the London area (Zeugner, 1987). In April 1987, WPI sent its first group of IQP students over to the LPC (Schachterle & Watkins, 1992).

Since its inaugural year, the London Project Center has worked with over 100 different organizations, primarily local authorities, museums, and non-profits (Figure 4) (London Project Center, n.d.). Specifically, some of the organizations that the project center has worked with most frequently include the Borough of Merton, the Science Museum, the H.M. Tower of London, the British Museum, and the Commonside Community Development Trust (Figure 5) (London IQP Database, 2024).

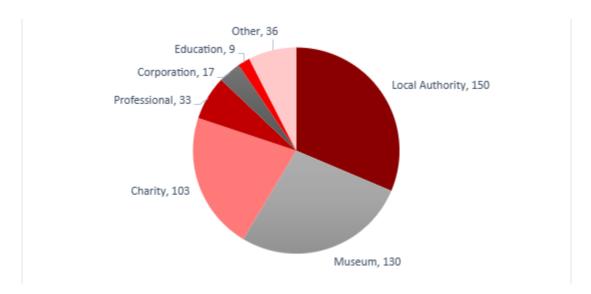


Figure 4: Number of London IQPs completed by project host type (N=478) (London IQP Database, 2024).

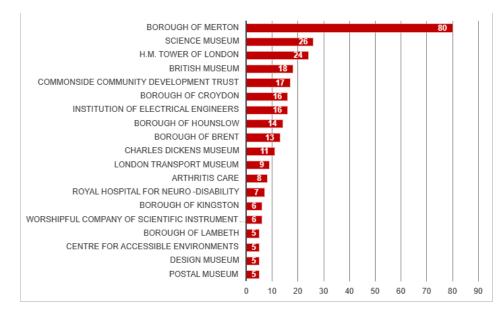


Figure 5: London project hosts with five or more IQP projects (London IQP Database, 2024).

At present, the London Project Center offers an Interactive Qualifying Project Program opportunity to juniors at WPI during C, D, and E terms. The London Project Center's current director is Dominic Golding (London, England Project Center – IQP, n.d.). The projects range from creating new exhibits for museums to working on non-profit outreach. The project center's goal is to give students real-world experience while also helping the project host organizations gather data and different perspectives (London Project Center, n.d.).

The current website for the LPC provides information about the London Project Center for sponsors, students, and faculty. The website (Figure 6) has six tabs: a Home page, a WPI Program page, a Projects page, a For Students page, a For Project Hosts page, and a Contact Us page. The projects page contains a database of all the IQP reports completed with the LPC since 2010. Throughout the website, there are quotes from past project hosts talking about their experience with the IQP program. The website provides a brief description of the project hosts and projects that the London Project Center leads. Currently, there are no multimedia tools for students to use on the website (London Project Center, n.d.).



Figure 6: Current London Project Center home page (London Project Center, n.d.)

VI. Multimedia Tools for Student Engagement

There are a variety of methods that organizations use to communicate information to their audience. With the rise of the digital age, the most effective methods of communication have turned digital with the help of multimedia tools. In the contemporary educational landscape, the role of multimedia tools in communicating information to students has become pivotal. Traditional methods of instruction, reliant on static textbooks and lectures, are being progressively replaced by dynamic, interactive, and visually engaging multimedia content. This transformation has been driven by the recognition that diverse learners benefit from various presentation formats and interactive elements, fostering deeper understanding and retention of information. The Global Projects Program (GPP) has many stakeholders to communicate with including project sponsors, faculty, and staff. However, their biggest challenge is reaching the college students themselves. WPI's students are bombarded with information and juggling multiple commitments including their courseload, part-time jobs, and extracurricular activities. As a result, many of the key messages from the GPP staff and faculty get lost. The proper use of multimedia tools may be effective in cutting through the noise and providing the information students most want and need.

The Forum on Education Abroad releases standards for best practices regarding education abroad programs. For communication with students, the Forum links a pre-departure planning handbook to give to students prior to traveling to communicate expectations and policies for housing, travel, culture, etc. Additionally, they recommend a travel form listed by the University of Delaware for student travel during their education abroad. This method uses an Excel form for students to fill in travel details and what form of communication is best to contact them. While these best practices are adopted by WPI, it must be evaluated if their method of communication can be improved to better student experience (Leading Short-Term Education Abroad Programs, 2022).

A study conducted by Guo, Kim, and Rubin shows that effective informational videos need to be shorter rather than longer, with the optimal time being less than six minutes (Guo, Kim, & Rubin, 2014). As shown in Figure 7, videos in the 0-3- and 3-6-minutes time lengths performed the best in student engagement, with both sections having half of the students engage for the full duration or longer (students engaged longer than the full duration if they paused to review material). Looking at the longer videos, 50% of students would only engage with half the video length for 9–12-minute videos and only a quarter of the video length for 12–40-minute videos. Additionally, speakers who spoke faster and with more enthusiasm created more student engagement. It was also shown that Khan-academy style videos or interactive videos performed better than standard slideshow videos (Guo, Kim, & Rubin, 2014). These videos include visual demonstrations and voice-overs from the professor to better engage students. The visual demonstrations of the worked-out solutions cater to more visual learners while the voice-over explanation of each step caters to more auditory learners.

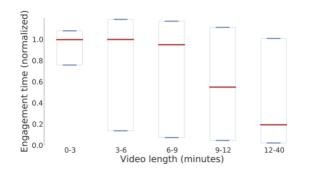


Figure 7: Boxplot for video engagement time normalized (in minutes) (Guo, Kim, & Rubin, 2014)

A primary consideration for informational e-resources is cognitive load. Cognitive load theory suggests there are several components to memory including sensory memory and long-term memory. Sensory memory has minimal storage while long-term memory is almost unlimited (Brame, 2016). Therefore, while watching a video, students must be selective over what information from sensory memory to focus on. The use of signaling important information is beneficial to optimizing our cognitive load. Some examples of this are highlighting keywords or using a change in color or contrast to emphasize an organization of information (Brame, 2016). Additionally, weeding out extraneous information is important. Matching modality of the audio and visual is also important for managing cognitive load. Khan-academy-type videos are good examples of matching modality, where the speaker explains the problem while solving it visually (Brame, 2016).

Social media usage has continued to rise in the digital era, with a 9% user increase each year since 2019. Students use social media for communication, sharing ideas, and collaboration. Gulzar, Ahmad, Hassan, and Rasheed hypothesized that utilizing social media is positively associated with student engagement and creativity with intrinsic motivation as a mediator. Survey data from 267 college students concluded that there was a statistically significant positive relationship between utilizing social media and student engagement with their studies (Gulzar et al., 2022).

VII. Conclusion

The IQP can be a very overwhelming process for students to undergo. With ID2050, PQP meetings with advisors, project host meetings, orientations, and trip planning, students need to complete many tasks to prepare for their IQP. While the ID2050 course does serve as an informational pre-requisite to prepare students for their IQPs, not all their questions are answered. This project's purpose is to utilize the current online resources and provide new, fresh ideas for the London Project Center to fill in the student gaps. Using different multimedia tools, we will communicate essential information on all stages of the IQP experience and make sure that our information is consistent throughout every platform to ensure future students have a better and more productive learning experience.

Methods

The main goal of our project was to develop a suite of online multimedia tools and resources for students embarking on an IQP at the London Project Center. To achieve this goal, we:

- 1. Identified the latest and most effective approaches in providing information to students participating in education abroad programs.
- 2. Assessed current, past, and future WPI student preferences regarding content and delivery of material about the London Project Center experience.
- 3. Constructed and tested preliminary tools and resources for students embarking on an IQP at the London Project Center.
- 4. Created a promotional video for the London Project Center Project Hosts.

Each objective has certain tasks that we completed to achieve our project goals (Figure 8).

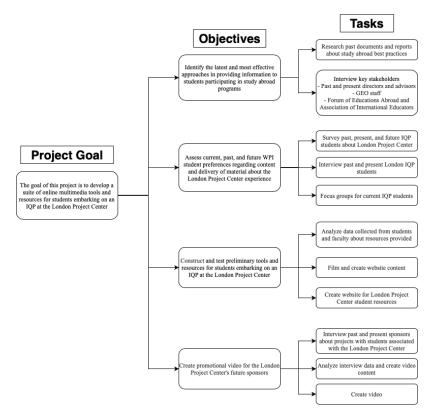


Figure 8: Goals, objectives, and tasks diagram.

I. Identify the latest and most effective approaches in providing information to students participating in education abroad programs

For this first objective, our focus was to identify key aspects of education abroad best practices to better provide WPI students with the resources and information needed prior to and during their IQP experience. We built on the background research presented in the previous chapter by interviewing three groups of key informants: (1) members of the Global Experience Office at WPI; (2) current and former WPI project center directors or frequent IQP advisors; and (3) representatives from the Forum on Educations Abroad and the Association of International Educators, who are individuals who may not know about the WPI IQP. These interviews were conducted over Zoom and lasted about 30 minutes each. Two group members asked questions, while the other two took notes. We modified these questions based on the interviewee and how the interview was progressing. We started each interview with a preamble, asking permission to quote, how they wanted to be quoted (i.e., by name or anonymous) and whether we were allowed to record. The preamble also explained the purpose of the interview and the project being done. The interviewee was given the chance to review any material used in this report before publication.

The GEO staff handle many of the logistical details associated with the GPP (Global Projects Program), from initial recruitment of students to preparations for departure. Over the years, GEO staff have used various approaches to engaging students to collect and disseminate pertinent information in preparation for the students' education abroad experiences. Some topics we addressed in these interviews were: changes in the GEO approach to disseminating information to students, best practices being promoted currently in education abroad, and any problems or frustrations that could be addressed in the future by having better information available on the project center websites. Appendix A is the interview script we used for the GEO staff members. In consultation with our project host, we identified some of the more senior staff in GEO to answer these types of questions.

The center directors and frequent IQP advisors handle many of the logistical details regarding project preparation and implementation. Some topics we addressed in these interviews were: how approaches to disseminating information to students have changed, questions frequently asked by students, and problems or frustrations that might be addressed by having better information for students on the project center websites. We developed an interview script in Appendix B. In consultation with our sponsor, we identified some of the more senior directors and frequent advisors to answer these types of questions.

The representatives from both Forum on Educations Abroad and the Association of International Educators research and promote many of the best practices for education abroad. As a former employee of WPI and the Forum for Educations Abroad, Natalie Mello gave us a unique perspective on different aspects of education abroad and contacted other organizations. Some topics we addressed in the NAFSA and Forum interviews were: changes to the ways of disseminating information to students, best practices in disseminating information to students currently in education abroad, and any aspects of other universities that WPI could adopt into the IQP process to make it more beneficial for students. We developed an interview script in Appendix C. Natalie was asked a similar interview script but was also asked questions pertaining to WPI specifically (See Appendix D). In consultation with our project host, we identified one or more representatives to answer these types of questions.

II. Assess current, past, and future WPI student preferences regarding content and delivery of material about the London Project Center experience

The purpose of our second objective was to gather data from past, present, and future students about their experience with the resources they receive to prepare them for the London Project Center experience. To gather the data regarding what content and delivery methods students prefer, we sent surveys to two separate groups (i.e., past attendees at the London Project Center and students who would be traveling to London in E2024). We conducted in-depth interviews with a subset of respondents who indicated they were willing to engage in follow-up interviews. We also conducted focus groups with our peers who were in London during D2024.

Surveys:

We sent an online survey to students who traveled to the London Project Center during one of the following terms: D Term 2022, E Term 2022, D Term 2023, E Term 2023, C Term 2024, and E Term 2024. We chose these cohorts to gather information about what types of content and delivery methods recent students preferred because we wanted to compare with the data collected in the London Project Center IQP projects completed in 2018 and 2020. We examined how student preferences have changed, if at all, since the COVID-19 pandemic. We pretested both preliminary surveys with 5 randomly selected students from the D2024 cohort. When pretesting the surveys, we asked the students for feedback on the structure and content of the surveys. We revised the surveys and sent them out to the intended recipients.

Past Attendees:

The survey (Appendix E) began by asking a set of background questions, including major, term traveled, and gender. We also asked their opinions about the quantity and quality of the resources provided to them and the effectiveness of different content delivery methods. Toward the end of the survey, we asked students to share how they traveled to their sponsor, their favorite places, restaurants, cities, walking/running routes, and tips for future students.

We distributed the survey using the online survey software Qualtrics. The survey included a preamble explaining how we used the information collected, and that we kept the data anonymous. We identified the students who completed an IQP project with the London Project Center during D2022, E2022, D2023, E2023, and C2024 using the London IQP database. We sent the survey to their current WPI email addresses. This email included a brief description of who we are, the survey's purpose, and a link to the survey. A week after we sent out the initial survey, we followed up by sending a reminder email to all the individuals.

Future Attendees:

The survey sent to future LPC attendees (Appendix F) included an introduction to how we used the information collected. The information gathered was kept anonymous because we did not collect email addresses with the survey submissions. We sent the survey to students registered to travel to the London Project Center during E Term 2024. We chose to survey these students because they are the first students at WPI to have access to the content we created for LPC student resources on our completed resource page. We asked these students the same set of background questions that we asked the group that took the survey in Appendix E. We also asked the students to rank the quantity and quality of resources they have been able to find and their opinion on the effectiveness of different content delivery methods. These students ranked the importance of different student resources content categories and the individuals shared what concerns they had prior to traveling.

We used Qualtrics to develop and distribute this survey. To identify the students traveling to the London Project Center during E2024, we contacted the director of the London Project Center, Dominic Golding. We sent the survey to the students' WPI email addresses with a blurb explaining who we are, the survey's purpose, and a link to the survey. A few days after we emailed out the initial survey, we followed up with a reminder email.

Interviews:

We conducted interviews with 5 past LPC attendees to gather more detailed qualitative information about students' experiences in London and their opinions about how to improve the effectiveness of the information delivery and content. The interview script for past LPC students (Appendix G) included questions about what led participants to choose the London Project Center, their experience with the ID2050 course, and their experience working with their sponsor. We also spoke with the individuals about their thoughts on the previously provided student resources and their hopes for future content for students. This gave us a more focused idea of what students look for when they are researching their WPI project center. To help narrow down the content we needed to provide future students, we asked past individuals about difficulties they found in London for the following topics: transportation, cuisine, phone plans, banking, housing, laundry, places to visit, safety, and events. We kept students' responses to the survey anonymous by embedding a separate survey into the original survey. The embedded survey asked the individuals if they were willing to participate in a follow-up interview with our IQP group. This question allowed the student to provide their name and email address, and we emailed them to schedule the interview. We conducted the 30-minute interview in Appendix G on Zoom. These students were given the option to remain anonymous in our final report and the right to review our IQP paper before publication to approve any materials we used.

Focus Groups:

We had a focus group with some of the students who went with us to the London Project Center during D term 2024. We conducted this focus group during the first week of IQP. We invited six randomly selected students to participate. During the focus group, we asked the questions from Appendix H to the group. We let the group talk with each other about their opinions on the questions. The focus groups provided feedback from the current students on their opinions about content and delivery methods for our student resources. We know the names of the participating students, but those names are kept anonymous in our published materials.

III. Construct and test preliminary tools and resources for students embarking on an IQP at the London Project Center

After creating a comprehensive survey to interview students and staff, then comes the crucial step of discerning the main takeaways from the data. For this objective, the main goal was to organize, interpret, and visualize the results of our surveys to students in faculty.

As students enter different parts of their IQP journey, they want different information presented in different forms. A student recently placed into the LPC might visit the website's predeparture section, while one who has just arrived in London might check out the onsite experience section. The categories presented in Figure 9 were changed to tailor to our results from objectives 1 and 2.

PRE DEPARTURE **ONSITE EXPERIENCE** POST VISIT REFLECTION "How to Survive" ID 2050 Transportation options Professional experience POP information International travel gained Health and Safety Best nearby restaurants _ What was most and least effective during their stay What to bring with you on Fun tourist attractions -Past student testimonials the trip Emergency protocol -Student discounts Where to buy plane tickets Forum for student -Banking issues Tips from previous comments _ Living conditions students

Figure 9: Categorized types of information desired at different stages in their IQP experience.

Furthermore, the results from objectives 1 and 2 also indicate the preferred types of delivery. For example, short text entries, long form videos, short form videos, audio clips, etc. Determining what the audience would find the most engaging was an essential part of our project. Various parts of the website might also require different forms of content delivery to maximize engagement, general information about travel might be most effective in small text

entries while information about tourism and the fun aspects of the projects may entail more expressive and vibrant graphics and videos. Investigating the online resources of other project centers and education abroad programs from various universities will be pivotal in understanding effective content delivery methods.

Evaluate Software Hosting Options:

We designed the website to facilitate updating and maintenance. To ensure students felt comfortable posting materials to the site and to limit access to WPI students and staff only, we used the existing LPC WordPress website as the entry point, while the different types of information were maintained in Microsoft SharePoint behind a firewall. Users could only gain access if they have appropriate WPI credentials as checked through Multifactor Authentication. WordPress and SharePoint also have pre-defined templates and do not require any coding which makes them easy to alter in the future if need be.

Develop Website Using Template:

The culmination of the data collection phase was integrating it into the website; however, a prototype was not needed in this case. The website was easy to create and edit, so it was not necessary to create a low fidelity prototype like we had originally planned. Instead, we used a pre-created template in Microsoft SharePoint (Figure 10). This step was essential to designing the content as organized and accessed as possible.

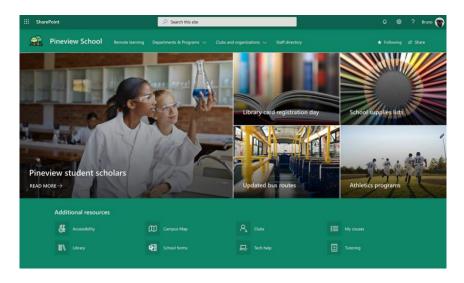


Figure 10: SharePoint template website

Iterative Building, Testing, and Refinement:

We developed the suite of resources in an iterative process with cycles of creating the website prototype, receiving feedback from peers, and refining the design until it was satisfactory. After the prototype's creation, we conducted hands-off usability testing by asking our peers to find information in it without any help. This allowed for observation of their navigation paths, identify areas of confusion or difficulty, and collect feedback on changes they would like to see. A user design process like this prioritized user-needs, preferences, and satisfaction with using the website. For example, if we instruct someone to find the packing list from the home page, and they cannot find the page for any reason, we will put great effort into analyzing the mistake to make the user experience as efficient as possible.

Finalize Document for Maintenance:

We compiled a detailed maintenance document that covers technical maintenance procedures, guidelines for updating content, and instructions for modifying user access permissions to safeguard privacy. The necessity of this document arises from the need to ensure that once our team graduates, project advisors, directors, and future IQP participants have detailed knowledge of the inner workings of the webpage, thereby increasing the likelihood that our work will be utilized in the long term.

IV. Create a promotional video for LPC for their project hosts

Our fourth objective was to create a promotional video for the London Project Center to recruit future project hosts. We conducted interviews with past and current project hosts, focusing on their experiences with WPI and IQP projects and the work that goes into their role as a sponsor. First, we consulted the LPC director and the local coordinator to identify potential interviewees that covered the ranges of three different topics: current project hosts and past project hosts, small organizations and large organizations, and new project hosts vs established project hosts. Looking at these criteria, we identified 9 project hosts to reach out to. From these 9 project hosts, we contacted 8 of them to interview.

We conducted the interviews in person and by Teams if necessary. First, we read the project hosts a preliminary script detailing who we are and our project, asking for their permission to record the interview, if they are willing to be in the video, and if they wish to

remain anonymous (see Appendix I). All interviewees were given the opportunity to review any materials used before publication. The topics we addressed in the interviews included the sponsor's motivations, what kind of projects they worked with, what is their role as a sponsor for these projects, how is IQP different from student placements, and the impacts of these projects on their organization (See Appendix I). We modified the questions as needed during the interviews.

The most important step for this objective was creating the promotional videos themselves. We met with a person from the WPI Academic Technology Center (ATC) who equipped us with a GoPro Hero 6, field recorder, microphones, a tripod, and a phone stand. Due to technical issues and lack of time, we opted to record all interviews using one of our phones secured on our tripod. For audio recording we used the field recorder and the Voice Memos app on our phone. After filming, we compiled the content in iMovie and edited it. The video was pretested by the project hosts, project advisors, and local coordinator and revised accordingly from the feedback.

Along with the project host promotional video, our group created additional videos touring one of the Bedford Place apartments and using public transportation in London. From the survey and interview data collected in objective two and our own experiences of the London IQP, these topics were identified as best addressed through video content.

Analysis and Findings

Past Students Surveys and Interviews

Our primary data came from a survey of students who had attended the London Project Center in the recent past. We assumed students who went to London pre-pandemic would have different experiences compared to post-pandemic students and would be much harder to reach. Accordingly, we decided to send the survey only to students who went on IQP in London in D22, E22, D23, E23, C24. We did not survey students in D24, although we gleaned information from that cohort in various other ways. We received 43 responses out of a possible 108 respondents, which is a 39.8% response rate. Figure 11 presents the number of responses by cohort. Out of the 43 responses, 28 agreed to participate in a follow up interview to discuss their experience with the LPC in greater depth. For the sake of time, we selected five students at random out of this group to interview.

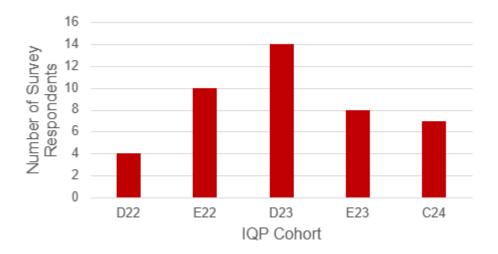


Figure 11: Number of survey respondents from each IQP cohort (n = 43).

As seen in Figure 12, past students found advisors, ID2050, other students, and PQP meetings to be the most effective sources of information before traveling to London. In contrast, students found the LPC Website, Going Global WPI Handbook, Global Projects Website, and GEO staff to be the least effective sources of information. Notably, none of the respondents said they strongly agree that the LPC and Global Projects websites were effective at providing information, which suggests that improving these resources might have a substantial impact.

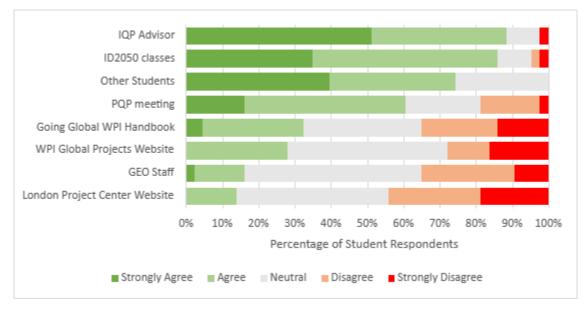


Figure 12: Past student opinions on the effectiveness of dissemination of information from various sources (n = 43).

According to Figure 13, most students felt they received enough information in each category. However, a few students indicated they received little or no information regarding cuisine, international travel, activities on site, the nature of a typical workday, and banking. We hope the new resources we have developed will help to address these deficiencies, as we have put great effort into providing students with relevant information on these topics on our website.

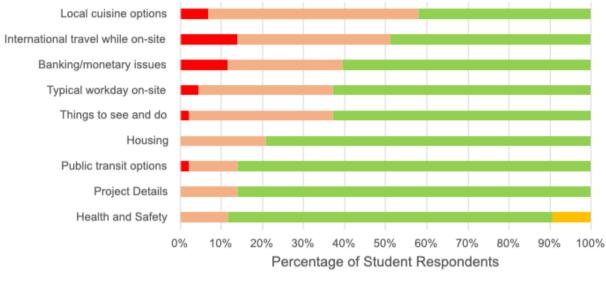




Figure 13: Past student opinions on whether they received a satisfactory amount of information on selected topics. (n = 43).

Figure 14 presents the respondent's opinions on the delivery methods of information. Contrary to expectations and our background research, we found that students preferred textbased methods like handbooks and factsheets over more visual media like videos. We assume this preference is because students can glean the information, they want more quickly from a well-made fact sheet as compared to a video. Students likely find it easier to retrieve information they need from text-based materials, rather than having to scroll through video clips. Nevertheless, students seem to desire short videos for some topics, which we aim to include on our website. In our interviews, representatives from NAFSA and the Forum of Education Abroad emphasized that using multiple modes of communication (e.g., video, text, in-person) through multiple channels (e.g., websites, class discussion, meetings) increases effectiveness. Repetition is also an essential ingredient in effective communication.

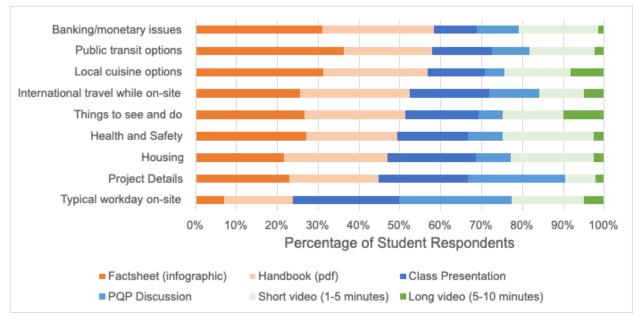


Figure 14: Preferences of past students on the dissemination of information on nine general topics.

Lastly, we asked past students for recommendations for the best attractions, food options, and cities to visit. The following summarizes some of the major recommendations:

- Tower Bridge, Tower of London, Big Ben, and London Eye were the most popular landmarks.
- The British Museum, Museum of Natural History, and Tate Modern were the most popular museums.
- Pret, Nando's, and Plan Burrito were the most recommended inexpensive restaurants.
- Dishoom, Sky Garden, Borough Market, and Duck and Waffle were the most recommended expensive restaurants.
- Hyde Park, Regents Park, and along the Thames were the most popular walking or running locations.
- Edinburgh, Bath, Oxford, Brighton, and Cambridge were the most popular locations in the UK to travel.
- Paris, Amsterdam, and Dublin were the most popular cities to travel to outside the UK.

Focus Groups with Current Cohort

During the focus group with D24 students, we found that students struggled with packing prior to IQP, planning trips, and finding cost-effective food options. Before departing, the type of clothes to pack (comfortable vs. dressy) or even the number of outfits to bring caused unnecessary extra stress and confusion for students. Upon early reflection, many of them also forgot items such as adapters, portable chargers, common medicines, lunchboxes, umbrellas, small mirrors, and power strips. Students also wished they had planned trips out of London earlier because plane, train, and bus tickets get expensive. Most of the focus group thought it would have been better to do this during ID2050, if not earlier, but did not feel they knew their cohort colleagues well enough to plan together. Making friends while trying to plan a trip with them is very difficult, but students did not have a solution for this besides trying to get to know one another earlier.

Another major issue for students is dining options; London is an expensive place to eat out, but the accommodations are also limited with cooking resources. The focus group mentioned how they only had one pot and pan to cook for six people. Students noted that groceries are cheaper to buy, but require extra time to prepare, and you need to be in the flat to eat. This can limit exploration of the city. Some students have also found that the portion sizes are smaller than in the U.S., yet the prices are roughly the same as you may expect for a meal.

Another concern brought up by students was the cost of attractions other than free museums. Some students pointed out that many places offer student discounts with one's WPI ID. Students also quickly found out that Discover credit cards are not widely accepted in London and cash is also rarely used. The focus group recommended students be informed about these issues sooner, so other arrangements could be made prior to travel. Lastly, students thought they were not prepared for the work and expectations of IQP. Everyone knows that the expectation is 40 hours per week, and this expectation stressed them out about not having enough time to see and explore the city. The students suggested a "week in the life" example be provided prior to travel to help ease future student nerves.

Due to these responses, we have decided to include a week in the life page on the website to help set expectations for the future London Project Center students. This will help not only to set a schedule, but also to plan for trips and attractions. We have also created a packing list to assist in the type of clothing and other items to bring to London. There are also multiple resources for students to find cheaper options when going out to eat or finding things to do.

34

Future Student Survey

With only six out of 24 possible responses, we cannot do detailed analysis or draw definitive conclusions. Nevertheless, we noted that the responses from the six students mirrored many of those from the larger survey. Future students indicated they would prefer the handbook and factsheets as primary resources as opposed to videos of any length. This finding is surprising but does make sense. It is also the reason we have created our website. We wanted to provide a source that is convenient to access and addresses the topics of concern to students. The six respondents had similar concerns as previous students, such as housing, pricing in London, and guidance on the typical work expectations. Hence, we have included this information on our website also.

Center Directors Interviews

From our interviews with center directors and advisors, we found invaluable data on how to disseminate information to students, what questions students frequently ask, and the difficulties that come from living abroad. All the people we interviewed said that WhatsApp, Canvas, and email were the most common and effective services used to get information to students. WhatsApp is primarily used for quickly communicating on-site and messaging in a foreign country, while Canvas is used for storing important documents and files, such as the onsite handbook. There were complaints from the advisors that many important questions could be answered by checking the documents on Canvas that students had not checked. We hope to alleviate this frustration by presenting this information in a way that better appeals to students and is easier to access. Students frequently asked their advisors about the work/life balance on IQP and how many hours they should expect to devote per day to their project. The advisors also said that the student reaction to the intense change in workload and level of accountability in comparison to being on campus can manifest in different ways: they might thrive in the new work environment and at other times they neglect their studies compared to their output on campus. In terms of the location itself, students generally ask about where to buy groceries, safety, public transportation, and things to do while on site. This matches the findings from our

survey of past students who said that they did not receive nearly enough information on things to do and local cuisine options.

Charlie Morse, Dean of Student Wellness

Several Center Directors and IQP Advisors suggested that students need additional information prior to departure abroad on mental health issues and resources. Struggling students worry that when going abroad they will be away from their support network, and they are unclear how to get the resources they need. In response to hearing this, we scheduled an interview with the Dean of Student Wellness, Charlie Morse, who gave us invaluable advice. It is important to inform students early that most therapists are not licensed to operate outside of the US, and they need to make sure their needs can be addressed before traveling. Mr. Morse and the GEO staff emphasize that ISOS can provide up to five sessions with a counselor on-site or remotely. Unfortunately, students may have developed a relationship with a counselor at WPI or at home and are often reluctant to talk to a local counselor in London whom they do not know. It takes time to develop a relationship with a counselor and this is unlikely to happen in seven weeks or less. Nevertheless, ISOS counseling services may be helpful in crises especially. Accordingly, we added a "Mental Health Resources" section to our website. The Student Development and Counseling Center (SDCC) at WPI also offers a free consultation session prior to traveling to guide students through finding the resources they need abroad. The SDCC, advisors, and GEO staff, encourage students to discuss their plans with their counselor prior to departure.

GEO Staff Interview

During our interview with Global Experience Office (GEO) staff members, Krista Miller, and Candace Ruta-Burdette, on March 20, 2024, we gained information about WPI's current delivery methods for information regarding health and safety. We were also able to learn about what concerns GEO has regarding students completing education abroad. These discussions helped us determine what information regarding health and safety abroad we should include in the resources we developed. GEO staff members expressed concerns about students being informed about health and safety before their education abroad. According to the GEO staff, Canvas is the best way they have found to get information out to IQP students. However, GEO sent out surveys to students following their IQP and found students disagree that Canvas is an effective tool for information dissemination. In the past GEO has attempted to keep the dissemination of information homogeneous across all IQP project centers, however this has proven to be difficult because different project centers have different information that needs to be relayed. To solve this issue the GEO staff put together IQP handbooks for each project center in collaboration with the project center directors.

GEO staff voiced concern for students' understanding of the culture that they are entering. The GEO staff said, "students sometimes have a picture in their mind of where they are going that does not match reality." For example, students expected the Namibia project center to be in a more rural setting when the students are in the middle of the city. Another student felt caught off guard by the sheer number of tourists in Venice even though it is one of the most crowded cities in the world. This lack of awareness concerns the GEO staff because it is essential that students understand how to remain safe in their project center location. If students do not understand the cultural setting they are entering, they may not have the knowledge necessary to stay safe.

Interviews on Best Practices

We interviewed representatives from NAFSA and the Forum on Education Abroad to learn about current guidance on best practices for informing students. We also interviewed Natalie Mello, a long-term manager of IGSD (now GEO) at WPI and then worked at the Forum on Education Abroad.

Natalie Mello

Due to her extensive background both at WPI and with the Forum on Education, Ms. Mello provided us with a unique perspective. From this interview, we learned that if students are not engaged in the resources provided, then they deem the information as unimportant and are more likely to forget it. Ms. Mello addressed this issue during her time at WPI by making the IGSD orientations more interactive. Students would be given a case study on a specific topic (such as safety abroad) and present a summary of the issues and solutions to other students during orientation. By doing their own presentations the students were more engaged in the content presented. Ms. Mello said that, as a best practice, the Forum on Education recommends that study abroad programs use multimedia approaches to better inform students, which aligns with our project goal of creating multimedia resources for the LPC students.

Ms. Mello explained that, in her experience, students learned the most through their cultural experiences abroad, especially those outside their comfort zone. Students who embraced the new culture grew more empathic and therefore gained a more diverse perspective on life. During her time as a project advisor for Costa Rica, Ms. Mello took students on a boat tour around the islands. Accordingly, the resources we have developed provide students with recommendations and links to explore London and other UK experiences. These resources include a forum with past student recommendations for food, attractions, and other cities and separate "Things to Do" and "UK and International Travel" pages. We also recommend that Professor Golding and other London advisors continue providing students with cohort excursions such as Box Hill, Seven Sisters, and the Tower of London. Lastly, Ms. Mello found that the current information regarding mental health provided to students was lacking and needs to be improved. As mentioned above, we added general tips and additional resources students can use to help with any mental health issues they may have while abroad.

NAFSA Staff

We met with a member of NAFSA on April 2, 2024, to learn more about current best practices promoted by NAFSA. NAFSA recommends that students should select their education abroad program based on what academic or experience goals they want to achieve rather than where they want to go. While WPI students will not know what projects are available during their application to a project center, the current LPC website details all past projects to give an understanding of what organizations and projects students work on during the London IQP. Additionally, we found that connecting students with past students that participated in the same program is very beneficial before traveling, especially those who come from the same background as the students. We recommend that advisors organize a meet-and-greet session with past students in ID2050 and encourage students to contact previous teams with the same or similar project sponsors, if possible.

We found that not only did it matter *how* information is being disseminated, but *when* it is being disseminated. Presenting information when students are most likely to need it will lead to the most engagement and likely improve retention. While that is hard to gauge the optimum timing, presenting multiple resources with similar information at different times to students during ID2050 and PQP can lead to the most student engagement and most information retained. Students also need to be informed about cultural expectations compared to those of the U.S. Accommodations and facilities that are normally provided in the U.S. are not always available in London. Behaviors that may be acceptable in the U.S. may not be acceptable abroad. To address this need, we list all accommodations available in London to students. Lastly, to address some students' homesickness it was suggested that students set up communication plans with friends and family to keep in contact while abroad.

Forum on Education Abroad

We interviewed Amelia Dietrich, at the Forum on Educations Abroad, on April 9, 2024. We asked Ms. Dietrich about topics such as best practices currently being used to engage and inform students, changes in recent years, expectations of colleges and universities, types of questions and concerns students typically have, and her future hopes regarding overall changes. These topics not only gave us an idea of what students are looking for currently, but also what can be done to better their experience on IQP.

To begin, Ms. Dietrich talked about a document the Forum on Educations Abroad provides that details best practices in communicating with students. She emphasized that the type of medium does not matter as much as the repetition of the information presented, and the use of different media through multiple channels. The type of distribution methods has obviously changed over the years from in-person conversations and printed material to more digital information. She said that the current major topics of concern for students were health and safety, finance, housing, academics, and culture. Students often lacked information or awareness before departing on their education abroad experience. After hearing this, we decided to address these topics of major concern, which aligned with responses from our previous interviews and surveys, using many different media, including video, photo, and text.

At the end of the interview, Ms. Dietrich talked about her own education abroad, experiences and what she hopes for in the future. She thinks that different approaches can reach different types of people. For example, a student seeing and learning from an example of another student during an education abroad experience may help them decide. Oftentimes students are scared and nervous about these experiences because they are outside of their comfort zones and may require a little challenge. She hopes in the future more students will go abroad not only for their studies but also simply to connect with another culture and especially local peers. Her goal is that students one day will think about their academic goals and pick a location based on that, rather than the other way around. Ms. Dietrich mentioned how there is so much to learn and take away from the experience you get. Her advice was to not overdo it but make the most of your time. She went on to say that it is okay to relax and enjoy the moment to take the pressure off. She also thought it was significant to understand that trying new things with the goal of learning allows you to grow as a person through the experience. This conversation gave us the idea to include student testimonials from past student surveys and interviews on the home page of our website.

Project Host Interviews

We interviewed eight current and past London IQP project hosts, including: Abdiwahab Ali (Somali Youth Development Resource Centre), Giuseppe Albano (Freud Museum), Stuart Frost (British Museum), David Houston (Transport Museum and Design Museum), Joyce Ip (Hounslow Council), Naomi Martin (Commonside Community Development Trust), Twm Palmer (Hounslow Council), and Andy Richmond (Postal Museum). During these interviews, we gathered data about how they set up a project for WPI students and testimonials regarding how working with a WPI IQP team has impacted them over the years. We used these interviews to create a promotional video for the London Project Center. The video gives potential future project hosts an understanding of what they could expect if they chose to host a WPI project team. This promotional video (Figure 15) can be found on the For Project Hosts page in the LPC website.



Figure 15: Cover image for London Project Center promotional video for future project hosts.

During the process of setting up an IQP project, hosts mentioned that it was important to have a brief of the project for the students to understand what the goal of the project is. Stuart Frost said, "having a tightly defined brief is really important, but that is a thing that is discussed and negotiated with the team." Staff at the British Museum work with the IQP student team throughout ID2050 to negotiate a realistic amount of work for the 7-week term in London. Project hosts felt it was important that IQP projects were one large project instead of several smaller projects. Students could then focus on creating a final tangible product for the organization.

All past project hosts that we interviewed spoke about the positive impacts hosting an IQP team had on them and their organizations. Past project hosts found that WPI teams were unique compared to typical UK work experience placements. David Houston said, "to have the initiative to be doing something like this and something so ambitious means that they have got that drive and they have got that ambition, they've got that ability as well." Organizations found that WPI's team of four students helped them accomplish more in a shorter time than typical placements where they only had one student working on a project. All the project hosts commented that WPI students were able to produce creative tech-based solutions to the problems that the organization did not consider prior to their work with the team. Some project hosts felt that working with a WPI team helped them build lifelong connections with the students and they felt it is essential that the students felt like they were a part of the organization when they worked there. They believe that working with WPI students is a "refreshing" experience because they see

the organization through fresh eyes and their thought processes are not inhibited by routine or past baggage.

Website Design

We created a website based on the information gleaned from many interviews with sponsors, students, WPI GEO staff, project center directors, and others. The idea, stemming from the data collected, was a single space where students can find all the necessary and useful information being provided to them by GEO, ID2050, advisors, and past students to help enhance their experience. Information often gets lost in the many media the different groups provide, and students cannot find the resources when they are needed. Included is a section where past students can recommend attractions, restaurants, and travel destinations. The pages and information provided were based on what information the current students felt was missing, what directors and GEO felt was most important, and recommendations from past students.

The current London Project Center website lacks resources for students but is a great tool for project hosts. It is mostly used as an archive for past student projects. In Figure 16, we show the updated "For Students" tab on the LPC website with links to a SharePoint site. This site is blocked by the WPI firewall and will only be accessible to students who have been accepted to the London IQP for C, D, or E term. The site is navigable within, but this is a quick way for students to go to a specific page.

| Idon Project Center | | | | | | |
|---|---|---|---|--|---|--|
| HOME PAGE | WPI PROGRAM | PROJECTS | FOR STUDENTS | FOR PROJECT HOSTS | CONTACT US | |
| | | | | | | |
| dit | | | | Search | Search | |
| or Students | | | | | | |
| The Lorenza Designed Co | nter is not a 'bricks-and-1 | nortar' institution, bu | t rather one of many 'virtu | al' centers around the world that | | |
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Figure 16: Updated London Project Center WordPress site with links to a new SharePoint site on the right.

Figure 17 is the home page of the SharePoint site where students can access multiple quick links to separate pages. Some of these include student recommendations, a week in the life timeline, and information about the accommodations. All pages can also be accessed using the navigation bar at the top. Some of the navigation tabs have a drop-down menu and some are links themselves. This page will not be editable by students, but Professor Golding will have full control access. These items include an analytics tab, which can be used to view the number of views and duration spent on a given page.



Figure 17: Home page of the SharePoint website

Figure 18 shows the student recommendation page that students can access by clicking on the tab on the navigation bar. Students can fill out new entries, view a table of recommendations by past students, or view a map of the locations. These tables are separated into restaurants, attractions, and travel locations. Students can also access the tables of recommendations by hovering over the "Student Recommendations" tab to view a drop-down menu.

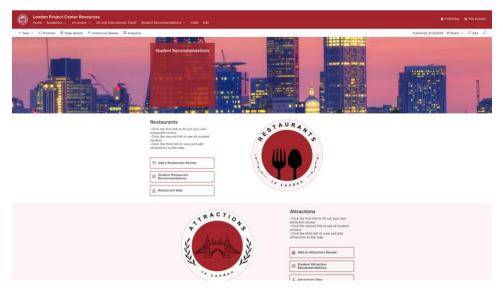


Figure 18: Recommendations page of past student reviews for restaurants, attractions, and travel locations.

Figure 19 is an example of one of the table views. Students will see entries of recommendations for restaurants, attractions, and travel locations. For restaurants, as shown below, the students will see the name, cuisine, price range, rating, and any additional comments.

| TISTE | Project Center Re | | al Travel Student Rec | ommendations – Handbooks | ★ Following & Site access |
|-------------------|---|-------------------|-----------------------|---|---|
| + New 🗄 Edit in g | rid view 🔗 Share 🗴 | Export 🗸 🖓 Automa | te 🗸 Integrate 🗸 | | \equiv All Items \vee ∇ ① e^2 |
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| Created \sim | Restaurant Name $ \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! $ | Cuisine ~ | Price Range (i $$ | Rating: 1 (poor) - 5 (excellent) $ \smallsetminus $ | Additional Comments $ \lor $ + Add column |
| April 9 | Guidos | Italian | Under £10 | | They make the pasta right in front of you!! Cheaper than McDonalds and only a 17 minute walk. Got the Bolognese and it was great. |
| April 9 | Tropea | Cafe | £10-£19 | 6 | Got the English breakfast and everything about it was delicious!!! The beans were particularly tasty, it is such a short walk too. |
| April 9 | Paro Indian | Indian | £20-£34 | 8 | Supposedly the best Indian food in Londoni It was delicious, got the butter chicken, tandori, and some other spicy thing for my bday meal. Kinda pricey but very good. |

Figure 19: Example of the table view of past student reviews and recommendations

Figure 20 is the travel page detailing typical places students in the past have gone, both in and outside of the UK. Below each location is a rough estimate of travel time based on different modes of transportation. Each picture also links to a site where students can find the top attractions to visit. These are publicly available websites that highlight different locations and were not created by us. There is also information on common travel tips from past students. Lastly, there is a section for sources to help find the cheapest ways to travel. These sites often charge a fee if you book through them but can help to direct students to the actual website of the travel company.

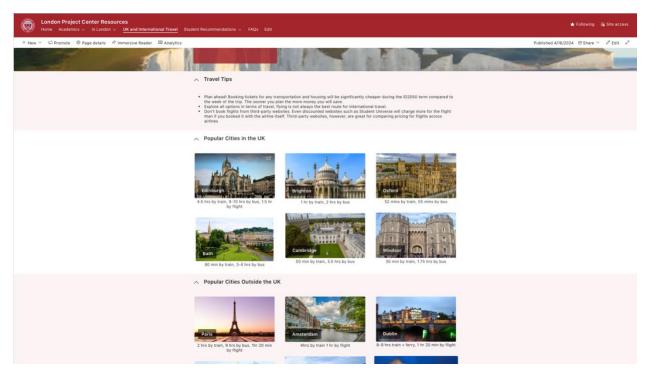


Figure 20: UK and International Travel page

Figure 21 is the accommodations page, which includes photos and a video tour of one of the flats. Students are often unaware of the lodging situation when they travel for IQP. This page will allow them to prepare and pack any extra necessities. We also included the kitchen items that are typically provided, the closest gym, information about the weather, and the checkout instructions. All of these were commonly asked questions by students when wondering about what the housing had to offer.

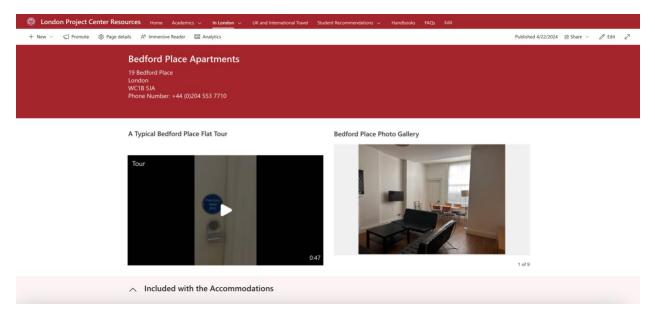


Figure 21: Accommodations page including a video tour and photos to show the lodging expectations.

Figure 22 is a frequently asked questions (FAQ) page where there will be common questions listed with information to answer and links to different pages on the website. It is our hope that students will navigate to this page to find out quick information, then click the link in the answer to find out more on one of the pages. The idea is to give students a quick response but then direct them to more detailed information.

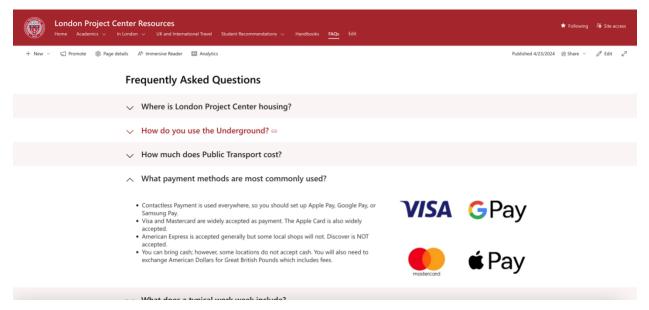


Figure 22: FAQ page showing frequent questions students may be wondering.

Figure 23 is a health and safety page that includes tips and advice from past students to avoid harmful situations such as pickpocketing or walking at night. As we spoke with past students and center directors, we realized the necessity to include mental health resources as well. We decided to include the WPI counselor page, the WPI self-help page and ISOS mental health support site.

We also recommended that students set up a support system prior to travel, along with planning for any necessary medication. We included any useful links or phone numbers for hospitals that are in the area in case of emergencies.



Figure 23: Health safety page featuring advice from past students

Conclusions and Recommendations

Over this IQP project, we had the opportunity to interview, survey and conduct focus groups with many different groups of people to help formulate what information students want to see and what they are most concerned about. Through this process, we have identified topics such as health and safety, cheap food options, attractions, and things to do, travel destinations, packing lists, and expectations for the accommodations and project work. Our website extensively explores each of these topics to assist students, but with that still comes recommendations to further improve the student experience.

First, we recommend that the London Project Center Handbook for C, D, and E terms be posted to the new SharePoint website prior to ID2050 and preferably as early as possible. Past students and directors have said that they find accessing the Handbook to be cumbersome through Canvas pages. This early and easy access will also help students to buy tickets early and save money on travel.

Second, we also recommend a group meeting before the beginning of ID2050 to allow students to contact one another. ID2050 can be an intimidating class as you plan to travel with 23 other students you have never met. Seven weeks may be enough time to get comfortable with the idea of traveling with them, but planning weekend trips will be difficult. This goal could also be accomplished with an activity or two during ID2050 that mixed up the project groups. Also, if possible, holidays should be avoided for a long weekend. Making sure that the long weekend does not coincide with a major holiday will allow students the time to travel and prices will not be higher than normal.

Third, students recommended that GEO should make the handbooks more directly accessible on the Canvas site. A lot of information is provided on the site, but some of it gets lost. Students and center directors suggested a quick link to the Handbooks since so many students found it difficult to find.

Finally, we recommend that the SharePoint website be updated annually. We have provided a document (see Appendix J) that details the necessary steps for this maintenance, including how to add/remove student access to the site, change access settings, update the handbook links, and view analysis reports for a given page.

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Appendix

Appendix A: Interview Script for GEO Staff

We are an IQP team currently in London conducting research with the London Project Center to evaluate and create e-resources for students IQP.

We would like it if you would take 20 minutes to answer some questions about engaging students to collect and disseminate pertinent information in preparation for the students' IQP experiences. Your participation in the interview is completely voluntary and you may stop at any time. We will be taking notes during the conversation, and were wondering if you would be okay with being quoted in our final report? You will be given the opportunity to review the quotations prior to publication. Do you mind if we quote you by name or would you prefer us to anonymize your responses? Thank you for your support in this research. Do you have any questions before we begin?

- 1. How have you changed the ways you disseminate information to students over the years and why?
- 2. What are some of the most effective ways to get information across to students?
- 3. What are some of the best practices being promoted by NAFSA, the Forum, and others for the effective dissemination of information to students in study abroad programs?
- 4. What role do center directors and project center websites play in disseminating information before and during the IQP?
- 5. Which project center websites are more effective in providing pertinent information to students?
- 6. What do you find most frustrating about trying to impart pertinent information to students before and during their IQP?
- 7. What should students know in advance of their study abroad that they often do not?
- 8. What kinds of questions do students frequently ask regarding IQP?
- 9. What are the most important points of information GEO feels students should know before traveling?
- 10. What practices have you found to be most effective at engaging students and collecting and disseminating information?

- 11. What practices have you abandoned because of lack of effectiveness?
- 12. What are some common issues that occur while on IQP due to lack of information or awareness?
- 13. Is there anything you wish to change or add to the IQP process in the future to benefit student experiences?

Appendix B: Interview Script for Center Directors

We are an IQP team currently in London conducting research with the London Project Center to evaluate and create e-resources for students on IQP.

We would like it if you would take 20 minutes to answer some questions about engaging students to collect and disseminate pertinent information in preparation for the students' IQP experiences. Your participation in the interview is completely voluntary and you may stop at any time. We will be taking notes during the conversation, and were wondering if you would be okay with being quoted in our final report? You will be given the opportunity to review the quotations prior to publication. Do you mind if we quote you by name or would you prefer us to anonymize your responses? Thank you for your support in this research. Do you have any questions before we begin?

- 1. How have you changed the ways you disseminate information to students over the years and why?
- 2. What are some of the most effective ways to get information across to students?
- 3. Are some approaches more effective for different kinds of information?
- 4. Were you or have you been an ID2050 instructor?
 - a. What kinds of questions do students frequently ask about ID2050 and on-site IQP?
 - b. Do you do any engaging activities with the students prior to travel to help form connections among the cohort?
- 5. What are some common issues that occur while on IQP due to lack of information or awareness?
- 6. How does a student's mindset change while studying abroad in terms of their effort towards schoolwork?
- 7. Is there anything you wish to change or add to your project center or the overall IQP experience that would benefit future student experience?

Appendix C: Interview Script for NAFSA/Forum

We are a group of Worcester Polytechnic Institute (WPI) students currently working in London on our Interactive Qualifying Project (IQP). The IQP brings students from different majors together to work on a project outside of the scope of their major whilst working with a local sponsor to solve a problem within the local community. We are conducting research with WPI's London Project Center to evaluate and create e-resources for students on IQP.

We would like it if you would take 20 minutes to answer some questions about engaging students to collect and disseminate pertinent information in preparation for the students' study abroad experiences. Your participation in the interview is completely voluntary and you may stop at any time. We will be taking notes during the conversation, and were wondering if you would be okay with being quoted in our final report? You will be given the opportunity to review the quotations prior to publication. Do you mind if we quote you by name or would you prefer us to anonymize your responses? Thank you for your support in this research. Do you have any questions before we begin?

- 1. What are the best practices in providing information to students before and during their study abroad experience?
- 2. How have information dissemination practices changed in recent years?
- 3. How have the information requirements of students changed over the years?
 - a. How have universities tried to meet them, and what are the expectations for the future?
- 4. What kinds of questions do students frequently ask regarding studying abroad?
- 5. What are some common issues that occur while studying abroad?
- 6. How does a student's mindset change while on study abroad in terms of their effort towards schoolwork?
- 7. What approaches to engaging students at other universities might be adopted at WPI?
- 8. What do you hope can change for the future to enhance student experiences?

Appendix D: Interview Script for Natalie

We are an IQP team currently in London conducting research with the London Project Center to evaluate and create e-resources for students on IQP.

We would like it if you would take 20 minutes to answer some questions about engaging students to collect and disseminate pertinent information in preparation for the students' IQP experiences. Your participation in the interview is completely voluntary and you may stop at any time. We will be taking notes during the conversation, and were wondering if you would be okay with being quoted in our final report? You will be given the opportunity to review the quotations prior to publication. Do you mind if we quote you by name or would you prefer us to anonymize your responses? Thank you for your support in this research. Do you have any questions before we begin?

- 1. How have you changed the ways you disseminate information to students over the years and why?
- 2. What are some of the most effective ways to get information across to students?
- 3. What are some of the best practices being promoted by NAFSA, the Forum, and other organizations for the effective dissemination of information to students in study abroad programs?
- 4. What do you find most frustrating about trying to impart pertinent information to students before and during their IQP/study abroad experience?
- 5. What should students know in advance of their study abroad that they often do not?
- 6. What kinds of questions do students frequently ask regarding IQP or study abroad?
- 7. What are the most important points of information students should know before traveling?
- 8. What practices have you found to be most effective at engaging students and collecting and disseminating information?
- 9. What practices have you abandoned because of lack of effectiveness?
- 10. What approaches to engaging students at other universities might be adopted at WPI?
- 11. How does a student's mindset change while on study abroad in terms of their effort towards schoolwork?

- 12. What are some common issues that occur while on IQP/study abroad due to lack of information or awareness?
- 13. What do you hope can change for the future to enhance student experiences?

Appendix E: Survey for Past and Present London IQP Students regarding their Experience

We are a group of students from Worcester Polytechnic Institute (WPI) conducting research with the London Project Center to evaluate and create e-resources for students. We would like if you would take a few minutes to answer some questions about your experience attending the London Project Center. The information collected in this survey will be used to create student resource content for the London Project Center. Your responses to the survey will be kept anonymous. Your participation in the survey is completely voluntary and you may stop at any time. Following this survey, you will be asked if you want a \$50 Amazon gift card. You will also be asked if you would be willing to participate in a follow-up interview. If yes to either, you will be asked to provide your name and email.

Please complete this survey by April 3rd, 2024.

Thank you for your support in this research.

- 1. What term/year did you go to London?
 - a. D22
 - b. E22
 - c. D23
 - d. E23
 - e. C24
 - f. D24
- 2. What is/was your major?
- 3. What is your gender?
 - a. Male
 - b. Female
 - c. Other: _____
 - d. Prefer not to say
- 4. I found the following resources to be useful in providing me with information prior to travel

Scale

- i. Strongly Disagree
- ii. Disagree

- iii. Neutral
- iv. Agree
- 5. Strongly AgreeID2050 classes
 - a. IQP Advisor
 - a. PQP meetings
 - b. WPI Global Projects Website
 - c. London Project Center Website
 - d. Going Global WPI Handbook
 - e. GEO Staff
 - f. Other Students
- 6. Were there any other sources you found particularly useful?
- 7. For the following categories, how do you feel about the amount of information provided before and during your stay in London?
 - a. Categories
 - i. Project Details
 - ii. Health and safety
 - iii. Banking/monetary issues
 - iv. Public transit options
 - v. Housing
 - vi. Typical workday on-site
 - vii. International travel while on-site
 - viii. Things to see and do
 - ix. Local cuisine options
 - b. Scale
 - i. None
 - ii. Not Enough
 - iii. Enough
 - iv. Too Much
- 8. Please indicate for the types of information below, what format of delivery do you think would be preferred by students in the future? Select all that apply.
 - a. Categories

- i. Project Details
- ii. Health and Safety
- iii. Banking/monetary issues
- iv. Public transit options
- v. Housing
- vi. Typical workday on-site
- vii. International travel while on-site
- viii. Things to see and do
- ix. Local cuisine options
- b. Short video (1-5 minutes)
- c. Long video (5-10 minutes)
- d. Handbook (pdf)
- e. Factsheet (infographic)
- f. Class Presentation
- g. PQP Discussion
- 9. Are there any other methods of information delivery you think might be effective?

10. How did you typically commute to your sponsor location? Select all that apply.

- a. Tube
- b. Bus
- c. Cab / Taxi
- d. Uber / Ride Share
- e. Walking
- f. Did not commute
- g. Other: _____
- 11. How long did your commute to your sponsor take?
 - a. Less than 15 minutes
 - b. 15-29 minutes
 - c. 30-44 minutes
 - d. 45-59 minutes
 - e. 60+ minutes

12. What 3 tourist destinations/attractions would you recommend visiting in London?

- a. Place #1 _____
- b. Place #2 _____
- c. Place #3 _____

13. What 3 inexpensive restaurants do you recommend?

- a. Restaurant #1 _____
- b. Restaurant #2
- c. Restaurant #3

14. What 3 more expensive restaurants do you recommend (e.g., for special occasions, parental visits, etc.)?

- a. Restaurant #1 _____
- b. Restaurant #2 _____
- c. Restaurant #3

14. If you went to the gym, what gym did you attend?

15. Where do you recommend students\ walk/run?

- a. Place #1 _____
- b. Place #2 _____
- c. Place #3 _____

16. What three cities in the UK other than London would you recommend students visit during their IQP?

- a. City #1 _____
- b. City #2 _____
- c. City #3 _____

17. What three cities outside the UK would you recommend students visit during their IQP?

- a. City #1 _____
- b. City #2 _____
- c. City #3 _____

18. What three attractions in those cities or elsewhere should students be sure to visit?

- a. Attraction #1 _____
- b. Attraction #2
- c. Attraction #3 _____

19. What items do you recommend packing that students may forget?

- 20. Where were there any times you felt unsafe? If so, where, and when (time of day/day of week) and in what ways did you feel unsafe?
- 21. What are some tips that you have for future students?
- 22. Do you have any other information you wish to share?
- ----- Link to different survey
 - 23. Would you be willing to do a follow-up interview?
 - 24. What is your Name and email?

Appendix F: Survey for Future London IQP Students regarding their Experience

We are a group of students from Worcester Polytechnic Institute (WPI) conducting research with the London Project Center to evaluate and create e-resources for students. We would be grateful if you would take 5-10 minutes to answer some questions about the information you have received during the IQP preparation process. Please think about all the different types of information you have received from many different sources, including GEO staff, your ID2050 instructor, your advisors, and others, beginning with the application process through this point in your preparation.

We will use the information collected in this survey to create student resource content for the London Project Center. Your responses to the survey will be kept anonymous. Your participation in the survey is completely voluntary and you may stop at any time. Following this survey, we will ask if you want to be entered into a \$50 Amazon gift card as an incentive and thank you for participation. If you answer yes, we will ask you to provide your name and email. We will collect and store your contact information separately from your survey responses to ensure your survey responses remain anonymous.

Please complete this survey by April 16, 2024.

Thank you for your support in this research.

- 1) What term/year did you go to London?
 - a) D22
 - b) E22
 - c) D23
 - d) E23
 - e) C24
 - f) D24
- 2) What is/was your major?
- 3) What is your gender?
 - g) Male

- h) Female
- i) Other: _____
- j) Prefer not to say
- 4) Please indicate how useful you found each of the following sources in providing you with information so far
 - k) Scale
 - i) Strongly Disagree
 - ii) Disagree
 - iii) Neutral
 - iv) Agree
 - v) Strongly Agree
 - vi) Did not use
 - vii) Don't Know
 - 1) ID2050 classes
 - m) IQP Advisor
 - n) PQP meetings
 - o) WPI Global Projects Website
 - p) London Project Center Website
 - q) Going Global WPI Handbook
 - r) GEO Staff
 - s) Other Students
- 5) Were there any other sources you found particularly useful?
- 6) For the following categories of information, how do you feel about the amount of information provided so far?
 - t) Categories
 - i) Project Details
 - ii) Health and safety
 - iii) Banking/monetary issues
 - iv) =
 - v) Public transit options
 - vi) Housing

- vii) Typical workday on-site
- viii) International travel while on-site
- ix) Things to see and do
- x) Local cuisine options
- u) Scale
 - i) None
 - ii) Not Enough
 - iii) Enough
 - iv) Too Much
- 7) Please indicate for the types of information below, what format for delivery do you think would be preferred by you and students in the future? Select all that apply.
 - v) Categories
 - i) Project Details
 - ii) Health and safety
 - iii) Banking/monetary issues
 - iv) Public transit options
 - v) Housing
 - vi) Typical workday on-site
 - vii) International travel while on-site
 - viii) Things to see and do
 - ix) Local cuisine options
 - w) Short video (1-5 minutes)
 - x) Long video (5-10 minutes)
 - y) Handbook (pdf)
 - z) Factsheet (infographic)
 - aa) Class Presentation
 - bb) PQP Discussion
- 8) Are there any other methods of information delivery you think might be effective?
- 9) Thinking about your experience so far, how important is it that GEO staff, ID2050 instructors, and advisors provide information about the following topics?
 - cc) Categories

- i) What it is like to work with a sponsor
- ii) What a typical work week looks like
- iii) Advisor expectations
- iv) London airport transportation
- v) Transportation in London
- vi) Housing
- vii) Local cuisine options
- viii) London activities
- ix) Places to go outside of London
- x) Packing checklist
- xi) London fashion
- dd) 1 (Not Important)
- ee) 2
- ff) 3
- gg)4
- hh) 5 (Important)

10) What worries or concerns do you have about conducted your IQP and staying in London?

- 11) What additional information might help relieve your concerns?
- 12) What are some helpful tips that past IQP students have given you?
- 13) Do you have any other information you wish to share?

Appendix G: Interview for Past London IQP Students regarding their Experience

We are an IQP team currently in London conducting research with the London Project Center to evaluate and create e-resources for students on IQP.

We would like it if you would take 20 minutes to answer some questions about your London IQP experience. Your participation in the interview is completely voluntary and you may stop at any time. DO you mind if we record this conversation, or would you prefer we just take notes? We were wondering if you would be okay if we quote you in our final report? We will give you the opportunity to review any materials we use from this interview prior to publication in our final report or on the webpage we develop for future students. Do you mind if we quote you by name or would you prefer us to anonymize your responses? Thank you for your support in this research. Do you have any questions before we begin?

- 1) Why did you choose to attend the London Project Center?
 - a) Did you feel well prepared to travel to London based on the information you received from GEO, your ID2050 instructor, and your advisors?
 - b) What were the most useful sources of information you received and from what sources?
 - c) Thinking back to your time in London, what kinds of information did you wish you had prior to travelling?
- 2) Questions about Sponsors:
 - a) What would you tell future students about your experience of working with a sponsor in London?
 - i) Who was your sponsor?
 - ii) What were the highlights of working with your sponsor?
 - iii) What difficulties did you face working with your sponsor, if any?
- 3) Academic Experience:
 - a) What did a typical work week look like for you in London?
 - b) Did the amount of work surprise you?
 - c) Do you have any tips for a smooth IQP project experience?
- 4) What form of transportation did you prefer to use to get around London?

- a) What did you like or dislike about public transport in London?
- 5) Have you travelled outside of London or outside the UK?
 - a) Where did you go?
 - b) Were there any activities that stood out?
 - c) How did you travel and where did you look to get tickets?
- 6) How would you recommend future students handle money/ banking and payments?
- 7) Did you use an international phone plan or a UK SIM? Why did you go with this option? What apps did you use to communicate with your advisors, sponsors, and fellow students? What apps would you recommend future students use and why?
- 8) Living Conditions:
 - a) How did you like or dislike about living in Bedford Place (e.g., cooking, groceries, sleeping arrangements, etc.)?
 - b) How did you like living in the Bloomsbury area (in terms of accessibility, local stores, things to do, etc.)?
 - c) Have you experienced homesickness?
 - i) Do you have advice for students who experience homesickness?
- 9) Describe your favorite activities and attractions during your trip
 - a) In London
 - B) In the UK
 - c) In Europe
- 10) What special events stood out while in London?
 - a) Upon reflection, how do you feel you developed as a person due to your IQP experience in Europe?

Appendix H: Focus Group for Current London IQP Students

- 1. What were your top three concerns prior to coming to London?
- 2. What are two new concerns since arriving in London?
- 3. Is there anything you wish you would bring to London?
- 4. What is some key information you have found out about London that future students would find helpful or useful? (grocery stores, gyms, transportation, etc.)?
- 5. What are some parts of the accommodation that you have found good, bad, or confusing?
- 6. What extracurricular activities are you feeling excited about now that you are in London?
- 7. Have you made any fun travel plans outside of London for the next 7 weeks?

Appendix I: Interview for London IQP Project Hosts regarding their Experience

We are a group of students from Worcester Polytechnic Institute (WPI) conducting research with the London Project Center to evaluate and create e-resources for students.

We would like if you would take 30 minutes to answer some questions about your experience hosting projects for the London Project Center. Your participation in the interview is completely voluntary and you may stop at any time. Any personal data you choose to share with us will be stored securely and disposed of by August 30, 2024, in line with the UK General Data Protection Regulation 2018. WPI will produce research reports and a sponsor promotional video using the data we collect from the interview. We will be taking notes during the conversation, and we may want to quote you in our final report. Do you mind if we quote you by name or would you prefer us to anonymize your responses? You will be given the opportunity to review the quotations prior to publication. Do you mind if we record video and/or audio to include in a promotional video? Thank you for your support in this research. Do you have any questions before we begin? If you have any queries about the interview, please contact gr-LON_D24_LPC. If you have any questions about how WPI uses data, please email Dominic Goulding.

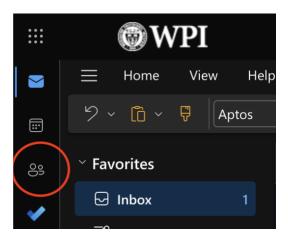
- 1. We understand that you have been collaborating on several projects with WPI student teams during your time at the (organization). Can you tell us, what were your motivations for working with the London Project Center originally and what have been the highlights of your experiences over the years.
- 2. What kinds of projects have you undertaken during this time?
- 3. How do you identify appropriate project topics?
- 4. How do you help the team prepare prior to arrival onsite?
- 5. What factors contribute to a successful project?
- 6. Typically, how much staff time is required to oversee a project? What do teams typically need your help on?
- 7. How does collaborating with a student team from WPI differ from your experience with the more typical placements schemes?
- What are the biggest benefits or impacts of hosting a WPI team? (Short-term and long-term)

9. What kinds of organizations would you recommend hosting a team and why?

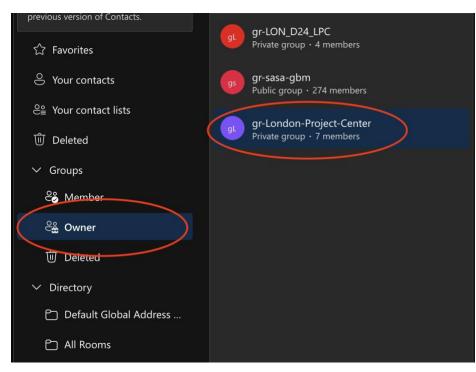
Appendix J: Website Upkeep Instructions

Adding and removing students

1. On Outlook, click on the People tab on the left-hand side panel.



2. On the People page, click on the Groups drop-down menu on the left-hand side and select Owner. On the right panel that pops up, select the group gr-London-Project-Center.



3. Click on the members tab of the group and select the add member button on the right.

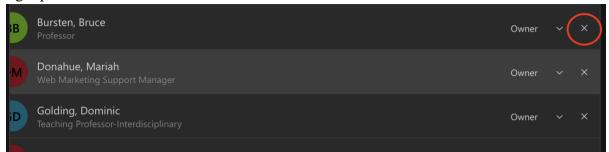
| Gr-London-Project-Center Private Group • 7 Members Send Email ··· | |
|---|-------------|
| iew Members | |
| mbers earch | Add members |

4. Enter in all the student email addresses and click Add. Make sure all students are listed as members and not owners. (Note if you try to add 10+ members at a time sometimes Outlook will glitch and not add any. Around 5-7 students per add will maximize efficiency

| Add members to gr-London-Pr | Add members Enter a name or email address | ج ^۹ View all members |
|--|--|---------------------------------|
| gi-London-Pi | 3 members to be added | |
| Add members to your group to start collaborating. You can choose to add colleagues, members of | SA Shinde, Akshay alshinde@wpi.edu | Member \lor \times |
| existing groups or distribution lists, or guests. | KR Kayhart, Reagan rekayhart@wpi.edu | Member \lor $	imes$ |
| Who is a guest? Guests are people from outside your organization. Guests will get all email messages sent to the group in their inbox, and can collaborate on files in the group. | TB Tyler, Ben ebtyler@wpi.edu | Member \lor X |
| | | |
| | Add Close | |

5. To remove students, click the x on the right-hand side next to their name. You may have to scroll to the right to see the x. A message will pop up to confirm you are removing the

right person.



Uploading Handbooks to the SharePoint Site

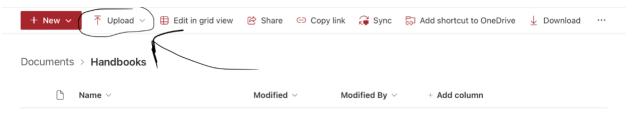
1. On the SharePoint Site, click on the Handbooks Page in the Navigation bar.

| | London Project Center Resources | | 🖈 Following | ểô Site access |
|---------|---------------------------------|---------------------|-------------|----------------|
| + New ~ | l Page details 🛛 Analytics | Published 4/23/2024 | 🖻 Share 🗸 | 🖉 Edit 🖉 |

2. Select each of the previous handbooks and click "delete."

| $+$ New \sim | Edit in grid view Oper | n 🗸 🖻 Sha | are 👄 Copy link | 🗊 Delete 🔗 Pin to top 🏠 Favorite \cdots | × 1 selected |
|-----------------------|-------------------------|-----------|-----------------------------|---|--------------|
| Documents | a → Handbooks | | | | |
| L | Name \vee | | Modified $ \smallsetminus $ | Modified By $ arsigma $ + Add column | |
| | London Handbook D24.pdf | Ø | 4 days ago | Rioux, Zachary | |
| | | | | | |
| | | | | | |

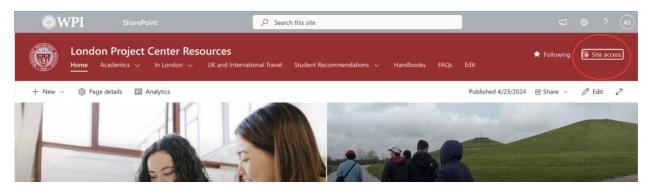
3. Click "upload," then "files," and choose the current handbooks.



4. Repeat Step 3 for each handbook.

Change Access Settings

1. On the SharePoint Site, click on the Site Access button on the right of the navigation bar



2. A drop-down list will appear for site owners, members, and visitors. To edit anyone's privileges, click on the drop-down menu underneath their name and click the right privileges. (Full control – owner, read – visitor) (ignore edit, no one should be editor just owner or visitor) You can also manually remove people from site access by clicking the remove button. In the search bar above, you can also search and add any WPI member to the site that may need to be personally added.

*Site member/edit privileges have given us difficulty in the past, so we recommend just making people owners if they need to edit the website and visitors for viewing)

**the gr-London-Project-Center group is already added as a site visitor, so all students in that group will have access to the site.

| Site access | | \times |
|-----------------------------|--|----------|
| | Aicrosoft 365 Groups, or security ive them access to the site. | |
| | | |
| Site ow | ners - full control 🛈 | |
| | Bursten, Bruce Full control ∨ | |
| 0 | Read | |
| ~~~~ | Edit | |
| | Remove | |
| | | |

View Page Analytics

- 1. To view the analytics of a given page, click on "Analytics" and the sidebar on the right will pop up. This will show the viewers, number of views, average time spent, and traffic by time of day.
 - a. This will need to be done for each separate page.

