On Campus IQP"s

An Interactive Qualifying Project Report

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by

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### **Abstract**

I worked with the Committee for Academic Policy (CAP) to study the process by which students find on-campus Interactive Qualifying Projects (IQP) and the difficulties associated with finding them. The faculty had passed a motion directing the Committee for Academic Policy to study on-campus projects. This research was to cover if there was more of a need to promote on-campus IQP's. We wanted to determine how each student or group found their project, how much time they spent searching, how they found an advisor, and how they reached the decision to work individually or in a group. Students find their projects in many places and different ways, from talking to peers and professors, or through the website. Students are able to find a project without the help of an on campus project fair, though students would like an on campus fair comparable to the Global fair.

# **Table of Contents**

List of Figures	4
List of Tables	4
Introduction	5
Literature Review	6
Methodology	9
Findings and Results	11
Misconceptions	20
Students Impressions	24
Conclusions	25
Appendix	26
References	34

## List of Figures

- Figure 1: Number of groups vs. Number of group responses
- Figure 2: Students in groups vs. Responses from groups.
- Figure 3: How did you find your IQP
- Figure 4: Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?
- Figure 5:Did you contemplate going off campus? If so, why didn't go?
- Figure 6: How did you find your group? or Why did you do a single person project?
- Figure 7: Was this your preferred group size?
- Figure 8: Did you finish with the same group you started with?

# List of Tables

Table 1: Student Group Size

Table 2: Number of Students in Each Group

### 1 Introduction

The Interactive Qualifying Project is an integral part of the learning experience at WPI. Most students who earn their degree at WPI are required to complete three different projects, the Humanities and Arts Sufficiency Project, the Interactive Qualifying Project (IQP), and the Major Qualifying Project (MQP). This is with an exception: If a student earns a degree in humanities and arts. He does not have to complete a humanities and arts sufficiency project. The requirements for a Humanities and Arts major are a bit different; they would have to conduct a Technical Sufficiency Project.

When WPI started as an institution, the founders developed the concept of teaching the theory of science and putting that knowledge into practice. These ideas affect the different style of teaching at WPI, and were integral in the development of the WPI Plan.

The WPI Plan is in place to give students a variety of different learning experiences. "WPI's academic requirements are specifically designed to develop an overall educational experience which meets the goals of the college." (Catalog 80'-81') WPI fosters an environment in which students are able to acquire skills for observation then use these skills in problem solving and deduction. This learning environment of WPI helps promote action and independent thought amongst the students while learning concepts and not just learning formulas and facts. Students learn to deal with real world issues such as group work and presentation skills.

### 2 Literature Review

In 1969, Worcester Polytechnic Institute revolutionized the technological education system when it introduced a project-based curriculum. At the origin of the Plan the idea was to create a supportive learning environment for students. Throughout their careers the students obtain a working set of skills to deal with real problems and integrate their knowledge. The Interactive Qualifying Project has a major emphasis on active educational involvement with technology and its integration into society. This unique experience is to involve each WPI student and at least half of the faculty.

The goals of the WPI Plan call for WPI graduates to have a comprehensive view of technology in today's society. The faculty team in charge of development of the Interactive Qualifying Project established the following objectives (Demetry 8):

- 1) To create an awareness of socially related technological interactions.
- To enable the identification of socio-technological systems, subsystems, and the linkages between them.
- 3) To cultivate the habit of questioning social values and structures.
- 4) To develop and integrate the skills of evaluation and analysis in the societal, humanistic, and technological disciplines.
- 5) To provide methods for assessing the impact of technology on society and human welfare, and the impact of social systems on technological developments.
- 6) To encourage the recommendation of policy.

The initial implementation of the IQP was slated for the 1972 to 1973 school year. The IQP was to be started with 11 projects in the first year and steadily increase in volume with each

class (Demetry 18). The plan was to expand the types of projects, which departments would be running them, and who the advisors would be. There were also plans for creating off-campus sites to help the program and plan grow. The different project sites that were started were responsible for the growth of off-campus IQP's. The external stimuli will also give the students more real world experiences and help the plan improve through experience. The faculty originally saw the IQP as a way to encourage students to measure the consequences of their engineering and science practices on the world.

After five years of the IQP being in place as a requirement, Dean Grogan, Professor Keil, and Professor Boyd conducted a study of over 720 different IQP's. (Grogan 1) The most serious of Grogan's concerns referred to the "disparity in the level of project advising activity on the part of the faculty."(Grogan 1) The results from this test proved that the most effective way to increase both the number of projects completed by a professor and the quality of the projects themselves is to increase the exchange of information between the advisors of different projects.

After the establishment of the IQP the project was added to the course catalog from then on. An excerpt of the 1980 – 1981 Operational Catalog in the appendix is very similar to an excerpt from the course catalog of 2005-2006 noted in Appendix B. This comparison is representative of the project staying consistent over the years. The current IQP project requirements state:

"An IQP shall address a topic relating science and/ or technology to society. In this context, both 'society' and 'technology' should be construed as broadly as possible. Technology refers to the application of rational and efficient principles to a body of knowledge or to the control of space, matter and/or human beings. Thus, the IQP encompasses not only techniques of production embodied

in tools and machines, but also advances in methods of social and economic organization, in managerial techniques, and in methods of analysis in science, mathematics, and engineering. Society refers not only to a grouping of individuals but also to the culture, values, laws, customs, and institutions shared by these individuals." (Catalog '06-'07)

## 3 Methodology

The faculty passed a motion to have research done on the matter of on campus IQP's. With this motion passed, information had to be gathered to establish a background on the project and consult with students and faculty about past projects. After comparing the results of the information, it then had to be presented back to the faculty and CAP.

From the beginning of the project we knew that we needed to have a systematic approach to data collection. I was working with Michael Blackwell-Tompkins on the data collection portion of the project. We had approached the reference librarian for information on all of the projects from the 2003 to 2004 academic year. We received the information in an electronic database format listing: Advisors, Number of Students, and Project titles linked together in one document. The first problem with the dataset was that it was very unorganized and had extra information that didn't pertain to our inquiry. Our first objective was to organize the information into an order that was usable. We were unsuccessful in this attempt so we approached the Registrar's Office and consulted with Nicole Andrews. She was able to give us an excel document that we were able to manipulate to our specific needs. With this document we were able to advance to the next step in our process. After analyzing the data, we were able to determine which IQP's completed between C term of 2003 and B term of 2004 were completed on-campus as opposed to being completed off-campus. Once the organization of the projects was compete, we could analyze the list of IQP's and formulate the questions to give us the data we would be able to use.

The questions we developed needed to be phrased in such a way that we were not left with one-word answers. The process was one of the most challenging steps of the data collection process. The questions that were asked are as follows:

- 1) How did you find your IQP?
- 2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?
- 3) Did you contemplate going off campus? If so, why didn't go?
- 4) How did you find your group? or Why did you do a single person project?
- 5) Was this your preferred group size?
- 6) Did you finish with the same group you started with?

After fine-tuning the questions we then talked to Professor Phillies, who gave the approval. Upon suggestion from Professor Phillies we decided to meet with the Provost. Assistant Provost Schachterle has conducted IQP's himself and was able to provide us with insight and views of his past on-campus IQP's. He then gave us permission to begin polling the students with our questionnaire.

Once we started contacting the students, processing and recording information in an orderly fashion needed to take place. Contacting students included email and personal interviews in which we asked the questions mentioned above and asked about different misconceptions surrounding the project. We developed an Excel spread sheet to help organize the information. The biggest issue we encountered was that we did not receive information back from responses to all the emails we sent out.

After polling both the students and professors through email we were able to gather enough data to make our data valid. The results we had received back were justifiable because we had received emails back from multiple members of sampled groups.

## 4 Findings and Results

The information gathered from both the emails and the interviews were compiled into excel documents and analyzed. Students responded in a free form to the questions asked in the survey. We were able to consolidate the information into the different responses for each question.

Student groups are of varying sizes from single person groups to six-person group. Out of 600 students who completed IQP's, 345 completed them on-campus in the 2003-2004 school year. There were 143 projects and 97 of them were represented in our findings. The break down of group responses is shown in figure 1.

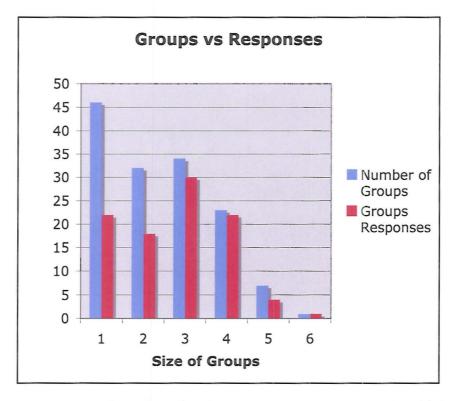


Figure 1: The response rates and number of projects completed by single and multiple student groups. The horizontal axis represents the number of students involved in the projects. The vertical axis represents the number of projects that received one or more responses and the total number of projects having a particular number of authors.

Figure 1 represents the number of projects that were competed by single students to the one project that was competed by a six-student group. From the blue bars one can determine that single students completed 46 projects, the largest number of projects. 3 and 2 person groups completed 34 and 32 projects respectively. There were 23 projects conducted by 4 person groups. There were 7 projects conducted by 5 person groups and 1 project in a 6 person group.

As you can see there were a number of groups represented in our study. In the responses we received multiple responses from single groups helping us validate the information we had received. Figure 2 shows the number of students involved in blue compared to the numbered responses from students in red. There were 46 single student projects and we received responses from 22 of them. Out of the 64 students involved in the 2 student projects we heard back from 22. There were 45 student responses out of 102 students who participated in 3 person groups. There were 92 students in 4 person groups and we received 45 responses from students in that group size. There received 12 responses from 35 students who were in 5 person groups and 2 responses from the 6 student group.

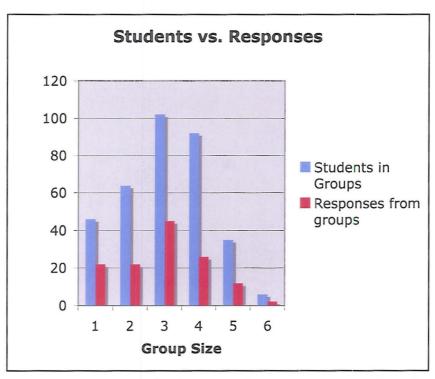


Figure 2: Students responses representative by group size compared to number of students in each group. The horizontal axis represents the number of students involved in the projects. The vertical axis represents the number of student authors involves in the projects.

The survey is the final part of the results; this represents the information we received from the students. The group sizes are broken down into Single through six person groups. The numbers are represented in Table 1. The mode of the different groups were single student projects and the median was the two student projects.

Group Size:	
Single Student Projects:	46
Two Student Groups:	32
Three Student Groups	34
Four Student Groups:	23
Five Student Groups:	7
Six Student Groups:	1

Mode of Groups:	Single Student Projects
Median of Groups	Two Student Groups

Table 1: Student Group Size

The number of students represent the total population of the groups better then the number of groups. The average number of students per group was 2.41. The mode and median were both Three Student Groups. This can be seen in Table 2. This represents more of a realistic view of the spread of students per grouping knowing that there are 34 groups of three students and 23 groups of four students. The three and four student groups relate to the majority of the groups with almost 200 students of the 345.

Number of Students in each group size:		
Single Student Projects:	46	
Two Student Groups:	64	
Three Student Groups:	102	
Four Student Groups:	92	
Five Student Groups:	35	
Six Student Groups:	6	
Average number of Students per		
group:	2.41	
	Three	
Mode	Students	
	Three	
Median:	Students	

Table 2: Number of Students in Each Group

There were a total of 128 survey responses from 97 different groups. In our survey we asked 6 different questions. The first question was how the student found their IQP. There were 21 students who had approached a professor with their own idea. 24 students had approached a professor when it was a professor-generated project. There were 52 students who had joined a

friend's group. The final response was from the website with 31 responses. The responses are represented in figure 3.

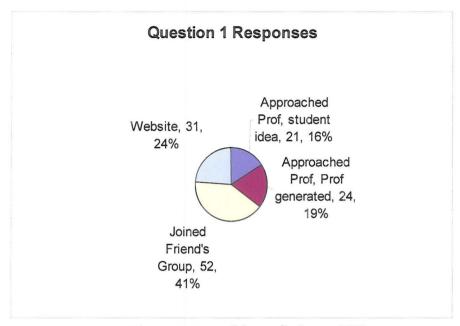


Figure 3: How did you find your IQP

The second survey question was whether the student knew about the registrar's website listing of IQP opportunities and if so then did they find it helpful. Students had three different responses: Yes and helpful with 35 students, Yes and unhelpful with 38 responses, and No with 55 responses. This information is represented in figure 4.

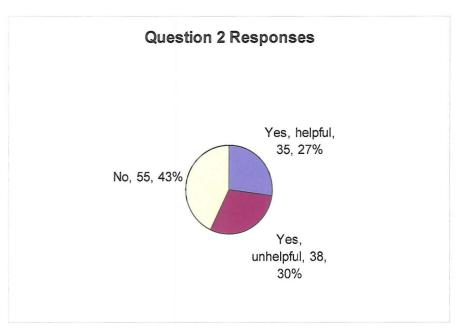


Figure 4: Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?

The third question was regarding the idea of going off campus to complete the project or not and if so why they didn't go. Students responded to this with a good amount of Yes responses with many reasons for not going away. Yes and not being accepted were 6 students. Yes and the cost being too much was the majority of the students with 41. There were 15 students that were thinking about going abroad but had issues with the application process. There were 28 students that would have liked to go away but for some reason or another were not able to. The response, Yes and everything was given by 2 students and a flat out No was the response from 36 students. The responses are represented in Figure 5.

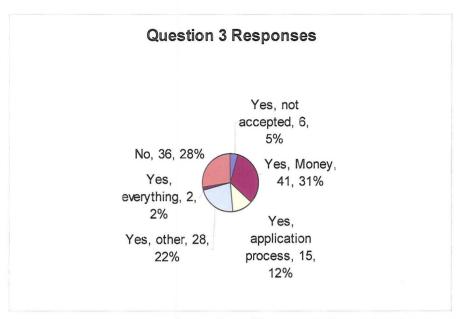


Figure 5: Did you contemplate going off campus? If so, why didn't go?

The 4<sup>th</sup> question was about how each student found the group. A majority of students found their project through friends or acquaintances with 113 responses. Figure 4 represents this data. This would include students who wanted to work together and approaching a professor to a professor proposing a project and a student finding a group. The second response was having the professor introduce the students to one another. This response had 8 students. There were 7 students who actually had both happen.

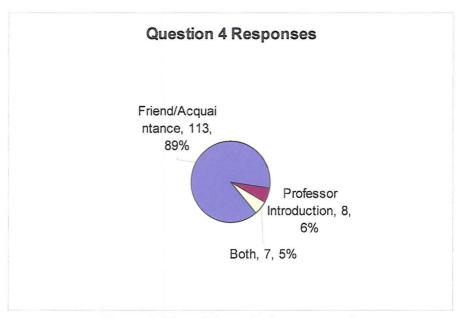


Figure 6: How did you find your group?

The fifth question asked the students about their preferred group size. 105 students stated that yes their project was with their preferred group size. There were 6 students saying that it was too big. 12 students stated that it was too small. Finally there were 5 students with no opinion about the size of their group. Responses are shown in figure 7.

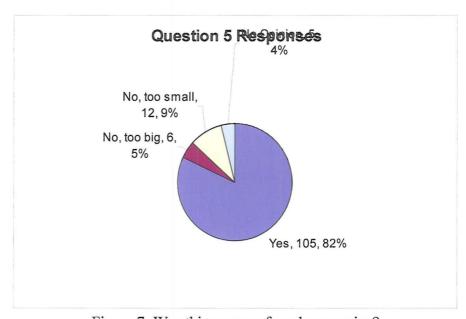


Figure 7: Was this your preferred group size?

Question six asked the students if they had finished with the same group they had started with. There were 127 responses that stated they had. There was only 1 student group that had finished with different people than started the project.

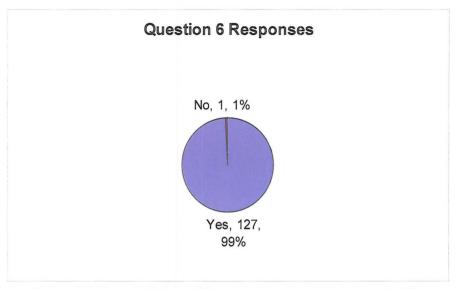


Figure 8: Did you finish with the same group you started with?

### 5 Misconceptions

There are many different ideas and misconceptions about the IQP that circulate throughout the WPI community. Student testimonials from the interviews and general conversation between peers have lead to a compilation of misconceptions. Each misconception stems from a different aspect of the project itself, from 'go away and get an A', to 'what the acronym IQP really stands for'. The misconceptions are one of the student concerns that revolve around the projects. Students take the misconceptions to heart and do not always see the projects for what they are worth.

When asked what the acronym IQP represents, students responded in two ways: correctly, with Interactive Qualifying Project, and incorrectly, with Interdisciplinary Qualifying Project. The majority of people who were asked referred to the project as the Interdisciplinary Qualifying Project. The number of students misinformed about a graduation requirement is surprising. Out of our sample polled about 50 to 60 percent of the students polled stated that is was interdisciplinary. One student explained:

"As to my understanding, the IQP stands for Interactive Qualifying Project. I'm not sure of the exact details of it, but I believe the major idea of it is that it is a project "encouraged" to be outside of your major. The purpose of the project is to create something that will make life better off for people, society, or to solve a problem society has."

This response was unusual but correct, because a majority of the upperclassmen that we asked did not know what IQP stood for, let alone respond with an accurate description of the project.

Researching the topic of Interdisciplinary vs. Interactive revealed a sample resume from the Career Development Center (CDC). This resume explained 2 of the 3 WPI projects as:

#### "PROJECTS

**Senior Major Qualifying Project** (MQP) - 3 course equivalent Designed, fabricated and tested a superconducting loudspeaker. The project involved solving electrical, cryogenic, mechanical and acoustical problems.

**Junior Interdisciplinary Qualifying Project** (IQP) - 3 course equivalent Developed a strategy plan for the future implementation of electric ground transportation at Logan International Airport, Boston, MA.

#### Related Coursework: [#]

Microprocessor Systems, Semiconductor Devices, VLSI Design Microelectronics, Control Engineering I & II, Audio Engineering, Logic Circuits, Acoustical Electronics" (Resume)

A second misconception about the IQP is that it is required to be a group project. Many students who we interviewed found their project group first, and then looked for a project.

Another student, who had just found an IQP, reported that the professor asked if he had or wanted a partner. While completing an IQP in a group isn't required, a majority of professors conduct group projects, this is based to the majority of the projects conducted are in groups of 2-4 with 89 projects and only 46 single person groups. Off Campus Projects are represented in the Global Fair at the beginning of the academic year. Many on-campus IQP's tend to be done in a group setting. The presentation of the projects is likely the reason most students believe the IQP is meant to be a group project.

Most Off campus IQP's have an extra sixth unit in which students learn the background for their project, cultural etiquette, and improving writing skills. On campus IQP's have the opportunity to up for the optional sixth unit but is not required. Without the requirement of the extra sixth credit students are about to improve writing and presentation skills through the

project. This credit is earned through a Pre Qualifying Project (PQP). There are different requirements for PQP that some students have to partake in and others do not. Students going to Thailand would take classes in the Thai language and Costa Rican students study Spanish. The different type of PQP is dependent on what country the project is taking place in to language and culture. These requirements are determined by site choice. Some students take both a PQP and ID2050 simultaneously other students take them separately. PQP and ID2050 are fine together, but when a student needs to have two class meetings a week and another group meeting, as set by the professor, and ID2050 on top of the PQP meetings, problems arise such as time conflicts.

There are other misconceptions that students have about off campus IQP's with respect to social level, depending on the students different on campus activities might determine if they go away. Believing that only good students go away is a statement heard between the WPI students. When applying to go away for the IQP you must present your transcript, an essay describing yourself and the actual application. The application process gives the students three distinct ways to be evaluated but then gives the professor a preference as to which students they would prefer going with them on the IQP. Personally, when I went into my interview to go away, I was asked about my grades and why they were a little low. Questions about steps that I had taken to improve them or even about my work ethic were markedly absent. I tried to raise the point of improvement in my current terms but don't believe that this helped my case. The interview also proposed questions about past experiences in groups and why I wanted to go to the off campus site. I felt that when I went through the interview process I didn't have a chance because my grades weren't as high as they could have been.

Another misconception states that more outgoing students tend to have a greater chance to go away for their project based upon their extracurricular activities and participation in school.

"The faculty actually does understand that the student body has social character traits." The faculty could be at fault "if they had designed a scheme that might discriminate on the basis of a characteristic known to be unequally distributed on the basis of gender." (Phillies) Student statements aren't all misconceptions but cannot all be truths. The above misconception is propagated by students who are biased against an application system in which the professors actually affecting the outcome.

### 6 Student Impressions

When first approaching my junior year, the IQP was lingering in my mind. Students around campus all told me of this project as a fun getaway. This helped propagate the theory in my mind of going away for a project and getting an A. There isn't any real data that can be obtained on this topic because grades are very confidential.

For example, friends had described an off campus project in which the group members who participated were either sleeping or playing on a computer when they should have been working. There are multiple cases of this happening, with students putting very little time and effort into the project because they were in another country. Another student's experience: The students involved in the project had not worked outside of their normal work week except for the final week that the project was due. They strolled into work around 9am, took a 1 to 1.5 hour lunch break, and left every day at around 3:30. The project was a great experience and the involved student would suggest going away to any other student. This is because from their experience it is harder to spread the project over 3 terms as compared to getting it done it at one time.

### 7 Conclusions

Students find their projects in many places and different ways, from talking to peers and professors, through the website, or creating their own. Students are able to find a project without the help of a on campus project fair, though students would like an on campus fair comparable to the Global fair that is held for off campus projects. The faculty takes on many projects with students; the projects are only a piece of their responsibility at WPI. Students approach professors about projects, not expecting that each professor has other research and preparatory work for classes. This is not a fair assessment of the professor's work by the students. This misunderstanding can lead to frustration for the student and professor. An on campus project fair could solve this problem of on-campus promotion. The fair for on campus projects is a great concept and would make students more understanding in their search for projects. This project fair could also help expose students to the other project opportunities out there. This project with facts and figures was presented to the Committee for Academic Policy. The committee was more informed about the information of the on campus projects and could take an accurate course of action.

### 8 Appendices

#### A

1980 – 1981 Operational Catalog

#### The Interactive Qualifying Project

Successful completion of a qualifying project relating science and/or technology to society (the Interactive Qualifying Project, or IQP) representing at least one unit of credit in project or independent study work. The format of the documentation is to be in accordance with current WPI policy on such documentation. An IQP shall address a topic relating science and/or technology to society. In this context both "society" and "technology" should be construed as broadly as possible. Technology refers to the application of rational and efficient principles to a body of knowledge or to the control of space, matter and/or human beings. Thus, the IQP encompasses not only techniques of production embodied in tools and machines, but also advances in methods of social and economic organization, in managerial techniques, and in methods of analysis in science, mathematics, and engineering. Society refers not only to a grouping of individuals but also to the culture, values, laws, customs, and institutions shared by these individuals.

#### B

Current Catalog

### The Interactive Qualifying Project (IQP)

The Interactive Qualifying Project (IQP) challenges students to address a problem that lies at the intersection of science or technology and societal structures or human needs. The objective of the IQP is to enable WPI graduates to understand, as citizens and as professionals, how their careers will affect the larger society of which they are part. Generally, these projects involve some analysis of how technology affects, and is affected by, individuals and communities. Many of the projects are proposed by external agencies or organizations, and most are done in teams.

The IQP is an intentionally broad and integrative educational experience; student teams are drawn from all disciplines, and the topic is not necessarily related to the students' major field. The procedure employed to relate the scientific or technological component to a social issue sometimes arises from students' training in the social sciences or humanities. The IQP provides opportunities for significant international and pre-professional experience that are unique in technological education. (See Residential Project Centers, page 47)

#### C

Sample of Student Responses:

Student Questions.

- 1) How did you find your IQP? my partner found it
- 2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?
- i did know and honestly didn't find anything of interest on it so i deferred to my partner to pick one
- 3) Did you contemplate going off campus? If so, why didn't go? i woul dhave liked to but as i work full time when not in my athletic season i couldn't afford to skip work
- 4) How did you find your group? or Why did you do a single person project? my partner and i are friends. i would have rathered do a single person project but he asked me
- 5) Was this your preferred group size?
  again, i would have rather worked alone. but for 2 people, for the work
  that our advisor asked of us, it was somewhat of a challenge. three
  people probably would have been better, 4 would have been too many
  6) Did you finish with the same group you started with?
  Yes

Student Questions.

1) How did you find your IQP?

I was looking for video game related topics about a year before anyone had heard the acronym 'IMGD'. Unfortunately, this was unheard of. But fortunately one of my friends, who was looking for the same thing, proposed a topic to professor Ciaraldi and he agreed to sponsor it. He then asked me to be his partner.

2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?

I didn't know about it but I kind of doubt that it would've had something that I really wanted to do. I suppose if time was running out on my junior year I could've gone there to find a 'normal' IQP. But my topic, which was "Interactions on Massively Multiplayer Game Economies" (A grade!), probably wouldn't have been on there. Of course, now that the IMGD department exists, that'll change. I guess I just entered WPI a year or two too early.

- 3) Did you contemplate going off campus? If so, why didn't go? Nope. Too expensive.
- 4) How did you find your group?
- 5) Was this your preferred group size? Steve Gargolinski asked me to be his partner in the 2-person project. It was my preferred group size. (And my preferred partner, too!)

6) Did you finish with the same group you started with? Yes

Student Questions.

- 1) How did you find your IQP? Searched for it on the registrar's website
- 2) Did you know about the registrar's website listing IQP opportunities?Did you find it helpful?yes
- 3) Did you contemplate going off campus? If so, why didn't go?
- 4) How did you find your group? or Why did you do a single person project?

Two friends and I grouped together since we all needed to do it.

- 5) Was this your preferred group size? 1-3
- 6) Did you finish with the same group you started with? Yes

Student Questions.

- 1) How did you find your IQP? Friend needed some partners
- 2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful? Yes, No
- 3) Did you contemplate going off campus? If so, why didn't go? Yes, Was not accepted
- 4) How did you find your group? or Why did you do a single person project? A friend wanted to put one togather and asked me to join.
- 5) Was this your preferred group size?5 People was a little too big. 3 would probably be ideal.
- 6) Did you finish with the same group you started with? Yes

- 1. My IQP was good. How can you quantify this qualitative question? On a scale from one to ten, it was an 8.
- 2. No. Didn't know about it. Therefore wasn't helpful.
- 3. Yes. Too much money to go abroad, not too much to stay in Worcester.
- 4. The group was great. We worked very well together. On a scale, 1-10, a 9.5.
- 5. Yes, 4 was perfect.
- 6. Yes we did.

#### Questions.

- 1) How did you find your IQP? Was in my IQP advisor's class, he mentioned he was sponsoring an IQP.
- 2) Did you know about the registrar's website listing IQP opportunities? No

Did you find it helpful? Did not know

- 3) Did you contemplate going off campus? If so, why didn't go? No, I'm in ROTC, needed to spend as much time at WPI as possible.
- 4) How did you find your group? or Why did you do a single person project? They were in my class. I was in a group with three people.
- 5) Was this your preferred group size? Yes
- 6) Did you finish with the same group you started with? No, one of the group members dropped out of school

#### Thank you

- 1) My friend suggested it.
- 2) Yes, I knew about it, I just didn't use it.
- 3) No, because I didn't want to take the time to deal with the requirements for it.
- 4) My group was initially my friend (who found the IQP) and me, and one other interested student joined after the advisor introduced him.
- 5) The group size (three) was exactly what I wanted.
- 6) We finished with the same group we started with.

#### Questions.

1) How did you find your IQP?

Used professor from class as advisor; suggested possible topics and refined with professor/group.

2) Did you know about the registrar's website listing IQP opportunities? Yes.

Did you find it helpful?

Had no projects listed when we were looking (was not kept updated).

3) Did you contemplate going off campus? If so, why didn't go? No.

- 4) How did you find your group? or Why did you do a single person project? Friend from classes and one of his friend's joined the group.
- 5) Was this your preferred group size? Yes.
- 6) Did you finish with the same group you started with? Yes.
- 1.) I actually approached a professor with an idea for an IQP.
- 2.) Yes. I suppose it was helpful, but I didn't select or think of my project based on that list.
- 3.) I did comtemplate, but didn't do to finances/lack of time to complete the application
- 4.) I found my group by asking friends of mine if they would be interested in my project.
- 5.) Yes, 3 worked well
- 6.) Yes
- 1) How did you find your IQP?

I had friends that needed a partner, so I joined up.

2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?

Nope. Nope.

- 3) Did you contemplate going off campus? If so, why didn't go? Yes I did, but I didn't, because the application process seemed so convoluted.
- 4) How did you find your group? or Why did you do a single person project? My group found me, it was a bunch of ROTC cadets who needed another team mate.
- 5) Was this your preferred group size?

Yes. I wanted to do a group IQP

- 6) Did you finish with the same group you started with? Yes.
- 1. A friend of mine told me about it.
- 2. I didn't at the time, I found it after I registered for my IQP.
- 3. I wanted to go off campus, but I couldn't afford to.
- 4. My group was sorta assigned by the advisor.
- 5. It was a group of 4, and it was great.
- 6. Yes I did.

Student Questions.

1) How did you find your IQP?

My advisor was the advisor for the project and he had some info on his door about it.

- 2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful? Yes I knew about it, but I did not use it.
- 3) Did you contemplate going off campus? If so, why didn't go? Yes, but I have a family and they would not like it if I left them for 7 weeks.
- 4) How did you find your group? or Why did you do a single person project? I had my friend sign up with me, and we asked to be on the same team.
- 5) Was this your preferred group size?

I dont have a preferred size.

- 6) Did you finish with the same group you started with? Yes
- 1) I found the IQP on the web
- 2) Yes, that's where I found my IQP
- 3) Yes, but I was playing a sport so I didnt want to miss the season.
- 4) They were people I knew that also weren't going away.
- 5) I had a group of 4 that woked fine.
- 6) Started and finished with 4.

Afterwards I kind of wish I went away.

#### Student Questions.

- 1) How did you find your IQP?
- A friend of mine needed a partner.
- 2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?

No, no.

3) Did you contemplate going off campus? If so, why didn't go?

I wanted to spread it over 3 terms.

- 4) How did you find your group? or Why did you do a single person project? My friend was like, "Hey! Did you do an IQP yet?"
- 5) Was this your preferred group size?

I would have preferred if we had more partners, since the workload was easy to distribute.

- 6) Did you finish with the same group you started with? Yes.
- 1) How did you find your IQP?

A fraternity brother had an idea for a project, found a professor to advise the project, then asked me if I would like to join the group.

2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?

Yes, I did know about it. I didn't actually use it.

- 3) Did you contemplate going off campus? If so, why didn't go? I did, but I am quite comfortable here, and did not want to relocate my life for only 7 weeks. It is also expensive to go away (especially to the UK I have a few friends that went there) While I would have enjoyed the experience, I did not know much about the actually projects, and of the ones I did know about they did not seem very interesting.
- 4) How did you find your group? or Why did you do a single person project? As answered in question one, a fraternity brother was putting together his own project and needed partners.
- 5) Was this your preferred group size? We worked in a group of two. We were hopping for a group of three, but it was difficult to find an acceptable partner who was not already going away.
- 6) Did you finish with the same group you started with? Yes.

Student Questions.

1) How did you find your IQP?

Online

2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?

Yes, and yes

3) Did you contemplate going off campus? If so, why didn't go?

No, wanted to stay on campus

- 4) How did you find your group? or Why did you do a single person project? Friends of mine
- 5) Was this your preferred group size?

Yes we had 3 people

6) Did you finish with the same group you started with?

Yes

How did you find your IQP?

My roomates and I had professor Adams in class who mentioned he always does many IQP projects over the summer, so we contacted him futher to see possible areas of research for our project. His ideas and experiences were easiest to consider with a group of 4, that still allowed us to work on it, as well as work full time.

2) Did you know about the registrar's website listing IQP opportunities? Did you find it helpful?

I was unaware of these opportunities as I had only heard of completing the IQP abroad, and then those with Professor Adams, so I dont know where I would find this listing.

3) Did you contemplate going off campus? If so, why didn't go?

I didnt go because I couldnt afford to miss the Biomedical engineering courses offered only once a year. I thought about it, but what Ive heard of PQP really scared me and contemplating the extra workload.

4) How did you find your group? or Why did you do a single person project?

I worked with my 2 roomates and my roommates boyfriend, a group of 4 on our project because we figured that would be most convenient. We knew each other's study habits, and all lived in the area for the summer so we knew it would be our best bet.

5) Was this your preferred group size?

yes, I would definitely not go with a group larger than 4. It was hard enough to find 2 days for all 4 of us to meet at the end of the project as we all had different work schedules.

6) Did you finish with the same group you started with? yes we all continued and pulled through to the end.

# 9 Resources

- 1) Demetry, James, "The Interactive Qualifying Project", November 3, 1972, WPI
- 2) Grogan, Dean William "Address to the faculty", January 18<sup>th</sup>, 1978, WPI
- 3) WPI 2006-2007 Undergraduate Catalog WPI Degree Requirements, http://www.wpi.edu/Pubs/Catalogs/Ugrad/Current/require.html
- 4) WPI 1980-1981 Undergraduate Catalog WPI Degree Requirements,