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An Investigation into Personal Growth and Group Dynamics at the Cape Town Project Center An Interactive Qualifying Project Submitted to the Faculty of the Worcester Polytechnic Institute in partial fulfillment of the requirements for the Degree of Bachelor of Science by Jordon C Friedman Date: December 20, 2014

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Introduction

The Interactive Qualifying Project is a challenging and demanding experience for students, which asks students to complete complex, open-ended projects to work towards solutions of major social issues. Because of this inherent challenge, I struggled to gain my footing at the Cape Town Project Centre and ultimately compromised my group dynamic. Due to this group dynamic breakdown, it was suggested that I reflect on what could go wrong in a project group. I had not been committing enough effort to the group overall and it was a very strenuous situation for my group. I was ultimately asked to investigate personal growth and group dynamics through open discussion with the groups at the project center. Through this project, I hoped to explore different approaches for managing my own dilemmas so I could better handle them in the future. I also hoped to open the door for discussion with others about the difficult things they've experienced during their IQP. This project's mission is to create something good out of a bad situation.

This project attempted to create space for reflection, as well as interpersonal learning, around the struggles that an individual faces working in teams during the IQP journey. The project combined elements of personal refection, group reflection, and multimedia to build a conglomerate of experience, emotion, thought, and outlook into a useful tool both for myself and for others who are considering going on an off-campus IQP. This project also helped discover what sort of issues other teams may face, whether or not they've successfully handled the issues, and why? Through group discussion and individual reflection, this project created a catalog of daily reflections and a video documentary discussing the growth and experiences of the students at the Cape Town Project Centre.

Learning Goals

The overall learning goals for the project are outlined below.

- 1. To learn more about my habits and myself in order to foster insightful personal growth.
- 2. To explore group dynamics and lessons learned from the IQP through the experiences of other groups at the Cape Town Project Centre.
- 3. To document the above objectives through personal written and video reflections, video recorded group reflection meetings and interviews with individuals, and a final, comprehensive video.

These objectives aim to provide insight into difficult and challenging topics that revolve around group work so that future students and instructors may use the project outcomes as an important resource toward learning and growth.

Methodology

To help others learn about their groups and to help me learn about myself, this project attempted to open up the door to discover what sort of issues and experiences other groups have had and how they may or may not be able to successfully handle them. This documented experience can be useful for the students, instructors, as well as anyone else who sees this information as valuable. Although a number of things were be addressed and discovered in this project, the most important method of fostering personal growth was my personal reflection. More specifically, the two main focus areas of this project were individual reflection as well as group reflection.

In order to reflect personally, thoughtfully, and consistently, I wrote thoughtful daily reflections and recorded daily video reflections for the duration of the project. This way, I was able to express my thoughts, feelings, and developments on a daily basis. This has become a useful tool for showing the change in thought a person can experience on a project such as this. This approach has also been helpful for me to reflect on the events of the past few weeks, which can help me better understand others and myself as well. These reflections were compiled into a final book, containing the reflections as well as photos, so that others could read the conglomerate of "reflections from IQP." I hope that these reflections will ultimately be useful for students who are thinking about going to an IQP to understand what level of personal growth they may experience.

In order to successfully accomplish the IQP, there needed to be an interactive element alongside the reflection. This interactive element was an opportunity for personal reflection, but also for growth for the other members of the project center. Group meetings were held once per project team to discuss thoughts, experiences, and issues the groups have faced during their time at the Cape Town Project Centre. These group reflections were recorded in order create a video featuring the experiences of the project groups. To garner group participation, an email was sent out to the project center asking for any interested groups to sign up for a reflection time. During the group reflections, a number of well-written prompts were read to each group before the meeting to open the floor for thoughtful reflection. The final step of these meetings was to have each person create a single phrase or sentence that they feel best reflects what they've learned based on the prompts. When meeting with each group, it was essential to mention why this activity was important for them and how being recorded during the entirety of the meeting was could be helpful for the group, but also for anyone who watches the content later on, to take away important life lessons from deep discussions. To comply with ethical standards, informed consent was attained by a verbal agreement prior to recording and later a written agreement. This has the potential of being an important resource for future ID2050 and IQP experiences.

These two project focus areas aimed to create an interesting and engaging dynamic for myself and other students to learn about themselves and how they see they've grown. A compilation of reflections is an insightful way to open up about the deeper, personal thoughts a person has and writing these down can be a helpful method of reflecting and

learning. Ultimately, these methods were combined to create a short film and a book of reflections.

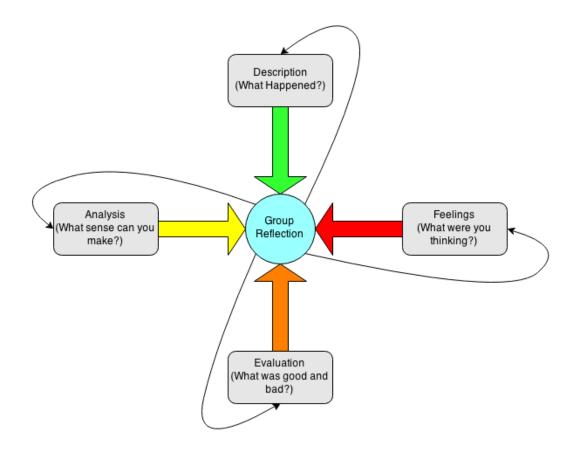


Figure 1 – Diagram depicting the different aspects of group reflection. The figure shows major topics and questions, which help to guide thoughts in personal reflections. These thoughts can then be brought to group reflection to further develop understanding on topics addressed. After a group reflection, individuals can go back and reflect on the same topics and questions individually to gain a final, more informed understanding.

Background Research

Study Abroad

Studying abroad is a phenomenon that has gained considerable traction in recent years among students studying in higher education. More students travel to different off-

campus locations every year to complete an important academic requirement in their university career. At Worcester Polytechnic Institute, this is typically the Interactive Qualifying Project (IQP).

While most study abroad programs send students to foreign campuses to take classes, the IQP is a way for student groups to work in a field outside of their major to complete a socially driven project, while considering the implications of their actions. Originally developed just in the 1970's as part of the WPI plan, the IQP aims to help students "assess the philosophical and social implications of their actions." This element of the IQP is to help students understand that their actions can have extremely large, unintended social implications. Because "the study of science and engineering on the one hand and social-humanistic studies on the other are fundamentally non-congruent activities," students attempt to gain insight into culture and the world that typical study abroad programs simply can't attain through classroom interaction alone.

Group Dynamics

The IQP can be an extremely difficult and emotional learning experience. The challenges faced by students are difficult and lead to a number of challenging conflicts that can arise between students in the project groups or other stakeholders in the project. One of the most important skills students must learn on IQP is to deal with conflict and take it as a vital learning exercise.

In order to take conflict as a learning exercise, one must first recognize some of the common sources of conflict in groups. Different personalities, learning styles, working styles, backgrounds, and goals are all grounds for members of a group to develop issues internally. In an academic environment it's not uncommon to see people "floundering, getting stuck, [and] rushing to work" causing conflicts within the groups (Sarkisian, 2010). Although there are many different instances of conflict, most types of conflict can be categorized into two major groups; natural conflict and unnatural conflict. Natural conflict is that which is "the intended or actual consequence of an encounter." Unnatural conflict, on the other hand, is that which is caused by someone "entering an encounter with the intentions of destruction," such as intending to confront someone with an issue (Emmit, 2010). There are a number of productive and creative solutions to the issues of group conflict.

When attempting to resolve issues of group conflict in project work especially interdisciplinary projects, it's important to approach the issues carefully and as an opportunity in order to walk away from the event having learned something. Because conflict is "inevitable" it's important to approach these issues with "some form of positive socio-emotional support" (Emmit 2010). It's important to ask questions to the group such as "Are we ready to make a decision on this?" and "What are some things that will help us solve this problem?" These statements are very thoughtful, yet refrain from being accusatory and exhibit effective communication among a group (Sarkisian, 2010). It's important to keep effective communication because that can easily turn any conflict situation into a learning opportunity.

It's often said that the best groups are not those who don't have issues but those who conflict frequently and learn from it. Very few teams ever achieve amazing success because it often seems that students "suppress their conflicting views in order to maintain the team" (Senge, 1990). Although this may help keep the peace among a team, ultimately these are just methods of defensive reasoning. The rage can be internalized and come out in unhelpful, confusing ways. According to Peter Senge, author of *The Fifth Discipline*, these issues are fundamental and begin at a very young age. Starting in the early years of our education, students are always pressured to have "the right answer" when called upon, therefore causing us to perceive threat in "exposing our reasoning" in an environment where there is no right answer (Senge 1990). Ultimately it's important for a group to understand that the best way to move toward a common goal is to listen to all of the different perspectives the team brings to the table. One method of forming an insightful perspective is through personal reflection.

It's no surprise that reflection, especially on a personal level, is an extremely effective tool in an educational environment. John Heron, a member of the *British Postgraduate Medical Federation*, gives a number of examples of how reflection can be used as a learning tool in nursing. He explains that because the environment of nursing is so constantly challenging and intense that individuals benefit from stopping and thinking from time to time. Reflection is "the first cooperative inquiry into co-counseling" (Heron, 1985). This is important because when one stops to consider what they've learned or experienced, one learns more about their world and about oneself. Incorporating groups into reflection" allows one another to see the different experiences and perspectives of a group and learn through this combined experience (Heron, 1985). Both with individual and group reflection, there are a number of methods that can be used to create an engaging space for reflection.

In order to reflect effectively, it can be very helpful to follow a number of models to help guide one's thinking. An informal model of reflection is when one uses "first order reflection" following by "second order reflection" (Barret, 2009). First order reflection is when an individual writes for 10-15 minutes in a stream of consciousness. The second order is when the writer then rereads what they wrote in order to discover more about what they were thinking. A more formal model is the *Cognitive, Affective, Psychomotor (CAP) Model* (Barret, 2009). This models gives a number of prompts and then asks the individual to reflect upon them. To perform this model someone will ask the individual to state three ideas they agree with, two they are pondering, and one they challenge (Barret, 2009). This countdown model helps individuals to focus their thinking and take the most away from both positive and negative experiences.

A second model for reflection is the *Gibbs Model for Reflection (Barret, 2009)*. This model, which is outlined in the figure below, poses a number of questions, which are given in a cyclical nature in order to help an individual to be continuously reflecting in all situations. Although not as structured or concrete as the CAP Model, this model is a helpful guide nonetheless.

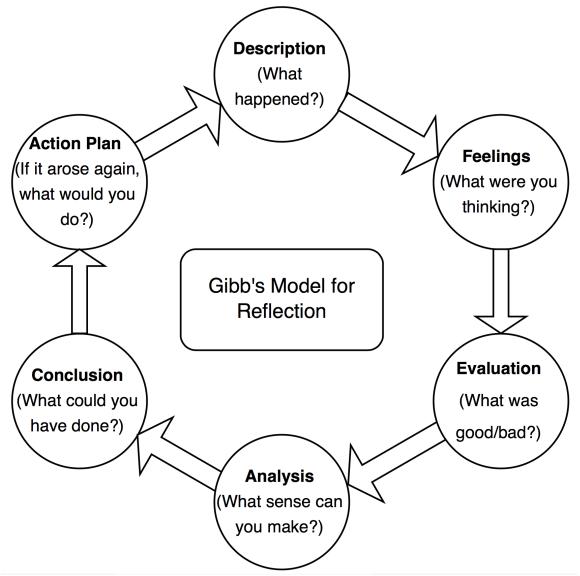


Figure 2 - Gibb's Model For Reflection (Adapted from Reflection4Learning)

Conflict, reflection, and growth are important aspects of the IQP. Conflict is natural byproduct of group work, especially in the academic environment, which can be an extremely important learning tool when appropriately handled. Furthermore, conflict can heavily impact interdisciplinary work and have larger social implication. Conflict in the IQP is normal, but provides students a relatively safe environment for learning about how to deal with group issues so they can better handle them further on in their professional lives.

Outcomes

The outcomes from each of the three leaning goals taught me different lessons, but also provided a large volume of interesting and insightful content for students and faculty alike. Through my written and video reflections, I was able to learn about myself, my flaws, and personal areas in which I'd like to improve. Through discussions in group dynamics, I learned a lot about what other teams deal with and how my team struggled. Ultimately these two major leaning objectives help create a number of deliverables, rich in content.

Personal Learning and Growth

I learned that I'm typically someone who internalizes negative emotion. Furthermore, I've learned that I'm genuinely quite good at reflecting in a written form, but would use work trying to vocalize the same thoughts. Through the processes described above, I have been able to make strong steps towards personal improvement but, like anyone, always will have steps for further improvement.

Through the process of daily reflection, I was able to look into a number of areas I could learn about myself and ultimately grow. One of these areas was my ability to communicate productively. There were a number of occasions in which my own interests or frustrations would hinder my ability to communicate objectives or make constructive commentary. This hindered group work and make it appear as though I lacked empathy for my team. Although none of this was intended, it's clear that this was an area that I needed to focus on and improve my interactions. In the future, I will be able to consider the events of the IQP to help achieve constructive communication during group work.

Looking further into the issues addressed above, it was clear that one of the biggest reasons for my actions or reactions to situations was due to my attempts to internalize negative emotions. When things weren't going well with the project or with team mates, I would try to convince myself that things were going well to keep my outlook positive but it ultimately left too many things overlooked and unsaid and put a large strain on my group and hurt the groups motivation as a whole, even if I thought it might improve my own. Although it can be useful to try and stay positive, I've learned how important it is to take ownership of situations and have the conversations that need to be had.

Ultimately through doing this project, I learned a lot about my issues regarding communication, sympathy, and managing methods of keeping motivation. Reflecting for a number of weeks on these topics has helped me grow as an individual and better prepare me for my professional career as well as my life.

Group Dynamics

The discussion around group dynamics and group issues helped me understand that every group carries a lot of the same issues that mine did, however every group deals with those issues in dramatically different ways. I've gained a strong understanding of different group dynamics through my peers and have learned that a lot of issues simply don't get solved but simply worked past in the limited time provided in the IQP. Major topics that

were discussed with the groups revolved largely around adaptation at the project center, communication issues, and issues with conflicting personalities.

I've learned through the group discussions that many students face challenges adjusting to life at the project center. Many of my peers carried a number of difficult issues from home or had things happen while here that made it difficult to work. Even more interesting is how I've learned that most people largely felt as though they were unable to talk about these issues with their peers, although it quickly came apparent through group discussion that the groups would have gladly spoken about the issues had they been brought up. This was very insightful for me as it was an issue I faced through my own internalization at times.

The second major topic in the group discussions was based around communication issues. Many students have faced issues in communicating thoughts, feelings, and objectives throughout the IQP experience. My group had experienced a number of issues where we felt as though we shouldn't bring up sensitive topics to avoid group conflict. Speaking with other groups, I learned that most of the groups have had to face that issues at times but, more often than not, they just accepted that it might cause a problem but weighed the benefit to the project higher than the cost of conflict. I've learned through my peers that it's important not to let personal issues and project issues intersect.

Many of the groups mentioned how they felt communication was largely impeded due to conflicts between different personalities. Sometimes groups will work extremely well from the beginning, but it's not common. During group work, there tend to be different individuals who feel as though they can't work together. Some individuals voiced how they felt that their differences in personality helped the group achieve success, while others said that they felt as though they could never truly work well together. I've learned that this is an issue most groups face and it can take a great deal of effort to overcome it.

Documentation and Deliverables

Finally, I've created a number of deliverables through these learning exercises that have the ability to help students and instructors learn more about the IQP journey and the inherent difficulties and issues students and group commonly face. Through the powerful learning tools of reflection and careful listening, I was able to create a video full of rich group discussions and experiences and a book of personal reflections, which outlines my own journey and thoughts process throughout the challenging IQP experience.

The video is a combination of videos and photos from my group reflection exercises and project work in Cape Town. Combined with the outline that I have created, this video can be a useful tool for future instruction when investigating the areas of adaptation and growth experienced by students at the off-campus project centers. The video showcases students exposing their true thoughts and experiences from the IQP in order to better understand the journey that they have completed.

The book is a truly personal piece. Combining some of my photos from Cape Town and reflections that I wrote every day, I created a chronological guidebook of my thoughts and experiences. This book, although valuable for me, has the potential to be an insightful tool to look directly into the mind of an individual who experiences a number of very difficult situations and events during their time off-campus. Ultimately, both of these deliverables will become unique resources for the IGSD.

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