THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENTS OF Environmental Resource Management and Curriculum Instruction

DIALOGUE’S IMPACT ON BEHAVIOR AND ATTITUDE TOWARDS CLIMATE CHANGE

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SPRING 2015

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree in Environmental Resource Management
for interdisciplinary honors in Environmental Resource Management and Secondary Education

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ABSTRACT

Today the world is faced with many dilemmas. Climate change is one controversy which has polarized many people. In an effort to find new ways to explore what students at Penn State are thinking about climate change, World in Conversation: Center for Public Diplomacy designed a new initiative around it. This initiative does not push any one agenda within the conversation and gives students the opportunity to communicate what they believe and challenge the beliefs of other students.

In order to look at the impact of these conversations, a qualitative study was performed focusing on behavioral and attitude changes. Through survey data and a collection of personal interviews, students depict the impact of the experience.

The results of this study challenge conventional learning environments and provide another tool for teachers to explore what knowledge and beliefs their students have. In addition, it illustrates the ability of conversation to change the way people interact with world problems in their everyday lives.
# TABLE OF CONTENTS

LIST OF FIGURES ................................................................................................. iv

LIST OF TABLES ................................................................................................... v

ACKNOWLEDGEMENTS ....................................................................................... vi

Introduction ........................................................................................................... 1

  Climate Change as a Social Issue ................................................................. 2
  Climate Change Education ........................................................................... 4
  Climate Change Initiative ............................................................................ 5

Literary Review .................................................................................................... 7

Methods ............................................................................................................... 11

  Study Population ......................................................................................... 11
  Dialogue ....................................................................................................... 12
  Survey ........................................................................................................... 13
  Interviews ...................................................................................................... 13

Results ............................................................................................................... 14

  Survey .......................................................................................................... 14
  Interview ...................................................................................................... 16
    Starting the “journey” .............................................................................. 16
    Challenged ................................................................................................. 20
    What do I do? ........................................................................................... 23
    Other Information ...................................................................................... 25

Discussion ......................................................................................................... 26

Appendix A: Coding ......................................................................................... 33

Appendix B: Interview Questions .................................................................. 34

Appendix C: World in Conversation General Survey .................................... 37

Appendix D: Climate Change Survey ............................................................ 38

BIBLIOGRAPHY ................................................................................................. 40
LIST OF FIGURES

Figure 1. General Survey Response Questions: All Dialogues vs. Climate Change ..........14
Figure 2. Survey Response Data .............................................................................................15
LIST OF TABLES

Table 1. Population Demographics.................................................................11
ACKNOWLEDGEMENTS

Before I begin I would like to thank a few extremely important people who without, none of this work would have been possible. First, I would like to thank Dr. Robert Shannon who encouraged me to apply for the Shreyer Honors College and for encouraging me to gain an education outside of environmental science. Next, thanks to Dr. Laurie Mulvey and Dr. Sam Richards I was provided the perfect opportunity to follow my interests and passions. Thank you to Dr. Denise Woodward who kept my interest in science education alive through amazing opportunities to take on teaching roles within the classroom. Dr. Scott McDonald, thank you for your assistance in creating this work. Without your help I would never have been able to combine my work at World in Conversation with science or education in a productive fashion. Lastly, I want to thank my colleagues who struggled with an immensely challenging conversation as well as each participant who was willing to take the time to explore climate change in such an open and honest fashion.
Introduction

Over the course of a semester, students from Sociology 005 Social-Conflict, participated in a revolutionary dialogue initiative at World in Conversation: Center for Public Diplomacy titled: Climate Change. These conversations took place under the premise of climate change being an issue relevant to Penn State students moving forward and by actively exploring what students are thinking about climate change. Ultimately, the goal of these conversations as with every dialogue at World in Conversation was to “transform conflict into collaboration and to invite greater understanding.” (World in Conversation)

World in Conversation frequently collects post-data on many of its dialogues in the form of a survey immediately after the conversation concludes. This survey covers basic information about the dialogue and allows them to see generically what participants are thinking once the dialogue has ended. The survey focuses primarily on the process of the dialogue and facilitator performance. Using the self-reported data, World in Conversation claims 66% of their participants think differently as a result of the dialogue, 87% have new insights, and 88% believe something will be different in their life as a result of the dialogue (World in Conversation).

The data currently being collected is helpful, however it fails to give a complete picture of the dialogue experience. How would those numbers change if the survey was given a week, a month, or a semester after? Additionally, what do participants mean when they believe “they will think differently”, “have new insights”, or “believe something will be different”?
In order to explore aspects of these questions, a fairly simple design was created. A pre-survey was administered to participants before arriving at their dialogue, illuminating their behavior, attitudes, and beliefs toward climate change. Immediately following the dialogue, a similar survey was given to the participants in order to track how the dialogue affected them. Lastly, interviews were conducted with a number of participants after the dialogue ranging from a week to months after in order to see the lasting impact of the conversation.

Although the scope of the research is broad, the qualitative data collected will lead to further discussion on the use of facilitated dialogue as a teaching mechanism, a way to build advocacy, and comment on facilitated dialogue as well as college students’ perceptions on climate change.

**Climate Change as a Social Issue**

Social issues are conditions some people in a given area deem undesirable, and can range from discrimination to joblessness. Climate change fits into a category within social issues called socio-scientific issues or social issues directly connected to science. These issues include fish farming, genetic testing, stem cell research, and in the case of this study, climate change.

In 2008 the Intergovernmental Panel on Climate Change stated long-term observations show a warming trend worldwide, increasing atmospheric concentrations of greenhouse gases are causing the warming trend, and the growth in carbon dioxide emissions from human activities are the largest contributor to the increase in global warming. These claims put climate change into focus as a real socio-scientific issue. Over time, increased research has further
enhanced climate change as a socio-scientific issue leading to a nearly unanimous opinion among climate scientists on the existence of anthropogenic climate change (Cook et al., 2013).

Even with extensive research, there are many opinions and facets to climate change. Examples such as Senator James Inhofe who “disproved” climate change by presenting a snowball to the Senate and stating, “It’s very, very cold out. Very unseasonable” (Bump, 2015) illustrate one extreme end of the spectrum. Yet, Sen. James Inhofe’s opinion is merely one of the billions of people who live on the planet. According to the Yale project on Climate Change Communication, 61% of Americans believe in climate change and those who believe it is caused by human activity lies around 50%. Regardless of the scientific data on the issue, research supports claims of climate change being a controversial social issue in today’s society.

Climate change opinions are constructed by many different factors. Significant research has focused on how an individual’s science knowledge influences their opinion on climate change. This has led many experts to believe that by addressing misconceptions and filling knowledge gaps, education can empower students to be more environmentally conscious (Skamp et al., 2012). However, race, ethnicity, gender, and socio-economic status all influence a person’s beliefs on climate change as well. For example, women and people with low socio-economic status typically view climate change with more caution than white men and those with higher socio-economic levels (Herman, 2014). For this reason, attempts to encourage environmentally conscious behaviors should include both science knowledge and the sociocultural beliefs influencing an individual’s perceptions.
Climate Change Education

Climate is a piece of the National Research Council’s science education standards. This means nearly every science textbook addresses climate and, as a result components of climate change. In addition, some educators believe “science teachers need to focus not only on students’ understanding of, and consequent beliefs about, the causes of global warming but also assist students in feeling empowered to reduce individually, and corporately, the impact of these causes.” (Skamp et al., 2012) Both of these statements raise questions about how science educators are to address climate change with their students. Should educators simply teach the science and let their students come to conclusions on their own or should educators become advocates for climate change?

When looking at what the public knows about climate change, significant gaps in knowledge have been discovered. Some of the gaps in climate literacy reside around confusing weather with climate, identifying stratospheric ozone depletion as the primary cause of rising global temperatures, and linking unrelated pollution impacts to climate change (Gowda et al, 1997). However with these clear gaps in knowledge two distinct camps have emerged, those who believe increased science literacy leads to social activism and those who believe social activism does not just come from increased knowledge, but is derived from various sociocultural aspects and ideologies (Skamp et al, 2012; Guy et al., 2014).

Many barriers exist when attempting to further educate and potentially adapt behaviors and attitudes towards climate change. Numerous studies have shown the ability to adapt students’ behaviors through increased climate change literacy, however have still not completely filled the knowledge gap within some students (Bofferding, 2015). In addition, many students are
committed to their own beliefs and actively resist change (Dole and Sinatra, 1998), which can be true for climate change education due to misconceptions in knowledge. Likewise, many sociologists believe other factors such as political alignment, the spread of doubt and misconceptions, failure of culture to promote pro-environment behaviors, and sociocultural factors contribute to such resistance (Guy et al., 2014). The interconnection of both the knowledge and sociological reasons can produce a cocktail that fights against teachers in the classroom as well as anyone (including teachers) attempting to advocate for change.

Although two camps exist and numerous strategies are available to address problems within education on climate change, the focus of this study is only on behavioral and attitude changes as a result of an educational experience designed to discover what students are thinking about climate change. The study does not focus on just increasing what they know or the sociocultural aspects in their lives, but the combination of the two.

Climate Change Initiative

Currently some strategies do exist to address such issues within a classroom. Many studies have focused on curriculum addressing common misconceptions, mitigation, and adaptation knowledge (Bofferding, 2015). In addition, programming where students enter an experiential learning environment have also proven to increase positive attitudes towards the environment (Sellmann et al. 2012). Also by using situational emotions, students can alter behaviors and change attitudes towards subject matter (Fröhlich et al., 2013). Even peer-to-peer learning and free-choice learning environments have proven to be successful in influencing behaviors and attitudes towards climate change (Robelia et al. 2011; Herman, et al., 2012).
The Climate Change Initiative at World in Conversation incorporates many of these aspects into their programming. By engaging students in an open dialogue where they control the content of the experience, World in Conversation hopes to “invite greater understanding and expand perspectives” of their participants. During the dialogue, facilitators trained in Socratic Inquiry and critical thinking methods allow participants to critically discuss the content, helping participants “teach” each other.

During dialogues, content such as relevant scientific knowledge and personal stories are shared by participants. Participants also engage and challenge the perspectives of their fellow participants. This allows misconceptions to be addressed and often times, the conversation is not exclusively about the science, but the implications, ethics, and sociocultural aspects controlling the participant’s perspective on climate change. It addresses every aspect of climate change through a communal process shared by all the participants.

During this study the impact of this process will be qualitatively analyzed through survey data collected before and immediately following the dialogue. In addition, interviews were conducted with participants at a later date following their dialogue experience. The focus of the study was simply impact on behaviors and attitudes toward climate change, and this impact is discussed in order to address the dialogue model as a tool for climate change education, to identify avenues for future research, and to critique the dialogue experience as a whole from a perspective of impact on the participants.

Through over 59 Climate Change Dialogues and the consequent interviews, three main themes were discovered; participants are beginning a “journey” with climate change, participants needed to be challenged to induce change, and participants want more content about climate change after their dialogue experience.
Literary Review

Current literature and research on climate change is extensive. Less extensive is literature on climate change education, and even more rare is research focused on climate change education at universities (Wachholz, et al., 2014). For most research on climate change education, the focus has been around primary and secondary school students’ knowledge and conceptions around climate change, including ways to more effectively improve them through new curriculum. Research on students’ behavior and attitude changes through climate change education usually occurs as secondary objectives. At World in Conversation, students engage in an extra-curricular free-choice learning experience where they experience peer-to-peer learning through dialogue. This type of learning experience is not common and has not been studied extensively; yet similar programs show signs of being impactful, especially on attitudes toward the subject matter.

Differences between developmental groups are important to consider when designing programming to enhance any aspect towards climate change. Bofferding and Kloser (2014) looked at middle and high school students’ conceptions of climate change mitigation and adaptation through a designed curriculum where pre and post tests were administered. Specifically, the study focused on two questions from their tests, things the students’ communities could do to realistically reduce carbon emissions and one thing they or their community could do to realistically prepare for or adapt to future changes in the environment. Like many other studies, students improved their overall knowledge about climate change and actions they could take to reduce their impact on climate. Also the students’ knowledge differed between developmental levels on both the pre and post-tests for each observed condition. This
illustrates the need for research at the university level because if knowledge differs between middle and high school students, students attending a university should have different knowledge and conceptions about the topic. If these differences exist, teaching with models designed for lower developmental levels could be ineffective.

Other research on climate change in secondary schools focuses on behavioral changes in addition to enhancing knowledge and understanding. McNeill and Vaugn (2010) looked at a population of students in three different urban school districts participating in an urban ecology course. The students in the course took pre and post examinations to determine their understanding of climate change. At the end of the course, students displayed an increase in environmental knowledge and stated in post interviews that the small actions they were taking to act environmentally conscious had increased. Overall, the methods used were successful indicating the potential for programming to cause behavioral shifts. The specific curriculum used in the study is infeasible in most cases, especially at the university level. Students in the study were taking a specific course which lasted 20-30 class periods of 45 minutes each. A course utilizing this specific strategy would not exist at the university level. Therefore, new strategies must be designed if students who cannot participate in such a course are to be reached, specifically students in post-secondary education.

Outside the traditional route, some novel ideas for increasing environmental awareness have been observed. Bogner (2002) performed a study on a 4 day extra-curricular educational unit using a pre and post-test treatment in order to find the effects on participants’ “environmental perceptions.” The program used a variety of outdoor activities focused on geological and ecological themes, and the program was compared to a control program of just outdoor activities not guided by specific themes. After the course, “significant shifts in the
perception of adolescents” was found in the experimental group compared to the control group. Part of the impact was thought to have come from placing students in an unfamiliar environment (the outdoors), impacting their beliefs. This study gives efficacy to implementing programming over a shorter time period whiles still impacting students’ perceptions of the environment. It also shows the merits of engaged scholarship as an effective tool for altering perceptions of the environment including climate change.

Many students do not have access to larger programming or the ability to take intensive coursework on climate change as previously stated. Flora et al. (2014) evaluated the impact of an edutainment high school assembly program on climate change knowledge, beliefs, attitudes, behavior, and communication through pre and post surveys. The program succeeded in improving students’ “knowledge of climate change science, positive engagement in the issue, and climate-related behaviors in the short term.” In the study, knowledge of climate science increased by 27% over baseline levels, and acknowledgement of global warming increased from 45% to 60%. It was also found that discussion with parents and friends about climate change was the largest behavioral change found, illustrating some effectiveness in short programming in altering behaviors and attitudes. It is unknown what the long term impact is for the programming. At World in Conversation, students participate in an experience where they will engage with the issue of climate change for 90 minutes like during the assembly; however, unlike the study, more long term behavior and attitude changes will be observed.

In all cases of programming impacting student’s knowledge, behaviors, and attitudes on climate change, an authority figure is present, mainly in the form of a teacher. However, in the case of World in Conversation, peer to peer learning takes place as no teacher is present in the room. Robelia, Greenhow, and Burton (2011) performed a study looking at the influence of
online social networks (Facebook) in motivating young adults to increase environmental behaviors by focusing on the research questions, “What did Hot Dish users learn by using the Facebook application” and “How did the Hot Dish Facebook community contribute to users’ adoption of responsible environmental behavior”. The researchers utilized engagement strategies such as “challenges” to encourage more activity on the page, and they compared their data with data collected by the National Environmental Education Foundation and the Minnesota Office of Environmental Assistance. The results showed the Hot Dish participants were more informed about climate change than the general public. Although the various surveys were used with different intents, the researchers believed the comparison was valid as all questions were equally as objective. The research also revealed the participants were more motivated to share with ‘like-minded individuals’ indicating a more positive learning environment where students are learning by choice. Individuals were often found learning about climate change directly and learning about alternative viewpoints surrounding climate change. Behavior also was altered by interacting on Hot Dish, although the effect size was relatively small (d = 0.278). It should be noted many Hot Dish users chose to participate on the site, potentially increasing their responsiveness to change behaviors and engage with content on the site. However, peer to peer learning can have significant impacts if students are learning by choice and choosing what to share and engage with; all of which are aspects of a World in Conversation dialogue.

In addition to being a peer-to-peer learning environment, World in Conversation implements a type of free-choice learning in its programs. Current research does support the use of free-choice environmental learning. Herman, et al. (2012) examined the effectiveness of participation in the Skunk River Navy (SRN), a program lead by university biology faculty for university students. Voluntary surveys were mailed to individuals who had been biology majors
some of who participated in the SRN and some who had not. It was found that SRN participants scored higher in content knowledge assessed, had higher attitudes toward human use of streams, and felt they became a part of a larger community at their school. It was also found that there were no significant differences between the male and female participants content knowledge although the researchers admit further study is needed on the topic. The assertions made by the authors were simply that the SRN program had an overall positive impact on longitudinal scientific attitudes and when coupled with coursework, free-learning activities can enhance the learning experience for students. World in Conversation is a free-choice learning environment and exhibits similar characteristics to the study mentioned.

### Methods

#### Study Population

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<th>Racial/Ethnic Identity</th>
<th>Percent of Participants</th>
<th>Gender</th>
<th>Percent of Participants</th>
<th>Average Family Income</th>
<th>Percent of Participants</th>
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Table 1. Population Demographics

Over the course of the Fall 2014 semester, students in Sociology 005 were required to participate in World in Conversation’s Climate Change initiative. This class mirrors the general Pennsylvania State University (Penn State) population with similar gender, racial/ethnic, and socio-economic demographics (Table 1; Penn State, 2013; Booris, 2007). Although each college
within Penn State is not equally represented, having most students from the College of Liberal Arts is representative of the average student’s knowledge about climate change at Penn State.

Each student was exposed to the same curriculum; however, students who participated in a dialogue later in the semester received some content on how climate change is a social issue during a class lecture. Even though this difference exists, the population will be discussed as a whole as there were no indicators of content from in-class lecture impacting what was said during the dialogue. Therefore, it is believed any differences between what could be two different populations would be negligible. It should also be noted this study is looking at the impact of the dialogue, and it is expected that participants will be influenced by the outside world after the dialogue as World in Conversation encourages students to “continue the conversation” after the dialogue.

Dialogue

The core method to this study is the use of facilitated dialogue. At World in Conversation: Center for Public Diplomacy (WinC) the dialogue experience is one where participants focus on the complicated experiences and ideas of one another, are empowered to listen and speak directly to one another, and navigate difficult subject matter through effective communication. When effective, the dialogues leave the participants with an expanded perspective and/or greater understanding of the individuals within the group and the world around them.

In the case of this study, the same facilitation team from World in Conversation facilitated each one of the climate change dialogues. These facilitators received the same training
on Socratic Inquiry, connection building, group management, reflective listening, and rapport. Each of these skills is essential to providing a worthwhile dialogue as defined by WinC.

Each group contained between 5 and 9 participants from Sociology 005 and ran 90 minutes in length. In addition, the same framing for the dialogue was utilized. Facilitators operated under the assumption that climate change was real and were told to explore climate change as a socio-scientific issue.

Survey

Two surveys were given to the participants. One was a pre-survey to establish what participants already do and their attitudes towards climate change. Immediately following the dialogue a similar post-survey was provided. This survey contained questions pertaining to the dialogue experience and some focusing on behavior and attitude shifts.

Both surveys utilized a Likert scale from ‘strongly disagree’ to ‘strongly agree’. In addition, a Shultz’s INS scale was used to process participants “closeness with nature.” The data from the survey was then analyzed by describing what happened and using it to reinforce the interview data.

Interviews

The interviews were conducted with participants after they attended the climate change dialogue. The time between the interviews varied, ranging from a week to about 2 months after. The interview used 4 base questions which dictated the format of the interview. Each of these
questions was then followed with more specific questions regarding the format of the dialogue, the facilitator’s execution, and the participants in the dialogue. Questions to gain clarification about answers were also asked.

In order to analyze the interview responses, codes were created to explain certain types of responses. These codes were then streamlined further to encompass the main impacts of the dialogue experience for the average participant.

Results

Survey

![Graph: General Survey Question Averages]

Figure 1. General Survey Response Questions: All Dialogues vs. Climate Change
Upon observing the survey data, very little information could be garnered. Across the board every question on the survey showed little change and the general World in Conversation survey questions showed some decrease, yet this was not enough to indicate anything was different in the facilitator performance or experience (Figures 1 & 2). Participants showed a trend towards being more environmentally conscious in their behaviors. In addition, participants’ attitudes showed an increase in ‘caring’ about climate change and the environment while feeling less empowered as individuals to make changes and have an impact. (Figure 2)
Interview

Starting the “journey”

Throughout many of the interviews participants explained about instances where they encountered something new. In many cases, the participants indicated they had never thought about climate change, were now more aware, had desires to adapt their behavior, and encountered new ideas. These statements were present in each portion of the interviews, and show how each participant may have begun their “journey” in learning about and interacting with climate change.

More aware

These participants explained how they are now more aware of their actions and issues around climate change. They do not necessarily need to have altered their attitude or behavior, yet exhibit a new awareness about the topic. After being asked about any behavioral changes they have made or plan on making, one participant explains how he/she did not have any plans to alter his/her behavior, but focuses on how he/she is more aware of climate change.

It is going to stick in my head and cause me to keep thinking about my action[s], but it won't change my behavior… it is still an abstract concept to me and it doesn’t affect me to the extent that ‘I have to do this now’.

In the participant’s response, the dialogues main impact was to cause critical thought about their actions, explaining how climate change is still abstract and how it is not affecting
their life. Therefore, besides thinking and having more awareness of their actions, no behavioral changes will be made.

In another instance, when asked about any behavioral changes they are making another participant explained what had changed in his/her life.

Something that has changed is that I am more conscious about recycling, but at the same time I am even more aware of what I am not doing. Before I wasn’t aware of how current global warming and climate change is, not so much in the U.S., but in other countries. We need to change as a whole because there are people who are being displaced because they don’t have water. The problem is I am a part of the problem and not part of the change. I was so ignorant about this.

This participant makes no commitment to recycling more. However, being more conscious indicates an awareness of the behavior. As he/she continues to explain what has changed, the participant describes how their awareness has changed. They expound on how they knew nothing about climate change before the dialogue, and now they see themselves as a part of the problem; they are now aware of everything they are not doing.

In a third example, a participant who said he/she already environmentally conscious and aware of climate change expressed views on awareness as well.

I am still the same and I was already aware of the climate change situation. So I would always try to act in a green way… it [the dialogue] has made me realize I need to be less wasteful and aware of how I am using my resources more.

This quote is different from the previous two because the individual is already aware of climate change. However, what makes this person fall into starting the “journey” is the sentiment
of starting a new process being even more conscious about the resources they use although not necessarily carrying it out in tangible behaviors.

**Want to do more**

This code is more specific than gaining awareness. All the statements falling into this category require very specific desires to change behaviors in their lives, not just being more aware of the situation or of what they are doing/hoping to do.

It [the dialogue] made me love the world even more. It made me want to protect it. Be more clean. I want to be green, stop using oil. I want to stop increasing my carbon footprint by encouraging the use of greener energies and options.

This statement clearly defines this category. The individual defines specific desires for the future; wanting to, “be cleaner”, “stop using oil”, and “decrease their carbon footprint.” Yes, they may have not begun to follow through on this idea, yet the specific goal is present in the statement rather than simply being conscious or aware of something.

Yeah, because now it is something that I talked about and will hopefully still continue (to) talk about. There should be more World in Conversations about climate change, and I will keep enlightening others about it [climate change].

This person tells their experience of talking about climate change and their hopes of being able to continue to speak about the topic with others. Their change is not in a behavior which has a direct impact on climate change or the environment, but an impact on those people around them as they want to continue the dialogue outside of the dialogue experience at World in Conversation.
Another student hoping to do something to help explains the impact of specific moments in the dialogue.

We talked a lot about the culture and structures around climate change… I am thinking about joining a club on campus.

This student also is not doing anything to directly impact climate change and is not even considering speaking to others about the conversation, yet has created a goal which is motivated by a desire to help the issue. They may not carry out the goal, but they do express a specific desire to want to do more in joining a club on campus.

Some students express the desire to do more, but plan on their actions being more thought out. During a conversation about specific moments one participant remembered from the dialogue, a description of the moment leads to the impact the moment had.

I remember thinking that a few people in my group did not want to recycle. And I was like ‘why not’. They didn’t acknowledge that this was important and that it was naïve. It was a slow conversation… it made me want to help out more. For example, I guess I want to learn more about it and search for what else I could do.

This individual does not give any specific details on what their plans are, but state their desire to learn more and physically search for what else could contribute to helping climate change.

*I didn’t think*

These individual’s “journey” is beginning with the knowledge that they did not think about climate change before the dialogue. These individuals may have just had a realization and
some are taking it a step further into making active decisions on what they will think moving forward. One example of this realization is made by a participant after being asked if the individual felt anything was learned from the dialogue experience. The response was not with actual content or facts, but a reflection on their previous mindset before and after the dialogue.

I learned it wasn’t something I thought about actively, a lot of my mom’s side of the family is in Brazil and they say it is getting hotter and hotter. My uncle [recently] sent me video of him frying an egg on his car and I usually wouldn’t have thought much of it.

The student discovered climate change was not something they thought about actively. The participant expands on the idea through an example of their family describing life in Brazil, illustrating the participant’s continued thoughts about climate change. Knowing they normally would not have thought much into the stories, the person now does think deeper into the issue. These participants are not actively helping or being more aware, but rather realizing they never thought about it and now are.

**Challenged**

Throughout the interviews participants described what allowed the dialogues to have an impact on them. Most of the interviewees described being challenged by the facilitators or participants as the reason they were impacted. In these situations, one of the two “sides” of the dialogue would directly challenge the perspective and position of the interviewee, causing them to see a contrasting viewpoint to their own, thus changing the way they perceive the world around them creating the impacts they all describe.
Facilitators challenge

In these situations, it was challenges created by the facilitators which caused the participants to feel the impact of the dialogue. One student describes a facilitator’s challenge after being asked what allowed the dialogue to impact them.

I think talking about it and putting the concept out there that ‘we aren’t doing enough’. You have to really talk about it and have a real conversation it brings it to the forefront. The facilitators really helped us think critically and thought critically about it. The facilitators helped us think more critically rather than saying it doesn’t affect us.

The participant expresses how the facilitators controlled the conversation, not allowing the group to reach a consensus of “climate change doesn’t affect us.” Instead, the facilitator played the role of “devil’s advocate”, pushing the group to see beyond their perspectives. In addition, it can be assumed the facilitators kept the topic on climate change throughout the dialogue forcing the participants to think more critically about the topic, challenging them to discover what it is they believe and think.

Another student ascribes the input of content by their facilitator as the catalyst to their new attitude about climate change.

Sometime during the conversation, when Laurie mentioned how the hurricane destroyed her sister’s house and the way she talked about it. That is when I realized all of this stuff is climate change.
The direct input of content by facilitators was not a tendency seen very often, yet every time these types of challenges existed, participants ascribed a large part of the dialogue’s impact to these moments just like in the example.

I liked how it was set up, where at the beginning we talked through everything step by step and you were able to think. It wasn’t a lecture, it was questions asked and you could think through it on your own. The facilitators played a very big role, the questions were more of a guideline and worked for the majority of the people. It was on the facilitators to control where the conversation goes and how impactful it is.

This quote illustrates the impact facilitators have on the participants. Facilitators ask the questions and the experience is not a lecture, yet just like teachers dictate what happens. If facilitators fail, according to the participant, the conversation will not have a significant impact. Also the participants are not told what to think, they are simply asked to think critically.

Participants challenge

So because I got to hear from a bunch of different students who are my age, I got to hear a lot of different perspectives. A lot of them were from different backgrounds and a lot of them were from not green backgrounds and were from cities, their mentality was dirty. And I live in suburbs where there isn’t a lot of trash. Many of the other people were from Philly and I realized they don’t have the time to think about the stuff I do. I saw there are other problems in the world too.
Many times throughout the dialogues, participants in the group challenge their fellow participants’ viewpoints simply by having different lives and experiences. Other times one participant’s opinion differs from the rest of the group’s. In the previous quote, a participant describes the experience of interacting with the various perspectives held within their group, attributing their new behaviors to the different perspectives from students who are the same age as them. The group itself, not just the facilitators challenged the individual to behave differently.

In other instances, it is specific interactions with participants which impact individuals. A participant describes the impact of such a moment generating a shock and awe reaction as the individual was unable to fully articulate the full impact of the moment.

There was a moment when a person from a different country said “it’s affecting me” to humanize that was really just like whoa. The moment humanized it and made it tangible. Yeah.

By coming out and challenging the interviewee’s opinion of “climate change isn’t affecting me”, the participant in this group forced the interviewee to realize a new perspective and consider an alternative to their reality. Although the person was not fully able to articulate the impact of the moment, it is clear the challenge from their fellow participant impacted them and is the reason this individual attributes to their new attitude on climate change.

**What do I do?**

After the dialogue many participants were impacted, however many of them when asked what was needed to allow them to see a tangible change in their behavior or attitude towards
climate change responded similarly. They wanted to know what to do. One participant responded with what was needed to feel more empowered to make a change.

> It depends on the people in the discussion and if there is a clear perspective that said “climate change is real and we have to do something now” and extra facts and tips on what I have to do and what I can do on my own. That would have motivated me to do more. I want more concrete tools.

This participant explains their barrier to making behavior changes as not being challenged, yet also goes on to explain the desire to know more information; finding it more helpful to make changes in their life.

Another participant was asked what was missing from the dialogue and what could be done to empower them to do things differently.

> I feel like a lot of the issue is knowing what we can do. Our conversation was about the structure and larger corporations and their impacts on our world. For me, individual things I can do I am aware of like taking shorter showers and turning off the lights. In terms of how I can help larger issues is what I want. I would say a plan of action or an organization I could go to, but I didn’t know if that was what we were going for. Maybe even an exchange of ideas would help.

This response once again illustrates a desire to know what to do. Unlike the previous statement where the participant was looking for concrete tools to use in their life, this person wants to be led to an organization or how to impact the larger issues as they already know how to have a small personal impact. Also the participant expresses the desire to have an exchange of ideas about “what to do” during the dialogue as well, hoping someone will have new ideas.
Other Information

Although there were three very clear themes throughout the interview process, there are other moments and details worth mentioning. Most participants expressed how they were “starting their journey” with climate change in trying new behaviors or simply thinking differently. However, other participants did experience real shifts in behavior and attitude. One participant explains what happened immediately following their dialogue.

So after the dialogue, I was really into it and after this dialogue I went on and spoke to my boyfriend and mom about it and how we really need to realize how important this is. I am at this point of wanting more information and not knowing where to get it. So I am looking for sources of information which are reliable.

This participant made changes in their attitude and in their behavior, speaking to their loved ones and actively looking for more information. Other participants expressed similar sentiments.

It should also be mentioned that other participants experienced little impact on them. Most people expressed an increase in awareness at minimum and therefore, the lack of impact was not worth mentioning in detail.

In addition, most participants noticed the impact the dialogue was having during the dialogue and most moments remembered by participants were the moments which had an impact.
Discussion

After analyzing the data, the impacts are all interconnected. As most participants were “beginning their journey” with climate change, the data illustrated without challenges they would have remained in their previous mindset. Additionally, most participants wanted to know what to do next. This can be seen as a direct result of what can be perceived as the knowledge base among participants; as most participants were “beginning their journey”, many of them did not have the knowledge base to explore ways to mitigate the impact on climate change or discuss scientific material with the rest of the group.

Now the question becomes will the participants who are “beginning their journey” ultimately change their behavior or attitudes toward climate change? Although it could be argued increased awareness, having an intention to help, and realizing they do not think about climate change is an attitude change, it is unclear if their attitude towards climate change has actually changed based on the data. If the participants in question develop a true attitude change during their period of increased awareness, a potential behavior change may result because positive environment attitudes are linked to pro-environmental behaviors (Byrka et al., 2010). However, further research is needed to discover the true impact of “starting the journey” on participants.

Challenging was the catalyst for any impacts from the dialogue. Each participant explained how being challenged is what created the dialogue’s impact. Interestingly enough, these challenges came in the form of a new idea or perspective previously not held by the participant, indicating new knowledge gained. This new knowledge may challenge sociocultural barriers or fill in scientific knowledge gaps allowing participants to reevaluate their opinions, creating the opportunity for change. However, these challenges often times were not seen as
negative or resisted by participants, a common impact of encountering new ideologies (Dole and Sinatra, 1998).

This can be explained by the process of the dialogue. During the dialogue, facilitators create a community of individuals who are engaging in the same experience. Although outside of the dialogue participants hold the knowledge, experiences, and ideologies of their various other communities, the individuals become a community of diverse individuals. By ensuring challenges are acceptable in the new community, facilitators are able to tap into human desires to belong to a group through ‘human centrality theory’ (Kahan et al., 2007). This theory explains peoples’ desires to maintain a group identity. In the case of the group, facilitators create an identity where all ideas are acceptable and an expectation of each individual is to challenge one another. Ultimately, this desire to belong to a group drives the willingness to consider every perspective. Another explanation for the willingness to accept new opinions can be derived from the free-learning environment generated by the dialogue. Since participants are not expected to change or accept any new information as truth, they are able to choose what they will and will not incorporate into their view of climate change. The result of free choice learning also leads to overall enjoyment of the experience, aspects integral to maintaining a student’s attention and the eventual adoption of new attitudes (Shibeci et al. 1984).

The third theme in the interviews indicates a major design flaw within the dialogue experience. Many participants desire to know more, including what to do next. This indicates a lack of gained content knowledge about climate change. This theme is also seen within what students take away from the experience as many indicate the moments they remember revolve around new perceptions of the issue and thinking about the personal stories, culture, and structures of climate change, not the actual science. Many of the issues addressed are the
sociocultural aspects around climate change. Further research should focus on how gaining scientific literacy during the dialogue impacts the future attitudes and behaviors of participants as the current study challenges many social scientists belief that knowledge deficits are too simplistic (Guy et al., 2014).

Although the dialogues did not prove to have a significant direct impact on participant’s behaviors or attitudes, they do hold potential as an educational tool. Being a free-choice learning environment, students are typically more engaged and curious (Herman, et al., 2012). They are also able to explore personal, sociocultural, and physical aspects of the content giving a larger breadth of understanding. The dialogue experience also mitigates potential complications of the heterogeneity of the group. Although diverse opinions, desires, interests, knowledge, and experiences exist (Faulk et al, 2000), there is potential for involvement from each individual in the group if they choose to participate. If utilized as a form of pre-test or evaluation of what students know or gained from a particular lesson, educators will quickly be able to discover what each student took away or is interested in. This will allow the teacher to adapt lessons which will benefit students the most and engage them to the highest degree. This could increase the knowledge they retain and, if desired, give educators another tool to empower students in making behavior and attitude changes.

In addition to free-choice learning, peer-to-peer learning takes place. By entering a dialogue, it will allow students to learn from each other. Numerous studies have been performed on the benefits of peer assisted learning, many of which illustrate an increase in performance (Parkinson, 2009). Dialogue allows for peer assisted learning to take place. Through dialogue, students can discuss various gaps in knowledge and help each other to correct misconceptions about a specific topic. Under the guidance of an experienced teacher with a grasp on content
matter, the conversation can be steered in directions most beneficial to the group. It will also allow the teacher to understand their student’s misconceptions fully. Misconceptions can be addressed by during the conversation or with a later lesson.

Although World in Conversation: Center for Public Diplomacy utilizes its dialogues to “invite greater understanding and expand perspectives”, a definition which is undefined, the data presented indicates they may be accomplishing their goals. If World in Conversation defines the fore mentioned statement as including individuals “starting their journey”, they are successful. Yet, there are many definitions of what public diplomacy means. According to the United States Department of State,

The mission of American public diplomacy is to support the achievement of U.S. foreign policy goals and objectives, advance national interests, and enhance national security by informing and influencing foreign publics and by expanding and strengthening the relationship between the people and Government of the United States and citizens of the rest of the world.

The USC Annenberg School for Communication and Journalism defines public diplomacy as “the effort by one government to inform and influence foreign audiences, while encouraging dialogue between its citizens and institutions and their counterparts abroad.” The commonality between all definitions is the avocation of a goal or ideology. In the case of World in Conversation, these ideologies are not as clearly defined leaving room for interpretation.

Again, if there is no avocation goal for World in Conversation, no further discussion is needed. With the resounding amount of scientific data supporting climate change and the consequences of inaction (Cook et al. 2013); it is hard to believe advocacy would not be a part of the initiative.
If the goal of the Climate Change Initiative is to increase positive environmental ideology, a few adaptations to the programming may be needed. By altering the understood framing of the conversation by the facilitators would give clear objectives and direction for the dialogue. During the study, dialogues operated under the premise that climate change is a social issue and the facilitators should look for what participants are thinking about climate change. This framing should be adapted to include looking at climate change as a socio-scientific issue, leaving more room for facilitators to explore how both the science and sociocultural issues influence each other. This would allow for a more objective conversation because much of the science around climate change is not in dispute (Cook et al., 2013). Additionally, the dialogue should incorporate the framing of advocacy for climate change and pro-environmental behaviors, not just looking for what participants are thinking. This would allow facilitators to direct the conversation more and potentially provide opportunities to fill in science knowledge gaps, addressing some misconceptions held by the students. This could then lead to further behavioral and attitude changes.

Another adaptation could take place in training. Facilitator’s could adopt a few strategies to increase the potential of creating behavioral and attitude impacts. By continuing to create environments where participants challenge one another and facilitators are allowed to challenge, facilitators should maintain a framing of collective effort and steering away from negative impacts on humans, increasing the chance of environmentally friendly behaviors (Dickinson et al., 2013). The same is shown through empowerment (Skamp et al., 2012).

Lastly, World in Conversation should look for ways to increase science literacy about climate change in their programming. This can be done in a multitude of ways. World in Conversation can train facilitators to “teach” correct scientific knowledge when encountering
misconceptions. Also by planting climate change “experts” or advocates within the group, facilitators can rely on these participants to address misconceptions and create the side of advocacy for climate change. This would allow facilitators to continue to allow all perspectives, but also push to alter those individuals who have negative climate change attitudes and beliefs. By collaborating with professors more directly on the content taught within the course sending students, World in Conversation could enhance the knowledge students have. This would allow WinC to only address the socio-cultural reasons behind the participants’ beliefs. Another option is to partner with courses and organizations which are more science related and/or advocate for climate change and incorporate those students or specific content in the dialogues. By doing so it would address any misconceptions, but also allow for the opportunity to have specific dialogues about more focused aspects of climate change such as weather vs. climate or the impacts of the agricultural industry on climate change. Lastly, by providing students with resources and further information following the group, they could address the student’s desire for more information and knowledge on what to do next allowing those individuals to further pursue climate change as well as continue on their journey. By providing resources students are more likely to change their behaviors and attitudes, especially if it is their choice (Robelia et al., 2011).

Climate change is one of the largest social issues of our time. It impacts each person on planet Earth. By looking for ways to better educate students about climate change and/or change individuals behaviors and attitudes toward the issue, progress can be made to resolve it. World in Conversation has created a tool which with further research could aide in the process. By performing further research on various adaptations to the dialogue experience, continuing to follow up with students on their “journey”, or other research on how facilitated conversation can
be used as both an educational tool and a mechanism for advocacy, new ways for solving climate change and increasing society’s knowledge about it could increase in the future.
# Appendix A: Coding

<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>QUOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting the journey</td>
<td>These are statements indicating the start of a new process of thinking about climate change. These may exhibit itself in trying new things and gaining new ideas or awareness.</td>
<td>&quot;I never thought about it and it had never been a reality to me&quot;</td>
</tr>
<tr>
<td>Sub-Code</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>More aware</td>
<td>This indicates a new awareness about the topic and their behaviors</td>
<td>&quot;I learned a lot of new things and am being more conscious&quot;</td>
</tr>
<tr>
<td>Want to do more</td>
<td>Indicates a desire for new behaviors although it is unknown if the changes have been made.</td>
<td>&quot;I really want to decrease my carbon footprint&quot;</td>
</tr>
</tbody>
</table>
| I am now thinking | This indicates climate change was not something the individual thought about previously and it is a new conversation for them. There are two types of people within this code, those who simply gained the knowledge and those who are still attempting to form opinions on climate change. | 1) "I learned I didn't actively think about it partially because we don't get affected by it"  
2) "The more I talked about it and more time passes the more my ideas change" |
| Challenged       | Participants viewpoints were challenged either by facilitators or participants. | "Played devils advocate"                                              |
| Sub-Code         | Description                                                                 |                                                                         |
| Facilitator challenge | The facilitators did something to challenge participant’s viewpoint       | "They let us discuss and posed questions regarding what we would do to save planet" |
| Participant challenge | The other participants did something to challenge participant’s viewpoint | "Because I got to hear from students who are my age, I found new perspectives about climate change because of their different views." |
| What do I do?    | These statements indicate participant’s desire to know what to do post-dialogue. | "Someone needed to give me tangilbe tips to motivate me"               |
Appendix B: Interview Questions

Is there anything you are doing/considering doing differently as a result of participating in this dialogue?

No:

- Why was it not effective in empowering you to do/consider doing something differently?
- What was missing from the experience that could have caused you to do/consider doing something differently?
- What could have been done to empower you to do/consider doing something differently?

Yes:

- What about the group empowered you to do/consider doing something differently?
- What did the facilitators do that empowered you to do/consider doing something differently?
- When did you decide to make changes or consider them?

Do you believe you learned something new about climate change or yourself as a result of the dialogue?

No:

- How did the dialogue format prevent you from learning about climate change/yourself?
- How much of a role do you believe your facilitators prevented you from learning about climate change/yourself?
- How much of a role do you believe your fellow participant prevented you from learning about climate change/yourself?
• How could the dialogue be altered to encourage more learning?

Yes:

• How did the dialogue format help you learn about climate change/yourself?
• How much of a role do you believe your facilitators played in you learning about climate change/yourself?
• How much of a role do you believe your fellow participant played in you learning about climate change/yourself?
• In what ways did this dialogue encourage you to learn about climate change/yourself?

Are there any specific moments you remember from the dialogue?

Yes:

• How has that moment impacted you personally?
• Did that moment impact how you view the issue of climate change?
  o N: Did it impact how you view anything?
    • what was the impact
  o Yes: what was the impact of that moment?

No:

• What would have helped to make the dialogue more memorable?

Have your attitudes changed toward the issue of climate change as a result of your participation in the climate dialogue.

Yes:

• How have they changed?
• How have those changes impacted your life?
• What occurred during the dialogue that changed your attitudes?
• What role did your facilitators/participants play in changing your attitudes?
• When did you realize your attitudes had changed as a result of the dialogue?

No:
• What would have allowed you the change your attitude?
• What role did your facilitators/other participants play in not have an altered attitude?
• How did the format of the dialogue not encourage you to alter your attitude?
Appendix C: World in Conversation General Survey

Face to Face Dialogue Evaluation

1. Dialogue ID: __________________________

2. Room#: ______________________________


5. Nationality: __________________________


7. Which College required you to attend World in Conversation?

1. At some point in our conversation I thought to myself: “I’ve never seen it that way before.”
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

2. Our facilitators created an atmosphere that was open enough for me to express any of my views.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

3. After having this dialogue I expect to discuss some of these ideas with someone I know.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

4. Listening to the views of my peers on this topic helped me to understand it better.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

5. Our facilitators helped my group communicate with each other more effectively.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

6. Talking about this topic made me want to learn more.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

7. Our facilitators made it possible for us to think more critically about the topics we discussed.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

8. I will recommend this program to a friend.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

9. Something will be different in my life as a result of this dialogue.
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
   1  2  3  4  5

10. I am comfortable knowing that some of my tuition is directed towards World in Conversation.
    Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
    1  2  3  4  5
Appendix D: Climate Change Survey

<table>
<thead>
<tr>
<th>Climate Change Dialogue Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dialogue ID: __________________</td>
</tr>
<tr>
<td>2. Room#: ______________________</td>
</tr>
<tr>
<td>3. Your racial/ethnic identity:</td>
</tr>
<tr>
<td>a. a person of color</td>
</tr>
<tr>
<td>b. white</td>
</tr>
<tr>
<td>c. Other.</td>
</tr>
<tr>
<td>4. Your Residency Status:</td>
</tr>
<tr>
<td>a. U.S. citizen/resident</td>
</tr>
<tr>
<td>b. international/non-resident</td>
</tr>
<tr>
<td>5. Your Gender:</td>
</tr>
<tr>
<td>a. man</td>
</tr>
<tr>
<td>b. woman</td>
</tr>
<tr>
<td>c. transgender</td>
</tr>
<tr>
<td>6. Which College required you to attend World in Conversation?</td>
</tr>
<tr>
<td>a. Agricultural Sciences</td>
</tr>
<tr>
<td>b. Business, SMEAL</td>
</tr>
<tr>
<td>c. Communications</td>
</tr>
<tr>
<td>d. Earth and Mineral Sciences</td>
</tr>
<tr>
<td>e. Education</td>
</tr>
<tr>
<td>f. Engineering</td>
</tr>
<tr>
<td>g. Health and Human Development</td>
</tr>
<tr>
<td>h. Liberal Arts</td>
</tr>
<tr>
<td>i. Science, Eberly College</td>
</tr>
<tr>
<td>j. other:</td>
</tr>
<tr>
<td>7. My average annual family income is best described as (optional):</td>
</tr>
<tr>
<td>&lt;$20,000  $20,000-$50,000  $50,000-$80,000  $80,000-$100,000  &gt;$110,000</td>
</tr>
<tr>
<td>8. Major: ________________________</td>
</tr>
<tr>
<td>9. Year: Freshman  Sophomore  Junior  Senior  Other: ________________</td>
</tr>
<tr>
<td>10. At some point in our conversation I thought to myself: “I’ve never seen it that way before.”</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
<tr>
<td>11. Our facilitators created an atmosphere that was open enough for me to express any of my views.</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
<tr>
<td>12. After having this dialogue I expect to discuss some of these ideas with someone I know.</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
<tr>
<td>13. Listening to the views of my peers on this topic helped me to understand it better.</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
<tr>
<td>14. Our facilitators helped my group communicate with each other more effectively.</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
<tr>
<td>15. Talking about this topic made me want to learn more.</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
<tr>
<td>16. Our facilitators made it possible for us to think more critically about the topics we discussed.</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
<tr>
<td>17. I will recommend this program to a friend.</td>
</tr>
<tr>
<td>Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree</td>
</tr>
</tbody>
</table>
18. Something will be different in my life as a result of this dialogue.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

19. I am comfortable knowing that some of my tuition is directed towards World in Conversation.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

20. I plan on using environmental friendly services on campus more often.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

21. I plan on changing my consumption habits.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

22. I will seek out information on environmental issues.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

23. There are currently sufficient environmental regulations.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

24. Climate change is a major issue facing society today.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

25. I can make a difference in preserving the environment.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

26. I protect the environment.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

27. I have a positive impact on the environment.  
   - Strongly Disagree  - Disagree  - Neutral  - Agree  - Strongly Agree  
   - 1  - 2  - 3  - 4  - 5

28. Please circle the picture below which best describes your relationship with the natural environment.  
   - How interconnected are you with nature?

I would like to be contacted for a 10 minute follow-up interview at a later date on the dialogue I just experienced: Yes / No

PSU email if yes above: ________________
BIBLIOGRAPHY


ACADEMIC VITA

Jonathan McCausland
4715 Sherbrooke Ct. Allison Park, PA 15101/jdm5625@gmail.com

Education

Pennsylvania State University: Bachelor of Science in Environmental Resource Management, Minor in Sociology and Biology

Honors/Awards

- USCH Agricultural Science Scholarship (2013)
- Ristey Memorial Scholarship (2014/2015)

Club Affiliations

THON (September 2011 – Present)

Rules and Regulations Event Safety Committee Member
- PASS Leader: Required to manage members of a team in order to regulate which individuals and the amount of people permitted on the event level during the IFC/Panhellenic Dance Marathon (THON) via the PASS System.

World in Conversation Student Group (August 2014 – Present)

President
- Required to run and coordinate monthly meetings.
- Tasked with coordinating other World in Conversation Student Group officers and University Park Allocation Committee in order to bring international speakers to Pennsylvania State University.

Work Experience

Upward Bound: Pennsylvania State University (June 2014 – August 2014)
Residential Mentor
- Mentor and chaperone 80 “at risk” high school students from diverse backgrounds while directly working with a group of 8 students on a service project.
- Tutor, substitute teach, run activities, and plan events for the students during the program.
- Worked on a team of 12 individuals to provide a positive experience for all students.

World in Conversation: Center for Public Diplomacy (January 2013 – Present)
Dialogue Facilitator
- Facilitate effective communication around contentious issues such as race, gender, west middle-east relations, and climate for students at the Pennsylvania State University.
- Facilitate dialogues between citizens from the United States and other countries such as Iran and China in order to foster international relationships and cultural exchange.
- Received training on conflict management, group management, and the Socratic Method of Inquiry.

World in Conversation: Center for Public Diplomacy  (May 2013 – Present)
Level 2 Dialogue Assistant
- Provide skills assistance during live feedback sessions and post-dialogue training to advanced facilitation team.
- Manage nightly logistics and operations for the organization.
- Proficient in operating enterprise grade video conferencing technology.
- Advised management in hiring process.

Pennsylvania State University  (August 2012 – December 2012)
Sociology 119: Race and Ethnic Relations Teaching Assistant
- Led students in dialogues based on class material.
- Received training in basic facilitation techniques.
- Assisted students with group projects including developing a fundraiser(s) in order to assist efforts in Haiti recovery efforts.
- Conducted student grading.

Pennsylvania State University  (August 2013 – Present)
Biology 110: Basic Concepts and Biodiversity Teaching Assistant
- Led lab section reinforcing materials presented in class while also providing students with necessary lab techniques.
- Developed weekly lesson plans including lectures, discussions, and assessments.
- Held weekly office hours in order to give further assistance to students out of class.
- Graded homework assignments, assessments, and lab reports.

Pennsylvania State University (May 2013 – August 2013)
Pennsylvania State University Biology Department Curriculum Development Intern
- Collaborated with faculty in order to develop new curriculum for various biology courses and to assist teaching assistants how to create more interactive classrooms.
- Analyzed and edited lesson plans and course objectives incorporating plans with skills such as the Socratic Method, rapport building, and group management techniques.

Haitian Partners for Christian Development (June 2012 – July 2012)
Project Intern
- Developed a preliminary English program for Haitian Partners for Christian Development, a Haitian based non-governmental organization, to teach members of their staff, seminar participants, and individuals participating in their business incubator programs.
- Taught English to House Eucalyptus residential staff.
- Recorded meeting proceedings in order to be advertised on Haitian Partners for Christian Development’s website.