REFLECTION CASE STUDY - Environmental Health

I am overall happy with how my final case study assignment turned out. I found the topic I chose really interesting, which definitely helped me stay engaged during the research process. Although I believe both the written component and the presentation were solid, the written section was definitely the strongest. Some of the aspects I'm most proud of include how informative and well-researched the content was, with reliable sources supporting my claims. In particular, the Igloolik case study stood out as one of the most powerful parts—it made the topic more relatable and grounded this broad issue in a real-world example. One classmate noted that I did a good job tying everything together by emphasizing the global relevance and the importance of international cooperation, and I completely agree with that feedback. Including the mental health and cultural impacts made the presentation feel more real and human, which was exactly my intention, and I'm glad that came through.

During the presentation, I faced most of my challenges. I ran short on time, spoke too fast, and got a little distracted because my phone notifications were not silenced. I received an email mid-presentation that threw me off for a second. Looking back, I should have spoken more slowly and taken more time to explain my graphs clearly. Another thing I would improve is being more careful with my word choice when answering questions. I accidentally used a word that could have been offensive—even though it was not intentional, I felt both sorry and a little embarrassed. It happened because I directly translated a word from Spanish to English in my head, and it didn't come out the way I meant it.

My classmates' questions definitely helped me consider other perspectives on my topic, and I found it valuable that our reflection led to recognizing how complex it is to solve these types of issues. Even when there are good intentions behind proposed solutions, we also have to think critically about how those solutions might affect the communities in other ways. For example, one question about relocation brought up how that could have serious cultural impacts on Arctic communities, which is something I hadn't considered before.

The feedback I received on my written section was especially helpful in improving some repetitive wording and making small grammar corrections. A suggestion to include a visual element to represent major health impacts was also really valuable—I added it to both my presentation and final revision, and I think it made the case study clearer and more engaging.

Working on this case study gave me a deeper understanding of Arctic communities and helped me see how climate change impacts people in ways that are not always considered. It was particularly

interesting to think about how climate change intersects with cultural, mental, and nutritional health,
and how it is all connected to environmental justice.

This assignment also helped me grow both my communication and critical thinking skills. Presenting
in front of the class pushed me to speak more clearly and confidently, while the research and writing
process helped me analyze complex problems, connect ideas across disciplines, and consider solutions
from multiple perspectives.

[redacted]

[redacted]

I want to start by saying I wished my presentation went better. I had practiced for it over the weekend, but my mentality was not ready for it. I think the information and images I provided regarding the lichen versus the shrub expansion was good. The strongest parts of my presentation were the images although I fumbled the words to properly explain it. The challenges I faced were making eye contact with everyone to give a more proper presentation due to underlying circumstances within myself. It was unexpected for me to hit the time, I thought I would have rambled over or spoken too fast that led to not making the time mark. I think I should have prepared more as well mentally and verbally as I stuttered over words a few times. As Dr. Elias asked me about how this relates to environmental health I completely forgot about including my slide to relate it back to environmental health, which is the purpose of the class. I got really into the lichens, I don't know why but I am just so fascinated by them, that I forgot a key point. I think I was able to answer what I was trying to explain is how the Arctic is a barometer for earth, what happens there shapes the rest of the globe and with the increasing temperatures of climate change literally changing the environment of the Arctic, that will impact everywhere else. I believe the feedback I received was very useful, I really appreciate [redacted]comments on how to present better and that sometimes we must fake it until we make it to make our presentation better. I wish I could have included more on relating it back to environmental health because that was important, I feel my case study choice just had a lot to unpack and a lot of information to learn. From this topic I learned so much more about lichen and how important they are as bioindicators as well as how versatile they are being able to live in extremely cold environments such as the Arctic. They are also important for food for different species in the Arctic. I learned a lot about the Arctic as well. I never knew how much climate change was affecting such a cold place, the warmer cold months, the shrub expansions causing lichen declines, I really enjoyed learning so much about the Arctic. This assignment helped me develop better communication skills. Honestly, the whole class did. The class having to present a powerpoint every few weeks really built up my confidence for public speaking. I feel more confident to speak in front of people now than before beginning the class. Presenting this case study helped improve my critical thinking skills by requiring me to analyze a lot of complex information, then having to identify the key issues, and evaluate different perspectives. I had to connect theoretical knowledge to real-world situations and justify my conclusions with clear reasoning. Although it has been a long semester, I am so grateful for this class although it proved to be a 400-level course workload for sure, it has taught me about managing time, improving my writing skills, and not only reading scientific articles but being able to analyze them to break their structure and information down to really understand what scientist are saying.

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From this topic I learned much more about lichens and how important they are as bioindicators and how versatile they are, even surviving in extremely cold environments such as the Arctic. They are also important food for different Arctic species. I learned more about the Arctic in general. I never knew how much climate change was affecting such a cold place—the warmer cold months, shrub expansions, and resulting lichen declines. I really enjoyed learning all of this.

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I feel more confident now speaking in front of people than I did before the class started. Presenting this case study also helped improve my critical thinking skills by requiring me to analyze complex information, identify key issues, evaluate different perspectives, and connect theoretical knowledge to real-world situations. Although it has been a long semester, I am grateful for this class—it definitely carried the weight of a 400-level course and taught me a lot about

managing time,
improving my writing, and breaking down scientific literature to truly understand it.

Reflection of Presentation:

I would like to say that I thoroughly enjoyed researching my topic to learn more about industrial runoff. We learn about different types of runoff sources throughout the courses within the environmental minor/major. I could have done more by representing the health impacts on people and the environment by showing better graphs and having better statistics. I stuttered throughout the presentation because of nervousness and the feeling of being unprepared even though I practiced. I will be taking the feedback I got from those that were in class that day to use for my other presentations, so I can improve my skills. I should have surrounded the presentation around my case study like a few of my classmates mentioned.

REFLECTION CASE STUDY - Environmental Health

At first, I thought I wouldn't enjoy this activity because we didn't work on it that much. It was self driven, where we chose the topic, how to carry it out, and which points of the case study to focus on. I can say that the best part of these presentations was finding a good topic. Most of us focused our research on specific things that interested us or on a problem that caught our attention. I sincerely believe that the topic I chose is very interesting and doesn't receive the attention it should; therefore, the best way to do it was to inform the class about a topic that I consider of great importance. The most notable aspects of my presentation and case study were the inclusion of the social conflicts that lithium mining was causing in Argentina. Whenever we talk about environmental health, for some reason we tend to talk about environmental pollution and how it affects human health, but there are also other factors that alter human health and aren't often mentioned. What drew my attention was the social problems that lithium mining was causing for the indigenous people in the area, and most importantly, that it caused many mental health problems.

I think the challenges I faced while completing this case study were mostly in the writing process. I had a hard time dividing information into many sections that had to be kept into a certain space. I couldn't write more than two pages, and we had to write about four sections. This was very difficult, especially because I wanted to write it like our weekly summaries. Something "unexpected" in my presentation was the effects on the environment. For some reason, in the Argentine case studies, only one effect on the ecosystem was mentioned, and that was water scarcity. When I searched for lithium mining in general, I found a wide variety of environmental effects, and it seemed strange to me. So I decided to ask Chat GPT if the effects of lithium mining I'd found in other articles also occurred in Argentina. When it replied that they did, but that they weren't mentioned because the main effect was water scarcity, I decided to mention it.
My classmates didn't ask me many questions at the end of the presentation, but something that was truly constructive was their suggestion that I should not mention what I was going to talk about before beginning to explain my topic; that would give me more time to present. I usually tend to extend beyond the slot of my presentation and I do not get to cover everything on the set time. So this was really good, and I'll consider it in my future presentations, where I know I need more time to explain.

This assignment helped me a lot in learning how to extract the main points of a case study to present them, but at the same time, understanding the case in detail to engage the

audience and know how to answer specific questions. This case I talked about was very broad,
and perhaps explaining it would have taken twice as long, so I decided to read a lot and watch
interviews, understand it, and explain it 100% in my own words. I extracted a lot of information
directly from the articles, I prepared for potential questions and also to understand the situation
from the inside and know what to mention so that the people listening would also be moved.
That's why I decided to include the social aspect of the issue and mentioned several phrases I
heard in the interviews and read in the articles. These were very moving, and in some way, I
wanted them to be part of my presentation.

Reflection on Case Study: "Brain on Bananas"

My presentation was based on a case study about pesticide exposure (chlorpyrifos mancozeb, and pyrethroids) on banana plantations and its negative consequences on children's neurodevelopment. One of my strongest aspects in my presentation was the specific theme of the case study, beginning with Costa Rica's banana plantations and the consequences on children's health, especially in their brain. Additionally, the interesting measure method that they used to evaluate pesticides exposure, by calculating the concentrations of these pesticides' metabolites in their urine (TCPy, ETU, 3-PBA). I think the methods, the specific insight on banana plantations pesticides, and talking about the significant negative consequences on the brain helped to keep the audience engaged. Furthermore, explaining the real-life impacts helped to connect and show the actual impact of banana plantations excessive pesticide used, connecting environmental justice and global health equity.

However, some challenges arose when doing the case study. The major challenge was to find an accessible peer-reviewed case study that was narrow enough to focus on pesticides exposure in children and its neurological negative consequences. Additionally, finding a case study where the methods had human biological samples, such as urine or blood, since I believe that it would make my case study more appealing to the audience. I struggled with staying between the time-limit, as I missed some minutes on the presentation.

Furthermore, the audience feedback helped me to understand how to improve the flow of my presentation, since they noticed that it would be helpful to clarify the human health effects of each pesticide I mentioned. Another insightful question was about gender, and there can be a difference between girls and boys health outcomes when exposed to these pesticides, which is an interesting topic to keep doing research. Additionally, I think it is important to add more tables or do more emphasis on the table I presented about the pesticide metabolites concentrations in urines. In consequence, I plan to incorporate more information about the human health effects in general for each pesticide and how they also can affect different organisms in the ecosystem.

My understanding of pesticides exposure and the consequences on kid's brain development increase significantly. Firstly, I would viewed this issue as a toxicological and health concern but this is more than that, including environmental justice and global issues. This topic helped me to understand that developing countries children are more exposed to this threat and there are fewer protective policies in those countries, while developed countries still suffered from exposure but there is more environmental monitoring. In addition, I learned about how banana plantations in Costa Rica are crucial for their economy stability and the need of less pesticides uses there.

In conclusion, this presentation helped me to improve my communication and critical thinking skills, and it taught me how to engage and translate to the audience a complex scientific case study. While revising and hearing the audience feedback, I was able to understand the gaps and weaknesses of my presentation to improve it in the future. Moreover, questions made in the presentation made me question more things about this research, which is crucial to keep investigating pesticides and neurodevelopmental disorders in children near farm plantations.

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Case Study Personal Reflection

I think that my presentation and case study went very well. One of the strongest aspects was the clarity of the research question and how this study was structured. I think that I cleary explained how mining activities contributed to soil, water, and air pollution and how it affects human health especially in neurodevelopmental disorders. I believe that using the information about the 2007 study helped to explain the environmental health problematic.

One of the challenges that I faced was the complexity and the length of the articles I used, most of the information I got is written in a thesis format which is different from the articles that we read in class. It was also difficult to condense all the information to make it fit in the presentation time without omitting any important information.

There was a question about the graphs with the result data from the case Study where I didn't explain to well during the presentation, after it was pointed out I got a better understanding of the graphs purpose and how it is important in the study.

My understanding of the topic has significantly through this assignment. I learned how environmental health crises are not only scientific and medical problems but also related to historical, economic, and political factors. The case of Cerro de Pasco showed me how exploitation and inadequate regulation create long-term public health emergencies that are hard to resolve.

Finally, this assignment helped me build my critical thinking and communication skills because it required me to take a very complex issue and present it in a structured and directional. It also challenged me to anticipate questions and think on answers based on evidence, which made me a more confident speaker.