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INSTITUTE FOR CRITICAL STORYTELLING

# RESEARCH BRIEF

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# **UTILIZING EDUCATION TO COMBAT CLIMATE CHANGE**

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## ABSTRACT

Current majoritarian narratives surrounding climate change have caused those who are in the ingroup — people currently not impacted by climate change — to believe that climate change is a distant issue. However, current data and evidence demonstrate that climate change is currently occurring and is disproportionately impacting people of color, especially those who reside in developing countries. This research paper aims to utilize critical storytelling to challenge the dominant narrative about climate change, with the hope of educating those in privileged positions on this issue. Through the use of education, the goal is to also inspire the ingroup to act in non-problematic ways, to advocate in solidarity for those in the outgroup, and to listen to those who are most affected by this issue. We collected writing samples from twenty-three (23) college students at the College of San Mateo. These students responded to the writing prompt, “What is your role in global climate change and what is your responsibility as a member of the ingroup for combatting it?” Results demonstrated that students had changed their perspective on climate change and felt called to action through their schools. Based on this primary data, we created a composite counterstory that combined these results with existing scholarship. Furthermore, we hope to implement discourse surrounding climate change into the American education system to ultimately inspire those in privileged positions to feel a call to action and for those who are marginalized to be heard. We suggest implementing a climate change curriculum in schools that will change perceptions around the climate crisis, will help students understand policies up for litigation that could help mitigate this issue, and will inspire students to act upon their education on climate change. While this issue is large, this research aims to use education to promote hope for a better future and to inspire change. Further research is necessary to understand the content that will need to be integrated into this curriculum and at what level of education to introduce this topic.

# UTILIZING EDUCATION TO COMBAT CLIMATE CHANGE

Majoritarian narratives are stories used by the ingroup to justify social hierarchies and are a way of, “recounting the experiences and perspectives of those with racial and social privilege” (Yosso, 2006, p. 70). Most Americans are in a place of privilege vis-à-vis the climate crisis and can identify as being in the ingroup. The United States is a wealthy nation that is one of the leading contributors to climate change, which indirectly affects developing nations. The current majoritarian narrative that is told in the United States is that climate change is a distant issue. However, climate change is already negatively affecting those in the outgroup. Populations in developing nations are contributing the least to climate change, but they are bearing the brunt of its impacts. If the majoritarian narrative that states that climate change is a distant issue is not challenged, the people who are disproportionately impacted by climate change will continue to suffer in silence. Additionally, our planet will continue to suffer and climate change will continue to go unaddressed to a point where damage would be irreparable. Counterstorytelling can be used to help give those who are disproportionately impacted by climate change a voice. Delgado (1989) defines counterstorytelling as stories used to challenge dominant ideologies or majoritarian narratives. Counterstorytelling can be used to fight against the unfair consequences of climate change and to get people to care about such a pressing issue. Counterstories also allow us to imagine a more just world and to work to create a better society. Additionally, critical storytelling is a way to challenge and critique inequalities in our society and address those who are disproportionately impacted by climate change. The research topic we are looking to explore is how Americans can use education to take action in non-problematic ways — such as virtue signaling or performative allyship — to promote climate justice and to combat climate change. We will be using composite storytelling, which uses qualitative and quantitative data from primary and secondary sources, to create an effective counterstory that will be used as our results section and can be used for future research. Critical storytelling can be wielded by Americans, especially those who have not been disproportionately impacted by climate change, to fight in unproblematic ways against global warming and advocate for climate justice by integrating this topic into educational systems, becoming aware of policies up for litigation, and getting involved in action.

## LITERATURE REVIEW

### MAJORITARIAN NARRATIVES

As Delgado (1989) writes, “A majoritarian story distorts and silences the experiences of people of color” (p. 52). Majoritarian narratives minimize environmental issues and silence those who are suffering from climate change. The dominant group utilizes majoritarian narratives to justify the destruction of the earth, such as the minimization of environmental destruction and the maintenance of the capitalistic economy, using their control as the primary stakeholders in decision-making to suppress outgroup narratives. Despite this, outgroups can utilize counterstorytelling to challenge majoritarian narratives through activism, advocacy, and solidarity. Education can be utilized to challenge the dominant narrative and help those in the ingroup see their responsibility in rejecting the dominant narratives surrounding climate change. Despite one’s status in either the ingroup or outgroup, climate change will ultimately affect all people living in the world. Therefore, to protect humanity right now and for our future generations, we must challenge the majoritarian narrative to fight for those who are suffering, to imagine a better society, and to educate our society on this issue.

### COUNTERSTORY

Delgado (1989) defines counterstorytelling as stories used to challenge dominant ideologies or majoritarian narratives that silence people of color. Counterstories are told by outgroups to challenge the current narrative told by ingroups. Delgado writes, “The stories of outgroups aim to subvert that ingroup reality” (p. 2413). He discusses how the ingroup dominates society and how their story becomes what is told and accepted. Furthermore, Delgado states that this can be challenged by demonstrating how those in the outgroup, especially people of color, are silenced. Majoritarian narratives tend to be the story that is accepted as truth. Unfortunately, this marginalizes those in the outgroup and causes them to suffer. Those in the ingroup have a responsibility to lift the voices of stories of those in the outgroup. For the ingroup to partake in this, they need to understand and recognize their privilege. Through this collaboration and through lifting the unheard voices of the outgroup, society can become a better, more just place.

#### The People’s Stories

Hearing others’ perspectives can give people a better understanding and insight into the problems. Counterstories offer valuable insights to help us reflect on other’s experiences and challenge stories that we might take as fact. This enhances our understanding and comprehension of the issues at hand, allowing us to see different sides of the story which lets us learn from counterstories. According to Wallace (2024),

“Counterstories are stories that are used by the outgroups to challenge, or counter, the majoritarian narratives, amongst other functions” (p 5). Counterstories help us learn about experiences that are not always told. They help us rethink and relearn what we might have thought we had known, allowing us to see an issue from a different perspective. Counterstories are also stories used by outgroups to challenge majoritarian narratives and provide a different perspective on the story.

Furthermore, counterstories can be used to raise awareness about the current impact of global warming and the harm it currently has on vulnerable communities. This is shown through the participants’ writing samples, where they wrote about learning how climate change affects others. Counterstories are needed to help bring us awareness by highlighting their role in raising awareness about the current impact of global warming and how much global warming affects us right now.

## **MAKING CLIMATE CHANGE RELEVANT**

In order to promote more action, there needs to be a way to get the message across to everyone, especially those with privilege, that climate change is a very real thing. To do this we have to find a way for people to feel connected to the issue of climate change. A way to do this is to connect climate change to something of importance to the common person. This connection helps people recognize that climate change is a current issue, and even if it might not seem like it in day-to-day life, climate change is affecting the world around them. When discussing this in her essay, Hayhoe (2020) writes, “Today when I encounter someone doubtful about the reality or the relevance of climate change, I don’t start talking about science, instead, I try to identify something we have in common” (p. 109). Rather than stating how climate change affects the environment or highlighting the data about the rise of heat waves, this alternative helps to bring perspective to those who do not experience the injustice of climate change. This can help lead people to care about the issue and can make it more relevant to them. Doing this would hopefully lead more people into action when it comes to climate change.

## **FOSTERING HOPE AND ACTION THROUGH CLIMATE JUSTICE EDUCATION**

Vamvalis (2023) discusses how climate justice education can be used to foster hope, purpose, and meaning in the fight against climate injustice, especially in young people. This also relates to processing the emotional and psychological impacts of climate injustice. The paper’s purpose is to explore, “possible educational responses that recognize the embodied consequences of climate injustice and inaction on youth mental health and well-being.” Vamvali advocates for expanding the pedagogies for the climate

emergency and for providing youths with tools to fight for climate justice. The purpose of this writing also relates to processing the emotional and psychological impacts of climate injustice. Vamvali wants to fight for climate justice by educating young people about climate change. This article will be used to discuss how one's emotions surrounding climate justice can be addressed. It also will be used as a solution to fight against global warming and advocate for climate justice. It can be utilized to expand on the hopelessness our student participants feel, as they have written in their narratives, which our group would like to use to discuss a solution. Lastly, it can be used as a way to show youth that there is hope in all of this (Vamvalis, 2023).

When discussing education on climate change, we can look at others' experiences and outcomes when either teaching or learning about the subject. Dittmer et al. (2018) discuss the potential of environmental justice education that is possible in different countries. They highlight a group called Youth Leading Environmental Change (YLEC), which helps students with their education and overall awareness of climate change. The organization's goal is to help bring new innovative ideas and action toward solving the bigger problem at hand. The YELC connects students from developed nations with students who live in Third World countries. Dittmer et al. go in-depth about how interactive education can give diverse perspectives on climate change and also gives, "exposure to personal accounts of lived environmental injustice." The goal of this educational approach is to "contribute to participants' comprehension, motivation, skills, self-efficacy, and access to opportunities for further involvement in environmental action." This was developed to create more awareness, action, and overall involvement in solving climate change. We can use this as an example of how education on climate justice can be effectively used to create action. It shows how important counterstories are in education about climate change, and it gives insight into how we should go about educating people about it. A lot of what we saw in students' narratives was about education on climate change and how they learned about its effects on animals and how it is perceived as a distant problem. Similarly, Dittmer et al. discussed how communication with those most affected can bring awareness that can lead to action rather than seeing climate change known as a "lesser problem."

## **STUDENT ENGAGEMENT FROM EDUCATION**

Moreover, Rolleston (2023) writes about climate disasters in 2023, the urgent dangers of climate change, and the lack of justice resulting from its uneven impacts. Higher education institutions play a crucial role in promoting climate justice through research, teaching, community engagement, and public awareness. However, students' satisfaction with climate change policies and practices could be higher. Students in contexts directly exposed to climate change impacts were more active and satisfied. The findings highlight gaps between students' expectations and current actions in Brazil, Fiji,

and Kenya. Furthermore, Rolleston writes that this should improve engagement and should respond to the students' views, promoting preparedness and resilience to climate change. A large-scale survey of undergraduate students in Fiji, Brazil, and Kenya had revealed a desire for increased engagement with climate change within their university experience. The urgency of this involvement is likely to rise as climate change and related disasters become more commonplace. The survey suggests that student learning and climate action in universities can form a cycle, with opportunities for students to learn about climate change through campus acts, community involvement projects, and campaigning. However, setting this cycle of required action involves a helpful policy environment, committed university leadership, and spaces for nurturing grassroots initiatives. The findings support calls to bring climate questions to the center of higher education institutions' activities and fix them more fully in the curriculum. Enhancing the quality of teaching and learning on climate change may require updating curriculum and teaching, building capacity among academic staff, offering extracurricular activities, and encouraging student participation in outreach activities. This article is an example of how education on climate justice is used to build a plan. It's important because it shows what students think about climate change and inspires them to do something to help it become better instead of worse. A survey of undergraduate students in Fiji, Brazil, and Kenya shows a need for increased climate change engagement in university experiences. The survey suggests a standard cycle of campus acts, community involvement projects, and campaigning. To achieve this, a policy environment, committed university leadership, and grassroots initiatives are needed (Rolleston, 2023).

## METHODOLOGY

We utilized a critical race methodology to conduct our research, which Solórzano and Yosso (2002) claim, “offers space to conduct and present research grounded in experiences and knowledge of people of color” (p. 23). As a group, we have, “data gathered from the research process itself, the existing literature on the topics, and our own professional and personal experiences . . . all considered in the analysis” (Solórzano & Yosso, 2002, p. 34) Solórzano and Yosso focus on race, but our research focuses on the role of class. Counterstories fit into this methodology because it helps us recognize our privilege. However, we acknowledge that there is a racial component, as frontline communities are predominantly people of color.

On November 1, 2023, we collected writing samples from 23 college students at the College of San Mateo (n=23). Students responded to the writing prompt, “What is your role in global climate change and what is your responsibility as a member of the ingroup for combatting it?” We maintained anonymity by removing students’ names and organizing the writing samples into one document. As a research team, we created codes based on the information that was provided in the documents. These codes were



*extinction, polar ice caps melting, education, privilege, community, intersectionality, carbon footprint, protests, and reduce, reuse, and recycle.* We also utilized framework analysis and used the codes we created to assess the data.

Based on the data collected from coding, we were able to identify several themes within the various writing samples, which included “unlearning through education,” “changing one’s perspective on the meaning of climate justice and climate change,” “the role of intersectionality,” “the importance of government action,” and “coming into awareness of the issue of climate change.” The theme we decided to focus our research on was shifting perspectives through education, the importance of litigation with the government, and involvement through action.

## **COMPOSITE COUNTERSTORY (RESULTS)**

When we looked at the college students’ writing samples, we saw many students talking about their educational experience on climate change and how it changed their perspective on climate change over time. In this scenario, our composite character, Taylor, is a college student taking Professor Swift’s English course on climate change. When learning about climate change from Professor Swift, Taylor realized she did not know the full concept of climate change. When discussing this subject with her Professor, Taylor has flashbacks of herself in middle school when she first learned about climate change. Taylor’s middle school teacher had talked about the environment and made climate change out to be a problem for the future. At the time, Taylor was concerned and conflicted by what they were learning. The story flashes forward to Taylor, now in college, where this class turns her feelings of helplessness about climate change into those of hope. Furthermore, Taylor realizes the urgency to be more engaged in finding solutions.

### **TAYLOR’S STORY**

In my class today, Professor Swift talked more in-depth about climate change. I have always known climate change was a thing, but I never thought more about it. Professor Swift showed me a completely different perspective on climate change. From this class, I’m starting to realize climate change is a bigger issue. I’ve been wanting to have a deeper discussion about this with Professor Swift.

“I had no idea how much climate change was affecting people until this class,” I told her.

“A lot of people don’t understand how much of an impact it truly has. Sadly, because of the privilege a lot of Americans have, we can’t fully grasp this issue unless we see or hear other people’s perspectives.”

“Climate change has always been such a distant issue. Of course, I’ve always known about it, but not to its full extent.”

“A lot of this can come from what we learn early on.”

I think back to my middle school science class when we were starting to learn about climate change. Our teacher had told us about the importance of recycling when it came to stopping it. I remember this one conversation we had when I was so concerned about our trash harming sea animals. My teacher told me, “If we don’t recycle it could hurt the sea animals. You don’t want turtles to get hurt right?” I then responded by saying, “I’ll start recycling right now!” I thought by doing this I was helping with the bigger issue at hand. From the start, I began to associate climate change with cleaning the planet.

I remembered the rest of middle school; I continued to conceptualize climate change as only an impact on the environment. I remembered this one time our teacher showed us a video of evidence that rising sea levels are occurring because of melting ice caps. After watching this video, I began to notice a feeling of hopelessness.

“Animals are going extinct. Shouldn’t we worry more about climate change?” I asked my middle school teacher.

“Eventually everything goes extinct at some point. But don’t worry, it’s going to take a long, long time for it to happen and we have time to solve it.”

“But if animals are going extinct, what about us?”

“Don’t worry. It will be thousands of years later.”

This conversation instilled in my mind that this was a distant issue. Climate change is just hurting the environment now, not us, but we can do small things to stop it, like recycling. We had nothing to worry about, I had thought.

Going back to my conversation with Professor Swift, I realized my whole perception of climate change has changed. I still have those feelings of hopelessness but instead of focusing that hopelessness on our animals going extinct, I focus now on people. I did not realize at the time that climate change is so interconnected with people right now.

“How have we not learned about this before college?”

Professor Swift replied, “We have the privilege that others don’t, and we can take that privilege and either be ignorant or not. I take it as my responsibility to use that privilege to share these important stories with others in hopes to bring change.”

After this conversation, I still felt a sense of hopelessness that we couldn’t fix what was already happening. I felt responsible as someone with privilege. In this case, to help those who are suffering. Professor Swift’s end goal for her students is to encourage them to shift their feelings from hopelessness to hope. She encouraged us to use our privilege to take action.

By the end of taking this course, I now had a new understanding that climate change is a macro issue and not just a micro-issue that I was originally taught. I also gained the knowledge of the importance of being a person of privilege when it comes to

climate change. I now feel the responsibility of being a person with privilege in this situation. I take ownership that I do not have to deal with the full extent of the consequences of climate change on others. I learned it's okay to have these feelings of helplessness, but we can use those emotions to turn them into action. I realize I have to take action now to help with what is happening to people at the present moment. To do this, I can do things like join protests, educate others, advocate for climate justice and so much more. There are always ways to act now, and I intend to do them. If everyone also learned what I did, I have hope for the future.

## DISCUSSION

Education can be used as a means to inspire the ingroup to promote climate justice without engaging in problematic behaviors. This includes listening to those who suffer most from climate change, recognizing one's own privilege, and aiming to invoke institutional change. We looked at a similar education plan that has been effective. This education plan is from the group called YELC and it connects students from developed countries with those in developing countries to hear their experiences and gain knowledge on climate change. Through this group, students who reside in the ingroup can connect and talk with those in the outgroup. This allows those in the outgroup to speak first-hand about their experiences and allows their voices to be heard. Additionally, this invokes those in the ingroup to learn from their experiences and allows the opportunity for their perspective to be changed on this issue. The conversation between those in the ingroup and outgroup allows for a collaborative environment that allows students to connect and learn from others from different backgrounds, to foster community, and to help people to come up with innovative solutions (Dittmer, 2018).

Education is when someone assists with the acquisition of knowledge, especially systematically during childhood and adolescence. Developmentally, learning when you are younger is more effective because it creates a strong foundation for the future in learning, behavior, and health. This established structure helps us develop the skills we need to become functioning adults. Education is a crucial process that imparts basic knowledge, develops skills for daily living, and helps us contribute to society. It is divided into formal, informal, and non-formal education. Formal education is conducted in classrooms, while informal education is done outside the classroom. Non-formal education follows a timetable and is systematically implemented, such as community-based courses, vocational training, and short programs without professional instructors. Education contributes to the quality of life, choices at work, and promoting equality among individuals. It teaches problem-solving skills, self-reliance, and empowerment, preparing individuals for adulthood and decision-making. Education also promotes equity, respect for others' views, and peace in societies. An educated population is

essential for a nation's economic growth, and it allows children to make a difference in their communities, promoting sustainable growth.

Integrating climate change into the American educational system can also help address students' feelings of hopelessness surrounding this issue. Climate change is a significant issue and can appear to be a daunting task to take on. The current discourse that surrounds this topic and the lack of government action have caused many students to feel discouraged and unsure of how they can help. A new curriculum surrounding climate change can allow students to first normalize their feelings of hopelessness and fear about the future. However, it can turn these feelings into optimism for the future and encourage students to act. This curriculum can also provide students with ways they can involve themselves in helping fight climate change while also showing them how to uplift the voices of those in the outgroup that are silenced (Vamvalis, 2023).

Our composite counterstories show us that people can utilize the educational system to change perspectives, to create awareness, to help people recognize their privilege, and to encourage students to invoke change. This would help invoke compassion towards those who suffer from climate change and the overall issue at hand. It also makes this issue more relevant to people, as it puts it into perspective that it is happening right now. The story also demonstrates the power of privilege and the importance of utilizing it, which is the responsibility that people with privilege have. Systemic change is important to address the issue of climate change as a macro instead of a micro problem. It is also important to emphasize that this is not just an individual problem to solve. Examples of this can be government interventions that change policy or that encourage collaboration with others in communities. Education can lead to this sort of action and can be just the beginning of sparking larger changes.

## CONCLUSION

Our research highlights the importance of teaching about climate change and of making it more proactive. The evidence of our research supports a different approach to how climate change is often taught in classrooms with the hope that this will help invoke positive changes in society. The new climate change curriculum would aim to make it relevant so that this would get people to care and hopefully take action. It would also aim to address the feeling of hopelessness students often feel when learning about climate change. This curriculum would also help ensure that students recognize their privilege of being a person of the ingroup and gain a sense of responsibility because of this position that they have in society.

The curriculum would hopefully also shift the perspective of students from a microscopic level to a macroscopic perspective, where students would understand that climate change is happening to people outside of the local community and is disproportionately affecting developing nations. From understanding that climate change

is a macroscopic phenomenon, students would be able to recognize that combatting this issue would require institutional and systemic change. It would also demonstrate that combatting this issue would require acting in non-problematic ways to invoke positive change, such as by targeting institutional change.

Some suggestions for future research projects would be to explore the effectiveness of integrating climate change content into the school curricula. Students could write an essay at the beginning of the semester on what they know about the topic and their perspective. Afterwards, the curriculum could be taught and at the end of the semester, students would write an essay at the end about what they learned and how they feel toward climate change and climate injustice. Based on this qualitative data, this would demonstrate whether this form of curriculum was effective and where it could be improved.

We had several questions remaining at the end of our research. We were first wondering about the most effective way to integrate climate change into the curriculum and how to make a full curriculum surrounding this topic. Another question we had was how early in education to introduce this topic and whether introducing this topic earlier would invoke more change and interest.

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