

**Empowering youth civic action on plastic pollution:
Utilizing unconventional storytelling as a tool to mobilize plastic pollution policy change
in Durham, NC**

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ABSTRACT

Plastic pollution is a major global problem impacting the health of people and ecosystems, but there is not enough engagement or policy devoted to addressing this multifaceted problem. Therefore, the Duke University Bass Connections research team *Empowering Youth Civic Action on Plastic Pollution* aimed to empower youth leaders through education about plastic pollution solutions to create policy change using a multidisciplinary approach. These multidisciplinary approaches included classroom lessons for middle and high school aged students and unconventional storytelling. This independent study focuses on how unconventional storytelling can be used as a tool to mobilize youth civic action around plastic pollution amongst the Duke University undergraduate community and the wider youth community of Durham, North Carolina. The results exemplify that unconventional storytelling can be a productive community education tool to inspire civic action.

Keywords: *plastic pollution; civic action; community based environmental management; unconventional storytelling; youth activism*

PROJECT OVERVIEW AND DESCRIPTION

The Organization: Bass Connections

The Duke University Bass Connections research team *Empowering Youth Civic Action on Plastic Pollution* developed and piloted a civic-action curriculum on ocean plastic pollution for middle school, high school, and college aged students. By focusing on the plastic pollution problem, the team intended to empower young people in the Durham, North Carolina (NC) community to engage with meaningful civic action.

Duke Bass Connections research teams are interdisciplinary teams of graduate and undergraduate students that “collaborate with faculty on cutting-edge research that spans subjects, demographic groups, and borders” (Duke University, 2022). The vertical mentorship allows graduate students to develop leadership skills while mentoring undergraduate scholars. Simultaneously, graduate students receive support and guidance from faculty and staff project leads. On this team, there were five team leaders, four graduate team members, and ten undergraduate team members.

Team members of this research team developed a curriculum for an action-civics education outreach campaign using existing partnership and curriculum framework from the pre-existing HackBio program. Education materials were developed in conjunction with an outreach campaign to assist youth in better understanding the problem of ocean plastic pollution and influence the development of youth-led-solutions.

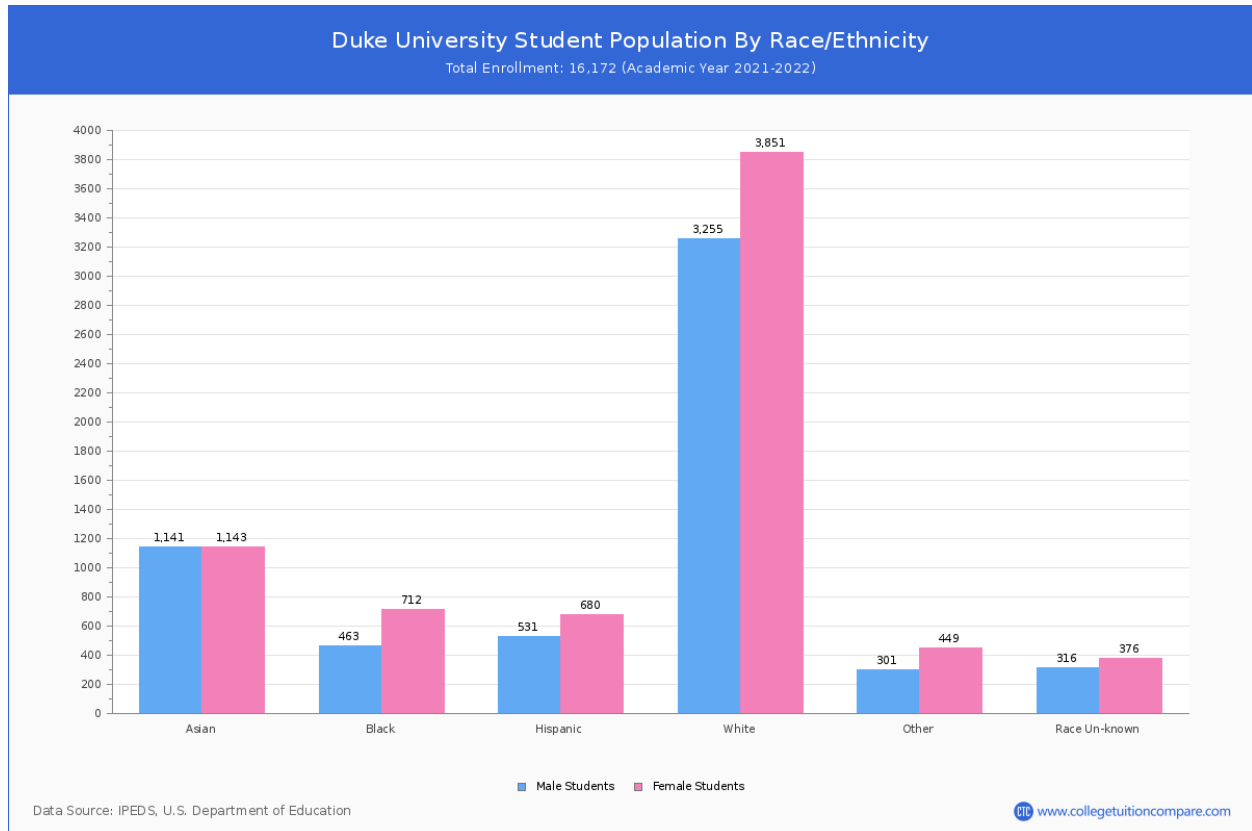
The Community: Duke’s Undergraduate Body and Durham Public Schools

Duke University is a private research university in Durham, NC with approximately 6,700 undergraduate students enrolled with a heavily white population, as seen in comprehensive enrollment statistics for 2020 for the undergraduate population in figure 1 (College Tuition Compare, 2020). Duke University hosts a Plastic Pollution Working Group within the Nicholas Institute for Policy Solutions that aims to better understand the issues of plastic pollution and find solutions to solve this global issue. The Working Group is composed of faculty and students from Duke University’s nine graduate schools, including highly interdisciplinary members. The group addresses global plastic pollution challenges but does not consider the inner workings of Duke University’s own plastic consumption and stance on the issue.



The Durham Public Schools is the eighth largest school system in NC and the only public school district in Durham, NC. The school system has approximately 32,000 students enrolled as of 2022 (Durham Public Schools, 2022). The Bass Connections research team piloted the civic-action materials with the Duke University undergraduate community and Durham Public Schools student community by hosting ‘boot camp’ sessions and targeted content to translate

learning into action. The program was intended to culminate with the development of a local solution for the ocean plastic pollution problem, based on the Civic Action Project in partnership with the Constitutional Rights Foundation.



Student Race/Ethnicity Distribution (Undergraduate)

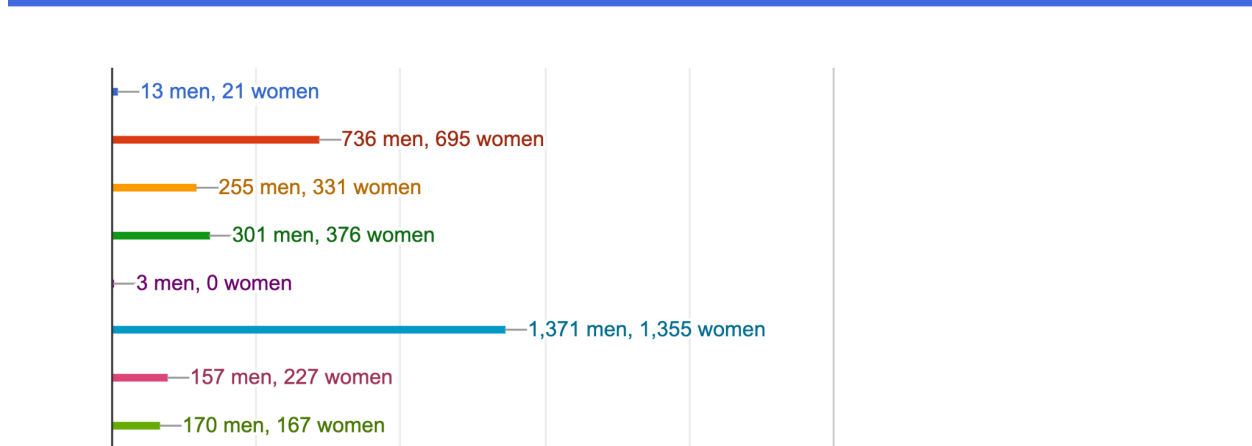


Figure 1. By race/ethnicity, as of 2020, out of 5879 undergraduate students, the most populous were white undergraduate students ($n = 2726$), the second most populous was Asian undergraduate students ($n = 1431$), and the third most populous was Latino/Hispanic

undergraduate students (n = 677); overall, more people who identify as women attend Duke University than people who identify as men. (Source: College Tuition Compare, 2020)

The Environment: Durham, NC

Durham is centrally located in the Research Triangle Region of North Carolina. The area is known for its technology companies and academic institutions, including Duke University. Durham is a largely rural area with condensed urban centers. The City of Durham Solid Waste Management Department is responsible for the collections and processing of residential solid waste, bulky items, and yard-waste services (City of Durham, 2022). Residents rely on a weekly collection system managed by the Solid Waste Management Department—recyclables are then sent out of the city to be processed.

Durham's plastic pollution perspective is influenced by an environmental non-governmental organization (NGO) called Don't Waste Durham. Don't Waste Durham is a community driven initiative to reduce consumer waste through community driven action and ideas (Don't Waste Durham, *no date*). This group strives for a vision of a circular economy including eliminating waste input, encouraging local consumption, and cultivating a resilient community. Using existing infrastructure, the NGO pushes for evidence-based policy changes and supports initiatives developed both by community members and by Duke University programming.

Members of Duke University's Environmental Law and Policy Clinic, in coordination with Don't Waste Durham, proposed a plastic bag fee to the Durham county government. The intention is to charge customers 10 cents for each disposable/single-use bag, including both plastic and paper. The intention of charging for both types of disposable bags is to encourage the use of reusable totes, opposed to a shift to just paper. In addition, the fee is very low to respect the fiscal challenges that low income community members already face when shopping at places such as the grocery store. The plastic bag fee is controversial because Durham's local officials are unsure if they can legally charge bag fees and enforce this ban without approval from the General Assembly (Gordon, 2022). Due to its location in the Research Triangle, Durham, NC is a place where environmental action around plastic pollution is already underway and a great place to educate and empower youth to take action around the plastic pollution problem.

The Context: The Plastic Pollution Problem

Ecosystem health and human well-being are threatened by the millions of metric tons of plastic that are deposited annually into our waterways. To solve this problem, governments must contribute at the local level where waste management and recycling solutions are structured, budgeted, and regulated. Yet, few Americans engage in policy management or matters of local government at all. Considering this, youth voices are particularly absent from the call to action surrounding this issue. Steps must be taken to empower youth to engage within their communities to drive meaningful policy change at the local level to inspire the reduction of plastic pollution.

Youth-led community initiatives are successful instigators of policy change. Through educational campaigns, the Civic Action Project (CAP), launched in 1992, proved to be successful in developing a “transformative curriculum” to lead students through the process of civic engagement, through discovery and empowerment (Constitutional Rights Foundation, 2022). Through a collection of lessons, students select issues related to their school system, community, or national and global issues to identify the problem, connect it to public policy and take steps to improve it (Constitutional Rights Foundation, 2022).

The Bass Connections research team implemented the framework of the CAP model to inspire students, from middle school to undergraduate level, to connect the scientific context of the issue to government intervention. Within the project deliverables included a HackBio program that was developed and piloted to teach local high schools about plastic pollution in NC, a Plastic Pollution CAP in the form of a curriculum toolkit to be used nationally by high school teachers in their classrooms, and a rapid assessment tool developed to examine peer reviewed literature on the topic. These deliverables were predominantly targeted toward educators, but HackBio had a specific focus on local youth. These deliverables were complimented by the community engagement plan dubbed “Bull City Plastic Hack,” which became the basis of analysis for this independent study.

METHODOLOGY

Objectives

This project specifically focussed on how unconventional storytelling could be used to empower youth civic action around plastic pollution. Unconventional storytelling is a term used by television screenwriters regarding writing a narrative with a non-linear timeline (Nelson, 2020), yet is defined within this project as the use of unconventional methods to tell the story of plastic pollution. Considering the screenwriter definition, the unconventional storytelling structure allows for more engagement from the audience (Nelson, 2020). By using unconventional methods, such as blog or social media posts, plastic pollution content can be tailored for community specific work. Through hyper-local science communications, storytelling can inspire location-specific civic action.

Through bottom up grass root initiative, community members can engage in environmental stewardship outside of existing management infrastructure. For this project, I focused on delivering action steps as a key aspect of the story, opposed to simply delivering informational content. Using a hyper local community model, I worked with a group of Duke University undergraduate students within the Bass Connections project team to tailor messaging that best matches the community and the environment. I explored theories of governance, social capital and social networks, models of environmental behavior change, and co-production of knowledge.

With this hyper local community model for unconventional storytelling, we were able to change questions to be more specific, tailor awareness and education level, and develop a brand to achieve the messaging goals. The “Bull City Plastic Hack” was coined by Module Four of the Bass Connections research team to deliver unconventional narratives, to extend past the facts, and to drive personal and civic action for the youth population of Durham, NC.

The idea of driving a hyper local plastics initiative was inspired by the award-winning NGO [Lonely Whale](#), that leads global, behavior-change strategies, campaigns, and programs. Founded

in December 2015, Lonely Whale drives impactful market based change “to ensure a healthy planet” (Lonely Whale, 2022). 52 Hz is a profit-driven creative consultancy that generates 100% of its profits to flow back to Lonely Whale to support its mission and programs. The impact campaigns that this NGO delivers are intended to increase awareness of environmental issues and inspire behavior change. Their campaigns are ‘trendy’ with the intention to educate and inspire their Los Angeles, CA audience to take action around straws, single-use plastic water bottles, recycling, and thin-film plastic, to name a few. They embed youth voices in policy decisions to inspire community support and amplify the plastic problem through aesthetically-pleasing, educational, and action-inspiring content, as seen in figure 2. For example, their Ocean Heroes program embraces and promotes the global youth movement to positively impact the ocean and well-being of our planet for generations to come and Nextwave is their ocean bound plastic consortium (Kane, 2022). This open-source initiative connects and unites traditionally competing multinational companies to develop that first global network of ocean-bound plastic supply chains (Kane, 2022). While Lonely Whale provides an excellent framework for unconventional storytelling, their homebase in Los Angeles, CA informs their young-adult and celebrity audience targets. For our project, we wanted to pull their framework into a hyperlocal context for Durham, NC, where the demographic is quite different.



Figure 2. Lonely Whale collaborates with other organizations to bring the plastic pollution problem to the forefront of the Los Angeles community through attractive content with action takeaways. (Source: Lonely Whale, 2022)

While Lonely Whale works with LA community leaders, (a.k.a. celebrities), such as Tom Ford - to drive innovative plastic pollution solutions, and focused on a wider global consumer audience, Bull City Plastic Hack recognized that their delivery would not necessarily appeal to the Durham youth community. The Lonely Whale framework cannot be replicable in Durham, NC without being adapted. Particular branding such as simplicity and targeting can assist with engagement.

For example, a content producer cannot assume that the targeted audience has an understanding of a complex issue, such as plastic pollution. Content will be the most effective if the producer walks the audience through an understanding and concludes with action items of what to do with the information given (Kane, 2021). Having spatial awareness and cultural understanding of the community benefits the content producer in creating a window for the audience to learn, engage, and take action.

Research Question

The main research question of this independent study, in collaboration with Duke University undergraduate students, through the Bass Connections research team considered the following:

1. How can broader resources about plastic pollution be adapted and tailored to a specific community to empower youth to take civic action?

Literature Review and Content Development Plan

To encourage engagement with literature on broad understanding of plastic pollution globally, I developed a diverse list of literature on topics under the umbrella of plastic pollution. With this list, I constructed an approachable syllabus for the Duke University undergraduate students, as seen in the appendix. The literature explored the following topics: policy and governance; economic and market pipeline starting with the petroleum industry; debris, specifically oceanic litter; human health; capitalist society's influence on fast fashion; and, citizen science. With the intent of giving the undergraduates a holistic understanding of how plastic influences different aspects of their lives, I then utilized this outline of topics to create a strategic marketing plan for the undergraduates to execute. This strategic marketing plan included a list of content to be developed, which can also be seen in the syllabus in the appendix.

I developed an unconventional storytelling content list that considers timeline and the development of shorter form content with an emphasis on people, specifically how the plastic pollution problem affects people. The first series of content was the 'Petro to Waste' series, which included the following topics to be executed as docu-shorts: fossil fuel industry and the petroleum grab; the production of plastic; toxins in plastics; plastic in consumer society; plastic

waste in an urban world; and, plastic waste in a natural world. The intention of this series was to empower the undergraduate youth to tell the decomposition timeline of trash from production to disposal to breakdown. Through participatory planning and co-production of knowledge, the community members could apply their social networks to empower their community to take action around plastic pollution.

The second series of content was intended to highlight plastic pollution ‘Success Stories’ within the Durham community. The reasoning behind utilizing success stories over stories that were less positive was intended for engagement purposes. Nancy Knowlton, Sant Chair for Marine Science at the Smithsonian's National Museum of Natural History, has coined “ocean optimism” as a productive way to inspire action (Knowlton, 2021). More often than not environmental stories, specifically those about plastic pollution, provide a negative nuance, thus by providing stories of success within the community, community members may feel more inclined to engage with this type of work.

THEORIES AND CONTENT PRODUCTION

Theories of community based environmental management were applied to empower community members of the Duke University undergraduate body to develop unconventional storytelling content to apply to their microcosm community to drive youth civic action. Theories applied include social networks; governance and institutions; environmental behavior change; environmental education; participatory planning; and, co-production of knowledge.

When considering social networks, the undergraduate community members were encouraged to utilize their social capital to inform the way in which they produced content. In this way, their position as an insider gave them specific shared knowledge of norms and rules and also patterns of interactions. Through this knowledge they were able to proactively engage other community members in an informal interview process in a common meeting area: the Brodhead Center, the main dining center on the Duke University campus. Through relations of trust with other students, the informed student activists reckoned with the way in which their community perceived the issue of plastic pollution and what the community perceived was happening around

this issue on campus. These interviews were developed as a series to show off the community voice.

The undergraduate community members also reckoned with the governance and institutions within their community. This posed questions of power, trust, and formality of institutions. The students considered the Common Property Governance Regime (GPGR)– the formal and informal institutions and governance structures that communities develop and employ to manage their resources– at Duke (Agrawal, 2001). While the Duke undergraduate community maintains a formal governance body with the administration of Trinity College of Arts and Sciences, this group does not focus on the plastic pollution problem, or is not transparent about their efforts. I do note that this community is unusual because it is a private education institution, but undergraduate community members still follow a set of codified rules, such as those of other larger communities. In addition to a lack of formal governance around plastic pollution, there is a lack of informal governance of plastic pollution, such as informal organizations or community associations. This type of informal governance at Duke could fall within the category of student groups or other extracurricular organizations. The students were unable to identify any of these.

This is well aligned with the way in which the United States (US) government attempts to consider the US' role in global ocean plastic pollution. While Congress mandated the Save Our Seas (SOS) 2.0 Act sponsored by NOAA's Marine Debris Program, the US continues to lack a comprehensive federal research and policy strategy to reduce its contribution to plastic waste in the ocean (16 U.S.C. §§116-224). SOS inspires potential interventions for all stages of the plastic timeline and considers the ingestion of plastic and entanglement in plastic for marine species, as seen in figures 3 and 4, which has fatal implications for these animals. While much broader, these considerations are not mandated at Duke. For example, single-use plastic is still used in mass at the Brodhead Center and recycling receptacles are hard to find.

The undergraduate community members also considered different models of environmental behavior change. These models included another Lonely Whale example, their impact straw campaign “The Future Does Not Suck.” Their intention is to discourage the use of single-use straws. This campaign was backed by the family-owned spirits company, Bacardi– the students

considered how the undergraduate community may respond to a campaign like this since many community members purchase Bacardi products. This spurred questions such as: “would it not be better to encourage community members to purchase multi-use water bottles?” The community members were then encouraged to consider how civic action with formal governing bodies may have the power to influence the purchase of products such as hydration stations.

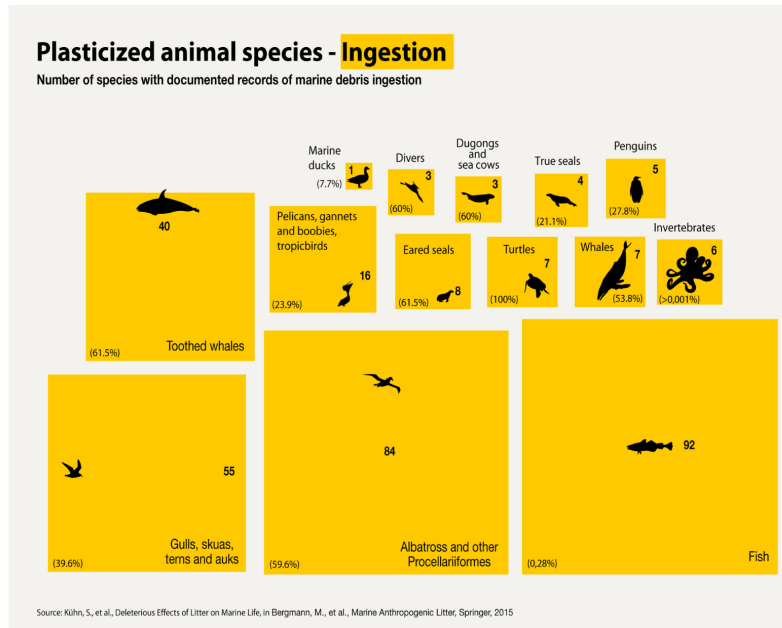


Figure 3. The number of marine species with documented records of marine debris ingestion. (Source: Kuhn, 2015)

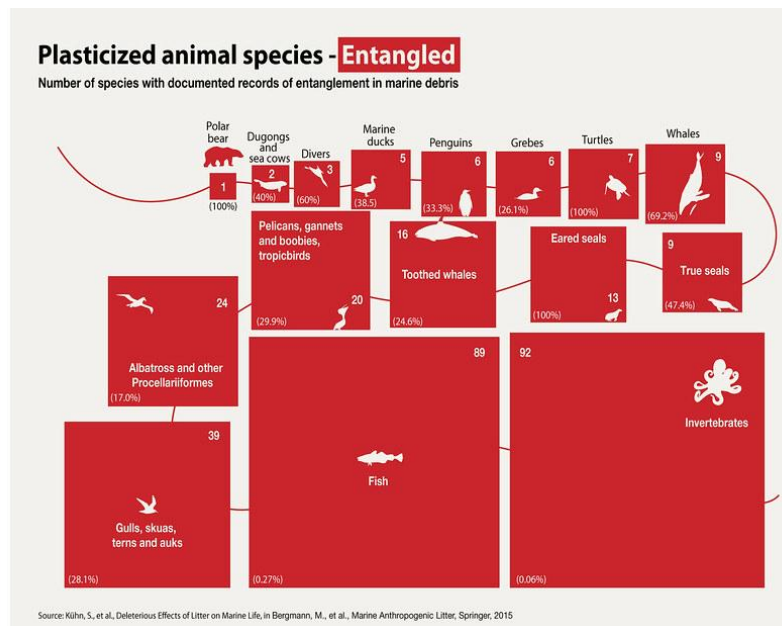


Figure 4. The number of marine species with documented records of entanglement in marine debris. (Source: Kuhn, 2015)

With consideration of social networks, governance and institutions, and environmental behavior change, I worked with the community members considering aspects of participatory planning and co-production of knowledge. Through participatory planning, I assisted the community members in engaging their community stakeholders in plastic pollution management, through the co-production of content. The undergraduate students felt strongly about the value of social media as a tool to deliver the plastic pollution content. By giving the those who are most impacted by the program a voice in developing the vision, ownership was taken.



Figure 5. Screenshots from the toxins in plastic docu short co-produced as a reel for the ‘Bull City Plastic Hack.’ (Source: L. Sellers, Polemeni, O., R. Karasik, J. Lee, 2022)

As a result the first series of content was the ‘Petro to Waste’ series, which was intended to be executed as docu-shorts, was implemented as instagram reels on an instagram profile named “Bull City Plastic Hack.” The reels were developed to be approachable to the specific audience of the Duke University undergraduate body and Durham youth in high school and middle schools. These reels were docu shorts that could be consumed in a short period of time, which is ideal for middle, high, and undergraduate students who are actively scrolling on social media platforms. The docu shorts covered the entire decomposition timeline: fossil fuel industry and the

petroleum grab; the production of plastic; toxins in plastics; plastic in consumer society; plastic waste in an urban world; and, plastic waste in a natural world. By following this series, the community members produced the content and I edited to ensure factual correctness. The level of quality was impressive and attests to the pre-existing assets available in the community to execute projects such as this, as seen in the video screenshots from the toxins in plastic docu short of figure 5.

As a result of the second series of content highlighting plastic pollution ‘Success Stories’ within the Durham community, the community members proudly shared the programs happening within their communities– these programs included, GreenToGo, a reusable container service available in Durham, with an action item to download the program app for smartphones, as seen in figure 6. This type of content fits the simplicity branding and is easily accessible via a platform that a significant amount of community youth utilize. In addition, the community members highlighted the plastic bag fee as an additional success story, as seen in figure 7. This content was based off of educational materials that I provided to the community members and then they created the content from scratch, utilizing the Canva platform. The undergraduate community members created an instagram profile named Bull City Plastic Hack, with handle @bullcity_plastic_hack, to show off this content and has since gained a community following (n = 52).



Figure 6. GreenToGo content to show off the success story of a reusable container service available in Durham which was co-produced for the ‘Bull City Plastic Hack.’ (Source: Polemeni, O., L. Sellers, R. Karasik, J. Lee, 2022)

BULL CITY PLASTIC HACK

BREAKING NEWS

THANKS TO DUKE'S ENVIRONMENTAL LAW & POLICY CLINIC AND 'DON'T WASTE DURHAM', DURHAM CITY AND COUNTY GOVERNMENTS ARE CONSIDERING A 10 CENT DISPOSABLE BAG FEE!

Keep tapping to get the full story

WHAT IS A DISPOSABLE BAG FEE?

- A \$0.10 charge will be added to every disposable bag at the point of sale in Durham County
- Exceptions will be made for individuals with SNAP, WIC, and Medicaid

A SURVEY OF 60 DURHAM BUSINESSES FOUND THAT 85 PERCENT WERE IN FAVOR OF OR INDIFFERENT TOWARDS THE FEE ON DISPOSABLE BAGS

WHY IS IT IMPORTANT TO LESSEN THE USE OF PLASTIC BAGS?

- Durham Country spends about \$87,000 a year on cleaning plastic from the streets, storm drains, and trees
- Toxins in plastic debris can make their way into the waterway and can lead to human health problems
- Because plastic bags are so aerodynamic, they can blow off garbage truck beds or off of the landfill itself increases litter along roads and through wooded areas

HOW DOES DURHAM'S PLASTIC IMPACT COMMUNITIES?

- Durham's trash is taken 96 miles away to a landfill located in a predominately Black community
- At least 17% of the trash sent is plastic
- For them, this plastic issue is not just environmental, it is an **equity issue** that effects their quality of life



THE TAX WILL BE COLLECTED BY THE CITY AND COUNTY SOLID WASTE MANAGEMENT DEPARTMENTS AND WILL GO TOWARDS CONSUMER EDUCATION ON PLASTIC WASTE

Swipe up to learn more!

Figure 7. Plastic bag fee content to show off the success story of a civic action step in Durham which was co-produced for the 'Bull City Plastic Hack.' (Source: Polemeni, O., L. Sellers, R. Karasik, J. Lee, 2022)

KEY TAKEAWAYS AND RECOMMENDATIONS

Community engagement and youth civic action on plastic pollution can be achieved through the application of community based environmental management theories including social networks,

governance and institutions; environmental behavior change; environmental education; participatory planning; and, co-production of knowledge. While youth can promote concern about litter in the community, developing policy support among local voters and political officials takes time. Targeting youth can be productive in fostering intergenerational learning—yet, the initial empowerment of youth must be persistent and be delivered from multiple angles before it reaches other members of the community. This project exemplifies how co-production of knowledge can be used as a tool to empower undergraduate youth to develop initiatives to assist with the environmental issue, in this case plastic pollution. The ownership taken by the undergraduate students was successful because of the environmental education foundation that was provided prior and throughout the planning and development of the hyper local-targetted content.

When considering the success of this program, I applied the Duke University Marine Lab: Community Science Initiatives' community engagement continuum framework: (1) outreach, (2) consult, (3) involve, (4) collaborate, and (5) empower (DeMattia, 2022). Considering outreach, the undergraduate community members were provided balanced, objective information that the community should know and act on. Considering consultation, the undergraduate community members' feedback and inputs were integral to the development of ideas and in decision-making. Considering involvement, I worked with the undergraduate community members to ensure an understanding of the issues and problems and in identifying options for moving forward. Considering collaboration, I utilized the participatory planning theory to ensure decisions were made together. Considering empowerment, the undergraduate community members recognized their important role of being part of the undergraduate community and utilized their shared leadership to empower their own community to take action against plastic pollution.

The undergraduate community members were then asked to design a local, binding, specific, and measurable target for an action plan for plastic pollution, that is not the Bull City Plastic Hack, considering the following questions: (1) What tools would you use? (2) Who would be the implementing body? (3) How would it be monitored? (4) How would you hold the community accountable? One idea developed was a tax policy implemented by 2050 where 20% of all plastic products produced by individual corporations must be made out of recycled plastics. The

student suggested using a stamp of notoriety as incentive for the corporation to show their environmental, social governance (ESG) commitment. This is an example of how when empowered, a community member can tap into their entrepreneurial ideas to develop their own civic action projects.

Community engagement and empowerment is not a product, but a process that relies heavily on relationship building. The success of Bull City Plastic Hack was reliant on the trust built amongst the Bass Connection research team. By building relationships amongst the team there was a sense of mutual respect and integrity that allowed the undergraduate students to truly take ownership of these projects. Only with this sense of ownership could the undergraduates apply their social networks, newfound environmental education, and knowledge of the internal workings of the Duke University undergraduate student body to the environmental management problem. I recommend developing positive relationships and interpersonal communications whenever attempting participatory planning.

Unconventional storytelling can be used as a tool to tell the story of plastic and is an approachable concept that can be applied by youth in a community. The balance of educational material and amplifying success stories, allowed the community members to educate and empower their own community. While the level of civic action steps were minimal, this process takes time. The Bull City Plastic Hack exemplifies a single case where unconventional storytelling applied at a hyper local level empowered community members of the Duke University undergraduate body to share action steps for how their community can get involved with the plastic pollution problem.

APPENDIX

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Spring 2021 Undergraduate Syllabus:

Week	Date	Reading	To Do Item	Content Assignment
Week 1	1/5/22	<i>First Day of Classes</i>	<i>None</i>	<i>None</i>
Week 2	1/10/22	<i>Watch the Oceans@Duke Future of Our Oceans Webinar: “The Global Plastic Pollution” to min. 38</i>	<ul style="list-style-type: none"> · Prepare One-Pager Summary with 5 ‘Highlights’, 1 quote, a short summary, and 1 figure that caught your attention · Draft interview etiquette doc (1-page single spaced; bullets acceptable) 	<ul style="list-style-type: none"> · Prepare 4 IG posts with collages of Module 1-4 members
Week 3	1/17/22	Karasik et al (2020) 20 Years of Government Responses to the Global Plastic Pollution Problem – Chapter 4: State of the Science on Plastic Policy Effectiveness (pages 80-92)	<ul style="list-style-type: none"> · Draft interview etiquette doc [JL1] · Survey 3-4 Duke undergraduates students on their perspective of plastic on Duke’s campus and in the wider Durham community 	<ul style="list-style-type: none"> · Compile an IGTV episode of student interviews
Week 4	1/24/22	Karasik et al (2020) 20 Years of Government Responses to the Global Plastic Pollution Problem	<ul style="list-style-type: none"> · Prepare One-Pager Summary with 5 ‘Highlights’, 1 quote, a short summary, and 1 figure of student perspective on plastic pollution in Durham 	<ul style="list-style-type: none"> · Finalize and share the IGTV episode of student interviews

		– Chapter 5 and 6 (pages 92-104)		
Week 5	1/31/22	Gardiner (2019) The plastics pipeline: a surge of new production is on the way.	· Informational IG post about petroleum industry in the US	· From Petro to Waste Series: Develop an IG Real regarding the fossil fuel industry and the petroleum grab
Week 6	2/7/22	Nowlin et al (2021) An innovative, collaborative approach to addressing the sources of marine debris in North Carolina.	· Informational IG story series (2-3) about petroleum industry in the US	· From Petro to Waste Series: Develop an IG Real regarding the production of plastic
Week 7	2/14/22	Morrison et al. (2021) “Plastic Additive and their unknown dangers to human health” poster	· Develop a blog post about the Bioremediation of Plastic Pollution to Conserve Marine Biodiversity Bass Team · 2-3 quotes required from team members	· From Petro to Waste Series: Develop an IG real regarding toxins in plastic

Week 8	2/21/22	<i>Breaking the Plastic Wave</i> , chapter 1 and 2 (pages 24-39) AND watch Hashan Minaj – The Ugly Truth of Fast Fashion (Patriot Act)	<ul style="list-style-type: none"> · Prepare a multi-part IG post about ‘fast’ fashion and the incentivized consumers 	<ul style="list-style-type: none"> · From Petro to Waste Series: Develop an IG reel regarding plastic in the consumer society
Week 9	2/28/22	Hung et al (2022) Collaboration between the government and environmental non-governmental organizations for marine debris policy development: The Taiwan experience.	<ul style="list-style-type: none"> · Prepare IG post of jarring visuals related to plastic waste · Utilize an interactive tool on IG to gather feedback on post (quiz/ poll/ etc.) 	<ul style="list-style-type: none"> · From Petro to Waste Series: Develop an IG reel regarding plastic waste (consider landfills / incineration / recycling, etc.)
<i>Spring Break</i>	3/7/22	<i>None</i>	<i>None</i>	<i>None</i>

Week 10*	3/14/22	Bartolla and Hardy (2018) Barriers and benefits to desired behaviors for single use plastic items in northeast Ohio's Lake Erie Basin AND Mecho et al (2021) Seafloor litter at oceanic islands and seamounts of the southeastern Pacific.	<ul style="list-style-type: none"> · Prepare an IG post about seafood bioaccumulation 	<ul style="list-style-type: none"> · From Petro to Waste Series: Develop an IG reel regarding plastic in the natural world
Week 11*	3/21/22	Otero et al. (2021) Twitter data analysis to assess the interest of citizens on the impact of marine plastic pollution.	<i>None</i>	<ul style="list-style-type: none"> · Prepare an interactive GIS story map of the decomposition timeline of trash · (Lee et al. 2021 example)
Week 12*	3/28/22	<i>Breaking the Plastic Wave</i> , chapter 3 and 4 (pages 99-116)	<i>None</i>	<ul style="list-style-type: none"> · Complete GIS story map of the decomposition timeline of trash
Week 13	4/4/22	Review Bass Connections Poster Guidance Resources	<ul style="list-style-type: none"> · Watch the Effective Academic Poster · Send PDF of team's poster to Meghan O'Neil (mmo12@duke.edu) 	<ul style="list-style-type: none"> · Prepare for the <i>Fortin Foundation Bass Connections Showcase</i>

Week 14	4/11/22		<ul style="list-style-type: none"> · Prepare for the Final Plastic Pollution Civic Action Presentations 	<ul style="list-style-type: none"> · Final Presentation · Final Video
Week 15	4/18/22	<i>Last Day of Classes</i>	<ul style="list-style-type: none"> · Present to the entire Bass Team 	<ul style="list-style-type: none"> · Finalize Video and prep presentation about reflecting on unconventional storytelling

*Juliette away on community based marine conservation trip in Mexico