

THE USE OF PLASTIC AT MIAMI UNIVERSITY'S OFF-CAMPUS PARTIES

ABSTRACT

In recent years, with the increased urbanization and economic prosperity, consumerism has grown at an unprecedented pace with one of the most harmful wastes produced being plastic. Miami University is among the top party and greek life schools in the United States, and when thinking of college parties, the red plastic Solo cup is symbolic. The current research aims to understand how Miami's off-campus party attendees can be influenced to produce less plastic party waste. A literature review, observations, a survey, and interviews were conducted to learn how Miami students use plastic at off-campus parties and about their attitudes towards reducing it.

Findings included the majority of Miami party attendees being aware of the excessive amounts of plastic waste produced at college parties, but no one wants to take the first step towards reducing it. However, insights revealed that some party hosts make effort towards restricting the amount of plastic party waste. Based on collected data, a design directed towards hosts would be suitable in changing the behavior of party attendees. The proposed design is "Miami Green Party Weekend," where off-campus party hosts participate by not providing plastic products, and welcome attendees who bring their cups. Methodology limitations and implications are also discussed in this study.

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RESEARCHERS

Lela Troyer's research interests aim to understand how Miami University students who attend off-campus parties can be influenced to produce less plastic waste. She is in training to be a Communication Designer to turn ideas into memorable experiences through visual design. In the current research project, she reviewed literature, design research methods, conducted observations, constructed survey questions and interviews, analyzed the data, and wrote the research report with her research teammate, Chi Nguyen.

Chi Nguyen's research focuses to gain insights on how Miami University students view the use of plastic at off-campus parties and how open they are to reduce it. Also in training to be a Communication Designer, she looks to make an impact on people's lives, starting from changing small yet easily overlooked circumstances, believing that "baby steps count." In this project, she worked closely with Lela Troyer to develop the research plan, review literature, compose survey and interview questions, and apply design methods such as observations and interviews. Individually, they conducted interviews with different people, but together, they coded all the data collected, studied and put together the process and outcomes that can be found in this research report.

INTRODUCTION

Our project sprouted from a shared concern about the overuse of plastic in the world. We also wanted to make sure we stepped outside of our comfort zones when figuring out what we can specifically do research on that relates to plastic use. Since Miami University is a known party school, we decided to look into the use of plastic at the off-campus college parties. Not only did we have to push ourselves to explore the culture of college parties, but it was a really eye-opening process that broadened our initial understanding of a previously unfamiliar world.

We started out with the assumption that these parties produce a lot of plastic waste, so we did some research to see if this issue was valid and worth looking into. These first steps gave us the insight we needed to develop the main question: how can we influence Miami University students who attend off-campus parties to produce less plastic party waste? Based on some of our early research, it became clear that there is a limitation on non-plastic party supplies available to Miami students in the Oxford area. We were also surprised at the chaotic state of party waste scattered throughout the neighborhoods. This proof helped us develop questions to help guide our project. How do the students feel about the use of single-use plastics at Miami college parties? We were curious to see if students are affected by this factor or not. How open would students at off-campus parties be to reducing plastic waste? Since we know the amount of plastic is an issue, we wanted to know if students would be willing to help solve this. How much plastic is thrown away after a Miami college party? What can be done to educate students about single-use plastics at Miami college parties?

When exploring this topic early on, we made the assumption that students would be motivated to educate themselves on ways of reducing the plastic at parties if they were given the resources. However, we revised this thought to expand our goal of influencing students whether they had this initial motivation or not. This change of thought allowed us to develop a more relevant approach to researching the overuse and mistreatment of plastic at parties.

ANNOTATED BIBLIOGRAPHY

Crandall, D. (6700, January 1). *Why You Should Think Twice About Solo Cups*. Retrieved from <https://archive.attn.com/stories/3499/why-red-solo-cups-cant-be-recycled>.

This article addresses the problems with attempting to recycle red Solo cups. It also provides information on what other common party items cannot be recycled.

EcoReps. (n.d.). Retrieved from <https://miamioh.campuslabs.com/engage/organization/ecoreps>.

EcoReps are known as the advocates of sustainability on the Miami University campus. They promote sustainable living in Residence Halls through membership in each hall's Community Leadership Team (CLT) and initiatives such as EcoFacts, Trash Audits, The Water Bottle Project, Specialty Recycling, and more.

Fact Sheet: How Much Disposable Plastic We Use. (2019, January 8). Retrieved from <https://www.earthday.org/2018/04/18/fact-sheet-how-much-disposable-plastic-we-use>.

This article provides facts on the amounts of various disposable plastics used in the world.

GreenHawks Media. (2019, October 14). GreenHawks Media. Retrieved from <https://greenhawksmedia.net>.

GreenHawks Media is Miami's first online student publication devoted to increasing awareness about sustainability on campus, in Oxford and beyond. Their work investigates environmental commitments in the Miami community, localized and national news in sustainability, and offers green lifestyle tips as well.

Miami University Green Team. (n.d.). Retrieved from <https://miamioh.campuslabs.com/engage/organization/sustainability>.

The Green Team is a Miami student organization with the goal to institutionalize sustainability within university operations and to cultivate a culture of sustainability among Miami community.

Zero Waste Oxford. (n.d.). Retrieved from <https://miamioh.campuslabs.com/engage/organization/zerowasteoxford>.
Zero Waste Oxford is a Miami University student organization dedicated to bringing awareness to the amount of waste the average person produces. They seek to educate Miami's student body and the greater Oxford community about the easy changes that they can make in their lives to reduce waste.

Green Oxford. (n.d.). Retrieved from <https://miamioh.campuslabs.com/engage/organization/greenoxford>.
Green Oxford is a student organization committed to improving the environment of the Miami and Oxford communities through education, action, and leadership. They envision a university with better environmental policies, an improved curriculum, and a well-informed student body.

RESEARCH POPULATION

The research focuses on a bound population of Miami University students who attend off-campus parties. The age range of students is 18 to 22. They live in Oxford either on-campus or off-campus. The students go to these parties on weekend nights (Thursday, Friday, and Saturday) and assemble the most from around 10:30 pm until 2 am on Friday and Saturday. They often go with each other in groups ranging from 3 to 7 people, mostly hopping from one party to another. Besides going with Miami students, they sometimes take their friends or family members who are visiting them during the weekend to parties. The majority of party attendees always have on their hand on a cup, can, or bottle; are in a state of carefree relaxation; and are sometimes not sober. It's also noteworthy that most attendees are domestic students; not many international students are seen at parties.

METHODOLOGY

In this section, we discuss the methods we used to learn about the issue we studied, the use of plastic at Miami off-campus parties.

Literature Review

First and foremost, the focus was on finding general information about the use of plastic at Miami off-campus parties, exploring the school website and social accounts, as well as associated organizations. This first step allowed a familiarization with current conditions and created insights on how Miami population is talking about plastic use at parties. Unfortunately, yet unsurprisingly, there was no article written about it. The lack of discussion helped confirm the current vision of the problem and clarify how to approach it.

The second phase of the literature review was conducted to explore what student-led sustainability organizations there are at Miami University, as well as how they address the topic on the environment. The organizations were found through The Hub, and further information on each organization's activities was found on their official social media pages. The five organizations are Zero Waste Oxford, Green Oxford, EcoReps, Green Team, and Greenhawks Media. Their work mainly focuses on informing global climate change and promoting sustainable living on campus. This, again, confirm the lack of discussion on plastic use at Miami off-campus parties.

Exploratory Research

Initial exploratory research was conducted by both researchers, each with a different task. Photographing tools were used. One researcher explored three stores in Oxford to collect visual data on what party supplies is conveniently available to Miami students. The other researcher explored neighborhoods in Oxford to determine the severity of excessive party waste in yards and streets.



Kroger



Dollar Tree

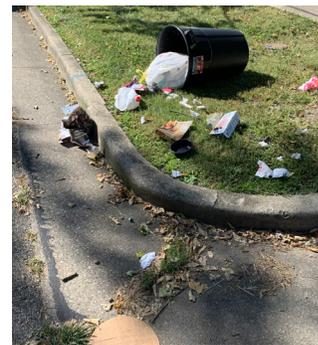


Walmart | Plastic cups



Walmart | Other plastic supplies

Photographed visual research was gathered to see what kinds of plastic party cups and supplies are available to Miami students in Oxford grocery stores. There was an overwhelmingly wide variety of plastic cups to choose from, and the few paper options available were on the highest shelves.



The other researcher walked around off-campus houses was on a Sunday morning. In the photos, many different kinds of plastic are shown. However, this could just be garbage that was thrown out after a huge dinner or a clean-up weekend, so further research needs to be done to avoid false assumptions.

Observational Research

Observational research was used to gain insights on how Miami students treat plastic products during and after parties. Both researchers set out to conduct observations together, taking approximately two and a half hours total. The observations took place while walking around Oxford neighborhoods on a weekend night in search of party venues and inside several party houses. One researcher took written notes on plastic use while passing by yards and within the parties themselves. The other researcher photographed scenes throughout the night.

While doing the observations, both researchers were conscious of remaining unbiased. To be specific, while approaching the issue of plastic waste from Miami college parties, the team kept in mind that students might or might not use plastic.

- Location: walked around Oxford neighborhoods near uptown, a few houses
- Atmosphere: only college students walking around in groups outside, lots of shouting and drunk behavior on the streets and sidewalks, loud music, people were either friendly or didn't pay attention to us, overwhelming and nerve-wracking, crowded
- Time: Friday, September 27th, from around 9 - 11:30 pm

Notes from Phone:

- small birthday party, everyone knows everyone
 - plastic shot glass package
 - reusable drinking cups
 - plastic bottles
 - beer glasses, cans
- inside party house
 - table of plastic bottles and cups
 - plastic water bottles
 - drinking games at a table
 - unknown if plastic or glass bottles of alcohol
- backyard walk-by, alley view
 - trash knocked all over, unorganized, plastic mixed with bottles
 - soda bottles (2 liters)
- sidewalk passings
 - rounds of trash taken out
 - trash in yards (extremely common, every few houses at least)
 - tables in front yard covered in plastic cups and beer cans
 - table FULL OF at least a pack of solo cups alone
 - leave trash and cups, don't pick them all up
 - house porch full of college students and older men (around 45-60 years old), dads?
- last party, most crowded
 - everyone using beer cans outside
 - cannot tell what is going on, too crowded, literally cannot see the ground
 - we were approached, curious about what we were doing, uncomfortable conversation



Field notes and photos

Survey

A survey was conducted to understand what kind of design approach would influence both people who only care about personal benefits and those who care about benefiting the planet as a whole, in terms of reducing plastic at parties. The survey went out to the general Miami population, dispersed via GroupMe and recorded anonymous results. It began with information on the purpose and requested permission from the participants to use their responses for research. The first two questions were formatted as multiple choice to ask participants about their habits of plastic use on a daily basis and how they felt about the amount of waste produced by off-campus Miami parties. The last question was formatted as a multiple choice grid that asked participants to rate a list of items on how likely they would use them at a party.

SURVEY QUESTIONS

Do you consciously reduce your personal plastic use on a daily basis?

- Yes
- No

Do you feel like off campus Miami parties produce an excessive amount of plastic waste?

- Yes
- No
- I don't know

Rank these cups in order of how likely you would use them at a party. (1st/2nd/3rd/4th/5th choice)

- Disposable plastic cups
- Reusable cups
- Bring my own cup
- Directly from the can/bottle
- I wouldn't drink

Structured Interviews

When crafting the interview plan, the team hoped to understand how the emic population feels about the use of single-use plastic at Miami college parties, as well as how open they would be to reducing plastic waste. A set of 4 questions were written:

INTERVIEW QUESTIONS
What are your views about humanity's influence on environmental changes?
If you went to the Miami Climate Change strike, what slogan would you put on your sign?
How do you feel about the amount of plastic, such as cups and bottles, being used at off campus parties?
How would you organize a plastic free party?

Four structured interviews were conducted, two per researcher, to understand how party attendees feel about the use of single-use plastics at Miami college parties and how open they would be to reducing plastic waste. Two female participants were recruited from the exploratory research at off-campus parties and scheduled to be interviewed individually at later dates in an on-campus dining hall. The other two male participants were chosen because they have experience of going to off-campus parties.

Before the interviews, the participants were given consent forms to read and sign. After getting their permission, responses to the questions were allowed to be recorded. Throughout 20-minute interview sessions, participants were engaged, because they were able to express opinions on a topic that they care about. There were certain pauses to the open-ended questions, but in the end, both researchers gained adequate insights on how plastics are used at Miami off-campus parties.

Stella Beermann

- ① many feelings
obviously not all changes happening to environment are bad we are a part of nature as well - it is natural but at the same time we should keep an eye on those changes to ensure we aren't hurting other parts of nature around us
- ② sign about global warming (polar bears, ice caps)
first area that comes to mind
- ③ definitely out of control
I think it's hard though bc you can't just expect them to hand out reusable items to put beverages in (at parties)
it's practical
- ④ I guess it wouldn't be all that difficult
you could only (at parties) serve beverages in aluminum cans
worse sure they are recycled
go through at the end to pick out recyclables

Megan Scholich

- ① humanity overall - having negative impact, large scale big \$ so don't take into account impact of their production on the environment
people's consumption of goods in general is not sustainable not environmentally friendly
- ② climate change is really you morous
- ③ not the best
I feel like there could be alternatives (not feasible or cost effective for college student parties)
- ④ purchase off beverages that don't include plastic cups
if the cost becomes too much then change a cover fee

Lela's interview notes

Charlie: Wed. Oct 9 ^{in the room quiet} ~~private~~ Video games break

- 1st question
 - found it hard to answer
 - really had a hard time answering it
 - got better, more fluent
- 2nd question
 - excited, interested in a slogan, reacted strongly on issue
 - pessimistic about Miami's situation
- 3rd question
 - changed tone immediately → aggressive
 - dislike how ppl use plastic cups
 - imagine 1000 years later, funny thoughts
 - proud of how he reuses his plastic bottles
 - informative & neutral tone, encouraging
- 4th question
 - his laugh, thinks it's...

Seb: Wednesday afternoon. private space.

- 1st question
 - seems to enjoy discussing the topic
 - pessimistic tone
- 2nd question
 - still pessimistic
 - doesn't think state at Miami would work
 - ~~states~~ activism is important when go globally
- 3rd q.
 - focus on analyzing drunk people
 - plastic should be illegal → go deeper into history & political stuff
 - cautious about plastic going to other countries all the time → analyze economics and politics

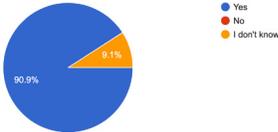
Chi's interview notes

Results & Conclusion

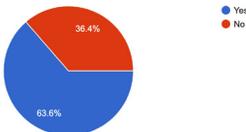
Based on early observational research, the excessive amount of plastic was shown to be not properly disposed of. There was a pattern of party waste scattered in yards and unorganized trash being mixed with recyclables. The most common plastic waste spotted was the famous red Solo cup appearing among the yard trash and covering tables.

During the creation of the survey draft, an original hypothesis shaped the questions with the assumption that students would be motivated to educate themselves on ways of reducing the plastic at parties when given the resources. This was revised to be expanded into the overarching goal of influencing Miami University students who attend off-campus parties to produce less plastic party waste whether they had this initial motivation or not. This led to developing a more relevant approach to gaining information on how students feel about the overuse and mistreatment of plastic at parties. According to final survey results, the majority of Miami population is aware of the excessive amounts of plastic waste produced at college parties, but no one wants to take the first step towards reducing it. Most people like drinking directly from the can or bottle, and no one wants to bring their own cup. Below are the graphs from our survey answers.

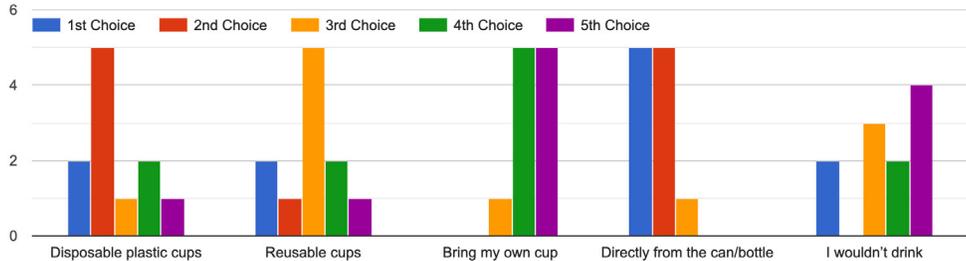
Do you feel like off campus Miami parties produce an excessive amount of plastic waste?
11 responses



Do you consciously reduce your personal plastic use on a daily basis?
11 responses



Rank these cups in order of how likely you would use them at a party.



However, the interview participants suggested that party hosts are starting to take action to restrict the amount of waste at parties. For example, some party hosts do not provide cups and charge cover fees for directly drinking from the host's cans and bottles. The downside to this is that the cans and bottles are not guaranteed to be recycled in the end. The reaction to the last interview question ("How would you organized a plastic free party?") suggested that an approach to hosting plastic free parties are doable; there just needs to be an indicator.

QUOTES FROM INTERVIEWS

"Plastic should be illegal."

"Oh my goodness, listen. If you go to a party, and you do not reuse your one red cup through the entire party, I don't wanna be friend with you. But nobody does it."

"I guess it wouldn't be all that difficult. You could only, let's say, serve beverages in aluminum cans and just make sure they are recycled at the end."

"Just purchase alternative beverages that don't include plastic cups. If the cost becomes too much then charge a cover fee."

It was concluded that students do not bring their own cups because they don't have to. If all the hosts do not provide cups, cans, or bottles, it would result in the party attendees needing to bring their own cups. Because of this, the designed outcome should be directed towards the party hosts - they are key to influencing the use of plastic at off-campus parties.

Although the overall process was conducted thoroughly, readers should note that the team only had one weekend to do the field research. It was 4 weeks into the new school year and not long before midterm week, so the people and contexts may differ during other times. Being unfamiliar with Miami party scene, the researchers would like to interact more with party attendees in the future. People are welcome to use this report as a resource for further research but should be mindful that it bounded the Miami University population and took place on Miami's campus.

Design Recommendation

Our proposal is to design a “Green Party Weekend” at Miami. The designed event would include the agreement of all the off-campus party hosts to not provide any plastic products and to welcome everyone that brings their own cup. This would influence party attendees to generate less plastic party waste.



MIAMI GREEN PARTY WEEKEND

October 25-27

**We are not going to produce any plastic this weekend.
Bring your cup for entries to parties hosted by Miami students.**

REFERENCES

Crandall, D. (6700, January 1). Why You Should Think Twice About Solo Cups. Retrieved from <https://archive.attn.com/stories/3499/why-red-solo-cups-cant-be-recycled>.

EcoReps. (n.d.). Retrieved from <https://miamioh.campuslabs.com/engage/organization/ecoreps>.

Fact Sheet: How Much Disposable Plastic We Use. (2019, January 8). Retrieved from <https://www.earthday.org/2018/04/18/fact-sheet-how-much-disposable-plastic-we-use>.

GreenHawks Media. (2019, October 14). GreenHawks Media. Retrieved from <https://greenhawksmedia.net>.

Miami University Green Team. (n.d.). Retrieved from <https://miamioh.campuslabs.com/engage/organization/sustainability>.

Zero Waste Oxford. (n.d.). Retrieved from <https://miamioh.campuslabs.com/engage/organization/zerowasteoxford>.

APPENDIXES

APPENDIX A: PARTICIPANT INFORMATION SHEET

Greetings! We are Lela Troyer and Chi Nguyen and we are students at Miami University in the Communication Design program. My faculty advisor for this research project is Dennis Cheatham. Thank you for choosing to participate in the plastic party waste study. Below is some important information about this project.

Who is doing the study?

This study is being done by researchers from Miami University, who are interested in learning more about the use of single-use plastic at Miami college parties.

What is the purpose of the study?

The purpose of the study is to more clearly understand how we can influence Miami University students who attend off-campus parties to produce less plastic party waste.

Why am I being asked to participate?

You are being asked to participate because you provide information on the attitude of Miami party attendees.

What kinds of questions will be asked?

Questions will be about your perspective and insights on the use of single-use plastic at Miami parties. There are no wrong answers. We want to learn about your unique experiences and viewpoint.

Do I have to participate?

Participation in the study is voluntary. In particular, we anticipate your participation will have no effect at all on your daily activities. If you decline to participate in the study, it will not affect your employment or academic standing in any way.

How long will it take?

An interviewer would like to meet with you in-person for an interview that will take approximately 20 minutes. We can conduct the interview wherever is most comfortable for you to meet. You may decline to answer any questions for any reason.

How will my answers be used?

The study results will be written into a report which will be shared with other researchers, professionals who support people in making eco-friendly products (such as biodegradable plastic) and in academic magazines. The results will also be shared with those who participated in the study. We believe the results of this study will provide important information that will help people be more conscious about using plastic.

Are my answers confidential?

Yes. Your answers will never be used in any way that would identify you. They will be combined with answers from other people who participate in the study to make a report.

How will my information be protected?

The transmission of online survey data is protected by Secure Sockets Layer (SSL) encryption. The survey software will communicate with your computer and record data that could identify the computer through the IP address; however, the IP address will not be reported to the researcher. All responses for this study will be stored on one Miami University-owned laptop whose contents are encrypted and access protected by a password known only by the researchers.

Thanks again for agreeing to share your experiences with us.

Lela Troyer and Chi Nguyen
Undergraduate Researchers
Miami University

APPENDIX B: CONSENT FORM

This study examines how single-use plastic is used at Miami college parties. You are not required to participate in this study; it is entirely voluntary. You must be at least 18 years old to participate. If you decline to participate in the research or any specific part of the research, you may do so without needing to provide any explanation and it will not affect your employment or academic standing in any way.

If you choose to participate, here are some important things to know about your involvement in the study:

The research session involves thinking and talking about personal environmental responsibility. The session will last approximately 20 minutes. The session will be audio-recorded and transcribed. Your confidentiality is protected. The researchers will not use your name or any identifying information about you in their reports about the research.

You may also experience some benefits from your participation.

Miami University shares benefits. You may also have an opportunity to participate in future research on this topic if you so choose.

You have rights as a participant in this research. If you have questions about the research, please contact the lead researcher, Lela Troyer, by phone (260) 804-7131; or email troyerl@miamioh.edu.

For questions or concerns about your rights as a research subject please contact the Research Compliance Office at Miami University: (513) 529-3600 or humansubjects@miamioh.edu.

I _____ understand my rights and protections as a participant, and I agree to participate in this research for purposes outlined above.

_____ (initial) I give my permission to be audio-recorded during the research session and for my session worksheets to be photographed by the researchers.

Date _____

APPENDIX C: SURVEY QUESTIONS

1. Do you consciously reduce your personal plastic use on a daily basis?

- Yes
- No

2. Do you feel like off campus Miami parties produce an excessive amount of plastic waste?

- Yes
- No
- I don't know

3. Rank these cups in order of how likely you would use them at a party. (1st/2nd/3rd/4th/5th choice)

- Disposable plastic cups
- Reusable cups
- Bring my own cup
- Directly from the can/bottle
- I wouldn't drink

APPENDIX D: INTERVIEW QUESTIONS

1. What are your views about humanity's influence on environmental changes?

2. If you went to the Miami Climate Change strike, what slogan would you put on your sign?

3. How do you feel about the amount of plastic, such as cups and bottles, being used at off campus parties?

4. How would you organize a plastic free party?