

INTRODUCTION

Every day, Americans use enough plastic straws to wrap around the earth 2.5 times (Siniauer, 2017). Plastic enters the environment through careless actions of humans, leachate from landfills, and the fishing industry and causes harm to aquatic and terrestrial ecosystems as well as human health and is nearly impossible to decompose in the environment (Wolchover, 2011). Bans on plastic straws have been put in place in cities across the US, but Palo Alto still has yet to act.

The questions I will be researching include: If this plastic waste is so harmful to ecosystems, why do humans continue to pursue it? In what ways does plastic enter ecosystems and cause harm to organisms? How can policies that reduce the use of plastic straws effectively be put in place in a manner that is both impactful and economically viable?



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RESEARCH METHODOLOGIES

is an immense problem in the US (Kaplan, 2016).

- Inquiry Approach: I used action research with the goal of starting a conversation about plastic straws within city council and in the community at large.
- Data Collection: I held a focus group with community leaders about the relevance of ** plastic straws in the community and how policy makers and community members should take action.
- Data Analysis/type: I transcribed and coded my qualitative responses from the focus group. Refer to Figure 2.



Plastic Straws in the Environment: How They Affect Us, Action to Date, and Next Steps

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DATA AND FINDINGS

hy Do We Use Straws?	What Has Been Done?
traws are extremely important to the derly."	"since the plastic bag bar of CA now, that there's 1 bag pollution anymore in
Whenever I have the flu or something it's nd of one of my go to things."	"Coronado is not the mo
eople don't see straws as a really big ing when compared to the big plastic ps."	they were the first city in pass it [a straw ban] start 2018."
Ay grandchildren like to eat at fast food d if you get a drink you always get a raw"	"I have noticed that at so they don't always stick they have you do it yourself-
they [people] think the permanent dishes en't clean."	option to say no." "in Carmel and Monterey to use paper straws."

Figure 2. This table includes quotes from my focus group that represent the major topics of discussion. The various questions represent the different participants in my focus group of six leaders in the community.

DISCUSSION, ANALYSIS, AND EVALUATION

1. Why Do We Use Straws?

As shown in figure 2, straws are commonly used in special circumstances, for their convenience and satisfaction, and for the reassurance that the disposable items are sanitary. Additionally, people are unwilling to sacrifice straws because they are not aware of the environmental effects.

2. What Has Been Done?

As described in figure 2, there have been plastic straw bans across the US including in Seattle, Carmel, and Coronado. Additionally, some cafes do not put the straw into your cup for you, but rather give you the option to say no. Many food services are also moving toward more sustainable options such as paper straws.



Figure 4. This image has been used in campaigns to eliminate plastic straws and represents their prevalence in the environment (Fears, 2017).

	Next Steps
n that's gone state	"Well I would like to support the concept
ittle to no plastic	that I think you can move faster than
n the bay."	slower these days because of social
	networking."
st liberal city but	
California to	"get young people aware of just how
ting in April of	incredibly wasteful single use items are."
me starbucks, he straw in- they so you have that	" learning that Carmel beat us to the punch is an important feature to get city council's attention"
	"I think a good way to do it might be to
	tap into the Palo Alto weekly"
y now, they have	
	" have some merchants in town kind of be
	leaders on this"

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CONCLUSIONS, IMPLICATIONS, AND NEXT STEPS

Conclusion

Most of the backlash to getting rid of straws comes from a fear of inconvenience. However, one takeaway from the focus group is that if people are educated on the issue, they will be willing to sacrifice their convenience. This has been shown time and time again through action to reduce plastic consumption in cities across the US. For example, Palo Alto's plastic bag ban, which initially received some backlash, is now praised for its efforts and is widely accepted across the city. Therefore, in order to make change, we must promote awareness.

Implications

This study may be publicized to educate people on the effect of plastic straws in the environment. Additionally, strategies for making change mentioned in this project may be used to promote action on this issue and more.

Next Steps

After conducting research, I led an Earth Day event at Paly where students pledged not to use straws in May, I distributed stickers to spread awareness, I spoke at a city council meeting, and I wrote a letter to the editor for the Palo Alto. Community members should write letters to city council and continue to speak up at meetings and opt out of using plastic straws in the future.