

# Empowering youth to address plastic pollution in their communities: motivating and measuring local actions

Olivia Polemeni, Lydia Sellers, Madison Griffin, Alicia Medina, Jilly Senk, Emma Shuppert, Amber Skinner, Deven Stewart, Katie Tan, Finnie Zhao

## THE PROBLEM

### A PLASTIC POLLUTION CRISIS

An estimated million metric tons of plastic waste enter the ocean each year and can even be found along the coast, in sea ice, and on the deep sea floor (Lau et al, 2020).

On average, an individual consumes about one credit card of microplastics every week (De Wit and Bigaud, 2019).

Without systemic change, this issue will only worsen, threatening the health and well-being of future generations.

### THE ROLE OF YOUNG PEOPLE

High school and college students have a role to play in solving the plastic pollution problem in their communities, and research backs this up. Youth can generate environmental concern in older generations and can motivate decision makers to implement local interventions to tackle this problem (Hartley et al., 2021).

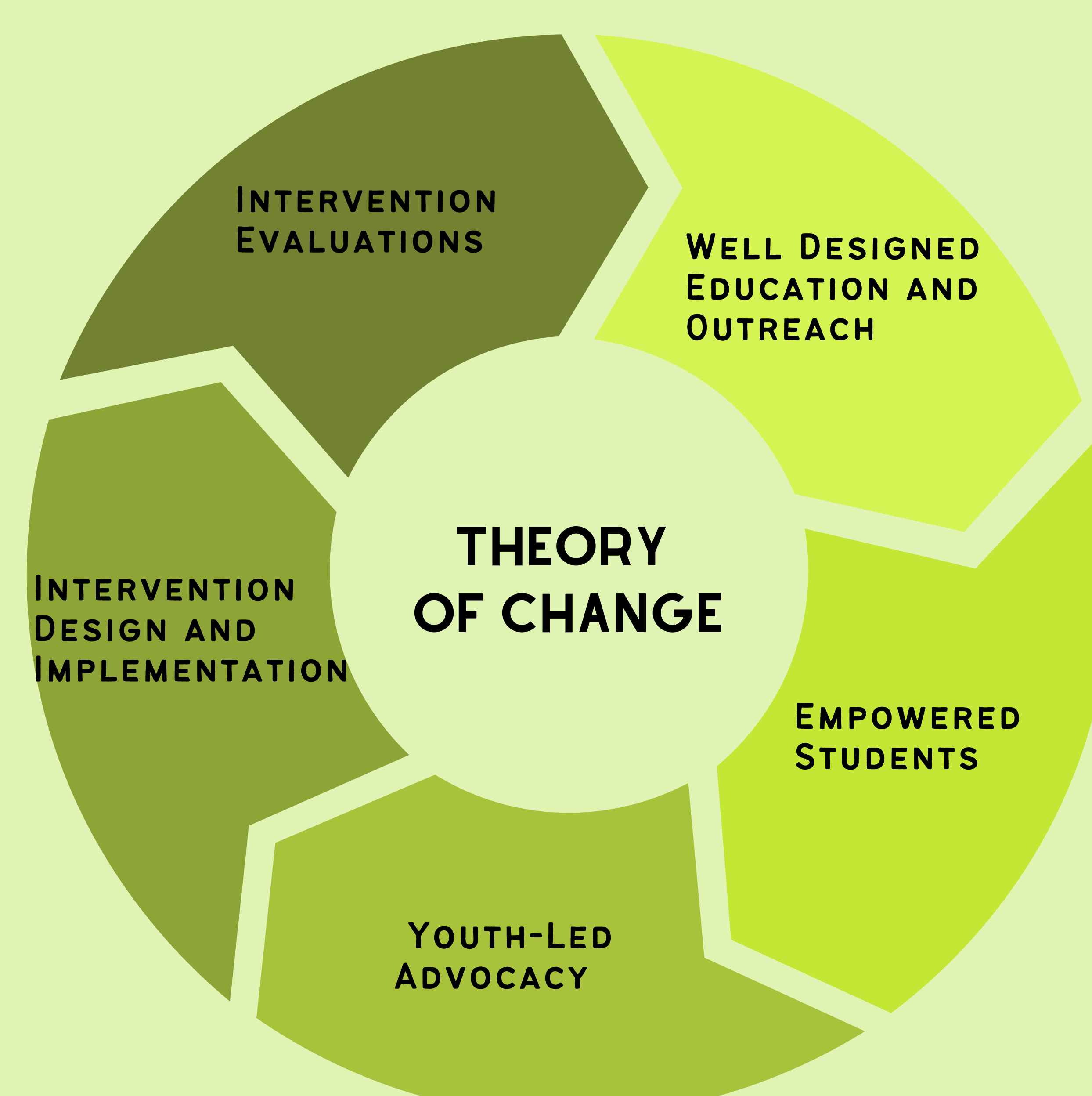
### RESEARCH QUESTIONS

How can we empower high school and college students locally and all over the world to act on the plastic pollution crisis in their communities?

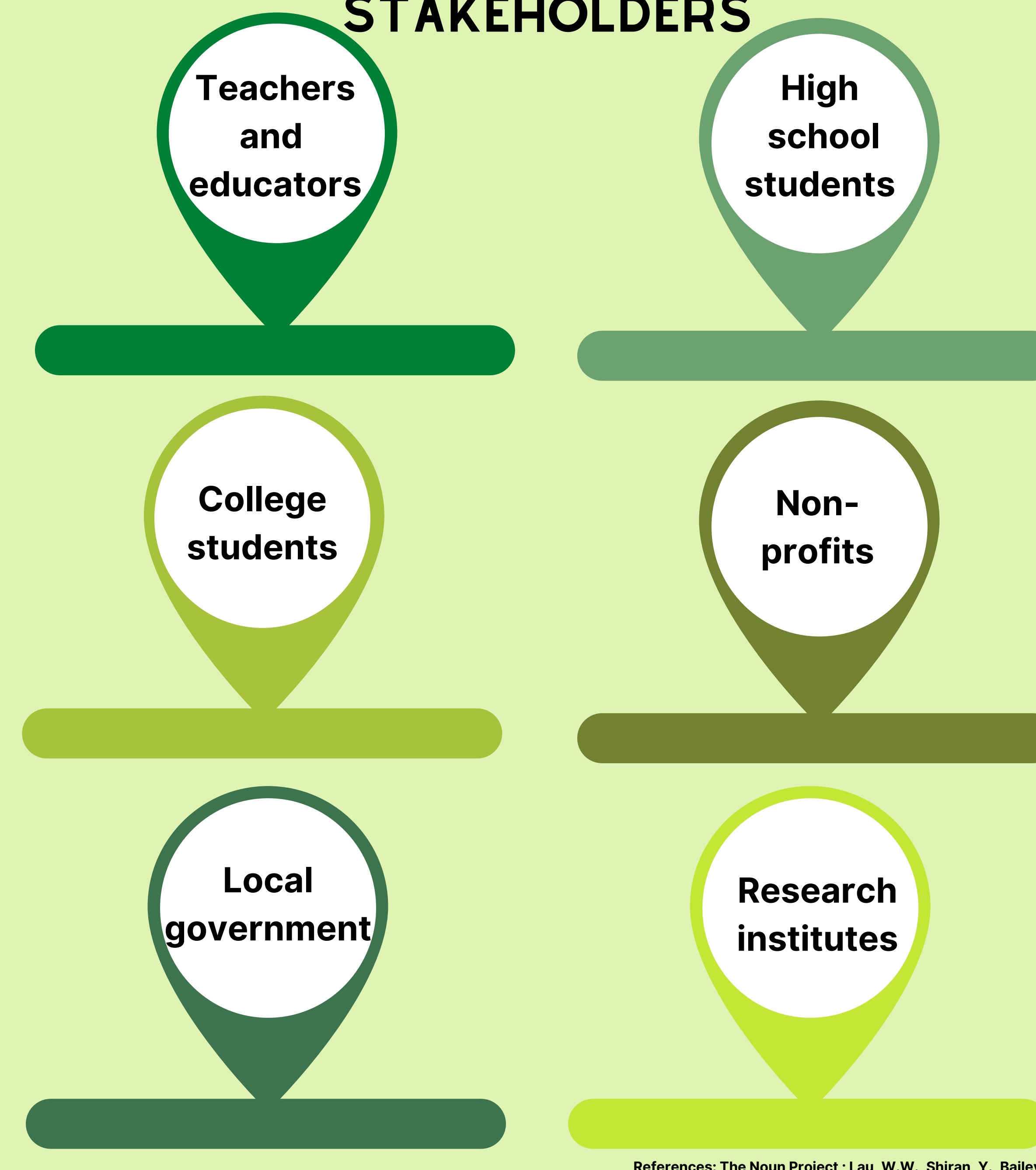
What are the types of interventions communities can implement?

Which interventions work? Why?

## THE PROCESS



### TARGET STAKEHOLDERS



**HackBio** is a program that has developed and piloted curriculum to teach **local** high school students about plastic pollution in North Carolina.

**PPCAP** created a plastic pollution curriculum toolkit to be used **nationally** by high school teachers in their classrooms.

A **rapid assessment tool** was developed based on an extensive literature review to examine the effect of local plastic pollution interventions in social, economic, and ecological systems.

**Unconventional storytelling** uses social media as a platform to increase public knowledge of plastic pollution on **Duke's campus**.

## THE OUTCOMES

