



# Environmental Justice Education for Youth Pro-Environmental Behavior



Madeline Ahola

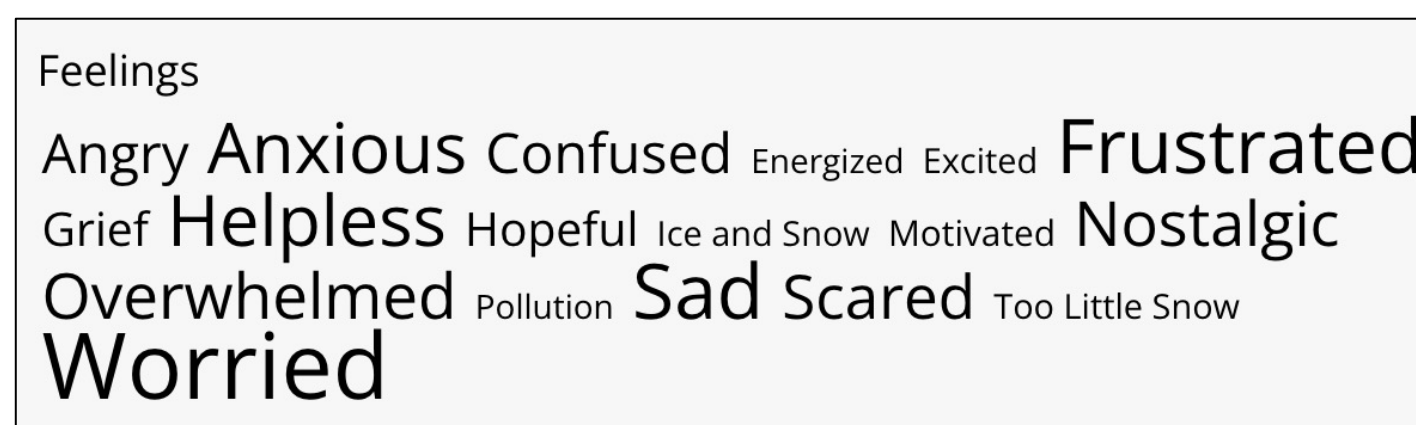
University of Pennsylvania, Class of 2024, Environmental Studies

Advisor: Dr. Jane Dmochowski

## ABSTRACT

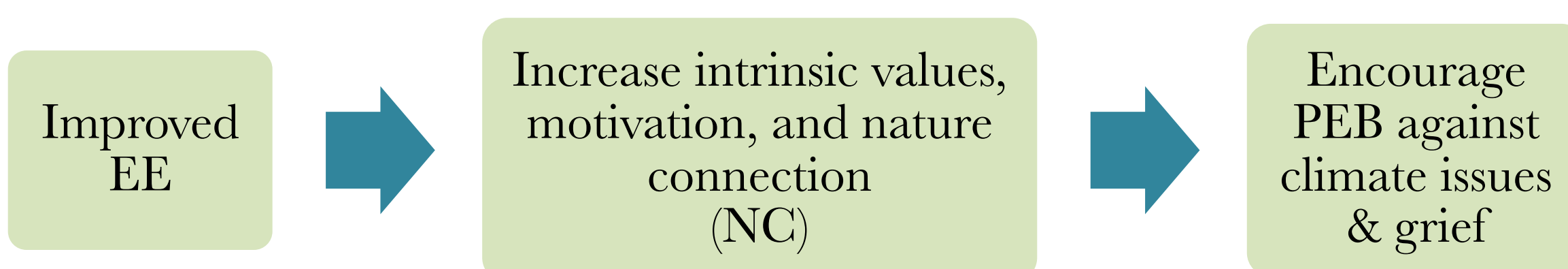
Environmental justice (EJ) education is severely lacking in Philadelphia high schools, meanwhile students express overwhelmingly negative feelings of worry and helplessness about climate change.<sup>4,5</sup> Engaging in pro-environmental behaviors (PEB), from recycling to taking climate classes to joining activist groups, is one way to address negative effects of climate change and can be encouraged through environmental education (EE).<sup>3</sup> As a pilot study to address these topics, this research asked: **What has influenced undergraduate students' current knowledge of EJ and how do they believe their education can instill sustained motivation for engaging in PEB?** Fifty undergraduate students were surveyed on their nature connection, PEB, knowledge of EJ, and interest to learn more, and 5 students were interviewed. The significant positive relationships (p-value <0.05) between the measured values and the emphasis on community-based learning suggest that improved EE can encourage intrinsic values and PEB, allowing students, as our future generations, to address the worsening environmental crisis.

## BACKGROUND

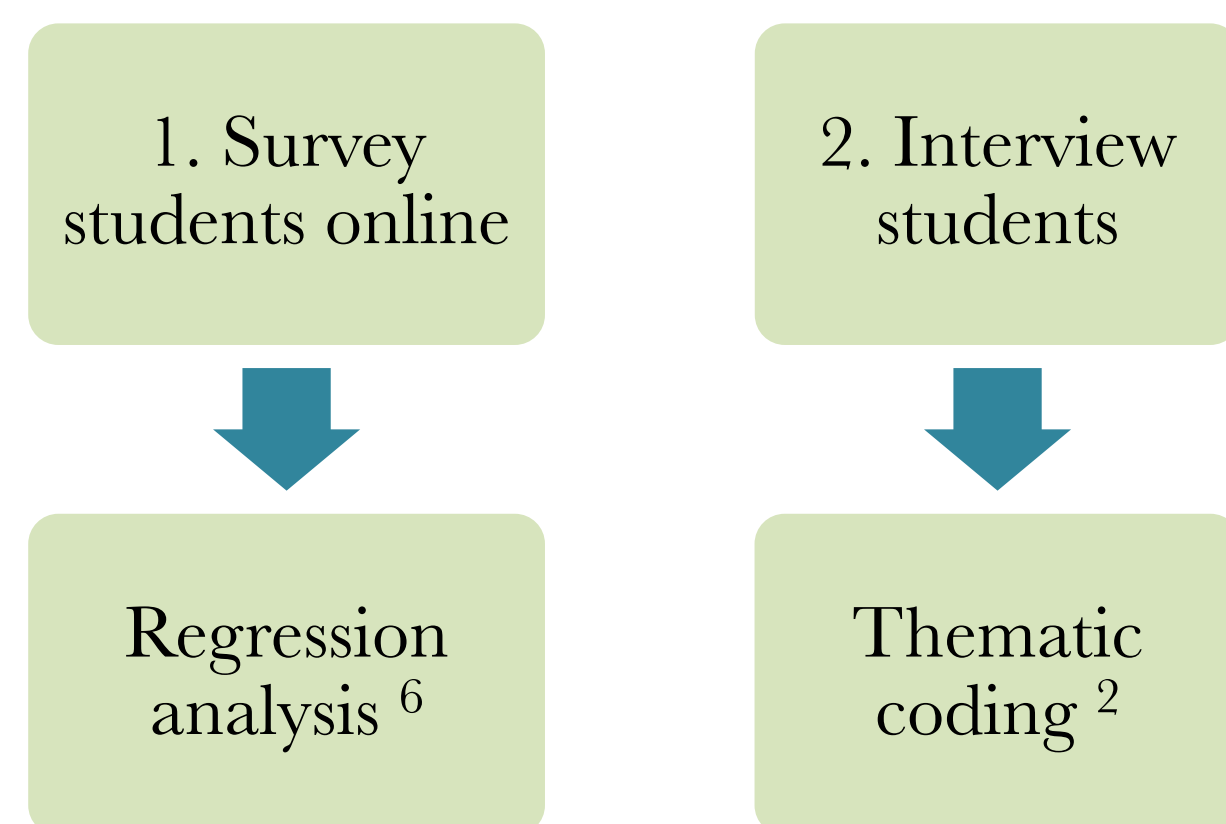


**Fig 1.** Word cloud responses to “How are you sensing climate change?” and “How do these changes make you feel?”<sup>4</sup>

Philadelphia EJ education, which hasn't been updated in 20 years, is lacking in (1) time spent, (2) anthropogenic emphasis, & (3) interdisciplinary EE.<sup>5</sup>



## METHODOLOGY

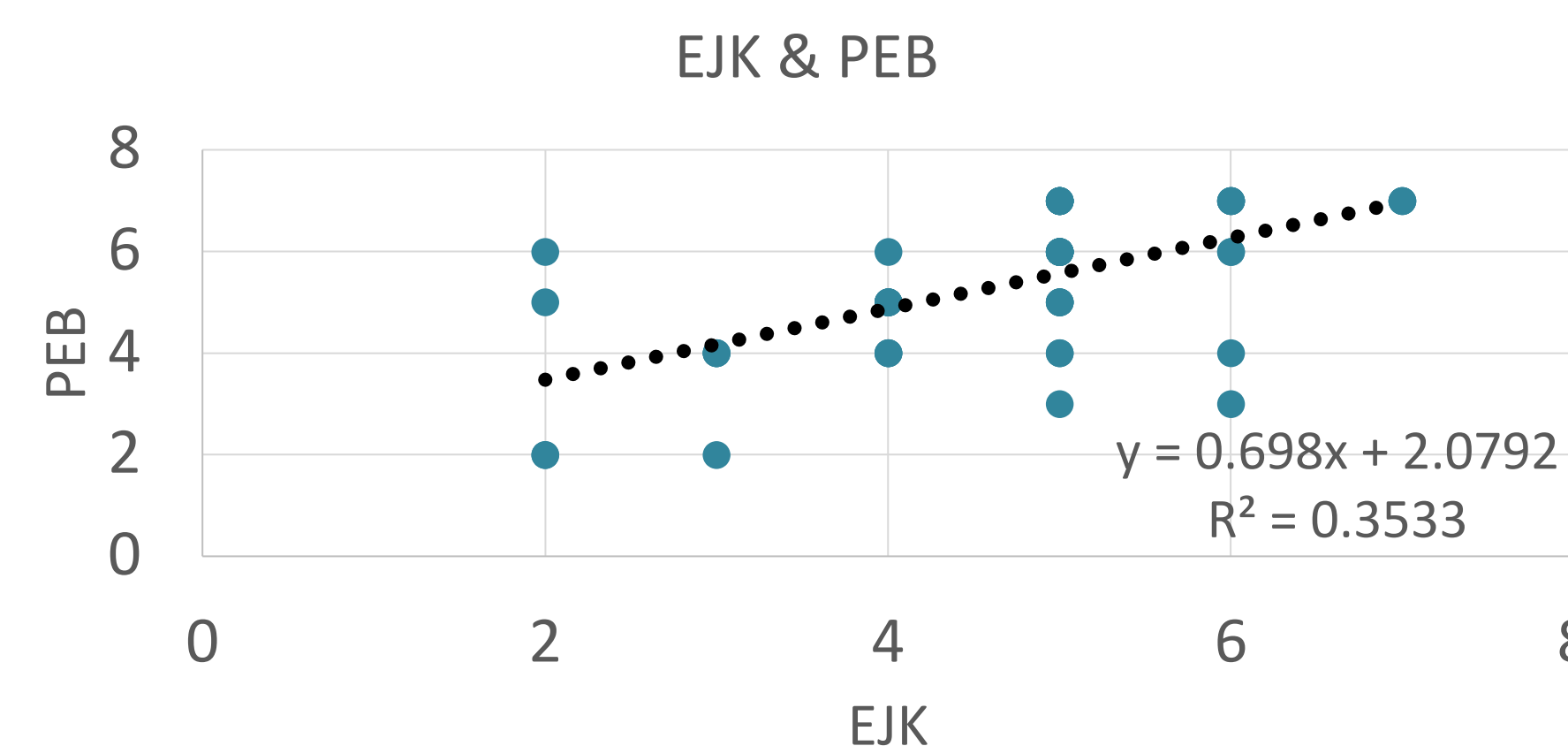


**Key:**  
EJ = environmental justice  
PEB = pro-environmental behavior  
EE = environmental education  
NC = nature connection  
EJK = environmental justice knowledge  
Interest = interest to learn more about EJ

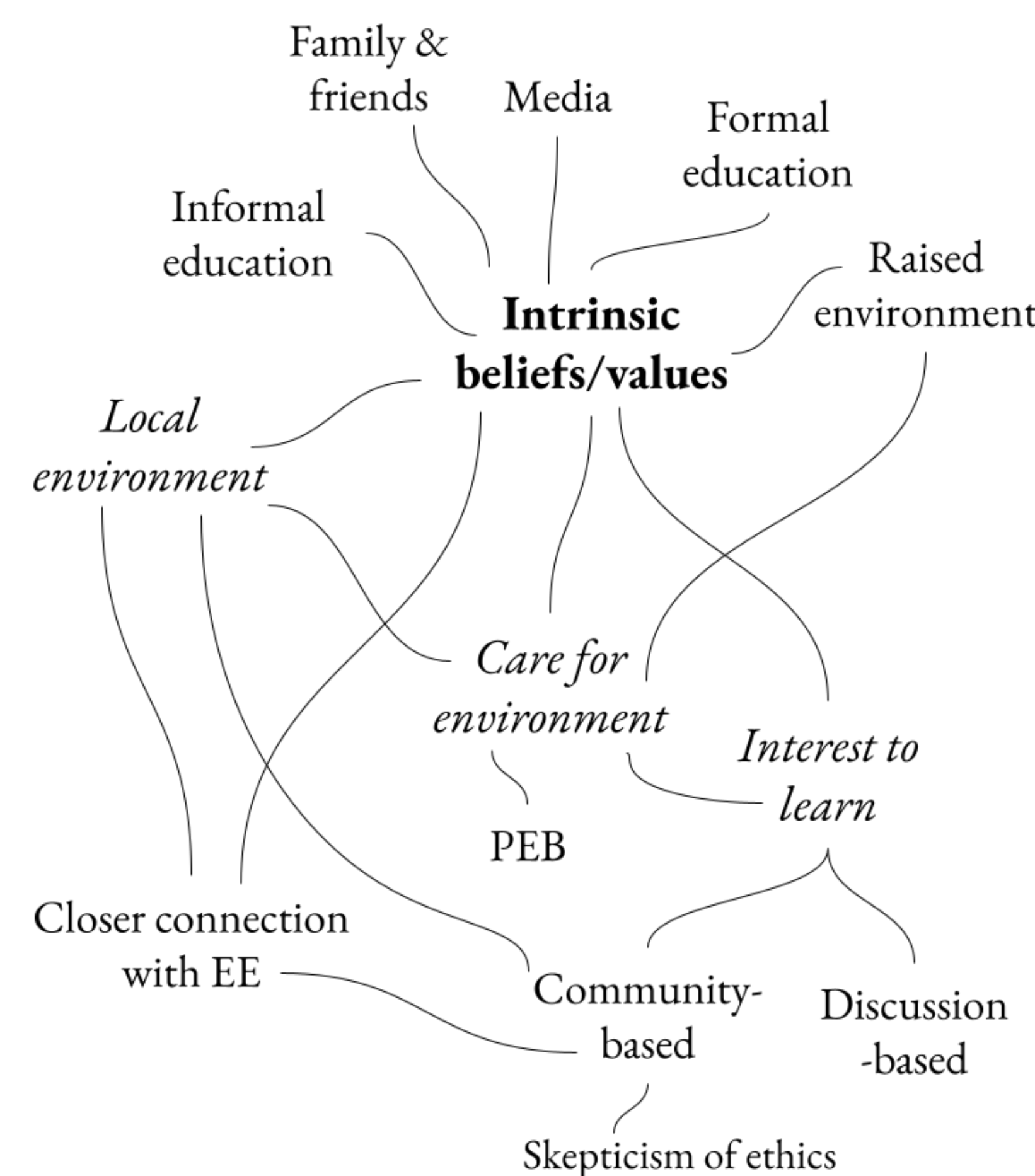
## RESULTS

X	Y	P-value	Significant
NC	Interest	6.62E-02	No
EJK	Interest	2.34E-08	Yes
EJK	PEB	9.23E-06	Yes
EJK	NC	1.86E-03	Yes
PEB	Interest	1.20E-03	Yes
NC	PEB	1.12E-03	Yes

**Table 1.** P-value of correlation between each survey measured value



**Fig 2.** Relationship between EJK & PEB. On average, as EJK increases, PEB increases (p-value < 0.05)



**Fig 3.** Connections between recurring themes from interviews

## DISCUSSION

• Difficulties accessing high schoolers highlight roadblocks to researching younger generations. Research working with youth would require a longer timeline.

### Survey:

- Significant positive correlations between PEB, EJK, NC, and Interest aligns with past literature, which suggests (1) students with higher NC are more likely to engage in PEB and (2) more EE can increase NC.
- Significant positive correlations between Interest and both EJK and PEB suggest that improved EJ education can increase interest in EJ, which can increase PEB.
- Low R<sup>2</sup> values (<0.5); could be due to low sample size and simplification of complicated measurements in the survey.

### Interviews:

- Various factors influence intrinsic values, which influence PEB & Interest.
- Informal education is the biggest source for EJ education.
- Emphasis on working with local environment/communities in education, which can reinforce intrinsic values through closer connections.

## CONCLUSIONS

1. Results suggesting positive relationships between EJK, Interest, PEB, & NC align with past literature that improved EE can encourage interest and PEB.
2. Most interviewees were taught EJ through informal settings, highlighting the need for more EE in formal education.
3. Interviews highlight strong desires to work with local communities & focus on local environmental issues.

## FUTURE WORK

- Determine correlation of measured values on a larger scale & for younger generations (especially Philadelphia high school students).
- Interview more students with more diverse perspectives/backgrounds.
- Re-frame PEB to emphasize a more collective action- & systemic-based study

## REFERENCES

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