

Mother Nature's Hit Single: A mixed-methods evaluation of traditional versus musical climate change communication

P. Zion Klos¹, Brennan Duarte¹, and Olivia Fabrizi¹

¹Marist College

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Abstract

Climate change is an important issue that affects all aspects of human life and the environment. Through this project, we wrote an original pop song about the local impacts and solutions to climate change in the Northeast. We used a mixed-methods evaluation to test the effectiveness of musical science communication in relation to traditional methods, to change the mindsets of college students and encourage them to take political action. Marist students responded to surveys asking about their sustainability and lifestyle choices, as well as their opinions on climate change. After watching either the traditional presentation or listening to the song, participants answered whether their stance toward climate change had changed, whether they had learned more, and whether they plan to take specific steps to make their lifestyles more sustainable. Through a Fisher Chi-Square analysis, we determined that the change in stances between the two treatments was not significant ($p\text{-value} = 0.33$). However, to an 84% confidence level, there were differences between the two treatments in whether students learned about climate change, and whether they were more likely to change their lifestyle. We found that the traditional science presentation was better at teaching new information ($p\text{-value} = 0.08$), while the song was better at convincing students to act in the future ($p\text{-value} = 0.16$). In summary, we found that traditional science communication is better at teaching someone about climate change, but if the goal is to convince someone to take action to do something about it, then communicating that message through music is the better option. Examples of these types of communication can be found on YouTube, <https://youtu.be/gXedvKkpLGs> for the song, and <https://youtu.be/gbf6cTDNp18> for the traditional presentation.

Mother Nature's Hit Single:

A Mixed Methods Evaluation of Traditional vs. Musical Climate Change Communication

by Olivia Fabrizi, Brennan Duarte, and Dr. Zion Klos; Department of Environmental Science and Policy

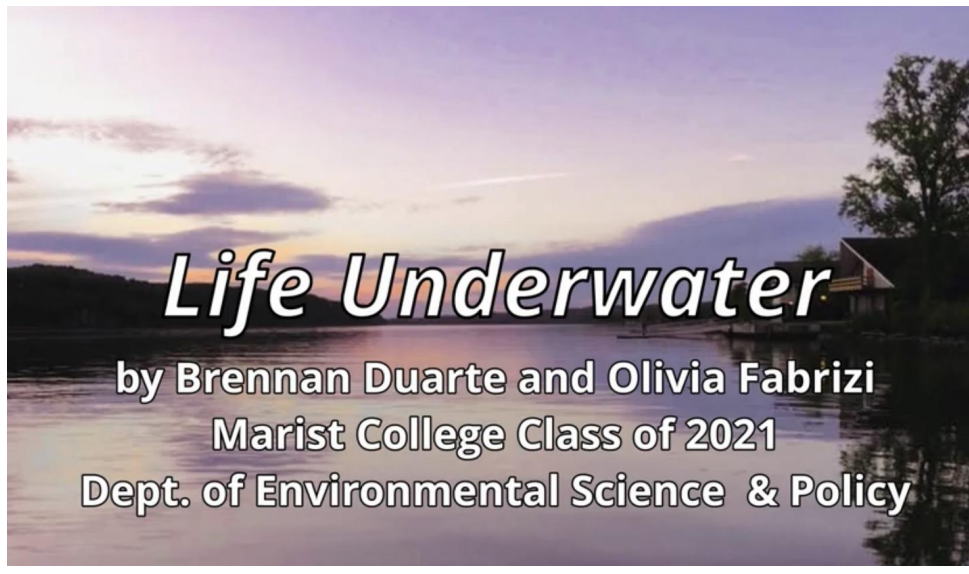
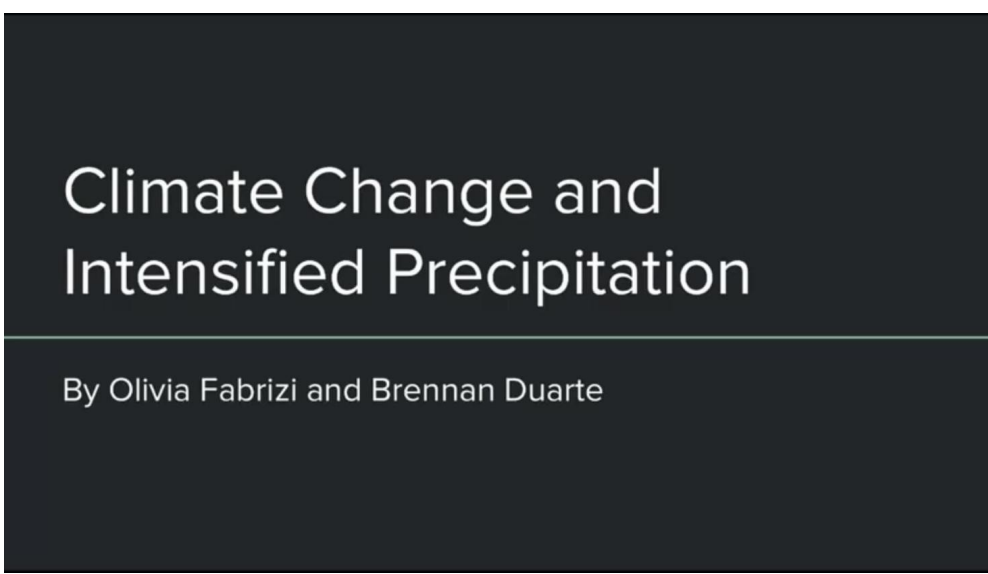


BACKGROUND

The issue of climate change is a big problem in today’s society and will continue to increase in severity into the future. Many people in society are not aware of the urgency of the issue. They do not know the effects of climate change or how humans can influence the climate in one way or the other. This is due in part to ineffective communication of this information from the scientific community to the general public. This information must be displayed in a way that everyone can understand but also inspire them to act. This study will attempt to determine a better way to achieve effective communication to the public that will spread awareness and encourage action.

METHODS

- Preliminary survey
- Randomized video treatment
- Post-treatment survey

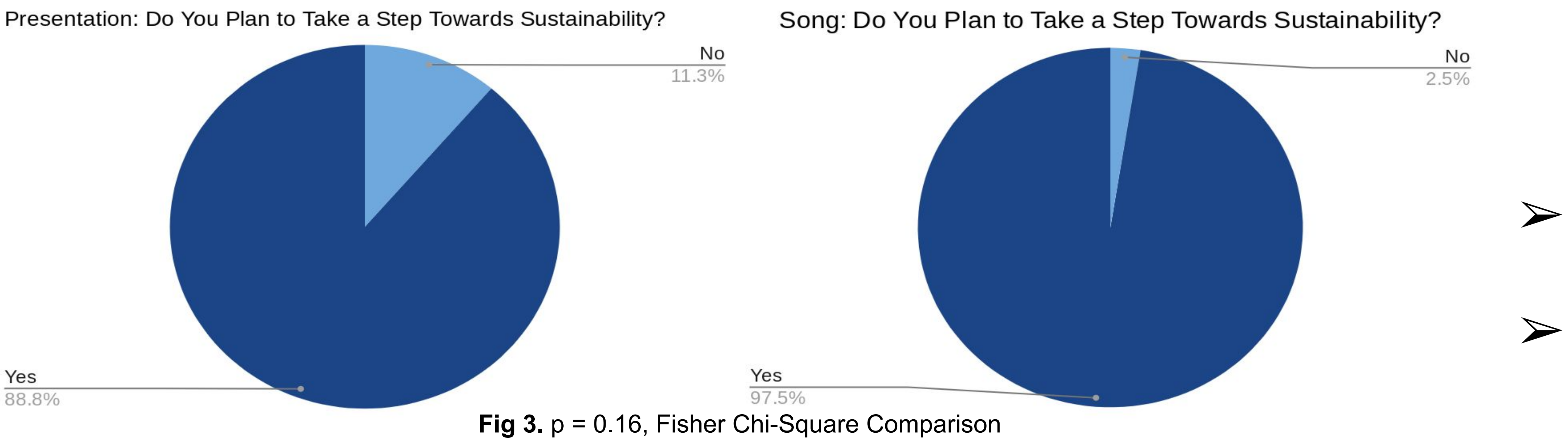
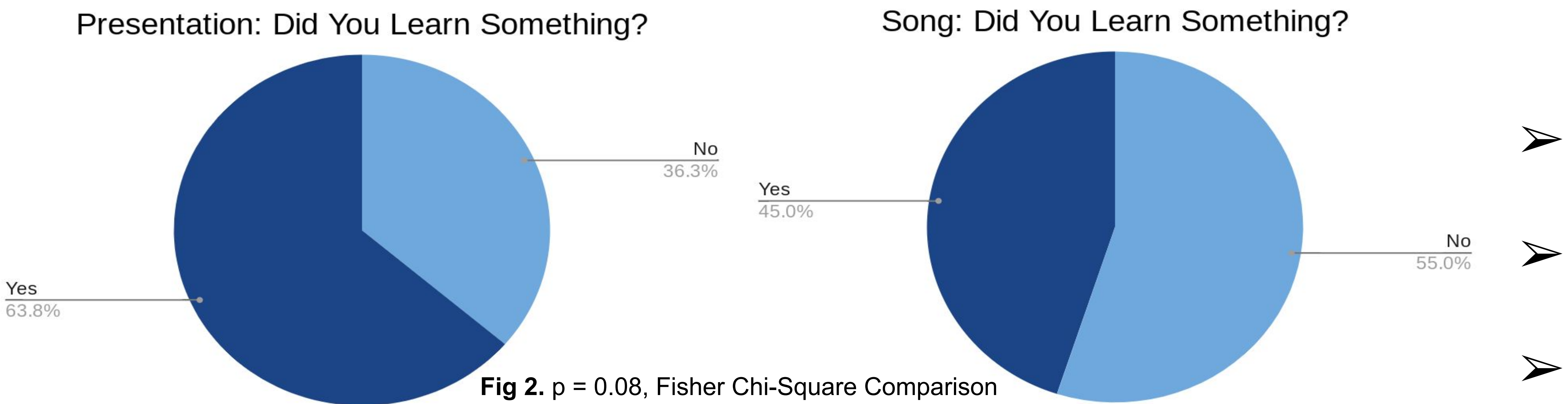
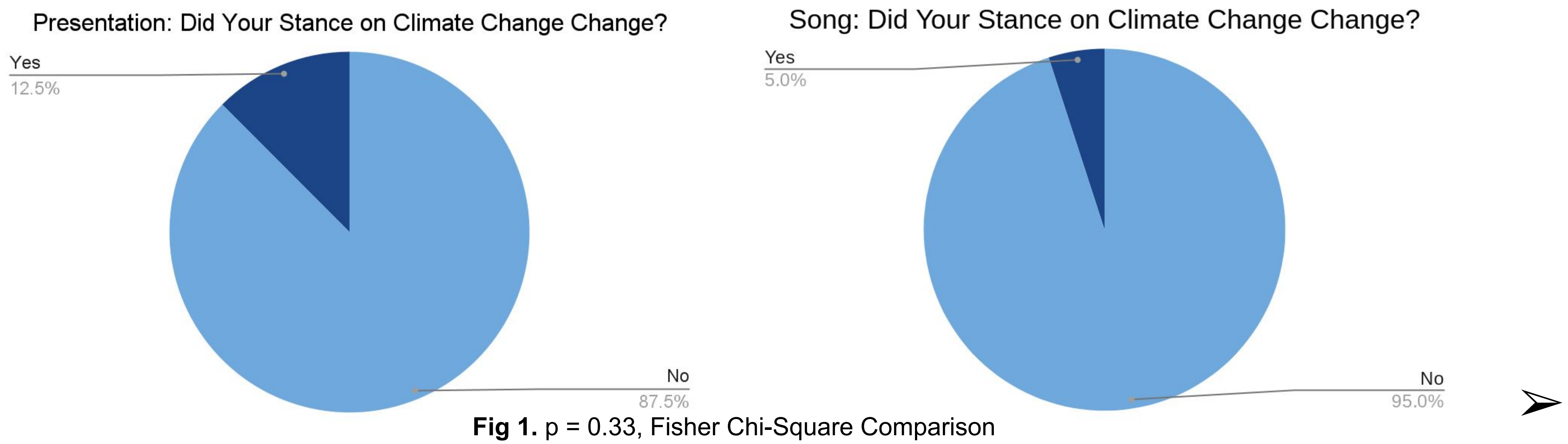
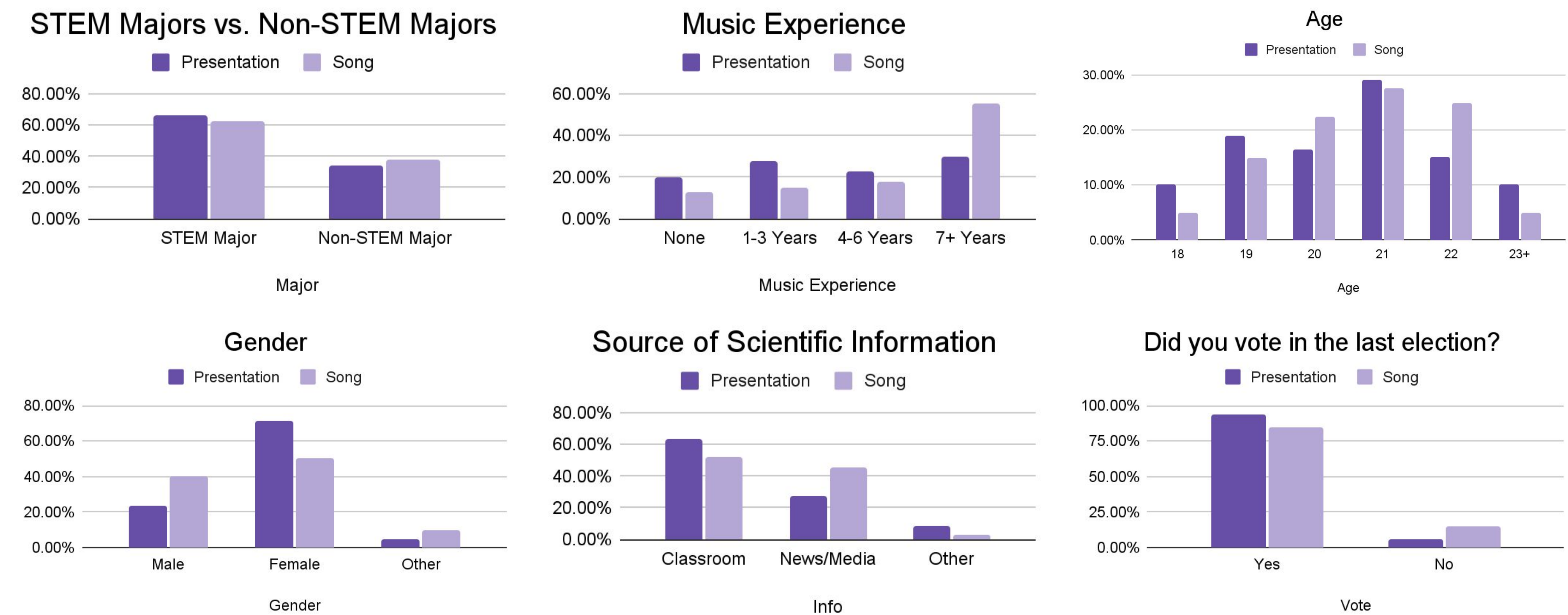


Presentation



Song

RESULTS



Sustainable Lifestyle Ratings

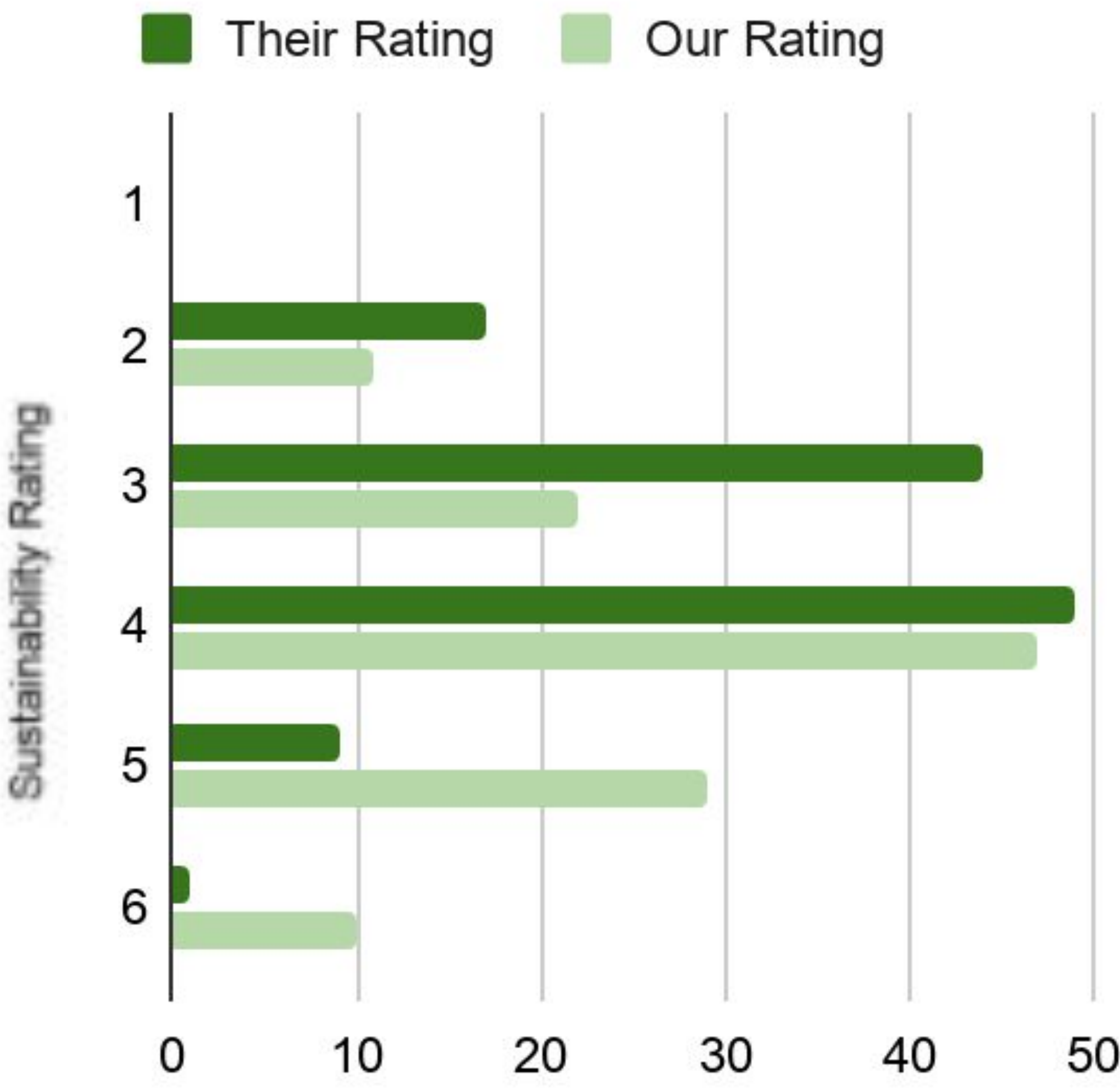


Fig 4. Ratings of sustainable lifestyles

DISCUSSION

- **No significant difference** in changing one’s stance on climate change (most already believed climate change is an important issue) (Fig 1)
- **92% confident** that presentation is more effective for teaching (Fig 2)
- **84% confident** that song is more effective for inspiring change (Fig 3)
- People generally believe their lifestyle is less sustainable than it is (Fig 4)

CONCLUSION

- **Traditional communication** is more effective in **teaching knowledge**
- **Musical communication** is more effective in **inspiring action**