



## **Community-Driven Change through Citizen Science**

### Background

CoastPride is a community organization that aims to support Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) individuals and families in San Mateo County through access to programs and events that supports and celebrates people of all sexual orientations. CoastPride partners with local businesses, nonprofits, faith-based organizations, and schools to provide health and wellness, education and visibility, and safety net services for youth in the area. By promoting an accepting local community in the San Mateo County coastside, CoastPride envisions a welcoming and safe environment where all LGBTQ individuals and their families can thrive.

In 2022, CoastPride reached out to the *Our Voice* Initiative at the Stanford University School of Medicine, having gained exposure to the *Our Voice* method through the 2021 <u>Coastside</u> <u>Recovery Initiative</u>. By giving local students the opportunity to engage in the *Our Voice* citizen science process, CoastPride enabled these young people to take charge of change in their own community and school environment and co-create more inclusive and affirming spaces for all identities. This project provided a pathway for LGBTQ+ and BIPOC youth to become involved in improving the civic and educational institutions that affect their lives.

### **Participating School Sites**

Three public high schools along the San Mateo County coastside were selected to participate in the collaborative project. In response to rising anti-LGBTQ+ hate crimes in San Mateo County, the project encouraged students to reflect on and share their affirming and undermining experiences at each school. These schools include:

- Half Moon Bay High School
- Pescadero Middle and High School
- Pilarcitos High School

#### **Student Participants**

Across the three school sites, 23 high school students participated in the initial orientation and Discovery Tool training meeting. Of these students, some of whom identified as multiracial, 65.2% of them identified as Hispanic (N=15) while 39.1% (N=9) identified as White.





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#### **Implementation Steps**

**1) Planning:** School site educator leads were recruited as *youth scientist mentors* and guides at each of the three participating school sites. The school district and site

leads then recruited students as youth scientists through flyers and word-of-mouth. The youth scientists represented a diverse group of students at each school across gender, sexuality, race and disability. This was done through focused recruitment through GSA clubs and school Social Justice groups.

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The Stanford Discovery Tool mobile app is available in **15 languages** and has been used successfully by Citizen Scientists **aged 9-90+** 

2) Orientation and Training: The first orientation meeting with *youth* 

*scientists* provided an overview of the project purpose and structure. These meetings took place in-person or via Zoom, as determined by the youth scientist mentor at each school. Students also signed a participant agreement form and completed a brief pre-project survey. Of the three participating schools, only Pescadero High School students trained directly with the *Our Voice* team, while youth scientist mentors from Pilarcitos High School and Half Moon Bay High School presented the information directly to their students.

**3) Data Collection:** Following the online orientation and Discovery Tool training, the participating youth scientists received a site-specific code and password to use the Discovery Tool app. Using their own devices, or borrowed project devices, they were asked to conduct walking assessments facilitated by their respective youth scientist mentors, using the app to "document things that are affirming (positive) and non-affirming (negative) spaces and interactions in your community and school." Data collection took place at different times throughout the project periods at each site.





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Between March 1, 2023 and May 2, 2023, participants across the three project sites completed a total of **32 Discovery Tool Walks**, generating **137 photos** and **128 narratives** (127 text, 1 audio)

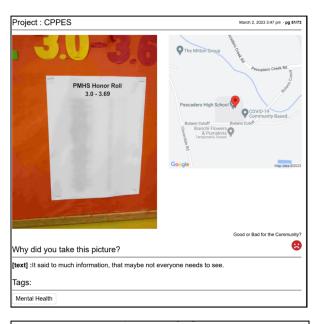
	# of Data Walks	# of Photos Taken	# of Narratives	+
Half Moon Bay High School 4/13-4/19	12	36	36 texts	
Pescadero Middle & High School 3/1-3/2	10	75	69 texts, 1 audio	
Pilarcitos High School 4/27-5/2	10	26	22 texts	<b>Sample Hot Spot Map:</b> Pescadero Middle and High School

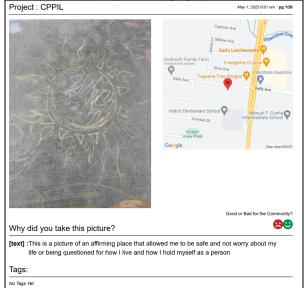
**4) Data Tagging:** During the data collection process, the youth scientists were instructed to tag their photos with one or more themes related to identity or health. Many photos were tagged with multiple themes, and photos not fitting with the listed themes could be marked as "Something Else" (see below).

	Gender	Languag e	Mental Health	Physical Activity	Race/ Ethnicity	Religion	Sexual Orientation	Something Else
Pescadero	8	6	21	11	6	5	4	38
Half Moon Bay	3	1	13	2	7	0	1	7
Pilarcitos	4	1	10	1	0	2	2	2
Total	15	8	44	14	13	7	7	47

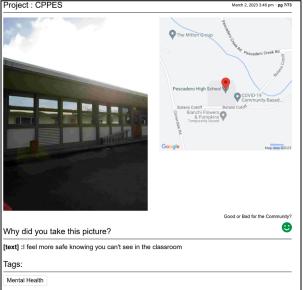


## Sample Data - collected by CoastPride Youth Scientists











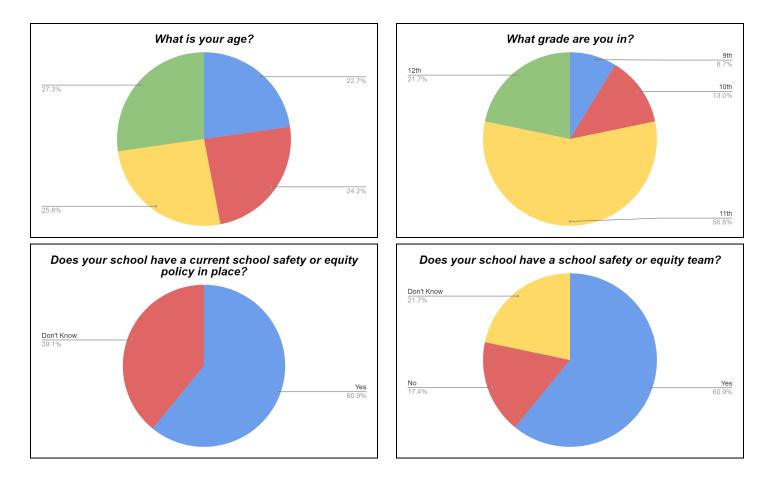


- **5) Data Reports:** After data collection, the *Our Voice* team created data reports for each school, along with "Hot Spot" maps that provided an mapped overview of the data collected. These reports were shared with youth scientist mentors via email prior to the Community Meeting, used for reference in the meetings themselves.
- 6) Data Discussion, Analysis, and Planning: During hybrid meetings co-facilitated by youth scientist mentors (and with support from the *Our Voice* staff as needed), youth scientists met to review their own group-level data. They then analyzed the data by identifying common themes and categorizing similar and different affirming and non-affirming experiences. Subsequently, the youth scientists met in person, and placed the aforementioned data into the following groups: assets, challenges and needs for change. The themes were then interrogated to aggregate into actions, steps and petitions for change. Finally, the youth scientists identified key decision-makers and other stakeholders at the school as important individuals who could assist in catalyzing the changes identified.
- **7) Conclusion:** A final meeting was hosted virtually to share and compare assets, challenges, and petitions for change across the three school sites. Together, the youth scientists decided to share their findings and recommendations with the administration and school boards at each site.

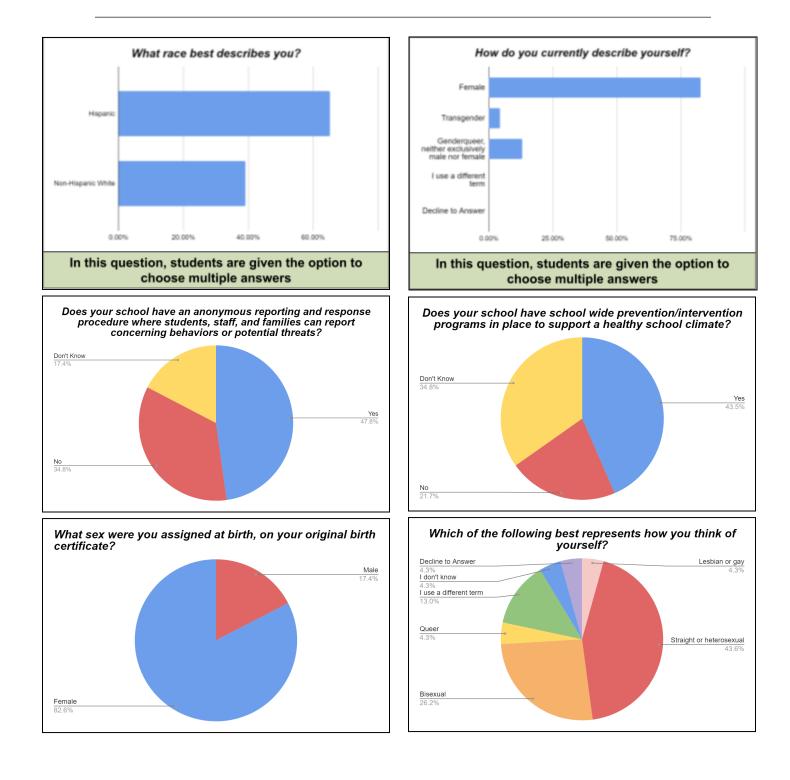


## **Project Evaluation**

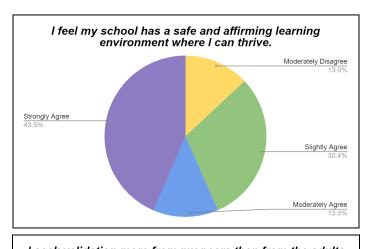
**Pre-Project Survey:** During the project planning stage, students who were interested in engaging in any aspect of the project (N=23) were asked to fill out a participant agreement form and complete a pre-project survey. The survey captured participant demographics as well as various aspects of student experience in relation to the project's central themes.

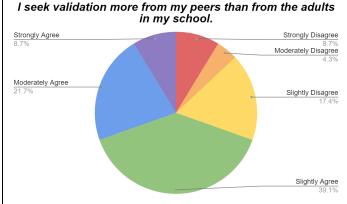


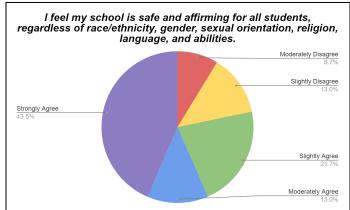




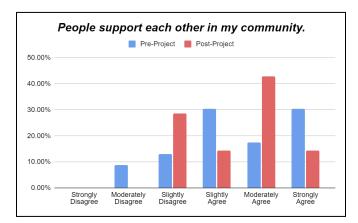


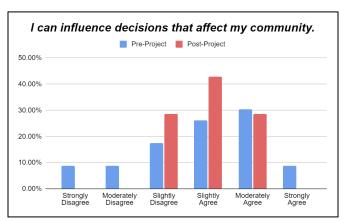






**Post-Project Survey:** A brief post-project survey revisited certain measures from the pre-project survey and assessed satisfaction with the project. While only 30% (N=7) of the original pool of students completed the post-project survey, the data offer a glimpse of the potential for projects like these to support students in co-creating more affirming spaces.

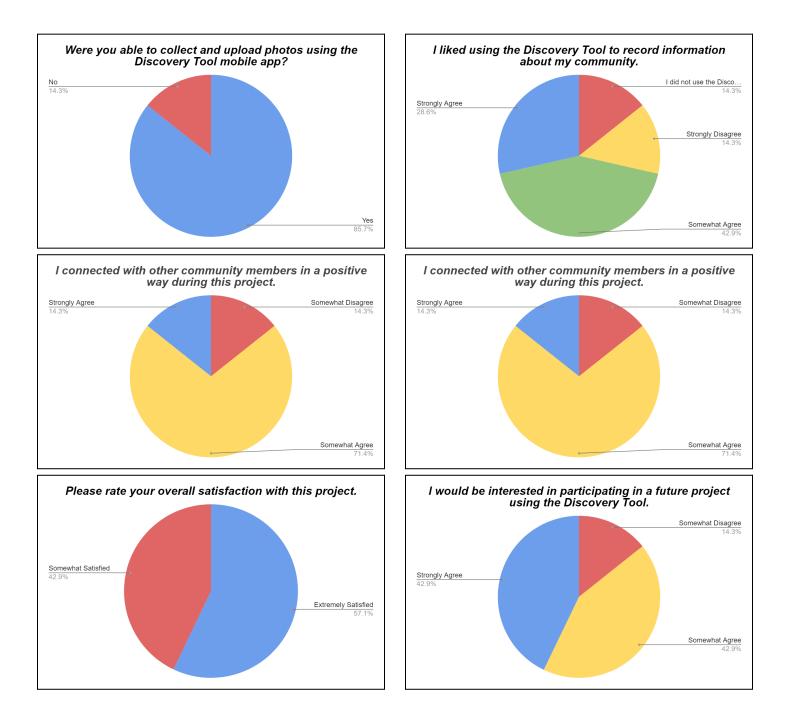






## **Community-Driven Change through Citizen Science**

Data measuring the level of student satisfaction with the project and in using the Discovery Tool include:







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#### **Conclusions and Recommendations**

Conclusions triangulated across all school sites provided great insight into numerous assets at each school site: safe spaces, healthy locations, kind and outstanding educators who include diverse languages and identities in their classrooms.

#### **Challenges and Non-Affirming Results:**

- Stressful classroom spaces
- Decrepit buildings
- Anti-LGBTQ slurs from peers
- Racial slurs from fellow peers
- The need to address youth mental health

#### **Petitions for Change:**

- Repairing facilities
- Creating impactful and safe spaces for mental health
- Intense changes needed to school culture to address anti-racial and anti-queer rhetoric

#### Further action steps include:

- Present and/or include finalized reports in school board presentations
- Recruit neighboring school districts
- Repeat the study upon receiving further funding to guide school change