

Creating a More Inclusive Sustainability by Mapping Campus Resources.

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The purpose of this project is to help connect underserved, minority, first generation students, transfer students, and commuter students to sustainable resources and opportunities available on campus. California State University of Monterey Bay (CSUMB) is a Hispanic Serving Institution.

In fall 2018 Hispanic students made up about 42% of the student population. Additionally, of the total student body 53% were first generation students. With attrition rates upwards of 30% in the USA for first year students, clearly retention of students is a challenge at the university level. The justification of this project lies within the need to help students connect with their campus. Specifically, assisting minority groups with connecting with resources on campus that are traditionally “white”.

By creating a story map, which clearly highlights sustainable resources, students will be able to connect at their own pace and will have easier access to a wider array of information. Map development was influenced by the design thinking theory and my theoretical framework and specific details were added based on focus groups with students. Prior to focus groups I created three titles for map categories. These categories are “Social Supports”, “Natural”, and “Built”. These titles were created based on CSU Monterey Bay’s definition of Sustainability. The map was created based on focus group input as to the items that should be on the map for each of the three categories.

Involving the head, heart, and hands of students in an environmental education context.

By Talia Banarie, Juan Barragan, Caitlyn Barrera, Jack Bates, Jen Becker, Andrea Cedillo, Jeffrey Chen-Bromley, Celeste Espino, Jacob Gams, Jasmin Gonzalez, Cecilia Gutierrez, Keiley Hansen, Andrew Hernandez, Sydney LaMothe, Kianni Ledezma, Killian May, Nick Ramsey, Natalie Shuman, Balpreet Sidhu, Savannah Townsley, Selene Yabes, Vivian Rivera. Community Partner: Julie Haws, Los Arboles Middle School. ENSTU 472: Projects in Environmental Education. Professor: Victoria Derr, PhD.

This capstone was a partnership between CSUMB’s Environmental Studies program and the Los Arboles Middle School environmental literacy class. This course was broken into three sections of preparation and reflection of time spent with Los Arboles Middle School’s (LAMS) environmental literacy course, and three sections of direct interaction and educational programming with the students at Los Arboles.

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Environmental Studies Program

The first module gave CSUMB and Los Arboles students time to get to know each other and express their sense of place and interests in the environment. The second and third modules were designed by CSUMB students in their respective project teams to carry out the different projects. The projects were meant to engage LAMS students to synthesize and apply knowledge of the environment, education, and sustainability practices. There were four projects to improve the school's outdoor classroom, which included a vermicompost system, weather station and local ecosystem murals, native plants, and a directional totem. Over the course of 7 weeks, CSUMB students worked with Los Arboles students with a goal of trying to promote engagement of the head, heart, and hands for transformative learning.

We used the head-heart-hands sustainable learning model as a guide for our assessment of student engagement. We distributed pre- and post-project surveys and used Julie Haws' other environmental literacy classes as a control. Statistical analysis performed by Dr. Steven Kim showed no significant difference. This could be due to limited time with the kids and small sample sizes. Field jottings were performed throughout the entirety of the projects. Jottings are a social science observation method. Focus groups generated Venn Diagrams for each of the case study students in regards to what areas within the head-heart-hands model each student flourished.

There were many successes in student engagement. Students were proud of their accomplishments, said they felt connected to their community, and that the project helped them learn skills they can apply in their own life. About ourselves, we learned mainly how to work with middle schoolers, an age group that we had varying experience with, and had to adjust how we learn and share our knowledge.

Not everyone in our class has had previous experience with educating a younger audience on a technical topic, which was something we had to learn along the way. Planning and time management was difficult at the beginning because we only worked with middle schoolers in one-hour blocks each day we saw them. Before this project, as the CSUMB students defined our communities, we didn't include the middle schoolers in our community, but we have since expanded our collective definition of "community" to include them. In the future, we recommend fundraising to support more projects, continued use of reclaimed materials from the existing classroom to support sustainability, greater teacher utilization of the space, partnership with the cafeteria for vermicomposting, and workshops to engage the community.