

A Framework for Place-Based Experiential Learning to Inspire Sustainability Action

Executive Summary

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Human behavior is driving many sustainability problems, which means that resolving these issues will require far more people to participate in solutions and act in sustainable ways. However, there is a recognized gap between knowledge and action that remains a significant barrier in achieving transformative sustainability solutions. Learning new information about a sustainability challenge is not necessarily enough to instigate behavior change, and knowledge alone does not guarantee that people understand how to effectively implement solutions (Knutti, 2019; McKenzie-Mohr, 2011; Kollmuss & Agyeman, 2002). Even those who feel motivated to act in more sustainable ways do not always follow through with action, and many are unwilling to change their lifestyles or break their well-established habits (Chaplin & Wyton, 2014). We propose that one way to overcome the knowledge-action gap is to engage more people in place-based experiential learning (PBEL) that is grounded in behavior change theory and sustainability principles.

In partnership with Hawai'i Tropical Bioreserve & Garden (HTBG), we set out to learn about utilizing PBEL to engage a wider audience to actively participate in sustainability solutions. Before the COVID-19 pandemic, HTBG had plans to create experiential learning activities and interactive signage that could be displayed on-site at the garden. They have since recognized that PBEL could be an effective strategy for achieving sustainability goals if it reaches a wider audience of people. This is why they are working to launch the Place-Based Experiential Learning Synthesis (PBELS), which aims to help bridge the knowledge-action gap by inspiring learners to build a closer connection to nature and act more sustainably. To contribute to this larger overarching initiative, our team created a framework that outlines how to effectively construct a PBEL program or material that inspires sustainable behavior change.

The theory of change for this project was that if an educational program combines place-based learning, experiential learning, behavior change theory, and sustainability principles, then learners will be inspired to engage in sustainability solutions. A literature review was conducted on these topics, and several informational interviews were held with experts in environmental education, STEM, and sustainability science to better understand what is needed for designing meaningful educational experiences that inspire action. We synthesized our findings to create our own five-step framework that outlines the necessary steps of PBEL for sustainable behavior change. After developing this initial framework, we invited our subject matter experts to virtual workshop meetings. During those meetings, they evaluated the success of the framework in terms of how pragmatic and transferable it is. We utilized PowerPoint and Zoom to present the framework and a case study so they

could provide feedback and recommendations for improvement. These recommendations were implemented to create the final version of this framework.

Our framework includes the five steps of “Place,” “Knowledge,” “Capacity,” “Experience,” and “Reflection.” “Place” involves learners forming personal connections and relationships with a specific location and local community who are facing a sustainability challenge. This also includes forming relationships and establishing trust with community members, educators, and fellow learners. “Knowledge” is where learners gain foundational knowledge on the local values, culture, economy, and social-ecological systems of the place. They receive information from community members and educators, as well as learn through personal exploration, discovery, and play. “Capacity” refers to learners building the expertise, infrastructure, personal capacity, and relationships at a local level to prepare strategies for solutions. They learn how to perform actions and how they can participate in equitable and effective sustainability solutions. “Experience” is where learners take action, experiment, and participate in a targeted sustainable behavior. The learners have a meaningful and concrete experience related to assessing and addressing a sustainability solution in the place. “Reflection” is a time for learners to rest and engage in mindful reflection on their emotions, personal connections, and the new knowledge they have gained. Learners also reflect on the experience they participated in, lessons learned, UN SDG alignment, and how to progress towards future actions. These five steps do not necessarily happen in order, and they can be repeated as often as necessary. Learners can also enter this process at different steps depending on their prior knowledge, their personal situation, and their capacity. Learners will ultimately cycle through these steps one or more times depending on the program or initiative they are participating in, and educators or mentors should be prepared to guide learners through multiple iterations of this cycle.

Overall, we validated that our theory of change is supported by both academic literature and by experts in this field. We have successfully shown that combining PBEL with behavior change theory and sustainability principles has a great deal of potential to lead more people to engage in sustainability solutions. However, we also recognize that the best way to determine the success of this framework is to test it in a real-world context with learners and educators who can provide feedback. One research recommendation is to explore successful PBEL case studies from both inside and outside the field of sustainability to see how well they align with our five steps. We feel that PBEL case studies that involve examples of Indigenous education and Indigenous Knowledge Systems would be particularly transformative, as there is a great deal that can be learned from these fields. Another recommendation would be to explore how storytelling can be better incorporated into our framework and its application. A detailed tool or guidebook should be developed in the future to give users instructions for designing and implementing programs, materials, or experiences based on the five steps. Ultimately, we recommend that our clients at HTBG utilize our framework and scale up our findings to help guide the development of the PBELS Initiative moving forward. Continuing this project would also be a great opportunity for future MSUS students interested in developing real-world strategies for sustainable behavior change. There is currently interest from organizations collaborating with Arizona State University to apply this framework to their educational programs.

References

- Chaplin, G., & Wyton, P. (2014). Student engagement with sustainability: Understanding the value–action gap. *International Journal of Sustainability in Higher Education*.
- Frisk, E., & Larson, K. L. (2011). Educating for sustainability: Competencies & practices for transformative action. *Journal of Sustainability Education*, 2(1), 1-20.
- Knutti, R. (2019). Closing the knowledge-action gap in climate change. *One Earth*, 1(1), 21-23.
- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. *Environmental education research*, 8(3), 239-260.
- McKenzie-Mohr, D. (2011). *Fostering sustainable behavior: An introduction to community-based social marketing*. New society publishers.

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