Introduction

My Culminating Experience (CE) project goal is meant to increase sustainable behaviors in ASU students’ daily lifestyles by demystifying and familiarizing them with such behaviors. I chose ASU students because human, incentive, and support resources are readily available and attainable for me as a student. Also, ASU’s Sustainability Operations outline “climate neutrality, zero waste, active engagement, and principled practice” as focus areas.

This project was meant to increase sustainable behaviors in ASU students by getting them out in their community actively practicing such behaviors in a fun and intriguing way. The main system complexities were behavior change, marketing to potential participants and engaging game players. Major indicators the number of new behaviors introduced to each participant by the game and number of behaviors participants will repeat after the game.

I completed this project for Arizona State University students and staff on the Tempe campus. Intervention points include procedural knowledge of sustainable vs. unsustainable behaviors, unsustainable social norms, and personal and public resources. Intervention points determined the sustainable behaviors prompted by the game. Goals included 10% new behaviors, continued sustainable behaviors, and increased understanding of sustainability and sustainable behaviors. The main desired outcome is to learn how to get people who are not interested in sustainability as a field to practice sustainable behaviors in their daily lives.

Methods and Interventions

Tools used for the project include Kelli Larson and Erin Frisk’s paper on Competencies & Practices for Transformative Action, graphic design software, e-mail automation software, local organizations, and landmarks. Larson & Frisk’s paper was used to identify intervention points with respect to the four knowledge domains: declarative, procedural, effectiveness, and social. Graphic design software was used to create each “game card” for each level of the game. E-mail automation software was used to send email blasts to potential and actual game players as well as sending individual level-up emails. Local resources such as Valley Metro, Local First Arizona, Recycled City, Sinema.House.gov,
VolunteerMatch.org and Tempe Butte provided outlets for participants to complete their respective challenges in the game. These resources also provided information used to increase participants’ understanding of how to complete the challenges and why they are important.

The game was space themed because, “We’re so out of touch with the Earth; What planet are we even on?” Participants start on level one, which is Pluto. They work their way back to Earth from Pluto by completing challenges.

Game play went as follows:

2. Participants receive a cryptic message for Level 1 (Pluto) from sustygames@gmail.com.
3. Participants decipher the message to reveal their first challenge.
4. Participants go into the community to complete the challenge and take a photo as evidence of completion.
5. Participants email the photo back to sustygames@gmail.com.
6. If the evidence is sufficient, participants receive the next cryptic message for Level 2 (Neptune).

Each level gets the participants to do a different sustainable behavior. The behaviors prompted in the game are: Take public transportation, visit a local business, compost, call your local representative, explore volunteer options, take a five-minute shower or less, make a friend and exchange definitions of sustainability, and hike Tempe Butte. After participants completed all nine planetary levels they were named “Active Earthlings”, and given prizes.

Outcomes/Results

Based on the interventions, players self-reported an average of three new behaviors, five behaviors they are likely to repeat, 50% of those players went above and beyond by doing additional tasks beyond the level requirements, and people had fun! The project approach was validated by the results. The goal of one new behavior was met, three-fold.

The project revealed a major challenge in communicating to students on campus and getting them involved in sustainability initiatives. However, the project revealed a huge strength in communicating to off-campus students, alumni, and the public. 35 of 81 people who signed up live off-campus, 46 live on-campus. However, only one person who lives on campus participated in the game after sign-up. The other 20 participants all live off-campus.

Next Steps
The project addressed the sustainability challenge presented. The game exceeded the goals set at the beginning of the project. Next steps include developing a software to host the game as scale and making the game available for large audiences such as those who complete University Sustainability Practice’s Seeds of Sustainability course on www.asu.edu.