Planimals: Play, then Learn!

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WHAT IS TAP?

TAP (Technology Ambassador Program) is a program that encourages youths to form an interest in technology and programming through fun workshops.

PROJECT GOAL

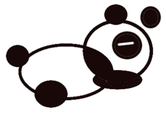
Learning any new language can be difficult, but after learning the main words and the proper way to structure sentences, it becomes easier to catch on to. This concept can also be applied to programming; teaching people the main structures and formulas will grant the ability to write and dissect different codes. The main objective of Planimals is to engage people with little to no programming skills with the appeal of a simple structured game that can teach the practicalities of programming. In return, we hope they feel encouraged and confident enough to program independently after engaging in its workshop.

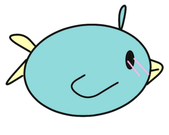
PROJECT DESCRIPTION

We are using Scratch to implement our workshops.

Scratch uses simple-to-use block coding, which is easy for new programmers to follow.

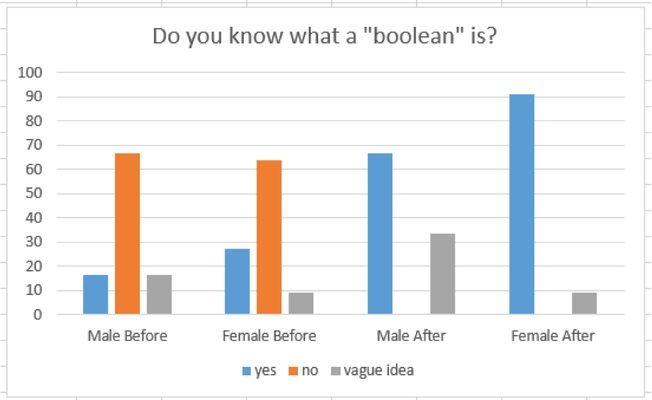
We also used Clipart studios to design the characters, items , and background for our game.





WORKSHOP DESCRIPTION

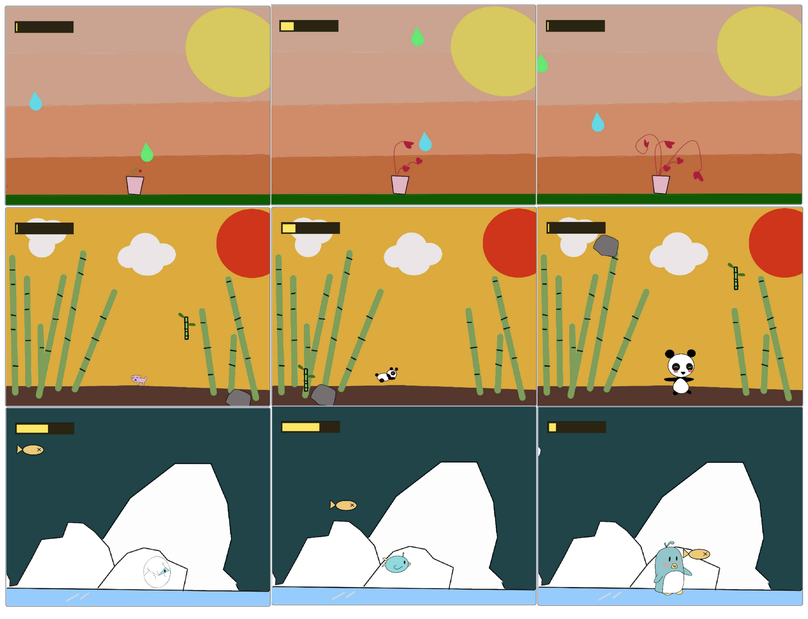
We are presenting our workshop at several events: TAP Expo, STARS, and CREATE Symposium. We will also present our workshop in three general education classrooms.



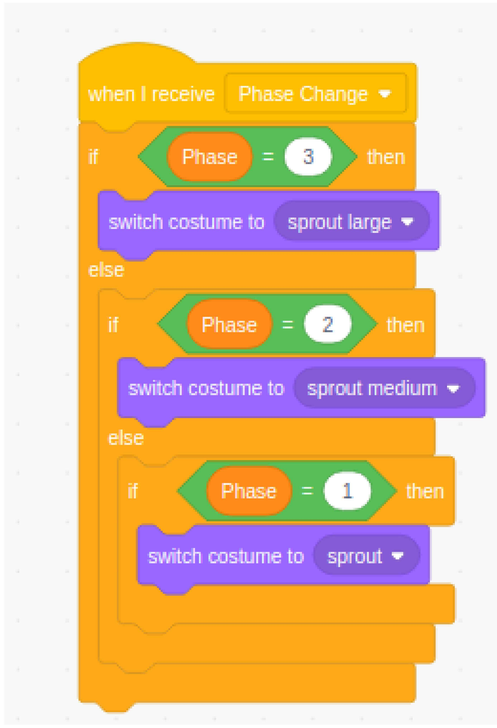
To the left is an at-a-glance chart of responses to one of our survey questions, "Do you know what a 'boolean' is?". It shows that we were able to successfully teach what a boolean is to all students, regardless of gender. There are more analysis like this of other questions with other demographics that we have done, this is simply one example of many.

GAMEPLAY

Players begin by choosing a character (panda, plant, or penguin) and then they need to collect enough resources to evolve through three different life stages. The challenge is that players also have to avoid harmful resources. If they collect the wrong resource too often, they will regress to their former stage and eventually lose the game. Otherwise, if they evolve through all of the character's stages, they win!



If Statement Example



The code shows how the character evolves throughout the game. The phases account for the characters reaction to the resources. If the phase increases, then the character progresses. If the phase decreases then the character regresses.

ACKNOWLEDGMENTS

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