

Section 2

Chapter 6 - Educational Videogames: An overview

Exemplary case 2

Title: **Niche**

Description:

[Niche](#) is a hands-on strategic genetic simulation game that allows students to experiment and explore real genetic traits. Students create a tribe of animals that can adapt to their environment and survive for the long term. Then students apply selective breeding and gene manipulation to create their own species and keep them alive, battling predators, illness, injury and climate change. Genetics mechanisms are built into the gameplay and students learn about these through working to keep their animals alive, exploring their environment, and seeing their species evolve.

Firstly, players choose between Story mode and Sandbox mode. Story mode will take new players through the tutorial steps and then players are on their own. Sandbox mode has more options, where players can choose their difficulty and terrain type.

The game includes over 100 genes and there are four different biomes, each with its own predators, prey, and plants. The available genes include physical characteristics, fertility, immunity to disease, speed, strength, and traits that help with hunting and foraging. Many more can also be unlocked as animals experience new surroundings and events.

Teachers can use this game supplementary to biology/science classes. This game is purchasable and is available for Linux, Mac, and Windows.

