

Science Investigator Web Game

Summary

Games and technology are being used increasingly to educate younger generation on science and healthcare. There is great evidence to support use of technology and games for learning, with games shown to improve engagement, motivation and learning outcomes. In 2019, Game Doctor was commissioned by the Scientists Collaborative Project with Educators (SCoPE) at University of Cambridge, to develop a digital game for students on scientific enquiry and investigation.

Aim

The aim of the project was to develop a web-based game to educate 16-18 year olds on scientific enquiry and epigenetics. The web game was designed to be used in in partner schools in England by SCoPE researchers and teachers.

Game Design and Learning

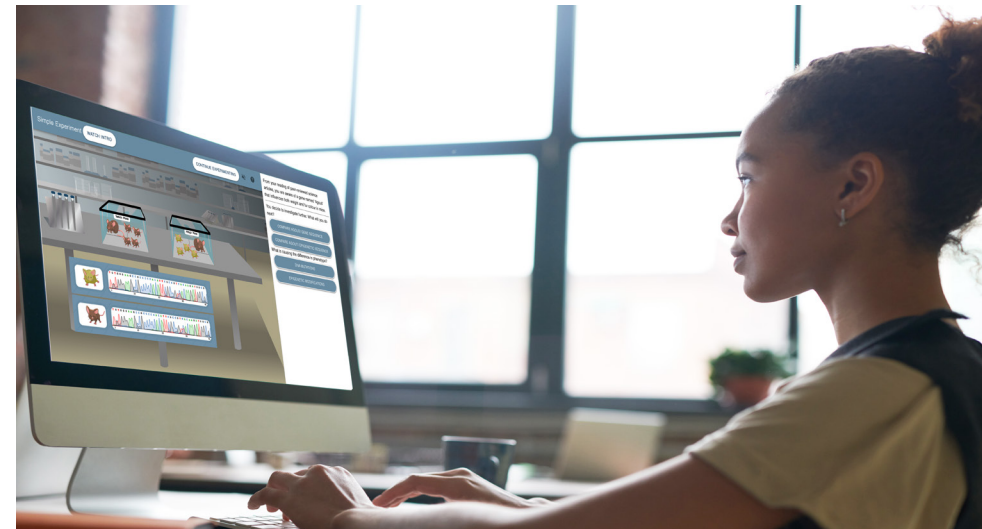
The game environment takes place in a laboratory. The player has started a summer project with a research group at The Gurdon Institute, University of Cambridge to investigate genetic modifications associated with obesity. The player is asked to complete a research project to investigate why one litter of mice have developed obesity and the other have not. In the game, the players must investigate different variables associated with obesity (e.g diet) and their affect on obesity associated genes. All gameplay is carried out in the lab and players must use the results of their experiments to complete a report at the end of the game.

Technology

React JS was used to develop the web game. The web game was developed using HTML5, Javascript and Material UI. The web application was hosted using S3 storage services from Amazon Web Services (AWS).

Dissemination

Science Investigator is being dissemination across schools in Cambridge and England as part of the SCoPE project in 2020. Partner teachers and educators of SCoPE will use the game as a learning resource in science classrooms with 16-18 year olds. The impact and benefits of the game will be evaluated by SCoPE researchers in 2020.



“Game Doctor were **very responsive and organised** with meetings, feedback and project management. The deliverable was **interactive** and met all of the learning objectives. Thank you again for all of your work. I can’t wait to get using it in the classroom!” Project Manager, SCoPE project

“The images look amazing I really liked how the visuals for the experiment appear, and especially the advanced experiment. Really nice” Scientist, SCoPE, University of Cambridge

“I think the look of the animation is great and **very appropriate for a classroom environment**” Teacher, SCoPE Project

Contact

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