Mar 29th, 2:15 PM - 3:00 PM

Video Games in One-Shot Library Instruction

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Video Game “Quizzes” in One-Shot Library Instruction

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Online Northwest
March, 2019
This presentation:

Going from writing quizzes to make video game snippets

My introduction to video game development

Discovered video game open source community

Explored several current video game themes, subjects, approaches.
Before -and- after quizzes

Online form. Link through Libguides.

Students would take the quiz and look at their results as a class in real time.

Successful at introducing concepts, glimpse at immediate retained information, graphically show students their progress.

Not so much at being engaging, addressed only the more traditional learning style.
Project began to develop while taking HTML/CSS/JS classes through Treehouse.

Started work on a simple animated library “tutorial”, with a graphical interface and some ability for user input. Doing everything from scratch became time consuming.

Developing an Online Platform for Gamified Library Instruction

Does Physical Activity Enhance Learning Performance?

The grandaddy of them all
3 things I learned

Video game development.

Open source video game development community.

Variety of themes and subjects.
About games: the basics

A game:

1. Has to have a goal
2. Has to have rules
3. Has to provide feedback to the player*

Brief intro to game engines

function preload(){
// loads assets into memory when game starts};

function create(){
// display objects as soon as the program calls them, creates world};

function update(){
// simulation and feedback};
Video game development: game engines

- Unity
- Phaser
- Godot

Game engine
Game engine:  **Unity**

Pros: the engine of choice by both many well established game developing companies and beginners, loaded with features, soft learning curve, tons of support, many YouTube tutorials, classes on lynda.com!

Cons: not open sourced, proprietary license allows “limited” use using the engine for free.
Games made with Unity

Pokemon Go!

Cuphead

Monument Valley 2
Game engine: **Phaser**

Pros: open source (MIT), lots of support and tutorials on YouTube, classes on Udemy, HTML5 ready development (javascript), touch screen compatible, plays on virtually any device.

Cons: no GUI, steeper learning curve than Unity, game needs to run from server.
Game engine:  **Godot**

Pros: open source (MIT), super powerful and full of features, awesome GUI, enjoys a great community of users and developers, can run locally and online, available in most platforms.

Cons: not online first, great for big projects, not so much for small game snippets. If you have an epic project and need the best tool available open source, this is it.
Open source community: art, audio, tutorials

Video game art

- opengameart.org, kenney.nl

Audio and sound effects

- freesound.org, freetousounds.com

Tutorials

- Phaser examples
Putting it all together

Database Review Car Race

Just a Normal Day at Jen’s Library

Beam Tower

Beam Tower with Violence

Boolean Shootout
Current trends in education

Specifically in online, off-classroom learning

Flipped classrooms

Active learning

Problem solving learning

Experiential learning
Different kinds of video games

A Night in the Woods
Celeste
This War of Mine
Gris
Return of the Obra Dinn
Monument Valley
Monument Valley II
My Brother Rabbit
Florence
Old Man’s Journey
Conclusion:

Using video games to create learning objects.

Open source assets tools available

Video game makers expanding possibilities, using complex themes.
References


Oregon Trail game available online through [https://classicreload.com/oregon-trail.html](https://classicreload.com/oregon-trail.html)