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Dr. Hayes

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**Motivation and Problem Statement/ Software Needed**

The project I will be designing is a 2D educational video game. The game will be created with Unity, creating scripts using C# programming language. The game will be called Web Browser and it will be about a spider. The goal of the project is to create a game that is both engaging and educational for children. I want to encourage learning about science to include physics and biology and building problem solving skills. To be a successful tutoring tool, the game needs to have the right amount of entertainment to keep children interested while still supplying educational content. This project will also help me pursue my personal goal to become a video game developer. Another reason for making a video game, is to show my ability to solve problems in a unique way, and to make something beneficial out of a video game.

Everyone has different styles learning that work for them, such as visual or auditory. Some kids have trouble connecting in a classroom environment, or reading books may not be engaging for them. This could cause children to miss out on something they may actually be interested in. It is important to teach using all types so students of all learning styles can understand. This is a great benefit to educational video games; games combine all of the learning styles into an interactive platform. According to a case study done students that played educational games out performed other students and were more likely to participate in class. (Ascione, n.d.)

Web Browser would focus on science and problem-solving skills. They can learn about physics and biology among other things. By creating a game that is also educational children can spend their spare time productively to learn and develop. The game will feature a cute, little spider that is trying to find a new place to build web. The player will control him and have to solve puzzles and answer questions to proceed.

Children often play video games on smartphones and consoles. They are immersed in technology and entertainment, thus a form of entertainment that doubles as an educational experience can allow children to become more engaged in learning and have doors open to new interests that might have otherwise been missed. I have always had a passion for video games, and I want to show others how they can be helpful.

**Future Research Efforts**

For this project I will need to research to help me complete my goal. I have little experience with the Unity engine, so I will need to learn more about how to use it. I also will need to research what elements of the game will best facilitate learning. To complete this project, I must become proficient with Unity and fully understand how best to engage children with my game.

**Tentative Course Schedule**

The timeline for this project will throughout the Fall Semester of 2019. I will break the game development into checkpoints and deliverables. My goal is to have a basic level created with functional controls and physics mechanics by the end of September. At the end of October, I want to have the educational interface implemented with dialogs and problem answering in place. I want the game mostly functional. The goal is to spend the remaining time fully polishing the video game. Once the game has been fully developed if time allows, I will attempt to have people play test it and see if a younger audience gains benefit from the game. A stretch goal if time allows, is to create a level editor that any non-technical person could use to create levels and problems and questions.

I believe with the right research and careful planning my video game will be beneficial to many. I will demonstrate how to use my technical abilities to solve real world problems in a creative way. I believe I can use my passion to benefit others, and create a unique and fun way to learn.

# References

Ascione, L. (n.d.). Retrieved from ESchoolNews: https://www.eschoolnews.com/2017/10/19/educational-games-teachers/2/