**IT204F Project Proposal**

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**Introduction:**

In today’s fast-paced and ever-evolving society, technology has advanced rapidly over recent years. Many industries are transitioning to the digital world. One of the industries is the entertainment industry. Entertainment used to be via physical performances like a circus or opera. Now with newer technology, the majority of entertainment now is through digital platforms like Youtube and Facebook. In the children’s entertainment industry, most parents are not always able to give their children their time and need to distract them with something entertaining while they are preoccupied with their own things and work. Hence, we plan to make a platform that contains various entertaining and educational games fit for the children's entertainment industry for those aged between 6 and 12 years old.

**Industry Needs:**

1. **Entertainment**

The 1st industry’s need is to entertain young children while their parents are busy. This is because parents do not always have the luxury of attending to their kids at all times, whether this is at home, or outside. They need some time away from their kids to take care of their own affairs and hence need a way to entertain and distract their kids while doing so. Hence, we can create entertaining games that pique the children’s interests. The children will be preoccupied with these games while their parents are busy, which is a win-win situation. Children from 6 to 8 years old generally should not have screen time of more than 1 hour a day while children from 9 to 12 years old should have no longer than 2 hours a day.

1. **Education**

The 2nd industry’s need is the ability to educate children through entertainment. Be it either in games, shows, or documentaries. Education for kids at a young age is important as research has shown that children's brains are more open to learning new skills like reading, writing and playing a physical instrument. Hence, when children start to learn earlier at a young age, they are able to perceive and understand better while at the same time developing their brains. Furthermore, children at a very young age to have emotions has always been something a parent would want children to have. Having the entertainment to educate children on emotions is a better way for children to understand emotions better. However, it is not always good to educate children's emotions through entertainment. It would be best if the parents are there to educate their child physically.

1. **Convenience**

The 3rd industry's need is to improve the convenience of toys. Physical toys require ample space to play and store after use. Not every household has the space to support a wide variety of toys. Cleaning up and packing up toys is also time-consuming. This is why toys need to be digitalised onto electronic devices to make them more convenient for children and parents to use.

1. **Demand**

The fourth industry’s need is to supply the demand for educational and fun games for children as there is a decline in physical toys. One such reason is due to popular toy stores like ‘Toy ”R” Us’ slowly shutting down would create a decline in physical toys. This would mean that there would be a demand for entertainment for children such as fun and educational games for children. Our game aims to meet that demand from the decline of physical toys. With the game being free and almost all families having a phone/tablet, the game can be easily accessible, especially for those on a tight budget. This allows our game to be more accessible than most physical toys out there in the market.

**Application Solution:**

We plan to make an application that is a platform that contains various entertaining and educational games fit for the children's entertainment industry. This is to solve the problem of many children that have busy parents. By having this application, children would keep themselves entertained and educate themselves through the games in our application.

**Educational Games**

* **Maths Quizzes Game [Ameer]**

15 each of easy, medium and hard questions

E.g.

Easy → Addition, Subtraction  
 11+17 = 38/26/28/24 → Choose the correct answer (+ - Basic Operations)

Medium → Multiplication, Division  
 2x2= 4/8/12/16 (Choose correct answer) (x / Basic Operations)

Hard → Hard Problems  
 1.1+2.7 = 3.9/3.8/3.1/10.1 (Choose correct answer) (Decimal Basic Operations)

* **English Quizzes (ABC, simple words) [Kai Yi]**

15 questions that test various grammar, tenses, vocabulary and spelling.

The screen would show a sentence and the player would have to select if the sentence is grammatically correct or not.

An example is spelling. The word “aple” would be shown on screen and the correct answer would be no, this word is spelt wrongly.

If the question is answered correctly, they would gain 1 point. The game would end when 5 points are earned or when they get multiple questions wrong.

* **Emotions (Happy, Sad, Excited, Angry) [Zhe Ming]**

A game where it teaches children about emotions.

Icons on the screen depict different emotions like Angry, Sad, Excited, Happy.

When clicking on the angry face icon in the game, the face of the sprite will change to an angry face. Similarly for other emotion icons as well.

**Entertainment Games**

* **Space Defender (Strategy Game) [Jackie]**

The goal of the game is to survive the attackers.

To win, players must survive 10 waves of attacks.  
Each wave gets progressively harder.  
Each wave will have attacking ships.

Players must use their money wisely on ships to defend Earth.

Players earn money by defending mining outposts and surviving.  
There is an endless mode to see how long someone can survive.

* **Spongebob Burger Collectors (Collect & avoid objects) [Zhe Ming]**

The goal of the game is to collect a certain number of burgers and avoid bombs to win the game.

Bombs and Burgers will be randomly dropped down from the top of the screen.

Players must make use of the left arrow key and right arrow key to avoid the bombs

and at the same time collect the fallen burgers.

To get one score, players have to use the boat and collect a burger.

One score will be deducted if the boat touches the bomb.

The game ends when the number of scores reaches 30 or reaches 0.

**How The Application Helps The Industry**

Empathy For User

This application empathises with working parents that do not have time to educate and entertain their children by having games in place to facilitate their child's learning. Our application has a variety of games like Math Quizzes, English Quizzes, and Strategic Games as well as an emotions display function. Having these games in place helps their child to learn the same things in alternative to their parents that do not have time to cater for them.

Adds Value To Business

This application adds value to the business as it fulfils the business needs of this industry of education, entertainment, convenience and demand. Since this application has education and entertainment games, it fulfils the need of educating children on basic thinking skills and fulfils the need for entertainment with fun and engaging games. Having this application digitalised also makes it convenient as all users need to do is download and open the app on their mobile devices or tablets. There is no need to pack up after playing. This digital innovation sparks interest in the entertainment industry and helps increase the demand for this application and as a whole, the entertainment industry for children.

Feasibility

This application is feasible as it can be easily created with basic software like scratch. Our application consists of simple games such as simple mathematics and English quizzes, simple collect and avoid games and a space defender game and so on. All these games are simple, easy and uncomplicated to play and understand. This allows the children to play the game without supervision from their guardian thus making it feasible for children to play.

Realistic

This application is realistic as it is easily implementable. Generally, all children or parents have a smartphone these days, allowing our application to be easily distributed to their devices since it is software. It is easy to use and set up on any mobile device. This allows parents to give their children the entertainment they need while they are busy with something else, no matter what time it is or where they are.

Practical Workflow

Once the application platform that contains the game is made, more games can be added in future. The current 5 games, 3 of which are educational and 2 of which are entertainment, already fulfil the business needs and digital innovation that this industry requires. As more games are added on, it helps expand th e application and the demand for it.

**References:**

[Screen Time Recommendations by Age (allaboutvision.com)](https://www.allaboutvision.com/conditions/refractive-errors/screen-time-by-age/#:~:text=As%20a%20general%20rule%2C%20limit%20recreational%20screen%20time,the%20benefits%20of%20mixing%20in%20some%20educational%20content.)

[Toys R Us' last two stores in the U.S. are closed for good (cnbc.com)](https://www.cnbc.com/2021/01/29/toys-r-us-last-two-stores-in-the-us-are-reportedly-closed-for-good.html)