

Conference Paper

Learning Through a Social Gaming Platform

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ORCID:*Mitra Istiar Wardhana: <http://orcid.org/0000-0002-7637-3159>***Abstract**

The COVID-19 pandemic that emerged at the beginning of 2020 has influenced all aspects of life, leading to adjustments limiting physical social interaction. One of the fields that has been affected significantly is the education system. Since the government closed all schools since March and has not decided yet when they will reopen, teachers and students have been required to run the learning process. Various new online learning media have played a significant role in supporting the learning process during the pandemic. However, the ongoing learning style causes stressful conditions for students during online learning. It is caused by the limited interaction with teachers, friends and their school environment. Thus, developing a game-based learning media could be an alternative to provide new learning media that is attractive for students. It is expected that using an online game will provide an interesting virtual interaction for students.

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1. Introduction

A new history was created in 2019 with the existence of COVID-19 virus. It has changed all of the life aspects. Every individual should be able to adapt to the new era where the physical, social interaction is minimal. Even though Indonesia was safe from this infectious virus, finally COVID-19 has infected this nation. This pandemic caused the government to close all the public places. This phenomenon also affected the education system significantly. Since all schools had been closed since March, teachers and students should be able to survive with the learning process until the undefined time.

The different interaction between teachers and students that happen at an unexpected time has caused numerous problems. One of the alternatives that teachers can use to deal with this condition is the online-based new media to ensure the learning process. However, not all teachers and students are well equipped with those new devices. Many parents also complain since they got new jobs to supervise and help children to learn at home.

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There is a new problem at the beginning of the semester for teachers and students in online learning. Students feel stress due to the lack of interaction with teachers, friends, and school environment. In a normal condition, they can meet teachers and their friends and suddenly have to stay at home with their parents. They may release it through playing with friends around their house. However, since the rate of infected people keeps increasing, not all parents allow their children to play outside. This condition makes students being addictive to their gadget or personal computer.

It would be a problem when children tend to spend more time to play game compare to the study. Interactions and challenges that they get on online games have attracted their attention compared to the school's lessons. Even though teachers have made their best effort to give various learning media, but most of them are still linear and asynchronous. Videos or pictures that teachers use in their learning media failed to provide interactions for students since it does not allow them to give feedback. The traditional interactive media used by teachers usually in the form of digital questionnaire to do assignments or an online quiz for assessment that unfortunately are less attractive.

For children who have already addicted to playing a game, the interface of online form and quiz still cannot outweigh the interface of their favorite game. Even though those media cannot be compared, game developers can see this condition as a chance to create educational games. From several established game with a similar theme, most of those do not support the interactive features between players. The existed educational games are only available for solo players even though learning can be more effective if it is implemented as group work. The interaction and ideas sharing to compete in a group are the strengths of teamwork. With the interaction that happens in the game, players can get more experience in learning since they can share information with the other players. In order to provide this learning experience, online or offline feedback features for players should be provided. Besides, a video game is a popular trend among young people and using it as a learning tool will help motivate and engage students [1].

It is not an easy job to develop a multiplayer game, especially for games with small scale production. It will be difficult because the multiplayer feature game requires additional needs compared to solo player conventional games. Besides, the creation process will be more involved in terms of programming. Multiplayer games require the developers to provide an active server device in 24 hours non-stop to make it accessible every time. The more active user in the online game, the bigger the server capacity that is needed. The possible alternatives to provide servers are provide in independently or rent it from the third parties. Those mechanisms have their benefits and high investment of cost.

It is challenging to develop educational games on a large scale due to the limited sponsorship, and lack of interest from game studios to use the educational theme as their main game content. Playing video games can increase the player's neuroplasticity and sharpen the person's ability to tune out distractions [2]. However, the negative stereotype of the game still rooted among parents since the top five games on Google Play Store played by Indonesian do not contain educational content. In conclusion, developing online-based educational games is challenging in terms of production and budgeting.

2. Social Gaming Platform

The possible alternative to provide a low-cost game with sophisticated features is by utilizing the existed online game. However, not all of the online game platform can be used in the learning process. The social gaming platform is one of the game platforms that can be adapted as a game-based learning media. With the use of the online feature, players of this game can interact with the other players using the internet connection. Also, it is necessary to provide features that allow players to add or create their game content in the assigned game. The following are top five popular online games in 2020 based on Google Play Store:

1. Among Us is an action game that involves a group in an outer space setting which one of the group members become a traitor or called as "impostor". While the impostor is creating chaos in the station, the other players of the game are responsible for finding the impostor. This game has been downloaded for more than 100.000.000.
2. Mobile Legend Bang Bang is a battle game between two teams consisted of five characters. This game has been downloaded for more than 100.000.000.
3. Garena Free Fire is a survival game in which the players' mission is to be the last survivor on the battlefield. This game has been played for more than 500.000.000.
4. Sakura School Simulator is a simulation game about Japanese students daily life. The word "school" in its name does not represent dominant educational elements. This game has been downloaded for more than 10.000.000.
5. Worm Zone is an action game where the players should be the most muscular worm among the other. This game has been downloaded for more than 100.000.000.

From those five most popular games in Play Store as the official application store for android, most of the action game emphasizes the competition among players to be the best ones. Even though there has been a school theme simulation game achieving the top five position, but the portion of the educational contents are still quite limited. From those five popular games, all of the contents are provided by the developer, so players could not add new contents in the game.

The feature to customize the game content is not always provided by the existed games. Those which provide this feature are open-world game and sandbox. In the open-world game, players can freely explore the virtual world to solve the game missions. Sandbox is a game that allows players to customize all of the game elements.

Two of sandbox games that have to succeed to rank in the top 50 popular games in Google Play Store are Minecraft and Roblox. These two games are different in terms of the price which Minecraft offer \$10 while Roblox is for free. Minecraft and Roblox are social gaming platform with a huge community and a great chance to develop strategies in the game. Players of the game can establish their scenario utilizing all assets provided by the game developer. The other players can play that scenario.

Compared to Minecraft, Roblox is more recommended to be used as a learning media since it is free and it can be used to teach students on computer literacy, designing and building using Roblox Studio, and master fundamentals of programming by custom 3D worlds to life. It also offers free resources to teach students of all ages of real coding, game design, digital civility, and entrepreneurial skills [3].

Roblox is not only a free platform for students to create games and the opportunity to share it with a larger community, but it also a gaming platform where students can learn real-life experiences in a virtual world setting. BSD Education advertised how Roblox could professionally help students build games, plan and think computationally, develop storytelling, improve self-direction and creativity, problem-solving, coding, do test and gather feedback, and understand digital citizenship [4].

The popularity of Roblox has affected other platforms of social media. Over 150 million people have fun as they share experiences with friends in millions of immersive digital worlds built by the Roblox community of nearly 5 million creators[5]. On Twitter, Roblox has 2.1 million followers, Facebook has 959.282 followers, and Instagram has 3.7 million followers. Roblox, a user-generated, multiplayer gaming platform claimed to be the largest social platform. The number increases as it becomes more and more popular not only as a user-generated gaming platform but also as an educational tool.

3. Designing Roblox-Based Learning

Roblox has classroom potential according to the review of Power (2019) from Common Sense Education. The teacher can use the Roblox digital platform to demonstrated content knowledge or make a simulation of a historical event [6]. Teachers will have access to free tutorials, handouts, setup guides, outlines, and lesson guides when used as a teaching tool [7]. In the United States alone, 119 learning sites have used the Roblox education platform to teach students to code and create a virtual world [3]. We cannot design Roblox-based learning without any risks. Parents' supervision is still necessary since it is an open game and can be accessed globally. Some parents have found some incidents when they play Roblox [10]. However, there are several alternatives to minimize the risk of learning.

1. Set privacy into full protection, so it is possible to limit several risky features such as chatting.
2. Use a private server to allow teachers to limit the number of players to join the game. However, it would need a subscription fee for around 100 Robux each month.
3. Activate the avatar clothing feature that can automatically detect the proper clothing to be used in the game.

Roblox learning can be done in a computer laboratory that has an internet connection. Based on Roblox education website, the are several steps in planning Roblox-based learning:

1. Prepare the facilities such as personal computer/MAC along with the internet connection.
2. Install Roblox studio, software provided by Roblox to run the game in the personal computer. If students run the game using Roblox application, teachers use Roblox Studio to design the Roblox-based learning.
3. Register a new Roblox account. In this step, teachers will assist students to sign up an account in Roblox application. In the registration process, teachers will explain about the safety of their account, including creating strong level protection of the password.
4. Run the Roblox application and decide the chosen Roblox games for the class. The chosen games are the learning game that has been designed by teachers using Roblox Studio.

4. Conclusion

The social gaming platform has a great chance to be utilized as a learning media. Not only the popularity, but this social game also allows the players to have an online interaction with the other players. This feature is suitable in a learning context since students can learn together in game-based learning. Roblox, as one of the social game platforms also allows teachers to develop an engaging learning content without facing a complexity of programming to develop a game.

References

- [1] Evans, M. A., Jones, B. D., & Akalin, S. (2017). Using video game design to motivate students. *Afterschool Matters*, 26, 18–26.
- [2] Sousa, D. A. (2016). Engaging the rewired brain. *Learning Sciences*.
- [3] Roblox. (n.d.). *Education*. <https://corp.roblox.com/education>
- [4] Qureshi, M. (2018, December 9). *Advantages of real world technology camps: Roblox – BSD Education*. BSD Education. <https://bsd.education/advantages-of-real-world-technology-camps-roblox/>
- [5] Great Place to Work. (n.d.). *Working at Roblox: Great Place to Work*. Retrieved February 14, 2021, from <https://www.greatplacetowork.com/certified-company/7010789>
- [6] Powers, M. (2019, February). *Roblox review for teachers*, *Common Sense Education*, Apr. 24, 2012. Common Sense Education. <https://www.commonsense.org/education/website/roblox>
- [7] Moersen, A. (2018, June 1). *Roblox brings coding (and Jurassic Park) to the classroom*. Innovation & Tech Today. <https://innotechtoday.com/roblox-coding-jurassic-park/>