

# Review on Serious-Education Games for Slow Learners

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**Abstract**— Serious education games are popular as they engage and educate more learners, including slow learners who are normal students but have difficulty meeting academic standards. Having a game that targets a child's struggles can make a significant difference, helping them feel more confident. Our goal is to increase awareness of slow learners in the classroom and stimulate discussion about this population. This review identifies slow learners and examines serious games' advantages and features designed for them. The paper findings also explore whether these technologies can be more effective than traditional methods. Slow learners struggle with traditional teaching methods, so it's essential to find ways to make learning fun and exciting. This study shows that games designed for education provide children with a great learning experience. This is especially helpful for students who struggle with traditional education methods, especially slow learners. Serious games have been shown to benefit slow learners in a variety of ways. These include developing problem-solving skills, improving motivation and engagement, and increasing academic performance. Therefore, serious gaming strategies may be more effective than traditional methods of engaging slow learners. Research using serious games for slow learners should yield promising results.

**Keywords**—serious game, education game, slow learner, characteristics, causes, student, literature review

## I. INTRODUCTION

Games classified as serious games are those with objectives beyond just entertainment [1]. Serious education games are designed to encourage students to learn improvement. They are used in many industries, including marketing, education, healthcare, etc. The appeal of serious games is that they are fun, engaging, and challenging. Serious games use learning techniques, game mechanics, knowledge, and structures to teach specific skills and knowledge. The user is also entertained and engaged as they apply the difficulties and rewards provided by games to solve problems in several scenarios. The objective is education or allowing people to learn and apply new skills. Since they increase participation and improve outcomes, serious education games are often used in learning, development, and education [2].

School is an important time for children especially primary school, as it allows them to learn basic skills and knowledge which will help them in their future. However, many school issues can affect children's learning. There are many difficulties and benefits in teaching students. Making lessons that will engage students in education and keep their interest is one of the main issues teachers encounter. Students respond differently to various teaching and learning methods and have varying skills. Some of them dislike reading textbooks and seeing the long paragraphs of text explaining the subjects'

concepts. Teachers need to understand which learning style fits students the best.

Most of students in Malaysia have all experienced some drawbacks of traditional schooling, including long periods spent in chairs listening to lecturers, countless ideas presented in books, and little involvement with the subject matter. The lack of motivation and interest in students is one of the main concerns of teachers. While there is nothing wrong with traditional approaches such as textbooks, serious education games allow us to teach students a creative way of learning the subjects. And it works well as a tool because of the way games are made, and they strongly encourage players to keep playing while having fun learning the subject. It is not just because of the expected enjoyment of the game that drives school students' motivation and interest to play educational games. Instead, learning games can inspire students to study a subject faster and more effectively.

There are also some students, especially slow learners, who struggle with learning at school. Slow learners are students who do not meet the criteria for a disability but have below-average intellectual capabilities. There are some of students that considered as slow learners because they have difficulty mastering specific skills like reading or math. They have difficulty keeping up with the usual academic requirements of the regular classroom. Slow learners are normal students, but the issue is that they have little interest in learning using the traditional education system [3]. This student takes longer than average to process information, assimilate new concepts, or progress academically. Others may be regarded as slow because they process information more slowly than average students or have trouble retaining information. Slow learners can benefit from playing serious education games because they can receive targeted instruction suitable to their needs. The games can be motivating and engaging for slow learners, which can help them stay on track with their studies [4].

Students are often used to teach complex concepts that may be difficult to understand in a traditional classroom setting. Serious education games can introduce topics like math, science, and language and can be particularly beneficial for slow learners. These students may struggle to understand and retain information in a traditional classroom setting. They can learn at their own pace and more enjoyably and engagingly with serious education games [5]. Serious games can also help slow learners build confidence and develop problem-solving skills. It can also be a great way to help slow learners learn and retain information. They can provide an engaging and enjoyable way for students to practice their skills and gain confidence in their abilities.