Proceedings of the 2nd International Conference on Global Politics and Socio-Humanities
DOI: 10.54254/2753-7048/70/20241024

The Application and Influence of Interest-Driving in Digital Learning

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Abstract: The rapid growth of digital learning platforms has reshaped traditional education by combining structured learning with entertainment--a concept commonly known as "edutainment." This study delves into the connection between intrinsic and extrinsic motivation and how they affect student engagement as it enters into the intricacies of interest-driven learning in digital settings. The important study emphasizes how crucial it is to cultivate intrinsic interest to sustain long-term academic achievement. The difficulty, though, is striking a balance between the gamified learning's attractive features and the systematic rigor essential to academic success. This paper conducts a critical analysis of the ways in which digital technologies, in particular gamification, might promote deep comprehension through real-world applications or increase dependency on rewards, therefore improving or impeding learning. It also discusses the negative aspects of online education, like a lack of community and social connection from traditional classrooms. The study concludes with a suggestion for a solution: interactive gamification based on continuous feedback, real-world simulations, and sustained commitment to maintain a productive balance between amusement and depth of learning.

Keywords: Interest-Driving, Digital Learning, Online Education.

1. Introduction

The learning landscape is changing dramatically as it continues to change in the digital era of education. Traditional approaches to teaching and learning are being redefined and challenged by the advancement of technology. The introduction of digital learning platforms that combine education with entertainment--a practice known as "edutainment"--is one of the most significant changes of this new century [1]. These platforms promise to make education more accessible and engaging, but they also create a difficult conflict between the need for structured, systematic education and fun, interest-driven learning. This conflict has generated a lot of discussion and attention among educators, students, and policymakers. Researcher Lee and colleagues found that collaborative learning is an approach to establishing and understanding knowledge with peers as a crucial element in student engagement [2]. According to researcher Malone, there is a clear boundary between intrinsic and extrinsic motivations to spur students' interest in learning [3]. As from researcher Krath, he states that serious games are a way to bring knowledge and games together to achieve learning [4]. The existing research findings and arguments focus on the aspects of discussing the significance of traditional

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learning at the social level, the necessity and underlying logic of interest-driven learning in psychology, and the analysis of gamification in technology. These findings lack the two-way interaction and discovery of the balance between fun learning and systematic learning and a new model and methodology to implement the unity. This paper aims to provide insights into how digital learning could effectively reach a balance between the playful and the purposeful to foster comprehensive educational experiences. This thesis examines the inherent contradictions and potential unification between these two approaches.

2. The Role of Interest Drive in Digital Learning

2.1. The Interest in Learning

Interest in learning often refers to an individual's motivation to be involved spontaneously in educational activities. The motivation can be extrinsic and intrinsic. External rewards, such as grades, social recognition, or future benefits, drive extrinsic motivation. Intrinsic motivation is driven by the person's curiosity, personal fulfillment, or passion for the subject [5]. At this point, both of the motivation types stimulate the learner's psychological states. However, intrinsic motivation is more impactful than extrinsic motivation because it is enduring and self-sufficient [5]. The intrinsic motivation exerts the learner's inner force to be mentally and physically open to absorb the knowledge that triggers them. The factors that affect internal motivation are interest, enjoyment, and need [5]. A student's level of interest in what they are studying significantly affects how well and deeply they connect with the content, which influences their academic achievement, perseverance, and general attitude toward learning.

2.2. The Importance of Interest in Learning

The interest in learning is important. Learning results will be impacted by students' interest in what they are studying, which will increase their attention span. Attention, objectives, and learning intensity are three critical factors that might spark motivation in learning. High attention seekers typically have interests of their own. Interest in learning develops due to experiences, routines, and involvement in the learning process rather than coming about overnight or spontaneously. Comfort and requirements are closely associated with interest [6]. The interest in learning helps learners to focus on the field of studying with high efficiency and enthusiasm. So they can remember the knowledge deeply and long-lasting with true understanding and achieve excellent academic outcomes. The previous research demonstrates that the student's ability to self-concept is the crucial component that drives one's belief in the learning process and school grades [7]. The interest constructs students' ability self-concept as an internal motivation.

2.3. The Underlying Logic of the Influence of Interest in Students' Motivation in Digital Learning

Developing interest is especially important in digital learning environments, as students typically have more control over their learning routes. Digital resources like interactive modules, educational games, and simulations are meant to spark students' curiosity and make studying more fun. By using learners' natural curiosity and desire to experiment, explore, and play, these technologies make learning feel less like an obligation and more like an adventure. The characteristics that draw people to digital learning also lead to a significant paradox: finding the right balance between enjoyment and systematic learning. Even though enjoyable, stimulating activities might draw learner's interest and make studying enjoyable, they might not always offer the discipline and rigor required for long-term academic success. Building a solid foundation of knowledge and abilities requires systematic learning,

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which entails a methodical progression through instructional topics. This method frequently calls for consistency, discipline, and a certain amount of seriousness—elements that can appear at odds with the joyful atmosphere of digital learning spaces. When fun learning is combined with the digital learning mode, the appearance of gamification brings two-sided effects. On the positive side, gamification in learning stimulates students' interest in gamified education through internal incentives of autonomy, relatedness, and affordance [8]. Students could choose the types of challenges that closely relate to or are accepted by them to have a sense of enjoyment and excitement in the gamified learning process. They find a sense of belonging and positive feedback in the controllable learning game that swift their attitude. As a result, they are addicted to the learning game rather than traditional systematic learning.

On the flip side, gamification can lead to a heavy reliance on the rewards system and game context, and it can be influenced by varying levels of input knowledge. According to researchers, a single game design template can not cater to the diverse goals and motivations of different users [8]. Some game users may be more interested in the enjoyment of a flowing game plot, while others may be focused on achieving the rewards of each game challenge. Still, others might be more interested in acquiring practical knowledge in a relaxed, gamified environment. This perspective from researchers provides a balanced view of the potential limitations of gamification in digital learning.

3. The Problems of Interest-Driving in Digital Learning

Technology has rapidly changed education in the digital age, making it more participatory and dynamic. Accessible digital learning with innovative teaching tools is a priority. Gamification in learning is an important research subject. Gamification improves engagement, motivation, and retention, making it a key topic in modern educational research. For digital-first learning, this approach continues to guide the future.

3.1. Individual Intrinsic or Extrinsic Motivation

The nature of motivation compounds the contradiction between fun learning and systematic learning. Both extrinsic and intrinsic factors can affect students' motivation, but they can have distinct effects on learning results. For example, A student-driven by the desire to learn might become highly engaged in a digital game. Still, if the game is devoid of educational content, this engagement might not result in meaningful learning. On the other hand, a student who desires good grades could do well in a more conventional, systematic learning environment but find it difficult to maintain interest in the lack of instant gratification or enjoyment. According to previous researchers, the challenges add fun to an individual's motivation to engage in an activity. The perspective of viewing an activity can be categorized as a toy or a tool. The toys function as intrinsic motivation without external goals, whereas the tools work as extrinsic motivation for attaining external goals [3]. As for toys, the design of difficulty in the process of participating in the activity can increase the sense of enjoyment through higher challenges and complexity due to the lack of incentives from external goals. Thus, the design of challenges and complexity can help individuals learn from playing with toys, such as remembering the definition of a term to get into the next chapter in the games. For tools, the external goals already contain the extrinsic motivation of individuals. They should be learned to use with high practicality and efficiency. The extra design of difficulty and challenge only makes individuals unconfident to continue since the tools are effortful to learn under external goals. For instance, the TI-84 calculator works as a tool to help individuals get the results of a coordinate axis graphic as efficiently and precisely as possible by inputting the values. Suppose the calculator requires the users to remember the formulas of getting each graphic to add challenges to help users learn the formulas. In that case, the tool brings frustration to learners instead of rewards.

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3.2. Lack of Social Community

Another issue with digital learning settings is the absence of a social community. The school possesses the foundation of systematic learning by providing a collective level of study, which allows for a large amount of interaction of knowledge and understanding between students and teachers. In a traditional classroom, students engage in collaborative learning, exchange ideas, and develop social skills, which creates a consciousness of a group. Digital learning can cause isolation and diminish peer support and cooperation opportunities, mainly centered on personal interests. Due to their lack of exposure to the advantages of learning in a community, students who are isolated from others may find their education less effective overall. In digital learning, the lack of interaction decreases the student's engagement. According to the research, collaborative learning is vital to student engagement. Collaboration among peers is a learning process that helps learners discuss the content, ponder the problems, and solve the problems together [2]. The digital learning setting makes communication in peer collaboration arduous, such as emailing or texting the viewpoints on the group chat app. The response of peers always takes time to wait, especially in a large group with five people or more. The sharing of knowledge and sparks of curiosity gradually consumed this long waiting time and tedious process of sharing ideas. The group's consciousness disappears from each individual. They feel like studying alone and interacting alone while the teachers assign students in groups to accomplish the work. The digital interaction brings a sense of working, loneliness, and belonging to a social community during learning. Therefore, it causes a decrease in student engagement and a loss of the social aspects of education.

3.3. Imbalance between Amusement and Effective Learning

The imbalance between amusement and effective learning comes from the controversy of learning is a serious thing. According to the researchers, raising the compatibility between fun and learning is hard. The amusement in learning is an additional value to many students and professors, which is expensive and frivolous to learning content. Too much amusement in learning weakens the values of knowledge, academics, and instructors. Fun is for attracting people to join learning, but it is hard to keep the learning fun when more difficult knowledge comes after [9]. The amusement in learning is not suitable for deep learning. However, the ultimate goal of learning is capturing learners' intention in in-depth study to understand the knowledge. Thus, it should be serious and unrelated to amusement or games to make learning valuable and sustainable. From students' perspective, learners prefer an enjoyable learning approach that assists them to learn the knowledge more effectively and solidly. Serious games, which attempt to combine educational material with gaming circumstances, are one approach to solving this imbalance. A compromise is provided by serious games, which aim to emphasize structure, effort, and critical thinking while also making learning fun. They combine interactive learning, real-world applications, and problem-solving techniques to improve student engagement and educational value. For example, a serious game aims to foster various serious learning purposes as a full-featured game [4]. It incorporates all the structures and frameworks for training employees as a real-world stimulation. The positive feedback from the users at the initial stage seems to prove the feasibility of this serious game. Nevertheless, further study and testing are still needed to determine how effective this strategy is. The beginning stage of each serious game only includes the broad frameworks of the learning content. In-depth learning requires more details, thoughts, and creations to run the knowledge in the digital settings as the game attracts learners' attention and retains learners to dive into deep knowledge.

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4. Way to Form Unity

4.1. Interactive Gamification based on Real-World Learning Stimulation to Raise the Relevance of Study Topic

It is critical to strike a balance between enjoyment and learning effectiveness because both are necessary for promoting students' long-term success and engagement. The learning process should be constructed based on an interactive mechanism that incorporates the elements of a real-world classroom and learning atmosphere into digital learning. It also strengthens the technology of real-time monitoring with human supervision. Interactive gamification serves as a starting point in discovering solutions to bring both learning areas together. Compared to conventional digital learning, gamification-based learning brings higher motivation to learners to carry out the deep knowledge further [10]. By developing game-like features into realistic learning simulations, teachers can motivate students to participate more deeply and provide feedback on the content as the game NPCs. The need for social community and collaboration can be achieved with peers in the game timely since students all play together to exchange opinions and gain self-evaluation from peers' reflections [10]. For instance, in a business game, three students serve separately as a CFO, a CMO, and a CEO of a startup. The relationships among them are collaboration and competition. They have a common goal to run the business to success. Also, they must be responsible for their job duty through collaboration and competition. The shortcomings of asynchronous communication can be diminished under this game-based learning system. So students can access the real-world classroom atmosphere and materials in the play world. Compared to typical classrooms, gamification creates a friendlier, less frightening atmosphere that can help people feel less stressed. It also adds a playful element that stimulates curiosity and inquiry. Gamification is especially important in digital environments because students can work together in virtual games as they would in in-person classroom discussions. Gamification techniques such as interactive textbooks, game-based learning modules, and real-time feedback loops can preserve academic rigor while boosting student engagement. The games can set up specific terms related to each challenge to not only guide students to accomplish the challenge but also to understand the knowledge in relative games, such as a hint card of the solution with a similar case and detailed explanation of the topic. Thus, it can strengthen the two-way flows and interactions among teachers and students and knowledge to students. The interactive mechanism in gamified learning forms a positive loop.

4.2. Long-Term Commitment and Persistence

Persistence and long-term commitment are essential for preserving learning gains over time. These are especially crucial in digital learning settings, as there may be more distractions. In this case, the responsibility of teachers shifts to supervising the students' learning progress and guiding the direction of knowledge content step by step in the long term, which allows gamified learning to stay on the right track with balanced knowledge content and fun. A persistent mindset is fostered by a commitment to continuous learning, which keeps learners interested even when the material gets more complicated. According to the experts, involvement in learning and assistance to have learning skills are two significant elements in implementing commitment and persistence in learning that can help students gain academic access in the long run [11]. When implemented appropriately, gamified learning models can promote this perseverance by incentivizing achievement and sustaining students' attention for prolonged periods. Therefore, both the learning game and learners need to give their long-term commitment and persistence to achieve the best academic outcomes.

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4.3. Continuous Feedback and Improvement

Finding a successful balance between entertainment and systematic learning requires constant feedback and advancement. Real-time feedback in a digital environment lets students pinpoint areas that need work immediately. Students can review material and deepen their understanding at their speed through on-demand accessibility. The students can learn time management and be fully prepared before entering more complex knowledge [12]. This feedback loop produces a dynamic learning environment where students may keep improving, along with feedback from peers, teachers, and experts. So, the students have self-affirmation from controlling the pace of learning in this customized learning. Customized learning pathways enable customized education that adapts to the demands of each student. The constant update of educational methodology and knowledge content should keep up with the time, especially in the technological period.

5. Conclusion

In conclusion, there are advantages and disadvantages to using interest-driven learning in digital settings. Digital platforms can improve student motivation and engagement by combining extrinsic and intrinsic motivations. Finding a balance between enjoyment and systematic learning is essential, however. Promising approaches to close the gap between enjoyment and rigorous learning include gamification, constant feedback, long-term commitment, and collaborative learning. In the digital age, the growth of these approaches must change to guarantee that they offer worthwhile and productive educational experiences that promote student engagement and academic success.

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