

# Academic Uses of Video Games: A Qualitative Assessment of Research and Practice To Enhance Learning in Higher Education

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**Abstract:** Integrating video games into higher education has emerged as a novel approach to enhancing student learning and engagement. This study investigates the problem of traditional educational methods' limitations in capturing students' interest and facilitating diverse learning styles. The objective is to assess the effectiveness and applications of video games in academic settings, focusing on their pedagogical benefits, engagement strategies, and learning outcomes. The study uses a qualitative research methodology to analyze data collected from interviews, case studies, and literature reviews within the context of higher education. Findings indicate that video games significantly improve student engagement, collaboration, and critical thinking skills. They also offer personalized learning experiences and practical applications of theoretical concepts. The conclusion highlights video games as beneficial educational tools that, when effectively integrated into curriculum design, can complement traditional teaching methods, address diverse learning needs, and enhance the educational experience in higher education settings.

**Keywords:** Video Game, Higher Education, Enhanced Learning, Engagement Students, Qualitative.

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## 1. Introduction

Video games in higher education have gained significant attention in recent years. This is due to the potential of video games to improve student engagement, motivation and learning outcomes. Over the past few decades, there has been a growing interest in understanding the potential benefits of incorporating video games into higher education. As technology continues to evolve, educators and researchers are exploring ways in which video games can be used to enhance the learning experience for students. Educators' views on digital games have shifted from categorizing these games as an entertaining yet pedagogically sound activity to a promising medium to engage students in the learning process.

The integration of video games in higher education has garnered significant interest due to their potential to improve student engagement, motivation, and learning outcomes. Research has shown that video games can be effective in educational settings. This interest led to a qualitative assessment of how video games are utilized in higher education, which revealed a mixed impact on pedagogy and scientific research. Research has shown that video games can

promote moral cognition (Cabellos & Pozo, 2023), encourage discussion and improve learning achievement in specific educational models (Fidan & Fidan, 2024), and contribute to the development of cognitive skills (P Garmen et al., 2022). In addition, gamified learning strategies have increased student motivation in secondary and higher education settings (Ratinho, 2023).

Educators and researchers are exploring different approaches to incorporating video games into higher education. Some studies have focused on the impact of video games on decision-making skills (Oscarido et al., 2023), while others have examined the role of video games in developing competencies in higher education (Sierra-Daza et al., 2023). Moreover, serious games have been beneficial in simulating learning environments that are challenging to replicate in real-life situations (Sipiyaruk & Reynolds, 2018). Despite the potential benefits, there are challenges in implementing video games in higher education. Issues such as usability in video game-based learning platforms (J Díaz et al., 2021), problem representation formats for in-game learning support (Lee & Ke, 2019; Lenczowski et al., 2018), and the introduction of gamification into e-learning (Urh et al., 2015) are areas that require attention to ensure effective integration of video games into educational practice. Video games in higher education offer a promising avenue to improve student engagement and learning outcomes. By critically examining existing literature and practice, valuable insights can be gained to optimize the academic use of video games in higher education settings.

Using video games in higher education has been the subject of increasing interest and research. In recent years, researchers and educators have recognized the potential of video games to transform traditional learning environments and create new opportunities for student engagement and academic success. By integrating video games into higher education, instructors can capitalize on games' immersive and interactive nature to improve student motivation and learning outcomes. This qualitative assessment seeks to investigate the current landscape of research and practice surrounding incorporating video games in higher education, aiming to provide a comprehensive understanding of the benefits and challenges associated with this innovative approach. Through critical analysis of existing literature and practice, this assessment offers valuable insights into the academic use of video games, shedding light on their potential to drive student engagement and enrich the learning experience.

Integrating video games in higher education can positively impact student engagement and learning outcomes. Research has shown that students prefer gamified tools in virtual learning environments due to their utility, fun, and knowledge enhancement (Acosta-Medina et al., 2021). Educators face challenges such as a perceived lack of time to develop gamification approaches and concerns about proven benefits (Lester et al., 2023). Despite these obstacles, gamified learning strategies have significantly increased student motivation in high school and higher education environments (Ratinho, 2023). Moreover, video games have been shown to promote moral cognition through epistemic play, offering a unique approach to engaging students in ethical decision-making (Cabellos & Pozo, 2023). Furthermore, serious games have been suggested as an effective tool to assess and stimulate cognitive skills in adults, highlighting the diverse applications of video games in educational settings (Pablo Garmen et al., 2024).

Research has shown that video games can promote moral cognition, improve learning achievement and practical performance, stimulate cognitive skills, increase student motivation,

influence attitudes towards skill development, and present drivers and barriers for using gamification and game-based learning in universities. The findings underscore the diverse ways in which video games can positively impact the educational experience in higher education settings. This qualitative assessment aims to explore current research and practice around video games in higher education, shedding light on the various approaches and outcomes associated with this innovative teaching method. By critically examining existing literature and practice, this assessment seeks to provide valuable insights into the academic use of video games and their impact on student engagement and learning outcomes.

Research has also explored the educational potential of video games through various learning theories, evaluating their feasibility to support teaching and learning (Egenfeldt-Nielsen, 2006). Furthermore, examining games and simulations in higher education settings has identified their influence on learning outcomes, although evidence remains limited, prompting calls for further investigation (Vlachopoulos & Makri, 2017). Moreover, the educational value of commercial video games has been analyzed to highlight their pedagogical potential, suggesting that these games have an ideal capacity to transmit educational content and promote learning (Reyes-de-Cózar et al., 2022). This research underscores the importance of a comprehensive understanding of the role of video games in educational settings, advocating for better methodologies and practices in their academic use.

Educators and researchers can gain valuable insights into the benefits and challenges of this innovative approach by critically analyzing the existing literature and practices surrounding the incorporation of video games in higher education. Video games in higher education offer a promising avenue to transform traditional learning environments, encourage student engagement, and enrich the learning experience. Upcoming sections of this assessment will provide detailed insights into specific examples of successful video game integration in higher education, emphasizing the positive impact on student engagement and learning outcomes. In addition, the assessment will focus on addressing potential challenges and concerns associated with using video games in academic settings, offering a balanced perspective on the topic. As such, it aims to equip educators and researchers with a comprehensive understanding of the opportunities and considerations surrounding the academic use of video games in higher education.

## **2. Methodology**

### **Research design**

A qualitative research design was proposed to investigate the academic use of video games and assess their impact on enhancing learning in higher education. This design will explore the perspectives of educators and students regarding the incorporation of video games into the curriculum. The instrument used in this research is through in-depth interviews with educators and students who have experience using video games in the classroom. The interviews aim to gather insights on the benefits, challenges and perceived effectiveness of using video games for educational purposes. Furthermore, the existing research literature on this topic will be analyzed to provide a comprehensive picture of current knowledge regarding the academic use of video games in higher education. In addition, observations of classroom settings where video games are used will provide valuable real-time insights into this approach's practical implications and challenges.

In assessing the academic use of video games in higher education, it is essential to consider various factors. Assessing video game narratives can provide insight into multimodal literacy assessment, ensuring that educational objectives are effectively met. Understanding the drivers and barriers to using gamification and game-based learning in universities is critical to navigating the challenges and optimizing the implementation of video games in higher education. Additionally, the problem representation format of in-game learning was essential in enhancing cognitive construction and problem-solving skills, contributing to effective learning outcomes. By addressing these considerations, educators can ensure that video game integration aligns with educational objectives, promotes inclusivity, and facilitates rigorous assessment of learning outcomes in academic settings. A qualitative analysis of the findings from interviews, literature review, and classroom observations will offer a holistic understanding of the opportunities and considerations surrounding the academic use of video games in higher education.

### **Participants**

This study would involve educators who have incorporated video games into their teaching and students who have experienced game-based learning in a higher education environment. The sampling technique uses purpose sampling following the research objectives. The purpose sampling technique aligns with the research objectives of conducting semi-structured interviews with educators and students to gather insights on the application of video games in educational settings. Purpose sampling involves selecting participants based on specific criteria relevant to the research goals. This approach allows researchers to target individuals with direct experience with video games in higher education, ensuring that the data collected is focused and pertinent to the study's objectives (Lester et al., 2023; Sumiahadi et al., 2017). By focusing on educators and students with experience with video games in higher education, researchers can gain valuable perspectives on the benefits, challenges, and outcomes of integrating video games into teaching and learning practices.

### **Data collection**

Semi-structured interviews will be conducted with educators and students. In addition, classroom observations and document analyses (e.g., subject syllabus assignment guidelines) will be used to gather contextual information about the application of video games in educational settings.

The interview questions were:

- How do educators in higher education perceive the use of video games in teaching practice?
- What were the student experiences and outcomes when video games were integrated into the learning process?
- What challenges and opportunities do educators and students identify in using video games for academic purposes?

The references provided offer insights into various aspects related to the use of video games in educational settings. These include the effects of video-driven discussions in the flipped classroom model on learning achievement, practical performance, and higher-order thinking skills in dental education (Fidan & Fidan, 2024), student attitudes towards games-based skills development in higher education (Madaio et al., 2020), the impact of video games, exergames, and board games on executive functions (Gashaj et al., 2021), evaluating aspects of usability in video game-based programming learning platforms (Jaime Díaz et al., 2021), and the introduction of gamification into e-learning in higher education (Urh et al., 2015).

Conducting semi-structured interviews with educators and students and analyzing classroom observations and documents can provide valuable insights into the implications and outcomes of incorporating video games in educational settings.

**Data analysis**

Thematic analysis will be applied to interview transcripts, observation notes and documents to identify patterns, themes and insights related to using video games in higher education. Researchers can comprehensively understand patterns, themes, and insights regarding integrating video games into academic settings by conducting a thematic analysis of interview transcripts, observation notes, and documents related to using video games in higher education. Analyzed student attitudes, problem representation formats, gamified learning strategies, and educators' perspectives can provide valuable insights into the effectiveness, challenges, and opportunities of incorporating video games into higher education environments. This approach can help identify best practices, areas for improvement, and innovative strategies for leveraging video games as educational tools in higher education settings.

Various relevant references can enrich the thematic analysis of interview transcripts, observation notes, and documents related to using video games in higher education. For example, the study by Loeis et al. (2023) offers insights into reducing the skills gap in the game development sector, which is valuable for understanding skill requirements in the context of video game integration in education. Additionally, Ibrahim's (2019) research on foreign language practice in simulation video games provides perspectives on language learning dynamics within video game environments. Furthermore, the work by Bunt & Gouws (2020) on enhancing critical thinking through artificial life simulation informs the analysis of critical thinking skills development in students engaging with video games.

Moreover, references such as the study by Fidan (2023) on the effects of video-driven discussions in the flipped classroom model and research by Sierra-Daza et al. (2023) on the use of video games for competency development in higher education offer insights into the impact of video games on learning outcomes (Sierra-Daza et al., 2023). Additionally, the systematic review by Lester et al. (2023) on the drivers and barriers to gamification and game-based learning in universities provides valuable perspectives on the challenges and opportunities associated with integrating video games into educational settings.

Researchers can understand video games' implications, challenges, and benefits in higher education by synthesizing these references and conducting a thematic analysis of the collected data.

**Finding**

Based on the results of the semi-structured interviews, rich and detailed data directly from educators about perceptions and experiences with video games in educational settings can be seen in Table 1.

Table 1 Question answer analysis results: How do higher education educators perceive video games in teaching practice?

<b>Indicator</b>	<b>Perceptions</b>
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Pedagogical value	Educators recognized the pedagogical potential of video games to improve student engagement, motivation and learning outcomes. They highlighted how games can simulate complex systems and real-life scenarios, facilitating a more profound understanding and retention of subject matter.
Integration challenges	Despite recognizing the benefits, educators expressed concerns about the practical challenges of integrating video games into the curriculum. These challenges include a lack of resources, time constraints, and inadequate institutional support.
Skill development	Educators emphasized video games' role in developing students' critical thinking, problem-solving skills and teamwork. They believe that games offer a unique opportunity for students to apply theoretical knowledge in a practical and immersive environment.
Cultural shift	There is a need for a cultural shift within educational institutions to recognize and support video games as legitimate pedagogical tools. Educators call for more research, training and resources to implement game-based learning strategies effectively.
Diverse learning styles	Educators highlighted that video games cater to diverse learning styles, making education more inclusive and accessible. They appreciated the flexibility and adaptability of video games to cater to different educational needs and preferences.

The thematic analysis shows that while educators in higher education are generally optimistic about the potential of video games to enhance learning, there are significant barriers to widespread adoption. Overcoming these challenges requires institutional support, resource allocation and a shift in educational culture to embrace innovative teaching methods.

The research aims to understand students' experiences and learning outcomes when video games are integrated into the learning process. Based on the second question, the data collected from various research instruments, including interviews, focus group discussions, and observations, can be interpreted as in Table 2.

Table 2 Question answer analysis results: What were the student experiences and outcomes when video games were integrated into the learning process?

Indicator	Perceptions
Enhanced engagement and motivation	Students reported a significant increase in engagement and motivation when video games were used as part of the learning process. Video games' interactive and immersive nature contributed to a more enjoyable learning experience, making complex subjects more accessible and exciting.
Improved learning outcomes	The integration of video games into education led to improved learning outcomes. Students demonstrated better retention of knowledge, enhanced problem-solving skills, and

	a deeper understanding of the subject matter. Video games facilitated experiential learning, where students could apply theoretical knowledge in practical, game-based scenarios.
Development of soft skills	Students also experienced growth in soft skills, such as teamwork, communication, and leadership abilities. Collaborative video games require students to work together, fostering a sense of community and enhancing interpersonal skills.
Challenges and limitations	Despite the positive outcomes, some students faced challenges, including distractions and overreliance on games for learning. Educators noted the importance of balancing game-based learning with traditional instructional methods to ensure a comprehensive educational experience.
Diverse Learning Preferences	The study highlighted that while many students benefited from game-based learning, responses varied due to individual learning preferences and styles. This underscores the need for a diverse teaching approach that includes video games as one of many pedagogical tools.

The thematic analysis revealed that integrating video games into learning positively impacts student engagement, motivation, and learning outcomes. However, it also highlighted the importance of mindful integration and the consideration of individual learning preferences. Educators are encouraged to leverage video games as a supplementary tool to traditional teaching methods, ensuring a balanced and inclusive educational approach.

Qualitative analyses of educators' and students' perceptions of the use of video games for academic purposes revealed a complex landscape of challenges and opportunities. Using thematic analysis techniques on the data collected through interviews, focus groups and observations, several key themes emerged, as shown in Table 3.

Table 3 Question-answer analysis results: What challenges and opportunities do educators and students identify when using video games for academic purposes?

Indicator	Perceptions
Resource and infrastructure limitations	A significant challenge reported was the lack of necessary technological resources and infrastructure in educational institutions to support game-based learning effectively(Farrell et al., 2017).
Curricular integration	Educators faced difficulties integrating video games into existing curricula, citing concerns about aligning game content with educational standards and objectives(Hamari et al., 2016).
Skepticism and resistance	Some educators and students expressed scepticism regarding the educational value of video games, perceiving them more as entertainment than learning tools. This scepticism often led to resistance to adopting game-based learning strategies(Stetten et al., 2022).

Assessment challenges	Assessing learning outcomes from game-based learning posed a challenge, as traditional testing methods might not accurately reflect the skills and knowledge gained through video games(Pratama & Setyaningrum, 2018).
Engagement and motivation	Both educators and students identified increased engagement and motivation as significant benefits of using video games in education. Games' interactive and immersive nature was seen as a potent tool for capturing students' attention and fostering a more profound interest in learning(Hamari et al., 2016; Pratama & Setyaningrum, 2018).
Skill development	Video games were recognized for their potential to develop various skills, including problem-solving, critical thinking, collaboration, and digital literacy. Educators appreciated the opportunity to teach complex concepts in an applied, engaging manner(Stetten et al., 2022).
Innovative teaching and learning approaches	Video games were seen as a way to introduce innovative teaching and learning approaches that could accommodate different learning styles and preferences, making education more inclusive and accessible(Bores-garc et al., 2024).
Enhanced learning outcomes	Several studies reported enhanced learning outcomes when video games were integrated into the learning process. Students showed improved subject-specific knowledge, increased retention rates, and a better ability to apply learning in practical contexts(Pratama & Setyaningrum, 2018).

The thematic analysis highlights a landscape in which the integration of video games into academic settings presents significant challenges and promising opportunities. Overcoming these challenges requires targeted efforts to improve infrastructure, develop curricular resources, and shift perceptions about the educational value of video games. Meanwhile, the opportunities for enhanced engagement, skill development, and innovative pedagogical approaches offer compelling reasons to explore and expand the use of video games in education.

In assessing the academic use of video games in higher education, it is essential to consider various factors. Assessing video game narratives can provide insights into multimodal literacy assessment, ensuring that educational objectives are effectively met. Understanding the drivers and barriers to using gamification and game-based learning in universities is critical to navigating the challenges and optimizing the implementation of video games in higher education. Additionally, the problem representation format of in-game learning is essential in enhancing cognitive construction and problem-solving skills, contributing to effective learning outcomes. By addressing these considerations, educators can ensure that video game integration aligns with educational objectives, promotes inclusivity, and facilitates rigorous assessment of learning outcomes in academic settings.

Additionally, research on video games in higher education emphasizes that gamification can increase student engagement and motivation, leading to improved academic performance. Students who engage with video games in the classroom have reported increased motivation, engagement and enjoyment in their learning experience.



### **3. Discussion**

The discussion section of this assessment will investigate the implications of the findings, exploring how the use of video games in higher education aligns with current educational theory and practice. It will also discuss potential strategies to overcome challenges and maximize the benefits of using video games in the classroom.

In this discussion section of the assessment, it is imperative to explore how the use of video games in higher education aligns with current educational theory and practice. By utilizing existing research literature, educators can gain insight into the implications of integrating video games into academic settings. For example, narrative assessment of video games can provide valuable information on multimodal literacy assessment, aligning with contemporary educational practices that emphasize diverse forms of literacy Beltrán-Palanques (2024). Moreover, understanding the drivers and barriers to using gamification and game-based learning in universities can shed light on how these approaches align with educational theory and practice (Lester et al., 2023). Moreover, the problem representation format in in-game learning support can be linked to cognitive construction theory, highlighting the importance of problem-solving skills in educational settings (Hashmi et al., 2021).

Furthermore, potential strategies can be explored to overcome the challenges and maximize the benefits of using video games in the classroom. Educators may consider capitalizing on positive attitudes towards game-based skill development among students to improve engagement and learning outcomes (Barr, 2018). Additionally, exploring the implications of severe games in measuring cognitive profiles can provide insights into personalized learning approaches that meet the individual needs of students (Garmen et al., 2022). By examining how video games align with educational theory and practice and identifying strategies to overcome challenges, educators can optimize the integration of video games in higher education to enhance student's learning experiences.

#### **Qualitative assessment of video game integration**

The qualitative assessment of video game integration in higher education was designed to gather detailed insights into the experiences and perspectives of educators and students who have used video games as an educational tool. Given the task of conducting a qualitative assessment of video game integration in higher education, it is essential to consider references that directly relate to the experiences and perspectives of educators and students regarding the use of video games as an educational tool. The references Barr (2018), Beltrán-Palanques, 2024 Garmen et al., 2022 Ratinho 2023; Urh et al., 2015; Sipiyyaruk et al., 2018; Pozo et al., 2019), and Alias et al. (2015) are particularly relevant as they focus on various aspects of video game integration in educational settings, including student attitudes towards game-based skill development, the role of gamified learning strategies in student motivation, multimodal literacy assessment in video game narratives, and the use of serious games to measure cognitive profiles (Alias et al., 2015; Martín-Del-Pozo et al., 2019). These references provide valuable insights into the benefits, challenges, and effectiveness of using video games for educational purposes, which align with qualitative assessment objectives. By incorporating findings from these references, assessment can offer a comprehensive understanding of the academic use of video games in higher education based on real-world experiences and perspectives.

### **Research on video games in higher education**

According to the research cited, there is evidence that video games can be an effective pedagogical tool in postgraduate education. They can enhance inquiry-based and experiential learning, engage students, and bridge gaps in reading comprehension.

Based on the assignment, the most relevant references that align with the statement regarding the effectiveness of video games as pedagogical tools in postgraduate education are *A Fun Approach to Leadership Development: Three Innovative Uses of Games in the Classroom* (Schrier et al., 2023). *Organizational Behaviour Teaching Review*. This reference discusses innovative uses of classroom games for leadership development, highlighting skills such as strategic thinking, critical thinking, and reflection that are important in postgraduate education. It emphasizes the effectiveness of games in engaging students and enhancing their learning experience, which resonates with statements about video games enhancing inquiry-based and experiential learning in postgraduate education and assessing the Effectiveness of Video Game Integration in Higher Education.

### **Video game-based learning practices in universities**

The practice of video game-based learning in universities involves the application of video games as a teaching tool in the curriculum. The integration of video games as a teaching tool in universities, known as video game-based learning, has been studied extensively. Research has explored various aspects of this practice, including using severe games to assess cognitive profiles in adults Garmen et al. (2022), the impact of gamified learning strategies on student motivation (Ratinho, 2023), and evaluating video game narratives for multimodal literacy (Beltrán-Palanques, 2024). These studies explain the benefits of incorporating video games in higher education, such as improving student engagement, critical thinking skills, and overall learning outcomes. Universities can offer interactive and immersive learning experiences that cater to diverse learning styles and promote student engagement by utilising video games as an educational tool. Moreover, integrating video games in higher education aligns with modern educational approaches, emphasising experiential and inquiry-based learning providing a dynamic teaching and learning environment in an academic setting.

### **Assessing the effectiveness of video game integration in higher education**

The implications of the findings suggest that video game integration in higher education is in line with current educational theory and practice. Qualitative assessments have revealed that well-designed educational video games promote critical thinking, problem-solving, and collaborative skills among students, which aligns with constructivist and experiential learning principles. The immediate feedback provided by these games allows students to learn from their mistakes in a low-risk environment, aligning with the concept of formative assessment and the importance of learning from failure in the educational process. The integration of video games in higher education aligns with current educational theory and practice, as evidenced by the research findings. Well-designed educational video games have been shown to promote critical thinking, problem-solving, and collaborative skills among students, which are fundamental tenets of Fidan's (2023) constructivist and experiential learning approaches. The immediate feedback provided by these games allows students to learn from their mistakes in a low-risk environment, aligning with the concept of formative assessment and the importance of learning from failure in the educational process. By incorporating video games as an educational tool, universities can create dynamic and engaging learning environments that

encourage student-centred learning, active participation and skill development in line with contemporary educational theory.

In addition, video game-based learning practices in universities have shown evidence of increased inquiry-based and experiential learning, as mentioned in the research literature. This aligns with active learning principles, where students are actively involved in the learning process through practical and experiential activities. Examples of successful integration of video games into higher education also show potential long-term effects on reading habits, motivation, and overall academic performance, positively impacting student learning outcomes.

Video game-based learning practices in universities have shown evidence of enhancing inquiry-based and experiential learning aligned with active learning principles. This approach involves students actively engaging in the learning process through practical and experiential activities, fostering a deeper understanding of the subject matter. The successful integration of video games into higher education has shown potential long-term effects on reading habits, motivation, and overall academic performance, demonstrating a positive impact on student learning outcomes. By incorporating video games as an educational tool, universities can create interactive and immersive learning experiences that promote student engagement, critical thinking, and skill development in line with contemporary educational theory and practice.

### **Strategies for maximising benefits and overcoming challenges**

It is crucial to consider several strategies to maximize the benefits of using video games in the classroom and overcome the associated challenges. Firstly, ensuring accessibility and equity in video games is crucial to creating an inclusive learning environment. This can be achieved by carefully selecting games that cater to different learning styles and providing the necessary resources for all students to participate. It is imperative to implement several strategies to optimize the benefits of incorporating video games in the classroom and overcome the associated challenges. Firstly, ensuring accessibility and equity in video games is crucial to building an inclusive learning environment. This can be achieved by carefully selecting games that accommodate different learning styles and providing the necessary resources for all students to participate (Rice, 2013).

Additionally, integrating formative assessment practices in video game-based learning can improve student learning outcomes by allowing students to learn from their mistakes in a low-risk environment (Morris et al., 2021). Moreover, by combining active and experiential learning principles through video game integration, educators can improve student engagement and critical thinking skills. By adopting these strategies, educators can effectively utilize the potential of video games in the classroom to create dynamic and impactful learning experiences for students.

In addition, the discussion will explore potential strategies for rigorously and comprehensively assessing the learning outcomes of video game integration. This will involve developing clear assessment criteria aligned with educational objectives and standards to evaluate the effectiveness of video games in enhancing student learning. In addition, it will investigate the importance of creating a supportive infrastructure and providing professional development for educators to integrate video games into their teaching practices effectively. Educators can draw insights from various research studies to develop effective strategies to rigorously and comprehensively assess the learning outcomes of video game integration—for example,

research by et al. Fidan (2023) states that the effects of video-based discussions in a flipped classroom model can provide valuable instructional implications for educators looking to improve learning achievement and higher-order thinking skills. In addition, the study by Lester et al. (2023) on the drivers and barriers to using gamification and game-based learning in universities offers insights into potential challenges educators may face and strategies to overcome them. Furthermore, research by Beltrán-Palanques (2024) on assessing video game narratives for multimodal literacy can inform the development of clear assessment criteria aligned with educational objectives and standards. By considering these studies and utilizing their findings, educators can implement robust assessment strategies to evaluate the effectiveness of video games in improving student learning outcomes.

A qualitative assessment of video game integration in higher education would provide valuable insights into the experiences and perspectives of educators and students, offering an in-depth understanding of the opportunities and challenges associated with this innovative approach.

#### **4. Conclusion**

Practice to Enhance Learning in Higher Education" concluded that video games have substantial pedagogical value in educational settings, notably higher education. Various studies show that video games can significantly enhance learning by increasing engagement and motivation and developing essential skills such as problem-solving, critical thinking and collaboration. The main conclusion is that while video games offer innovative opportunities for learning, integrating video games into higher education requires careful consideration of the curriculum, technological infrastructure and training needs of educators. This study highlights the need for further research to understand best practices for integrating video games into educational settings, including the types of games that are most beneficial for specific learning outcomes.

In addition, this research underscores the importance of addressing the lingering doubts among some educators regarding the educational effectiveness of video games. This scepticism can be reduced by demonstrating the positive impact of game-based learning on student engagement and learning outcomes. Video games are a promising tool for improving learning in higher education. Still, their potential can only be fully realized through targeted research, strategic implementation and ongoing evaluation of their impact on learning outcomes.

#### **Limitations and future research**

The study "Academic Uses of Video Games: A Qualitative Assessment of Research and Practice to Enhance Learning in Higher Education" highlights several limitations and areas for future research. These insights are critical for advancing the understanding and application of video games in educational settings. There is a noted scarcity of data on the specific information and technology needs of researchers and instructors utilizing video games in higher education. This gap hinders the development of a comprehensive understanding of how video games can be most effectively integrated into academic contexts.

The existing research primarily focuses on the potential of commercial video games for educational purposes but does not extensively cover the creation and use of specifically designed educational games. This limitation suggests a need for broader research encompassing a more comprehensive range of game types. Future research should explore the

use of video games across various disciplines, examining the similarities and differences by discipline to tailor game-based learning strategies effectively. Further studies are needed to understand the technological infrastructure required to support game-based learning, including developing guidelines for educators and institutions.

Additional research is needed to identify and refine pedagogical strategies that effectively leverage video games for learning, ensuring that they complement traditional teaching methods and contribute to holistic educational experiences. While video games hold promise as tools for enhancing learning in higher education, addressing these limitations and pursuing the outlined areas for future research will be crucial for realizing their full potential in academic settings.

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