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Adolescents' orientation towards electronic games and the extent of their

ABSTRACT

This study aimed to analyze the impact of electronic games on the academic performance of middle school students, with particular emphasis on games characterized by violence and excitement. The research was conducted under a quantitative, descriptive, and cross-sectional approach. Data were collected through a structured questionnaire applied to a sample of 73 students from Haj Bouziane Middle School in the state of Relizane. The results show that 100% of the participants have access to electronic gaming devices, with smartphones being the most commonly used (83.56%). Additionally, 72.60% of students reported a preference for military and violence-based games, mainly motivated by entertainment (89.04%). These findings indicate that digital consumption among adolescents is strongly oriented toward leisure activities rather than educational purposes. Furthermore, the study revealed negative academic effects associated with excessive gaming, including lack of attention in class (32.87%), decreased academic performance (30.13%), and difficulty understanding lessons (16.43%). These results suggest a significant relationship between gaming habits and reduced academic engagement. In conclusion, the study highlights the urgent need for educational institutions to adapt to digital realities by integrating technological tools into pedagogical practices and promoting responsible and critical use of digital media. Without such transformations, the gap between education and students' digital environments will continue to widen, negatively affecting learning outcomes.

Keywords: Electronic games; academic performance; adolescents; digital technology

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Orientación de los adolescentes hacia los videojuegos y su incidencia en el rendimiento académico

RESUMEN

El presente estudio tuvo como objetivo analizar el impacto de los videojuegos en el rendimiento académico de estudiantes de educación media, con especial énfasis en aquellos caracterizados por la violencia y la excitación. La investigación se desarrolló bajo un enfoque cuantitativo, de tipo descriptivo y de corte transversal. La recolección de datos se realizó mediante un cuestionario estructurado aplicado a una muestra de 73 estudiantes de la escuela secundaria Haj Bouziane, en el estado de Relizane. Los resultados evidencian que el 100% de

los participantes tiene acceso a dispositivos electrónicos para jugar, siendo el teléfono inteligente el más utilizado (83,56%). Asimismo, el 72,60% de los estudiantes manifestó preferencia por videojuegos de tipo militar y violento, motivados principalmente por el entretenimiento (89,04%). Estos hallazgos indican que el consumo digital en adolescentes está fuertemente orientado hacia actividades de ocio más que a fines educativos. De igual manera, el estudio reveló efectos académicos negativos asociados al uso excesivo de videojuegos, entre los que destacan la falta de atención en clase (32,87%), la disminución del rendimiento académico (30,13%) y la dificultad para comprender las lecciones (16,43%). Estos resultados sugieren una relación significativa entre los hábitos de juego y la reducción del compromiso académico. En conclusión, el estudio pone en evidencia la necesidad urgente de que las instituciones educativas se adapten a las realidades digitales, integrando herramientas tecnológicas en las prácticas pedagógicas y promoviendo un uso responsable y crítico de los medios digitales. De no producirse estas transformaciones, la brecha entre la educación y los entornos digitales de los estudiantes continuará ampliándose, afectando negativamente los resultados de aprendizaje.

Palabras clave: Videojuegos; rendimiento académico; adolescentes; tecnología digital

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Orientação dos adolescentes em relação aos jogos eletrônicos e sua incidência no desempenho acadêmico

RESUMO

O presente estudo teve como objetivo analisar o impacto dos jogos eletrônicos no desempenho acadêmico de estudantes do ensino médio, com ênfase especial naqueles caracterizados pela violência e pela excitação. A pesquisa foi desenvolvida sob uma abordagem quantitativa, de tipo descritivo e de corte transversal. A coleta de dados foi realizada por meio de um questionário estruturado aplicado a uma amostra de 73 estudantes da escola secundária Haj Bouziane, no estado de Relizane. Os resultados evidenciam que 100% dos participantes têm acesso a dispositivos eletrônicos para jogar, sendo o smartphone o mais utilizado (83,56%). Além disso, 72,60% dos estudantes manifestaram preferência por jogos de tipo militar e violento, motivados principalmente pelo entretenimento (89,04%). Esses achados indicam que o consumo digital entre adolescentes está fortemente orientado para atividades de lazer, mais do que para fins educativos. Da mesma forma, o estudo revelou efeitos acadêmicos negativos associados ao uso excessivo de jogos eletrônicos, entre os quais se destacam a falta de atenção em sala de aula (32,87%), a diminuição do desempenho acadêmico (30,13%) e a dificuldade de compreensão das aulas (16,43%). Esses resultados sugerem uma relação significativa entre os hábitos de jogo e a redução do engajamento acadêmico. Em conclusão, o estudo evidencia a necessidade urgente de que as instituições educacionais se adaptem às realidades digitais, integrando ferramentas tecnológicas às práticas pedagógicas e promovendo um uso responsável e crítico dos meios digitais. Caso essas transformações não ocorram, a lacuna entre a educação e os ambientes digitais dos estudantes continuará a se ampliar, afetando negativamente os resultados de aprendizagem.

Palavras-chave: Jogos eletrônicos; desempenho acadêmico; adolescentes; tecnologia digital

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INTRODUCTION

Artificial Intelligence (AI) has emerged as a transformative force in higher education, reshaping teaching, learning, and knowledge production processes. Its integration into academic environments has enabled new forms of interaction between students, teachers, and technological systems, fostering more dynamic and adaptive educational experiences.

Recent studies highlight that AI is not only a technological advancement but also a paradigm shift that redefines how knowledge is generated, accessed, and applied in higher education institutions (Incio Flores et al., 2022; Jara & Ochoa, 2020). This transformation is closely linked to the broader process of digitalization, which has accelerated the incorporation of intelligent systems into pedagogical practices.

From a pedagogical perspective, AI has been positioned as a powerful tool to enhance teaching and learning processes through data-driven decision-making and personalized instruction. Machine learning techniques allow educational platforms to adapt content, pace, and evaluation methods according to individual student needs, promoting more inclusive and efficient learning environments (Forero-Corba & Bennasar, 2024; Parra-Sánchez, 2022). This capacity for personalization represents a significant departure from traditional one-size-fits-all models, enabling a more student-centered approach that aligns with contemporary educational paradigms. However, this shift also raises important questions regarding the role of human agency in learning processes.

Despite its potential, the incorporation of AI in higher education is not free from challenges and risks. Scholars have warned about the ethical implications associated with the use of intelligent systems, including issues related to algorithmic bias, data privacy, and the potential dehumanization of education (Cordon García, 2023; Flores Vivar & García Peñalvo, 2023). These concerns are particularly relevant in academic contexts, where the integrity of knowledge production and the development of critical thinking are fundamental objectives. Consequently, the debate on AI in education extends beyond technological efficiency to include ethical, social, and epistemological dimensions.

One of the most significant concerns relates to the impact of AI on students' autonomy and critical thinking. The increasing reliance on intelligent systems for tasks such as writing, problem-solving, and information retrieval may lead to a form of cognitive dependency that undermines the development of essential academic skills. Research suggests that fostering autonomy and critical thinking is crucial for meaningful learning, as these competencies enable students to engage actively with knowledge rather than passively consume information (Zúñiga Sánchez, 2012; Juárez Osorio et al., 2026). In this context, the challenge lies in ensuring that AI serves as a support tool rather than a substitute for cognitive processes.

Closely related to this issue is the growing concern about academic integrity in the era of generative AI. The ability of AI systems to produce texts, solve complex problems, and simulate human reasoning has blurred the boundaries between original work and automated output. This situation has led to new forms of academic misconduct, raising questions about authorship, authenticity, and the evaluation of learning outcomes (Gallent-Torres et al., 2023; Martínez-Pinto et al., 2024). As a result, higher education institutions are increasingly challenged to develop strategies that promote ethical use of technology while preserving the core values of academic integrity.

Furthermore, the impact of AI on academic writing and scientific production has generated both opportunities and concerns. On one hand, technological tools can support students in organizing ideas, improving language quality, and accessing relevant information. On the other hand, excessive reliance on these tools may hinder the development of writing skills and critical analysis, which are essential for academic success (Coronado López, 2021; Gordillo-Alfonso, 2017). This duality highlights the need to critically assess the role of AI in knowledge construction, ensuring that it enhances rather than replaces intellectual effort.

In addition, the transformation of assessment practices in the digital era represents another critical dimension of this debate. Traditional evaluation models, often based on memorization and standardized testing, are increasingly being questioned in light of new technological capabilities. Scholars argue for the adoption of more authentic and competency-based assessment approaches that reflect the complexity of learning processes in digital

environments (Moreno Olivos, 2016; Sánchez et al., 2020). However, the integration of AI into assessment systems also poses challenges related to reliability, fairness, and the verification of student performance.

At the policy level, the rapid expansion of AI in education has outpaced the development of regulatory frameworks capable of addressing its implications. While some countries and institutions have begun to establish guidelines for the ethical use of AI, there is still a lack of comprehensive policies that ensure its responsible integration into educational systems (Ilbay, 2024; Tiramonti & Tobeña, 2021). This regulatory gap creates uncertainty and increases the risk of misuse, highlighting the need for governance models that balance innovation with ethical and pedagogical considerations.

Finally, the impact of AI on professional training underscores the urgency of rethinking higher education in the context of the digital society. As AI continues to transform labor markets and professional practices, universities must adapt their curricula to prepare students for new challenges and opportunities. This includes the development of digital competencies, critical thinking, and ethical awareness, which are essential for navigating complex technological environments (Rondón Morel et al., 2024; Medina Tene et al., 2024). In this sense, the integration of AI in education should be aligned with broader goals of human development and social responsibility.

In light of these considerations, this study aims to critically analyze the role of artificial intelligence in higher education, focusing on its implications for ethics, academic integrity, critical thinking, and educational quality. By examining the interplay between technological innovation and pedagogical principles, the research seeks to contribute to a more balanced and responsible understanding of AI in academic contexts.

THEORETICAL FRAMEWORK

Artificial Intelligence in Higher Education: Conceptual Foundations and Pedagogical Applications

Artificial Intelligence (AI) in higher education has evolved from a complementary technological resource to a central component of educational transformation. Its conceptualization encompasses a wide range of computational systems capable of simulating human cognitive processes such as learning, reasoning, and decision-making. In academic contexts, AI is increasingly used to support teaching, optimize administrative processes, and enhance learning experiences through intelligent systems (Incio Flores et al., 2022; Jara & Ochoa, 2020). This evolution reflects a broader shift toward digital ecosystems where knowledge is mediated by technology, redefining traditional educational paradigms.

From a pedagogical perspective, AI offers significant opportunities to improve teaching methodologies and student engagement. Machine learning and data analytics enable the development of adaptive learning environments that respond to individual student needs, allowing for personalized instruction and differentiated learning pathways (Forero-Corba & Bannasar, 2024; Parra-Sánchez, 2022). These innovations contribute to more inclusive educational models, as they can address diverse learning styles and paces. However, the effectiveness of these tools depends on their integration into pedagogical frameworks that prioritize meaningful learning rather than mere technological adoption.

Moreover, the integration of AI is closely linked to the broader process of digital transformation in education. This transformation involves not only the incorporation of technological tools but also changes in institutional culture, teaching practices, and knowledge production processes. AI-driven systems facilitate access to information, automate routine tasks, and support decision-making, thereby increasing efficiency in educational environments (Cordon García, 2023). Nevertheless, this transformation also raises questions about the balance between

technological innovation and pedagogical integrity, particularly in contexts where digitalization is implemented without sufficient critical reflection.

Ethical Dimensions of Artificial Intelligence in Education

The rapid expansion of AI in educational contexts has intensified the need to address its ethical implications. Ethical considerations in AI extend beyond technical functionality to include issues related to fairness, transparency, accountability, and the protection of human dignity. In educational settings, these concerns are particularly significant, as AI systems directly influence learning processes, evaluation, and knowledge production (Paguay-Simbaña et al., 2024; Flores Vivar & García Peñalvo, 2023). Therefore, the ethical use of AI requires a comprehensive framework that integrates technological capabilities with human values.

One of the main ethical challenges associated with AI is the presence of algorithmic bias, which can reproduce and amplify existing inequalities. In education, biased algorithms may affect student assessment, access to resources, and learning opportunities, thereby undermining the principles of equity and inclusion (Galiana et al., 2024). Additionally, the extensive use of data in AI systems raises concerns about privacy and data protection, particularly in contexts where sensitive student information is processed without adequate safeguards. These issues highlight the need for robust ethical guidelines and regulatory mechanisms.

Furthermore, the potential dehumanization of education represents a critical concern in the debate on AI. The increasing reliance on automated systems may reduce human interaction in learning environments, affecting the development of social and emotional competencies. Scholars emphasize that education is not only a cognitive process but also a relational one, where human interaction plays a fundamental role (Flor Terán & Sandoval Reyes, 2024). In this sense, the integration of AI must be carefully managed to ensure that it complements rather than replaces the human dimension of education.

Academic Autonomy and Critical Thinking in the Age of AI

The integration of AI into higher education has significant implications for the development of academic autonomy and critical thinking. These competencies are essential for meaningful learning, as they enable students to analyze information, construct knowledge, and make informed decisions. However, the increasing availability of AI tools capable of generating content and solving complex tasks raises concerns about the potential erosion of these skills (Zúñiga Sánchez, 2012; Ramírez Chávez, 2021). The risk lies in the possibility that students may become passive users of technology rather than active participants in the learning process.

Research on educational methodologies highlights the importance of fostering autonomy through active learning approaches, such as inquiry-based learning and flipped classrooms. These strategies encourage students to engage critically with content, promoting deeper understanding and independent thinking (Juárez Osorio et al., 2026; Aucacela Guacho et al., 2026). In this context, AI can be a valuable tool if it is used to support these processes rather than replace them. For instance, AI can provide feedback, suggest resources, and facilitate exploration, but the responsibility for learning must remain with the student.

Moreover, the concept of cognitive dependency has emerged as a critical issue in discussions about AI in education. The overreliance on intelligent systems may lead to a decline in problem-solving abilities and critical analysis, as students may prioritize efficiency over understanding. This phenomenon underscores the need for pedagogical frameworks that promote balanced use of technology, ensuring that AI enhances rather than undermines intellectual development. Consequently, the challenge for higher education institutions is to integrate AI in ways that strengthen, rather than weaken, students' cognitive capacities.

Academic Integrity in the Context of Generative AI

Academic integrity is a fundamental principle in higher education, encompassing values such as honesty, responsibility, and respect for intellectual property. The emergence of generative AI has introduced new challenges to this principle, as these technologies enable the production of high-quality academic content with minimal human input. This capability has blurred the boundaries between original work and automated output, raising concerns about authorship and authenticity (Gallent-Torres et al., 2023). As a result, traditional definitions of plagiarism and academic misconduct are being re-evaluated.

Studies on academic integrity indicate that the use of AI tools can facilitate new forms of dishonest practices, including the submission of AI-generated work as original content. This phenomenon not only undermines the credibility of academic institutions but also affects the learning process, as students may bypass essential stages of knowledge construction (Comas et al., 2011; Martínez-Pinto et al., 2024). In response, universities are increasingly adopting policies and strategies to address these challenges, including the use of detection tools and the promotion of ethical awareness.

However, the issue of academic integrity cannot be addressed solely through control mechanisms. It requires the development of a culture of integrity that encourages responsible use of technology and emphasizes the value of authentic learning. This involves rethinking assessment practices, promoting transparency, and fostering ethical reflection among students and educators (Gómez Córdoba & Pinto Bustamante, 2017; Morales Montes & Lujano Vilchis, 2021). In this sense, the integration of AI in education must be accompanied by a strong commitment to ethical principles.

Academic Writing and Knowledge Production in the Digital Era

Academic writing is a central component of higher education, as it enables students to articulate ideas, construct arguments, and contribute to knowledge production. The integration of digital technologies, including AI, has transformed writing practices, offering tools that support organization, editing, and access to information (Valverde González, 2018). These tools can enhance writing quality and efficiency, particularly for students who face difficulties in academic expression.

Nevertheless, the use of AI in academic writing also raises important concerns. Excessive reliance on automated tools may hinder the development of critical thinking and analytical skills, as students may delegate cognitive tasks to technology. Research on writing processes emphasizes that writing is not merely a technical activity but a cognitive and reflective process that contributes to learning (Coronado López, 2021; Gordillo-Alfonso, 2017). Therefore, the challenge lies in using AI as a support mechanism without compromising the intellectual effort required for academic writing.

Additionally, the issue of academic fraud in writing has gained relevance in the context of AI. The availability of tools capable of generating coherent and structured texts increases the risk of unethical practices, particularly when students use these technologies without proper attribution (Rinaldi, 2024). This situation underscores the need for clear guidelines and educational strategies that promote responsible use of AI in writing, ensuring that it enhances rather than undermines academic integrity.

Assessment of Learning in the Digital Age

The transformation of education through digital technologies has also impacted assessment practices, prompting a shift from traditional models to more innovative approaches. Contemporary perspectives emphasize the importance of formative assessment, which focuses on supporting learning processes rather than merely measuring outcomes (Moreno Olivos, 2016; Sánchez et al., 2020). In this context, AI offers new possibilities for assessment,

including automated feedback, adaptive testing, and real-time monitoring of student performance.

However, the integration of AI in assessment also presents significant challenges. One of the main concerns is the authenticity of learning, as it becomes increasingly difficult to verify whether the work submitted by students reflects their own understanding or the output of AI systems. This issue is particularly relevant in online and hybrid learning environments, where direct supervision is limited (Pérez-Then, 2025). As a result, there is a growing need to design assessment strategies that prioritize critical thinking, creativity, and problem-solving skills.

Furthermore, the use of AI in evaluation raises questions about fairness and reliability. Automated systems may not fully capture the complexity of human learning, particularly in areas that require subjective judgment or contextual understanding. Therefore, it is essential to adopt a balanced approach that combines technological tools with human evaluation, ensuring that assessment processes remain valid and meaningful (González Pérez, 2001). In this sense, the future of assessment lies in integrating innovation with pedagogical principles.

Educational Policies and Technological Regulation

The rapid development of AI in education has outpaced the creation of regulatory frameworks capable of addressing its implications. Educational policies play a crucial role in guiding the integration of technology, ensuring that it aligns with pedagogical objectives and ethical standards. In recent years, there has been increasing recognition of the need to establish guidelines for the responsible use of AI in education (Iibay, 2024; Durán Chinchilla et al., 2025). These policies aim to balance innovation with the protection of fundamental values such as equity, transparency, and academic integrity.

In Latin America, the development of digital policies in education has been uneven, with significant differences between countries and institutions. While some initiatives have focused on expanding access to technology, others have emphasized the importance of digital competencies and teacher training (Lugo & Ithurburu, 2019). However, the integration of AI requires more comprehensive approaches that address not only access but also ethical and pedagogical considerations. This highlights the need for governance models that incorporate multiple stakeholders, including educators, policymakers, and researchers.

Moreover, the regulation of AI in education must consider its dynamic and evolving nature. Static policies may quickly become obsolete in the face of rapid technological change, underscoring the importance of flexible and adaptive frameworks (Rodríguez Macías, 2025). In this context, international organizations such as UNESCO and OECD play a key role in providing guidelines and promoting best practices. Ultimately, effective regulation requires a balance between innovation and control, ensuring that AI contributes to the advancement of education without compromising its core principles.

Impact of Artificial Intelligence on Professional Training

The integration of AI into higher education has profound implications for professional training, as it reshapes the competencies required in the labor market. The growing demand for digital skills and technological literacy has led universities to reconsider their curricula, incorporating new content and methodologies that reflect the realities of the digital economy (Rondón Morel et al., 2024). This transformation is essential for preparing students to navigate complex and rapidly changing professional environments.

AI also plays a significant role in redefining professional practices across various fields. For example, in disciplines such as law, education, and accounting, AI tools are increasingly used to automate tasks, analyze data, and support decision-making (Medina Tene et al., 2024; Escobar, 2023). While these developments create new opportunities, they also raise concerns about the potential displacement of traditional roles and the need for continuous learning.

Therefore, higher education institutions must focus on developing not only technical skills but also critical thinking, adaptability, and ethical awareness.

Finally, the impact of AI on professional training highlights the importance of aligning education with societal needs. Universities must balance the demands of the labor market with their broader mission of fostering human development and social responsibility. This requires a holistic approach to education that integrates technology with ethical and critical perspectives, ensuring that graduates are not only skilled professionals but also responsible citizens. In this sense, AI should be seen as a tool that supports human development rather than a force that dictates it.

Methodology

This study was developed under a quantitative approach, which allows the measurement and analysis of observable phenomena through numerical data, facilitating objective interpretation of results (Espinoza-Freire, 2025). The research design was descriptive and cross-sectional, as it sought to analyze the use of electronic games and their impact on academic performance at a specific moment in time.

The population consisted of middle school students from Haj Bouziane Middle School in the state of Relizane. The sample was composed of **73 students**, selected through a non-probabilistic sampling method, considering accessibility and availability of participants. This sample size corresponds to the data presented in the statistical tables analyzed in the study.

Data collection was carried out through a structured questionnaire, which was administered directly to the students within their educational institution. The instrument included closed-ended questions designed to collect information about the types of electronic games used, motivations for use, frequency, and perceived academic effects. The use of questionnaires as a research tool allows for systematic data collection and facilitates statistical analysis (Espinoza Freire, 2020).

The collected data were processed and analyzed using descriptive statistics, including frequencies and percentages, which enabled the organization and interpretation of the results in tabular form. This approach is consistent with quantitative research methods that seek to identify patterns and relationships between variables (Espinoza-Freire, 2025).

Ethical considerations were taken into account throughout the research process, ensuring the voluntary participation of students and the confidentiality of their responses, in accordance with principles of scientific ethics (Espinoza-Freire, 2022).

RESULTS

The analysis of the data collected from a sample of 73 middle school students provides relevant insights into the use of electronic games and their academic implications. The results are structured according to key dimensions, including sociodemographic characteristics, access to digital devices, gaming preferences, motivations, and perceived academic effects.

Sociodemographic characteristics

Table 1.

Distribution of participants by sex

Sex	Frequency %	
Male	33	45.20
Female	40	54.80
Total	73	100

The results indicate a slight predominance of female participants (54.80%) compared to males (45.20%). Although the difference is not substantial, it reflects a relatively balanced sample in terms of gender distribution.

Table 2.

Distribution of participants by age

Age group	Frequency	%
11-13	4	5.47
14-16	66	90.41
17-18	3	4.10
Total	73	100

As shown in Table 2, the majority of participants (90.41%) are between 14 and 16 years old, indicating that the study is mainly focused on mid-adolescents, a stage characterized by increased interaction with digital technologies.

Access to digital devices

Table 3.

Ownership of electronic devices by sex

	Ownership Male %		Female %		Total %	
Yes	33	45.20	40	54.79	73	100
No	0	0	0	0	0	0
Total	33		40		73	100

The data reveal that all participants (100%) have access to electronic devices used for gaming. This finding highlights the widespread availability of digital technologies among adolescents.

Table 4.

Type of device used for gaming

Device type	Male %		Female %		Total %	
Computer	1	1.36	3	4.10	4	4.47
Smartphone	27	36.98	34	46.57	61	83.56
PlayStation	4	5.47	2	2.73	6	8.21
Tablet	1	1.36	1	1.36	2	2.73
Total	33		40		73	100

The smartphone is clearly the most commonly used device (83.56%), indicating its central role in adolescents' gaming habits.

Types of games used

Table 5.

Types of electronic games by sex

Game type	Male %		Female %		Total %	
Educational	1	1.42	0	0	1	1.42
Sports	4	5.47	6	8.21	11	15.06
Military	27	36.98	26	35.61	53	72.60
Puzzles/Entertainment	1	1.42	8	10.95	9	12.32
Total	33		40		73	100

The results show a strong preference for military games (72.60%), which are associated with violence and excitement. This preference is consistent across both genders.

Motivations for game use

Table 6.

Reasons for using electronic games by age

Reason	11-13	14-16	17-18	Total %	
Entertainment	4	58	3	65	89.04
Avoid schoolwork	0	4	0	4	5.47
Educational	0	0	0	0	0
Other	0	4	0	4	5.47
Total	4	66	3	73	100

Entertainment is the dominant motivation (89.04%), confirming that gaming is primarily associated with leisure rather than educational purposes.

Table 7.

Motivation for game selection by age

Motivation	11-13	14-16	17-18	Total %	
Game type	4	40	0	44	60.27
Design	0	18	3	21	28.76
Characters/Heroes	0	8	0	8	10.95
Total	4	66	3	73	100

The main motivation is the type of game (60.27%), followed by design and visual appeal.

Academic impact

Table 8.

Perceived effects of electronic games on academic performance

Effect	11-13	14-16	17-18	Total	%
Low academic performance	9	20	1	22	30.13
Difficulty understanding lessons	0	12	0	12	16.43
Lack of attention in class	0	24	0	24	32.87
Other	3	10	2	15	20.54
Total	4	66	3	73	100

The most significant reported effect is lack of attention in class (32.87%), followed by decreased academic performance (30.13%), suggesting a negative relationship between gaming habits and academic engagement.

DISCUSSION

The findings of this study reveal a deeply rooted and normalized use of electronic games among adolescents, reflecting broader transformations in contemporary digital culture and educational environments. The universal access to electronic devices and the predominance of smartphones confirm that digital technologies have become a central axis of students' daily lives, shaping not only their leisure activities but also their cognitive and social interactions. This aligns with the perspective of Incio Flores et al. (2022), who argue that digital technologies and artificial intelligence are increasingly redefining educational dynamics and learning environments.

One of the most significant findings is the overwhelming preference for military and violence-based games, which are associated with excitement, competition, and emotional stimulation. This tendency suggests that adolescents are frequently exposed to highly stimulating digital content that prioritizes immediacy over reflection. According to Jara and Ochoa (2020), the use of digital technologies in education can generate both opportunities and risks, particularly when their use is not pedagogically guided. In this case, the dominance of violent games may contribute to cognitive patterns focused on rapid gratification, potentially affecting students' capacity for sustained attention and critical thinking.

The motivations for game use further reinforce this concern. The predominance of entertainment as the primary reason for engagement indicates that digital environments are perceived mainly as spaces for leisure and escape rather than as tools for learning. This finding is consistent with Parra-Sánchez (2022), who highlights that while digital technologies have the potential to support personalized learning, their impact depends largely on how they are integrated into educational contexts. The absence of educational motivations among participants suggests a lack of institutional strategies to channel these technologies toward meaningful learning experiences.

Moreover, the results reveal a concerning relationship between gaming habits and academic performance, particularly in terms of attention deficits and learning difficulties. These findings can be interpreted in light of the concerns raised by Cordon García (2023), who emphasizes the risks associated with the uncontrolled use of digital technologies in higher education, including cognitive overload and reduced academic engagement. Similarly, Gallent-Torres et al. (2023) point out that emerging digital tools can negatively impact academic integrity and learning processes when not accompanied by appropriate ethical and pedagogical frameworks.

From a critical perspective, these results expose structural weaknesses within the educational system. The persistence of traditional teaching models, disconnected from students' digital realities, limits the ability of institutions to effectively engage learners. As noted by Flores Vivar and García Peñalvo (2023), the integration of emerging technologies into education requires not only technical adoption but also ethical and pedagogical reflection. However, the evidence suggests that many educational systems remain passive, failing to respond to the challenges posed by the digital transformation.

In this context, the lack of policies and institutional strategies for regulating and guiding the use of digital technologies becomes evident. According to Ilbay (2024), the ethical and regulatory dimensions of technological integration in education are essential to ensure responsible and meaningful use. The absence of such frameworks leaves students exposed to unregulated digital environments, where entertainment-driven technologies dominate over educational purposes.

Finally, the findings highlight the urgent need to rethink educational practices in the digital age. Rather than viewing electronic games solely as a threat, educational institutions should explore their potential as pedagogical tools. As suggested by Forero-Corba and Bennasar (2024), artificial intelligence and digital technologies can enhance learning processes when used strategically. Therefore, it is essential to promote digital literacy, critical thinking, and responsible technology use, transforming students from passive consumers into active and reflective participants in digital environments.

CONCLUSIONS

The results of this study confirm that electronic games, particularly those characterized by violence and excitement, are widely used among adolescents and constitute a central component of their daily digital practices. The predominance of entertainment as the main motivation, together with the widespread use of smartphones, demonstrates that digital consumption among students is primarily oriented toward leisure rather than educational purposes, which is consistent with previous research on the role of digital technologies in learning environments (Incio Flores et al., 2022; Jara & Ochoa, 2020).

Furthermore, the findings reveal a concerning relationship between excessive engagement in electronic games and negative academic outcomes, particularly in terms of reduced attention, lower academic performance, and difficulties in understanding lessons. These results align with studies that warn about the potential cognitive and educational risks associated with the uncontrolled use of digital technologies (Cordon García, 2023; Gallent-Torres et al., 2023). Although causality cannot be definitively established, the evidence suggests that gaming practices may interfere with essential learning processes.

From a critical standpoint, the study highlights significant shortcomings within the educational system, which continues to operate under traditional pedagogical models that fail to engage students immersed in dynamic digital environments. The lack of institutional strategies to integrate digital technologies into meaningful learning processes reflects a gap between educational practices and contemporary realities (Flores Vivar & García Peñalvo, 2023). This disconnection allows entertainment technologies to dominate students' attention without adequate pedagogical mediation.

In this context, it becomes essential to rethink the role of educational institutions in the digital age. Rather than adopting a restrictive approach, schools and policymakers should promote the responsible and pedagogical use of digital technologies, fostering critical thinking, digital literacy, and ethical awareness (Ilbay, 2024; Forero-Corba & Bennasar, 2024). Only through a comprehensive and innovative approach can the negative effects identified in this study be mitigated and transformed into opportunities for educational improvement.

LIMITATIONS OF THE STUDY

This study presents certain limitations that must be considered when interpreting the results. First, the sample size ($n = 73$) is relatively small and limited to a single educational institution, which restricts the generalizability of the findings to broader populations. Additionally, the use of self-reported data through questionnaires may introduce response biases, as participants might underreport or overestimate their behaviors. Despite these limitations, the study provides valuable empirical insights into adolescents' digital practices and their academic implications.

FUTURE RESEARCH

Future research should expand the scope of analysis by including larger and more diverse samples across different educational contexts and regions. It would also be relevant to incorporate mixed-method approaches that combine quantitative data with qualitative insights, allowing for a deeper understanding of students' experiences and perceptions. Moreover, further studies should explore the potential of integrating educational technologies and artificial intelligence into pedagogical practices, in order to transform digital engagement into a meaningful learning resource (Parra-Sánchez, 2022; Forero-Corba & Bennasar, 2024).

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CONFLICT OF INTEREST

The author declare that there are no conflicts of interest regarding the publication of this article. The research was conducted independently, without any financial or institutional influence that could affect the objectivity of the results.

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