



Children’s Tendencies Toward Engaging in Multiplayer Video Games: A Comparative Study Between Sports Games (FIFA) and Combat Games (Free Fire)

nemroud bachir^{1*}, cherfouf hamza², latreche zoubir³

b.nemroud@univ-tam.dz / h.cherfouf@univ-dbkm.dz / zoubir.latreche@univ-oeb.dz

¹University of Tamanrasset

²University of khemis Meliana

³University of Oum Elbuaghi

Received: 21/07/2025 **Accepted:** 05/01/2026 **Published:** 26/02/2026

**Corresponding author*

Abstract:

Our study aims to investigate children’s tendencies toward engaging in multiplayer video games, specifically sports games such as FIFA and combat games such as Free Fire, among fourth-year middle school male students.

In this research, we adopted the descriptive method to examine and compare children’s tendencies toward practicing multiplayer video games. The study targeted a sample drawn from Mohamed Bedou Middle School in Khemis Miliana as a case study. The research sample initially consisted of 61 fourth-year middle school students during the 2023/2024 academic year.

After identifying the research population in February and selecting the middle school as a case study—given our direct engagement with it during the training internship period—an exploratory study was conducted. The questionnaire was selected as the primary data collection instrument. Subsequently, six students were excluded in the third exploratory phase due to their non-participation in video games, resulting in a final sample of 55 students. Data were then collected and analyzed using the Statistical Package for the Social Sciences (SPSS).

Keywords: Video Games- Sports Video Games -Combat Video Games

1. Introduction :

In the early 1980s, alongside rapid technological advancement and the expanding uses of computers, new forms of games emerged that had previously been unknown. These games gradually came to play a central role in the culture of children and adolescents. Referred to as electronic games, they quickly became a noticeable phenomenon worthy of scholarly investigation, particularly given their relatively recent emergence and the limited research addressing their characteristics, educational implications, and impact on the holistic development of children in general and adolescents in particular.

These games have generated, and continue to generate, considerable debate regarding their educational role and their various effects on individuals and players. Edward de Bono



argue that the process of playing is far more important than the content itself, suggesting that practicing game-related skills can significantly enhance thinking abilities. To a large extent, this assertion holds true, as gaming situations provide opportunities to exercise a broader range of skills than content-based subjects typically allow. Within games, something is constantly happening, stimulating thinking in areas such as strategy, planning, and decision-making—elements that constitute integral components of most games. Once players become familiar with the rules, knowledge becomes far less important than thinking skills. Collectively, these aspects make gaming environments particularly suitable for developing cognitive abilities. Electronic games have thus become a global phenomenon attracting millions of individuals worldwide and generating billions of dollars annually (*Lakhdar, 2015, p. 01*).

During childhood, imagination is characterized by strength and intensity. A child's imagination may even surpass reality itself, as young children often blend fantasy with reality and struggle to distinguish between them. Video games have become so realistic that it is sometimes difficult to differentiate between the real and the imaginary.

These games stimulate numerous conscious and unconscious cognitive processes in children. They activate imagination and fantasy, allowing children to immerse themselves in scenarios derived from what they observe and actively engage in. They also foster identification with admired characters whom children control, enabling them to project their hopes, fears, frustrations, and psychological conflicts onto the scenes, characters, and events they encounter. Moreover, video games may encourage forms of daydreaming (*Falag, 2009, p. 08*).

Video games also provide children with opportunities for exploration and experimentation without the risks associated with real-life responsibility or punishment. Through gaming, children can confront fears and experience failure in a safe environment, without real-world consequences. For instance, a child may engage in combat within a game without fearing actual defeat, or assume adult-like roles to understand the outcomes of behavioral patterns enacted through interaction with others. In this process, the child begins to discover their identity, differentiating themselves from others and gradually constructing their authentic personality through social behavior mediated by play (*Falag, 2009, p. 09*).

In recent years, video games have assumed a significant role in contemporary society, particularly as a means of entertainment for children. There has been a noticeable decline in participation in physical and sports activities in favor of video gaming. Many children now fill their leisure time with video games, which may contribute to keeping them away from certain social risks outside the home, such as smoking, drug use, or delinquent behavior.

Video games have become a primary activity within the sphere of modern technological media and digital communication. They have spread extensively within Algerian society across various age groups, including adolescents, youth, and adults. Notably, video games have also permeated the school environment, especially among students in the final years of middle and secondary education. They have become one of the most preferred forms of entertainment, to the extent that many students find it difficult to relinquish them, leading in some cases to forms of dependency and addiction (*Merah & Kadiri, 2022, p. 224*).



Video games encompass numerous categories. In the present study, we seek to determine whether children show greater inclination toward sports games such as FIFA or combat games such as Free Fire. Video games, across all categories, are interactive and are played on computers or other electronic devices such as Xbox and PlayStation consoles.

1. Research Problem

Play primarily contributes to the development of children's cognitive and intellectual abilities and also helps maintain their physical and psychological well-being. It is generally considered an autonomous activity that children engage in during their leisure time. Play and simulation constitute essential components in the development of intelligence and reasoning and play a significant role in shaping an individual's personality.

In the last century, a new form of play emerged—video games—which rapidly gained global prominence across all segments of society (children, adolescents, youth, and adults). Each individual tends to develop specific preferences or inclinations toward selecting games that suit their interests.

The widespread proliferation of video games in recent years has highlighted their influential role in children's lives. They have become the primary source of entertainment and recreation for the new generation and are increasingly preferred over many traditional games that children once practiced. The success of video games can largely be attributed to their attractive visual and auditory effects, immersive features, and their ability to simulate diverse environments and novel virtual worlds. These elements allow players to connect with the imagination of the game designer, enter virtual realms, and internalize the ideas and behavioral patterns embedded within them (*Falag, 2009, p. 13*).

Video games encompass multiple genres, among which sports video games and combat video games represent two principal categories central to the present study. Given the limited number of national studies addressing video games, the researcher seeks to shed light on video games in general, and more specifically on sports and combat video games, in order to determine the direction of children's preferences—whether toward sports-oriented or combat-oriented games.

From this perspective, the central research question guiding this study is as follows:

Are there differences in children's tendencies toward engaging in multiplayer sports video games and combat video games?

2. Sub-Questions

By the end of this study, the researcher aims to answer the following subsidiary questions :

- Are there differences related to social background in children's tendencies toward sports and combat video games?
- Are there differences in physical and sports activity levels between children who prefer sports video games and those who prefer combat video games?
- Is there a relationship between excitement and stimulation among students and their inclination toward sports versus combat video games?



3. Research Hypotheses

General Hypothesis

There are differences in children's tendencies toward engaging in multiplayer sports and combat video games.

Specific Hypotheses

- There are differences related to social background in children's tendencies toward sports and combat video games.
- There are differences in physical and sports activity levels between children who prefer sports video games and those who prefer combat video games.
- There is a relationship between excitement and stimulation among students and their inclination toward sports versus combat video games.

4. Objectives of the Study

The present study aims to identify students' tendencies toward engaging in multiplayer sports and combat video games.

5. Research Methodology

The study adopts the descriptive method, as it is deemed most appropriate for the nature of the research.

Specifically, the descriptive approach was employed to examine and characterize children's tendencies toward practicing video games, as it allows for the collection and evaluation of extensive information regarding the nature of the problem under investigation. A comparative design was utilized to test the study hypotheses, relying on the causal-comparative approach to determine differences between groups.

6. Population and Sample of the Study

The statistical population of the study includes all students enrolled in middle school education. Given the impracticality of studying the entire population, it was necessary to select a representative sample.

The study targeted one middle school as a case study, namely Mohamed Bedou Middle School in Khemis Miliana. The school comprises 119 fourth-year middle school students, including 61 male students, who constituted the target group of the present study during the 2023/2024 academic year.

Exploratory Studies

First Exploratory Study

An initial review of the research population was conducted due to the difficulty of studying the entire population in relation to children's tendencies toward practicing video games. Accordingly, the researcher selected one middle school as a case study. The sample was identified in February 2024, coinciding with the period of field training (internship). This facilitated direct access to the participants and ensured the feasibility of



data collection. Fourth-year middle school students were selected due to the researcher's interaction with them during the internship period and the ease of reaching this group.

Second Exploratory Study

The researchers selected the questionnaire as the most appropriate instrument for data collection. The instrument was carefully and rigorously designed in accordance with the students' cognitive and linguistic levels, as well as the methodological guidelines adopted in the study.

Subsequently, the questionnaire was submitted to the academic supervisor and later presented to a panel of professors and expert reviewers in April. The review committee provided feedback and recommendations, suggesting modifications, deletions, and refinements to improve the instrument's clarity and relevance. The researchers then incorporated the suggested revisions and produced the questionnaire in its final form.

Third Exploratory Study

Following the second exploratory phase and the finalization of the questionnaire, the data collection instrument became ready for administration to fourth-year middle school students. The questionnaire was distributed to male students from the same academic level.

Six students were excluded from the study sample because they did not practice video games and therefore did not meet the study criteria. Consequently, the final sample size was reduced to 55 students.

7. Psychometric Properties of the Study Instrument

Face Validity

Face validity refers to the overall appearance and external form of the test, including the clarity of its items, their objectivity, and the comprehensibility of the instructions.

Content Validity

Content validity refers to the extent to which the instrument adequately represents the dimensions of the construct it intends to measure. This involves a logical analysis of the test items and components to determine the functions and aspects represented, as well as the proportion of each dimension in relation to the test as a whole.

Description of the Data Collection Instrument and Its Design

The Questionnaire

The questionnaire was subjected to expert validation by university professors and specialists in the relevant field, ensuring its appropriateness to the educational level of the target sample—namely, fourth-year middle school male students.

Following the revisions and modifications recommended by the expert panel, the questionnaire was refined accordingly. Initially, the instrument consisted of 59 items; however, after review, refinement, and elimination of redundant or unclear items, the final version comprised 32 questions in its definitive form.

Statistical Tools and Tests Used in Data Analysis and Justification for Their Use

The Statistical Package for the Social Sciences (SPSS) was employed to process and analyze the collected data, given its efficiency and accuracy in handling quantitative data and performing statistical tests relevant to social science research.

Chi-Square Test (χ^2)

The Chi-square (χ^2) test was used to examine differences between observed and expected frequencies and to determine the statistical significance of relationships between categorical variables.

The formula is based on the following components:

- **Observed Frequencies:** These are the actual frequencies obtained after administering the questionnaire and collecting responses.
- **Expected Frequencies:** These are calculated by dividing the total frequencies equally across the possible response categories.

The Chi-square table includes the following elements:

- **Tabulated Chi-Square Value (χ^2 critical value):** A fixed reference value used to compare with the calculated Chi-square value in order to make a statistical decision (accepting or rejecting the hypothesis).
- **Degrees of Freedom (df):** Calculated using the formula $(n - 1)$, where n represents the number of proposed response categories.
- **Level of Significance (α):** The threshold at which results are evaluated for statistical significance. Most researchers commonly adopt significance levels of 0.05 or 0.01.

Frequencies

Frequencies were used to summarize and describe the distribution of responses across different categories, facilitating a clear understanding of students' tendencies and response patterns.

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

2

Where:

O = Observed Frequency → the frequency obtained from the actual data

E = Expected Frequency → the frequency expected under the null hypothesis

8. Temporal, Spatial, and Human Framework of the Study

Temporal Framework

-Theoretical Study: From January 29, 2024, to April 21, 2024

-Field Study: From February 21, 2024, to May 12, 2024

-Final Submission of the Thesis: May 27, 2024

Spatial Framework

-Mohamed Bedou Middle School, Khemis Miliana, Ain Defla Province, Algeria

Human Framework

-Professors and experts who validated the data collection instrument

-Technicians assisting in the distribution of the questionnaire

-Administrative staff of the institute and the middle school

-Target students of the study



Discussion of Results in Light of the Hypotheses

Based on the results obtained and the testing of the study hypotheses:

-Social Environment: There were no significant differences in children's tendencies toward multiplayer sports versus combat video games based on social environment. Video games generally encourage social interaction, as students tend to select games that promote engagement with friends and family. This aligns with the study by Mariem Gouder, "*The Impact of Electronic Games on Children's Behavior*", which indicated that electronic games motivate children to achieve success and victory, teach them to interact with modern technology such as the Internet and computers, and that the majority of students prefer sports and combat games.

-Physical Activity: No significant differences were found in children's tendencies toward sports or combat video games concerning physical activity. Playing video games helps children develop various skills, often mirroring real-life sports activities. Games provide modern audiovisual training that indirectly enhances learning and technical skills, increasing children's enthusiasm for mastering new techniques. This finding is consistent with the study by Nemroud Bashir, "*Video Games and Their Effect on Reducing Participation in Recreational Group Physical Activity Among Adolescent Students*", which found that many students prefer to combine electronic gaming with physical activities.

-Excitement and Stimulation: A relationship was found between students' tendencies toward sports and combat video games and the excitement and stimulation they experience. Video games satisfy children's desires and inclinations for play, providing enjoyment and increasing motivation. This supports Ahmed Falaq's findings in "*Algerian Children and Video Games*", which highlighted video games as a leading form of recreational activity favored by school-aged children.

General Conclusion

The study concluded that there are no significant differences between children's tendencies toward multiplayer sports video games (*FIFA*) and combat video games (*Free Fire*). Nevertheless, these games remain a source of social cohesion, promoting interaction with friends and family in a recreational environment. Video games also provide opportunities for achieving success, learning, skill acquisition, and engagement with modern globalization tools such as the Internet and computers, while also offering entertainment, excitement, and satisfaction of desires.

Suggestions and Future Hypotheses

Based on the study's findings, particularly from the field research, the following suggestions and directions for future research are proposed:

- Investigate the tendencies of female students toward video games and their preferred types of games.
- Examine how video games affect students when linked to individual physical activity.
- Explore whether video games assist students in acquiring skills across different sports disciplines.



Conclusion

This study has demonstrated that middle school represents a crucial stage in children's development, particularly during adolescence. It is a sensitive period where engagement with multiplayer sports and combat video games can either enhance cognitive development or leave it unaffected. Video games serve as a key factor in entertainment, stress relief, and boosting self-esteem. Children remain free to choose the type of game—sports or combat—that they prefer.

The study also revealed that the child's choice of game is influenced by their social environment. Games that are more exciting and stimulating and that mirror real-life physical activity have a greater impact on children's engagement. Consequently, parents should monitor their children's gaming choices, guide them toward games that benefit their social environment, and encourage games that replicate their physical activities.

If you want, I can now **combine all your translated sections into a single coherent academic research paper in English**, ready for submission or formatting. This would include the introduction, problem statement, methodology, results, discussion, and conclusion.

References

- 01-Ahmed Rami and Berri. (2019). *The Effect of Video Games on the Desire to Practice Sports among Players. Master's Thesis submitted to fulfill the requirements for a Master's degree in School Physical and Sports Activity, supervised by Ben Hafiz Shafia, Kasdi Merbah University, Ouargla, Algeria.*
- 02-Ahmed Flag. (2009). *The Algerian Child and Video Games. Doctoral Dissertation submitted for the PhD in Media and Communication Sciences, supervised by Mohamed Laqab, University of Algiers – Ben Yousef Ben Khedda, Algeria.*
- 03-Al-Zahra Al-Asouad. (2019). *Kindergarten Children's Inclination Towards Educational Activities. Algerian Journal of Women's Security, 5(1), p. 595.*
- 04-Bachir Nemroud. (2008). *Video Games and Their Effects on Reducing the Practice of Recreational Team Sports among Adolescent Students. Master's Thesis, supervised by Lz'ar Samia.*
- 05-Hamza Hedaj & Amar Raoub. (2020). *Using Play to Acquire and Develop Basic Motor Skills among Primary School Students in the Absence of a Specialized Teacher. Al-Siraj Journal of Education and Social Issues, 5(1), p. 53.*
- 06-Dalal Ben Ouarab & Ismail Cherqi. (2023). *Free Fire Game and Students of Batna 1 University – A Study on Use and Gratification. Al-Risala Journal of Human Studies and Research, 8(2), p. 924.*
- 07-Sami Mohsen Al-Khattata. (2013). *Psychology of Play. Amman, Jordan: Al-Hamed Publishing and Distribution, 1st Edition.*
- 08-Salami Lakhdar. (2015). *Electronic Games and Their Relationship with Violence among Male Adolescents. Master's Thesis submitted for the Master's degree in Sociology, supervised by Mostafa Haj Allah, University of Bouira, Algeria.*



09-Kelthoum Bousl'a & Yamina Massoudi. (2021). *The Relationship of Electronic Games with Violent Behaviors in Educational Institutions. Master's Thesis submitted to fulfill the requirements for a Master's degree in Sociology, supervised by Mohammadtni Shahrzad, Ahmed Draia University, Adrar, Algeria.*

10-Miloud Merah & Moustafa kadiri. (2022). *Addiction to Electronic Games and Its Relationship with Deviant Behaviors among Adolescents in Schools – The Free Fire Game as a Model. Scientific Journal of Studies in the Psychology of Deviance, 7(3).*