

STUDYING THE PROGRESS OF SCIENCE AND ITS SHORTCOMINGS



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Abstract. This article investigates the psychological and cognitive effects of virtual games on young people. It explores both the positive and negative aspects of gaming, such as improved problem-solving skills, creativity, and reaction time, as well as issues like addiction, aggression, and reduced social interaction. The article emphasizes the importance of parental guidance, balanced gameplay, and age-appropriate content.

Key Words: Virtual games, youth, psychology, cognitive development, gaming addiction, aggression, digital behavior, mental health.

Абстрактный. В статье исследуется психологическое и когнитивное воздействие виртуальных игр на молодых людей. В нем рассматриваются как положительные, так и отрицательные аспекты игр, такие как улучшение навыков решения проблем, креативность и время реакции, а также такие проблемы, как зависимость, агрессия и снижение социального взаимодействия. В статье подчеркивается важность родительского руководства, сбалансированного игрового процесса и соответствующего возрасту контента.

Ключевые слова: виртуальные игры, молодежь, психология, когнитивное развитие, игровая зависимость, агрессия, цифровое поведение, психическое здоровье.

Annotatsiya. Ushbu maqola virtual o'yinlarning yoshlarga psixologik va kognitiv ta'sirini o'rganadi. U muammoni hal qilish ko'nikmalarini yaxshilash, ijodkorlik va reaktsiya vaqti kabi o'yinning ijobiy va salbiy tomonlarini, shuningdek, giyohvandlik, tajovuzkorlik va ijtimoiy o'zaro ta'sirni kamaytirish kabi muammolarni o'rganadi. Maqolada ota-onalarning ko'rsatmalari, muvozanatli o'yin va yoshga mos tarkibning muhimligi ta'kidlangan.

Kalit so'zlar: Virtual o'yinlar, yoshlar, psixologiya, kognitiv rivojlanish, o'yinga qaramlik, tajovuzkorlik, raqamli xatti-harakatlar, ruhiy salomatlik.

Virtual games have become an integral part of modern youth culture. With the rise of smartphones, consoles, and PCs, gaming has transformed from a casual pastime into a daily activity for million of young people. While many games offer entertainment and





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educational value, excessive or inappropriate gaming can affect mental development and social behavior. Understanding these impacts is vital for parents, educators, and

Positive Cognitive Effects

Many virtual games, particularly strategy and puzzle games, enhance players' cognitive skills. These include critical thinking, spatial awareness, and hand-eye coordination. Action games may improve reaction times and decision-making speed. Some educational games are specifically designed to improve vocabulary, math, and memory

2. Enhanced Creativity and Imagination

Games that involve open-world exploration or storytelling (such as Minecraft or RPGs) often encourage creativity and imaginative thinking. Players design characters, build worlds, and engage in complex narratives, which can be beneficial for intellectual growth and emotional expression.

3. Social Interaction and Teamwork

Contrary to the belief that gaming is isolating, many online multiplayer games encourage cooperation and teamwork. Young players can connect globally, develop communication skills, and build friendships, albeit in a virtual environment.

4. Negative Psychological Consequences

However, not all effects are beneficial. Excessive gaming can lead to mental health concerns such as anxiety, depression, and mood swings. Violent games have been associated with increased aggression and desensitization to real-life violence, though this remains debated.

5. Gaming Addiction

Gaming addiction, formally recognized by the World Health Organization, is a growing concern. It can result in disrupted sleep, poor academic performance, lack of physical activity, and weakened real-world relationships. Young people may prioritize gaming over responsibilities and personal well-being.

6. Impact on Attention and Focus

Studies show that long hours of fast-paced gaming can reduce a young person's attention span and increase impulsivity. The constant stimulation from games may make it difficult for them to concentrate on less stimulating tasks like studying or reading.

7. The Role of Parents and Educators

Parental involvement is key to managing gaming habits. Setting time limits, monitoring content, and discussing game themes with children can help ensure a balanced approach. Educators can also integrate gamification in learning to harness the children.

In recent decades, virtual games have grown from a niche hobby into a global phenomenon, especially among young people. Today's youth engage with games not only for fun, but also for social interaction, learning, and creative expression. While gaming has many positive aspects, there are also concerns about its potential negative

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influence on mental and emotional development. This detailed explanation provides a balanced view of both sides.

Positive Impacts of Virtual Games

Cognitive Skill Development

- Problem-solving: Strategy and puzzle games require players to analyze situations, make quick decisions, and find solutions.
- Memory and focus: Games often include tasks that strengthen working memory and require sustained attention.
- Multitasking: Fast-paced games like real-time strategy or action games train players to handle multiple tasks simultaneously.
- Hand-eye coordination: Action and racing games improve reflexes and coordination between visual input and physical movement.
 - 2. Creativity and Imagination
- Sandbox games like Minecraft, or open-world role-playing games, let users build, design, and explore without rigid rules.
- Story-based games stimulate imagination and narrative thinking, helping players develop storytelling and empathy.
 - 3. Social Interaction and Teamwork
 - Multiplayer games encourage collaboration, communication, and leadership skills.
- Gamers often form online communities, make new friends, and learn to cooperate with others from different cultures and backgrounds.
 - 4. Stress Relief and Emotional Resilience
 - Games can be a form of escapism, helping players unwind or cope with daily stress.
 - Overcoming challenges in games builds perseverance and emotional resilience.
 - 5. Educational Benefits
 - Language-learning games help with vocabulary and grammar.
 - History-based games can enhance cultural awareness.
- Some games simulate real-world scenarios (like flight simulators or business tycoon games), offering practical skills.

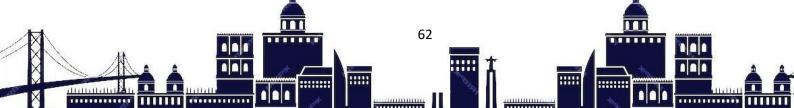
Negative Impacts of Virtual Games

Gaming Addiction

- Gaming Disorder, recognized by the WHO, affects individuals who lose control over their gaming habits.
- Signs include neglect of responsibilities, sleep disruption, irritability when not playing, and withdrawal from real-world relationships.

Increased Aggression

- Violent games (e.g., shooting or fighting games) may desensitize players to violence.



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- Some studies suggest a link between violent game exposure and short-term aggressive thoughts or behaviors, though this remains controversial.

Mental Health Issues

- Excessive gaming is associated with depression, anxiety, low self-esteem, and social isolation in some youth.
- Gaming late at night can disrupt sleep cycles, leading to fatigue and emotional instability.

Reduced Attention Span- High stimulation from games may reduce young people's ability to focus on slow or less dynamic tasks like reading or studying.

- Overexposure to rapid shifts in gaming environments may increase impulsivity. Physical Health Effects- Sedentary gaming habits can lead to:
 - Obesity
 - Postural issues
 - Eye strain (from screen time)
 - Reduced physical activity

Role of Parents, Teachers, and Society

Parental Guidance

- Set time limits (e.g., max 1–2 hours/day).
- Ensure age-appropriate content (via PEGI or ESRB ratings).
- Play with children occasionally to understand their interests.

Involvement

- Incorporate educational games into learning (gamification).
- Teach digital literacy and critical thinking about game content.
- Encourage balance between online and offline learning.

Policy and Regulation

- Governments can regulate game advertisements, loot boxes (gambling-like mechanics), and game content.
- Schools and communities should provide alternatives to digital entertainment (sports, arts, etc.).

Scientific and Psychological Perspectives

- Neuroscience shows that video games activate reward centers in the brain (dopamine response), which reinforces continued play.
- Developmental psychologysuggests that adolescents are more vulnerable to addiction due to underdeveloped impulse control mechanisms.
- Sociology indicates games influence identity formation and social roles in virtual communities.

Conclusion

Virtual games can be both a source of mental development and a cause of psychological risk for young people. Their impact depends largely on the type of games,







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duration of play, and the individual's personality and environment. Encouraging moderation, choosing age-appropriate content, and fostering real-life interactions are essential for maximizing benefits and minimizing harm. When used wisely, virtual games can serve as powerful tools for growth and learning.

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