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THE PROBLEM OF GADGET ADDICTION AMONG CHILDREN AND YOUTH: SELECTED ASPECTS

Abstract. The relevance of the article's topic is determined by the need to search for pedagogical (educational, upbringing) technologies, which will help reduce the negative impact of modern gadgets on the physical and psycho-emotional health of children and youth. The purpose of the scientific research is to analyze some literary sources, the authors of which represent the relevance of the problem of gadget addiction among children and youth, the essence of this problem and possible forms, methods and means of preventing gadget abuse. The following methods were used in the process of scientific research: source heuristics; comparison; method of knowledge system analysis; comparative method. The names of Ukrainian personalities (D. Vakulenko, D. Goshovska, Zh. Hunchevska, S. Dribas, M. Markovska, O. Petrunko, Y. Skvarka, K. Fuchs), who are researching the problem of human gadget addiction have been announced. It has been noted that the pedagogical segment of works on the relevant topic is increasingly filled with new topics. It is noted that the range of domestic works that systematically address the problem of gadget addiction among children and youth is very narrow, therefore, it is too early to talk about significant and conceptual research in this area of science.

The conceptual tools used by researchers of the problem of gadget addiction are outlined, namely: «phonoholism», «gadget addiction», «internet addiction», «internet generation», «glass screen generation», «always-on generation», etc. A number of studies by foreign researchers (A. Hansen, M. Dembski, D. Drevit, N. Kardaras, G. Kasdepke, B. Kosmovska, Y. Miner, M. Soroka-Ossowska, D. Shapiro, N. Yavorska-Dukhlińska) related to the problem of preventing gadget addiction among children and adolescents were analyzed. Based on the study of the works of domestic and foreign researchers, some appropriate forms, methods, and means of preventing gadget abuse are presented, such as: «wooden boxes»; creating a map of joint family walks; «digital detox»; «traffic light therapy»; deleting mobile apps; turning off notifications; determining the time and place for using (not using) the phone; modeling «healthy» technology use - a positive example for parents; permanent improvement of parents' competence regarding new mobile applications and the latest social media trends; conversations with the child about possible risks that may result from prolonged and uncontrolled use of gadgets.

It was concluded that neither in Ukraine nor in foreign countries there are yet any systematic approaches to building the right relationships between children and youth with social networks, there are also no properly developed strategies for preventing gadget addiction among children and youth. A promising field for further directions of scientific research in the field of preventing gadget addiction among students has been identified.

Keywords: gadget addiction, children and youth, foreign researchers, educational technologies, pedagogical opinion, addiction prevention, social networks, digital detox.

ПРОБЛЕМА ґАДЖЕТОЗАЛЕЖНОСТІ З-ПОМІЖ ДІТЕЙ ТА ЮНАЦТВА: ВИБРАНІ АСПЕКТИ

Анотація. Актуальність теми статті зумовлюється потребою пошуку педагогічних (освітніх, виховних) технологій, які сприятимуть зменшенню негативного впливу сучасних ґаджетів на фізичне і психоемоційне здоров'я дітей та юнацтва. Мета наукового дослідження полягає в здійсненні аналізу деяких літературних джерел, автори яких репрезентують актуальність проблеми ґаджетозалежності з-поміж дітей та юнацтва, сутність цієї проблеми і можливі форми, методи і засоби профілактики зловживання ґаджетами. У процесі наукового пошуку використано такі методи: джерельна евристика; порівняння; метод аналізу системи знань; порівняльно-зіставний метод. Анонсовано прізвища українських персоналій, які досліджують проблему ґаджетозалежності людини (Д. Вакуленко, Д. Гошовська, Ж. Гунчевська, С. Дрібас, М. Марковська, О. Петрунко, Ю. Скварка, К. Фукс). Констатовано, що педагогічний сегмент праць відповідної



тематики наповнюється дедалі новими темами. Відзначено, що коло вітчизняних напрацювань, у яких системно висвітлено проблему ґаджетозалежності з-поміж дітей та юнацтва, дуже вузьке, отже, рано ще говорити про значні і концептуальні дослідження в цій ділянці науки.

Увиразнено поняттєвий інструментарій, яким послуговуються дослідники проблеми ґаджетозалежності, а саме: «фонолізм», «ґаджетозалежність», «інтернет-залежність», «покоління інтернету», «покоління скляних екранів», «покоління постійно увімкнених» та ін. Проаналізовано низку студій зарубіжних дослідників (А. Гансен, М. Дембські, Д. Древіт, Н. Кардарас, Г. Касдепке, Б. Космовська, Ю. Мінер, М. Сорока-Оссовська, Д. Шапіро, Н. Яворська-Духлінська), дотичних до проблеми профілактики ґаджетозалежності з-поміж дітей та юнацтва. На основі опрацювання досліджень відчизняних і зарубіжних авторів представлено деякі доцільні форми, методи і засоби профілактики зловживання ґаджетами, як-от: «дерев'яні шкатулки»; створення мапи спільних сімейних прогулянок; «цифровий детокс»; «терапія світлофорів»; видалення мобільних програм; вимкнення сповіщень; визначення часу і місця для використання (невикористання) телефону; моделювання «здорового» використання техніки □ позитивний приклад батьків; перманентне підвищення компетентності батьків щодо нових мобільних програм і останніх трендів соціальних медіа; бесіди з дитиною про можливі ризики, які можуть бути наслідком тривалого і неконтрольованого використання ґаджетів.

Зроблено висновок про те, що ані в Україні, ані в країнах закордоння поки що немає системних підходів до побудови правильних взаємин дітей та юнацтва із соціальними мережами, немає також належно розроблених стратегій профілактики ґаджетозалежності з-поміж дітей та юнацтва. Увиразнено перспективне поле для подальших напрямів наукових пошуків у царині профілактики ґаджетозалежності учнів.

Ключові слова: ґаджетозалежність, діти та юнацтво, зарубіжні дослідники, освітні технології, педагогічна думка, профілактика залежності, соціальні мережі, цифровий детокс.

INTRODUCTION

The problem formulation. One of the important factors influencing the formation of personality in 21st century societies is information and communication technologies. Today, the role of technical devices is significantly increasing, and their widespread use in everyday life is observed. In the modern world, the gadget provides great opportunities, including for communication, visiting online museums, watching movies, and accessing a wide range of information. At the same time, excessive use of gadgets can negatively affect both the physical and psycho-emotional state of a person, and can lead to the so-called digital burnout of a person, that is, to a state of impaired human productivity: the latter experiences exhaustion, which is compared to the burnout suffered by a workaholic (Fuchs, 2020).

Particularly acute problems are becoming more relevant in the context of the physical and mental health of children and youth. Currently, experts and doctors state that if, for example, a teenager spends several hours a day on the Internet, this can negatively affect the development of his brain. If parents gave their child a smartphone or tablet at a «preverbal» age (before the child started talking), there is a high probability that such a child will very quickly get used to «entertaining themselves» in the virtual world and may even completely lose interest in the real world.

Overall, the relevance of the topic of the article is due to the need to find pedagogical (educational, upbringing) technologies that will help reduce the negative impact of modern gadgets on the physical and psycho-emotional health of children and youth.

Some aspects of the problem of preventing gadget addiction among children and youth are devoted to the creative work of D. Vakulenko, D. Goshovska, Zh. Hunchevska, S. Dribas, M. Markovska, O. Petrunko, Y. Skvarka, K. Fuchs. At the same time, the scientific search conducted showed that the range of domestic works that systematically cover the problem raised in the article is very narrow. Therefore, it is too early to talk about significant results.

THE AIM AND RESEARCH TASKS

The aim – to analyze some literary sources that represent the relevance of the problem of gadget addiction among children and youth, its essence and possible forms, methods and means of preventing gadget abuse.

RESEARCH METHODS

The implementation of the set goal was carried out using a complex of research methods, in particular: source heuristics – to identify and systematize a range of pedagogical, psychological and other research; comparison – to identify common and specific aspects in the content of works dedicated to gadget addiction in Ukrainian and foreign literature; the method of analyzing the knowledge system – to ensure a more or less systematic presentation of individual ideas and views, etc. of the research problem; comparative – for formulating conclusions.

RESULTS OF THE RESEARCH

First of all, let's recall the research that clearly defines the essence of the concepts of «phonoholism», «gadget addiction», «internet addiction», etc.

Thus, Maciej Dembski, author of the research «Phonoholism – Excessive Use of Smartphones by Children. The Most Important Symptoms» (Dębski, 2019), notes that phonoholism can be considered a problem of pathological smartphone use. In turn, the author identifies Internet addiction as a behavior characterized by a loss of control over the use of this tool. Among other things, Dembski announces the phrases «internet generation», «glass screen generation», «always-on generation» and notes that these are just some of the terms used to describe the current generation of children and teenagers (born after 1995), who «move» between the real and virtual worlds, where they satisfy their childhood and adolescent needs, spend their free time, seek acceptance, and form a sense of belonging. Phonoholism occurs in people who cannot function normally without the constant presence of their cell phone.



Monika Soroka-Ossowska in her article «Phonogolism – telephone addiction – symptoms, consequences, treatment» (Sroka-Ossowska, 2023) notes that phone addiction in children and adolescents is mainly related to games. The thing is that very often, representatives of this age category do not turn off the application until they pass the next level in the game. The problem becomes even more serious when a team game is taking place: in the opinion of all players, they cannot simply stop the game, because in that case the entire team will receive a so-called «ban», and those who stopped the game will be hated, ridiculed, or even removed from the team. The author notes that phone addiction in children and adolescents is also related to photos and videos posted on social networks. These photos and videos become the main means of self-presentation: children and teens base their self-esteem on the number of likes, comments, and shares they receive. This fact causes children and adolescents to be «constantly vigilant» near their phones, waiting for others to react. As a result, constantly checking their phones (to check for incoming notifications) puts the nervous system of children and adolescents into a state of arousal, this, in turn, complicates the processes of relaxation and rest, and also leads to increased nervousness.

Gadget addiction among children and adolescents as a phenomenon has a logical explanation. The thing is that most mobile applications are deliberately programmed to activate a person's internal reward system. According to experts, a smartphone is a small, addictive slot machine (Fuchs, 2020).

To understand how technological giants have managed to «twist the heads» of billions of people in the world, it is advisable to analyze how digital technologies are designed. This aspect of the problem is presented quite clearly and accessibly in the article «Online Addiction» by Daniel Drevit and Nika Jaworska-Dukhlinska (Driewit & Jaworska-Duchlińska, 2023). The authors of the publication use the term «cunning technique» in particular i and mention in the context of the problem of gadget addiction the «variograph» – a device used to «read» people's thoughts (based on the diagrams obtained, he registers fright, fear or anxiety, tries to «establish the truth»). Actually, this technology has been adapted for the needs of, for example, gambling. It turns out that a player who wins several times in a row begins to rejoice, and the machine «hears» this (just like a variograph). According to the slot machine's algorithm, a series of wins is replaced by several losses. As a result, the player starts to get nervous: the machine also «hears» these emotions. The moment the player wants to stop playing, he suddenly wins again. This process continues endlessly. This method is called «scrolling-pushing» of increasingly attractive content, photos, texts, movies, or the next steps in computer games. It is primarily about ensuring that the client does not «leave» and does not stop playing (Driewit & Jaworska-Duchlińska, 2023, s. 102). It can be concluded that computer games use methods that are typical of propaganda or casino gambling (for example, constant messages and rewards), which contribute to the emergence of psychological addiction.

It turns out that anthropologists, psychologists, psychiatrists, behaviorists, sociologists, and experts who know human nature are involved in the production of computer games and the design of Facebook and other social networks. So, if behind a smartphone are specialists from various scientific fields about humans, how can a young person be able to independently «break away» from this small tool? (Driewit & Jaworska-Duchlińska, 2023, s. 104). Thus, adult awareness is important in preventing gadget addiction among children and adolescents. Parents often believe that a child should know how to get out of a technological trance on their own. But, if we take into account the accumulated knowledge on the «behind the scenes/hidden side» of the emergence of «digital candy», it becomes clear that this is not an easy task.

Anders Hansen's book «Instabrain. How Screen Addiction Leads to Stress and Depression» (Hansen, 2020) states, among other things, that the complex and multifaceted human brain was not formed for the modern digital age with smartphones and tablets, not for an environment where food is plentiful and the chances of becoming a predator's lunch are slim, and not even for a world where happiness is desperately sought. The brain evolved in an environment where survival came first, rewarding humans with dopamine for high-calorie and sweet foods that satiate and stave off hunger. But then times changed, but the brain remained the same. The author of the book raises the question of how a brain «with old habits» can adapt to modern conditions, how to resist temptations (for example, fast food, unlimited internet, and the desire to spend 5-7 hours on social media), how to avoid stress and anxiety. This book provides answers to these questions in an accessible form and is a kind of «survival» guide in times of complete digitalization of life. It provides an opportunity to understand a new world and develop rules of safety and behavior.

The authors of the book «The Big Bang, or K. against K.» (Kosmowska & Kazdepke, 2020) Barbara Kosmowska and Grzegorz Kasdepke bring the reader into the world of social networks, where everyone can create the image of their dreams. But the results of this creativity conceal potential risks and dangers. The book actualizes the thesis that it is very easy to lose yourself in the virtual world.

A shocking argument in favor of the fact that technology has a huge impact on children's brains, and this impact is far from positive, is the book «Screen Children: How Screen Addiction Controls Our Children – and How to Break Them Out of the Trance» by Nicholas Kardaras (Kardaras, 2018). The author explores the enormous impact of technology (especially screen technology) on the brains of an entire generation. According to recent neuroimaging studies, Kardaras writes, excessive screen time can cause neurological damage to a young person's developing brain in the same way as cocaine addiction. Among other things, the author of the book delves into the sociological, psychological, cultural, and economic factors surrounding the global technological epidemic. The book «Screen Children» reminds everyone that technology can insidiously and unpredictably turn against humanity.

The subject of research in Julianna Miner's book «Children with Smartphones. For parents whose children grow up in a world of smartphones» (Miner, 2020) is the question of whether how to raise a child in the modern world, when even toddlers have access to smartphones, how to protect a child from online activity and at the same time use the opportunities offered by the virtual world. The author provides examples from his own interviews with teachers, psychologists, and the



children themselves, and offers practical advice on how the parents can help children avoid the pitfalls of modern virtual reality, and also honestly presents the benefits of the fact that children grow up «with phones in their hands». According to reviews from those who have read the book, it is an exceptionally reliable resource for parents looking for reliable and understandable information about the online dangers their children face. The information presented in the book can provide answers to questions about risk assessment and represents recommendations on how to avoid making decisions based solely on fear and anxiety.

As for alternative intelligences to those mentioned above, let us recall Jordan Shapiro's work «The New Digital Childhood: How to Raise Children to Thrive in a Networked World» (Shapiro, 2020). This book represents the author's perspective on the new digital landscape of childhood and announces a number of tips for navigating it. Drawing on groundbreaking research in economics, psychology, philosophy, and education, the author shows how technology is leading humanity to a brighter future, in which children will be able to create new – better and more effective – models of global civic activity and relationships.

The content of some of the sources we analyzed presents a number of «tools» for preventing gadget addiction. Researchers note that very often adults believe that getting the right tools for independence is like finding a good mechanic at a bicycle repair shop. In reality, things are much more complicated. The fact is that a child or teenager's «entry» into the digital world occurs gradually, and cyber addiction does not occur instantly: it is a process that lasts for months, and sometimes even years. Therefore, «unsticking» from the screen is also a slow process that requires patience and consistency, as well as creative ideas for its implementation. Above all, it must be recognized that screen media should be treated as a «normal» element of our lives, that is, without excessive fetishization or panic, as these media should not worsen the connection between adults and children, instead they can strengthen this connection (Między dzieckiem, 2024, s. 81).

Among the forms, methods and means of preventing gadget abuse, we have identified a number of those that we consider the most effective (compiled based on the analysis of sources: Dedicated to the holidays, 2016; Fuchs, 2020; Między dzieckiem, 2024; Sroka-Ossowska, 2023; Rybałtowska & Depta-Kleśta, 2024).

1. The authors of one of the ideas are Belgians. The real hits in Belgium were the «wooden boxes»: in many families, they open on Friday afternoon and close until Monday morning. They believe that this is the first step towards family changes (the gadgets of adult family members also end up in these boxes), a chance to rebuild relationships «in person», to be together here and now.

2. If the family has a tradition of taking walks around the city, you can suggest that your child create a «map of joint walks» and look for routes for future walkers.

3. Digital detox is a phenomenon where people try to spend less time on social media or completely abandon modern communication devices. During detox, you can keep a paper, non-virtual diary in which you can record all the changes that occur during the detox period (psychotherapists consider journaling an important tool for better understanding yourself and your own needs), play board games instead of computer games, use an analog watch instead of a mobile phone under your pillow, solve Sudoku or crossword puzzles, read paper books and magazines, and regularly engage in physical exercise and creative activities.

4. Since it is impossible to completely avoid the use of phones in modern society, therapists practice «traffic light therapy». Its goal is not complete, but controlled abstinence. To do this, therapists, together with the patient, develop a kind of traffic light system: «green» applications (for example, online banking or a calendar) can be used without restrictions; «yellow» ones (like iTunes or Spotify) are recommended to be used with caution; «reds» (games or social media) should be avoided as they have a high risk of relapse.

5. Uninstalling a number of apps. You need to look at your smartphone screens and ask yourself for each app: «Do I really need this app right now?».

6. Turn off notifications.

7. Behavior after returning home. Apply the good old saying: «What the eye does not see, the heart does not grieve for». So, after returning from work (from school), you should leave your phone in your bag or backpack.

8. There are designated times and places for phone use; designated areas where phones should not be used (e.g., in bed or on the toilet).

9. Modeling «healthy» technology use. The best parenting method is a good example from parents. Children and youth learn best by observing those close to them and imitating their behavior. So, to protect your child from phonoholism, you need to limit your own smartphone use to the necessary minimum, especially in the presence of children.

10. Parents updating their knowledge about new programs and the latest social media trends; joining groups where other parents discuss such new products; exploring social media with your child.

11. Talk to your child about the possible risks that may result from prolonged and uncontrolled use of gadgets. It is important for a child to understand the reason why they are not allowed to stay at the computer or «with the phone» for a long time.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, the scientific research conducted showed that Ukrainian and foreign science (pedagogy, psychology, philosophy, etc.) presents a significant array of research, which highlights the achievements of scientists on the problem of human gadget addiction from various positions. It was found that discourses about the need to strengthen the digital protection of children and youth in the Ukrainian state are a continuation of a global trend.

The problem is that neither in Ukraine nor in foreign countries do there yet exist systematic approaches to building the right relationships between children and youth with social network, there are also no properly developed strategies for preventing gadget addiction among children and youth. At the same time, there is an understanding that, for



example, attractive games will continue to appear, since the task of technological producers is to «acquire a person», their time, attention, and energy. The task of parents is to analyze the algorithms of social networks, the content of computer games, etc., in order to understand the mechanism of their action and protect children from certain «traps». In turn, the world of therapists (albeit less affluent) is also working – it is looking for new ways to demonstrate the charms of the external «live» world and rebuild relationships «in person».

A promising field for further directions of scientific research is the analysis of textbooks «I Explore the World» for elementary school for the presence of appropriate and high-quality content on the prevention of gadget addiction in students, as well as studying foreign experience in implementing educational programs dedicated to the problem of preventing gadget addiction among children and youth.

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