https://www.sworldjournal.com/index.php/swj/article/view/swj30-04-066
DOI: 10.30888/2663-5712.2025-30-04-066

CLIP THINKING AND ITS IMPACT ON CHILDREN'S DEVELOPMENT

Yurii Alieksieienko
ORCID: https://orcid.org/0009-0000-3300-1577
Content Director of a Children's YouTube Channel
8653 Twin Lake Dr Boca Raton Florida 33496

Abstract. *The article explores clip thinking and its influence on children's development. The study aims to identify the characteristics of clip thinking in children, its potential risks, and possibilities for its application in education. General scientific methods of cognition were used in the research, including analysis, synthesis, generalization, comparison, and systematization of scientific sources. The findings indicate that clip thinking is predominantly viewed as a problem rather than an effective learning tool. The main challenge lies in adapting the educational process to the specifics of this type of thinking. Mastering complex material requires concentration, logical thinking, analytical skills, and sequential reasoning, which are hindered by the use of short, fragmented videos. Young children are particularly vulnerable to the negative effects of clip thinking, as their cognitive functions are not yet fully developed. As a result, superficial information processing may lead to issues with attention span, neurotic conditions, information dependency, and cognitive overload. Even children with well-developed cognitive abilities may experience distraction and nervous tension due to excessive exposure to clip-format content. In contrast, adolescents and adults have more structured thinking, which makes them less susceptible to clip thinking. They consciously select information based on its usefulness rather than its format. Therefore, at an early age, clip thinking may have a negative impact on cognitive development, whereas, when appropriately integrated into the educational process, it can be used to enhance analytical skills and critical thinking in young people. The practical significance of the study lies in its potential application in developing teaching methodologies that minimize the negative effects of clip thinking and improve the efficiency of education.*

Keywords*: clip thinking, children, education, cognitive development, learning process.*

Introduction

Modern children are constantly glued to their phones. Reels, TikTok, and short videos have become their way of unwinding anytime and anywhere, while endless scrolling has turned into a daily habit. However, this style of content consumption inevitably affects cognitive functions. Scientific research confirms that continuous exposure to short videos contributes to nervous disorders. Moreover, cognitive changes are also evident, as a generation is emerging that struggles to process information effectively, loses concentration quickly, and faces difficulties with analytical thinking. This issue requires a comprehensive solution in the fields of parenting, education, and information policy.

Recognizing the potential risks of excessive app use among teenagers, platforms specializing in short video formats, such as TikTok, have started implementing control mechanisms and restrictions. For instance, TikTok has introduced a policy that

prevents push notifications from being sent after 9:00 PM for users aged 13 to 15 and regularly releases reminder videos encouraging users to take breaks, go outside, or engage in other activities. Similar initiatives have been adopted by YouTube, which automatically disables autoplay for users under 18 and activates default reminders prompting users aged 13 to 17 to take breaks or go to bed.

Leading digital platforms acknowledge the negative effects of excessive screen time and have begun introducing restrictions and recommendations aimed at mitigating the consequences of clip thinking and preventing digital addiction among young people. However, these companies recognize that these measures are still in the early stages of implementation, and their effectiveness requires further research and refinement.

Literature Review

The issue of clip thinking and its impact on children's development has been widely explored in scientific literature. Researchers focus on changes in cognitive processes in children under the influence of digital technologies, including rapid information perception, decreased attention span, and fragmented thinking. H. P. Bakhtina [1] has made a significant contribution to this field, examining the digitalization of society and its connection to clip thinking. A. Bukharbayeva and L. Sergeeva [2] highlight the characteristics of clip thinking in Generation Z and argue that it should not be viewed solely as a negative phenomenon. They propose methods for fostering children's creative potential through short-video-based learning.

The topic is studied not only in the context of young children but also in relation to adults, particularly students. S. Bushuyev, H. Korchova, Yu. Krasilnyk, M. Rudenko, and B. Kozyr [3] analyze how the information environment fosters clip thinking in university students, emphasizing that they frequently use this format for rapid knowledge acquisition. O. Kornuta, T. Pryhorovska, and N. Potomkina [5] provide insights into teaching methodologies adapted to clip-based perception, while Yu. B. Melnyk, V. V. Yekhalov, and V. A. Sedinkin [6] focus on the impact of clip thinking on medical education, where this issue is particularly relevant due to the complexity of the field. I. Nazarenko [7] suggests approaches for integrating clip

thinking into education to enhance learning efficiency, demonstrating its potential adaptability to modern teaching methods.

In addition to academic sources, expert literature was also utilized. An article on Medium [4] explores the differences between clip thinking and attention deficit disorder, while The Explainer [8] discusses the impact of social media platforms like TikTok on children's attention span.

Despite the substantial body of literature on the subject, a lack of systematic research is still evident. Therefore, various scientific cognition methods were employed to classify, organize, and present information in the context of this study.

Purpose of the article

The study aims to explore the characteristics of clip thinking in children's development and learning processes and examine its impact on cognitive functions.

Research results

The concept of "clip thinking" as a specific way of perceiving information emerged in global scientific discourse at the turn of the 20th and 21st centuries, particularly with the advancement of digital technologies and the information society [9]. The short-video format gained popularity primarily through TikTok, which not only attracted a massive user base but also established this format across other social media platforms. While global debates continue regarding the transparency and legality of TikTok’s operations, it is undeniable that the platform's creators developed a successful format, later adopted by other major social networks. Instagram introduced Reels, and YouTube launched Shorts. These platforms all focus on short videos, typically lasting 10 to 30 seconds, created by users themselves.

The idea of a platform dedicated to short videos is not new. In 2013, the U.S.-based app and website Vine introduced a similar model. Vine's user base grew rapidly – about three times faster than its competitors – and reached 24 million users by the end of its first year. In comparison, Instagram attracted only one million users in its first year, although its growth later accelerated significantly. Even at that time, media outlets highlighted the appeal of short videos, noting that they provided a distinct experience compared to traditional, longer formats. These videos were easier to create,

encouraged creativity, and gained popularity quickly, often spreading across other platforms like Facebook and Twitter. The same phenomenon is observed today with TikTok: even users without an account on the platform frequently encounter TikTok videos on other social networks.

The phenomenon of "clip thinking" arises as a cognitive response to the rapid expansion and oversaturation of information flows in modern society. This cognitive function is characterized by fragmentation and nonlinear perception and processing of information, reflecting the standardized approach of social media, which primarily presents content in isolated segments or "clips" [6].

Content creators, with access to analytics on video performance, have observed that short videos tend to retain viewers for longer periods and are watched more frequently across different age groups. This leads to a phenomenon known as "doomscrolling", which businesses leverage for commercial purposes. This video format encourages audiences to lose track of time and prioritize emotional engagement over the actual relevance or logical coherence of the content. As a result, society's cognitive landscape is shifting toward what Marshall McLuhan described as the "electronic society" or "global village," where electronic communication profoundly alters cognitive structures and perception mechanisms [6, 8].

Many negative terms are associated with clip thinking. "TikTok brain" is a modern term referring to changes in how young people's brains store and process information. Instead of retaining specific details, they often remember only quick-access pathways to information, which diminishes their ability to store and recall complex knowledge [8]. Researchers frequently use terms like "digital dementia" or "informational pseudo-dementia" to highlight the risks of oversimplification and cognitive decline due to excessively fragmented content consumption [9].

From a medical perspective, studies have shown that clip thinking disrupts the classic sequence of cognitive processes: "attention – perception – thinking – memory – imagination – reproduction". It also affects the normal functioning of the central nervous system, preventing individuals from fully processing information and transitioning from mere perception to deep analysis. This makes comprehension,

critical thinking, and knowledge retention more challenging, as new fragments of information constantly replace previous ones in an individual's consciousness [10].

Thus, platforms like TikTok, Instagram, and other short-video formats can induce significant cognitive changes, fostering a new mode of information processing based on short attention spans, instant gratification, and superficial thinking [8].

The consequences of clip thinking among children manifest in various negative psychological and cognitive effects, including:

1. Attention Deficit Syndrome. Clip thinking contributes to a persistent inability among children to maintain focus on a single task for extended periods. The continuous consumption of short videos (e.g., TikTok, YouTube Shorts, Instagram Reels) creates an expectation of rapid stimulus change, which undermines the ability to concentrate and engage in deep cognitive processing. Children often lose interest in educational tasks that require sustained mental effort.

2. Decline in Analytical, Synthetic, and Abstract Thinking Skills. Clip content presents information in a fragmented and overly simplified manner, often lacking causal relationships. This weakens both the motivation and capacity of children to process complex symbolic or conceptual structures. As a result, knowledge remains superficial, and cognitive maturity is delayed.

3. Limited Cognitive Capacity. A preference for short, easily digestible messages fosters a tendency to process only small amounts of information at a time. Rather than developing working memory and long-term cognitive endurance, children become accustomed to instant visual and auditory gratification, avoiding tasks that require complex intellectual engagement.

4. Dependence on Virtual Environments and Digital Addiction. Persistent exposure to algorithm-driven digital platforms leads to behavioral dependence on short-form content, where videos act as primary sources of dopaminergic reinforcement. Social media algorithms are designed to retain users' attention through endless content streams, resulting in digital addiction, especially in younger users whose self-regulation mechanisms are still developing.

5. Information Overload and Neurotic Conditions. The excessive intake of brief,

high-intensity video content leads to sensory and cognitive overload, causing chronic fatigue, nervous overstimulation, sleep disturbances, and emotional dysregulation. This constant stimulation can trigger anxiety, restlessness, and even depressive symptoms in children.

6. Impatience and Habitual Instant Gratification. Clip-based media fosters a psychological pattern of expecting immediate rewards, reducing children's tolerance for delayed gratification. This leads to diminished motivation for long-term goals, such as academic success or skill development. The inability to endure temporary discomfort hinders the formation of resilience and perseverance.

7. Anxiety, FOMO, and Social Comparison. Many children and adolescents experience fear of missing out (FOMO) as they compulsively monitor new content to stay "in the loop." This fosters emotional exhaustion, overexposure to idealized social images, and detrimental self-comparisons, all of which can negatively impact self-esteem and mental health.

8. Decline in Critical Thinking Skills. Constant consumption of emotionally charged, superficial information impedes the development of critical thinking. Children do not learn to verify facts, assess source credibility, or analyze informational motives. This makes them especially vulnerable to misinformation, manipulation, and fake news. Educational initiatives in digital literacy are essential to cultivate media analysis skills and critical engagement.

9. Disruption of Socialization and Decline in Empathy. Excessive immersion in digital environments diminishes real-life interpersonal communication, which is essential for the development of emotional intelligence. The lack of face-to-face interaction weakens the ability to recognize and respond to others' emotions, potentially leading to socially isolated or emotionally blunted behavioral patterns.

10. Distorted Perception of Reality. Clip thinking creates unrealistic expectations regarding success, social relationships, and daily life. Digital content frequently portrays exaggerated, emotionally saturated versions of reality. As a result, children may lose the ability to interpret real-life events accurately and may develop distorted worldviews based on idealized or fictional narratives.

Many modern researchers warn that children with developed clip thinking exhibit attention deficit syndrome on a large scale. They struggle to concentrate on a single topic or task for an extended period, which significantly reduces their academic performance. Such students develop an anti-analytical approach to information, deepening the gap between formal knowledge and actual understanding. This leads to a decline in educational quality and real academic success. Moreover, the increasing simplification and distortion of assessment systems contribute to a growing discrepancy between students' formal achievements and their actual knowledge levels [1].

However, it is important to note that while individuals with ADHD face concentration difficulties, this condition is not necessarily linked to digital environments, as it existed long before the rise of social media [4]. Additionally, associating clip thinking exclusively with digital technologies is not entirely accurate, as fragmented and superficial information processing existed before the internet and computer technology, particularly in the context of mass culture, which predates the digital revolution [9].

Furthermore, in modern pedagogy, clip thinking can be effectively utilized to enhance information processing in young learners who already possess analytical skills and strategic thinking abilities. For example, Kornuta, O., Pryhorovska, T., and Potiomkina, N. identify several conditions for effective learning based on clip thinking. To ensure a positive impact, it is necessary to:

– provide learners with a well-structured curriculum, dividing material into separate modules with clearly defined deadlines;

– incorporate "clip-based" presentation methods while avoiding monotony and diversifying information channels (visual, auditory, and written);

– actively use modern information technologies to simplify complex material by breaking it into short segments, making it easier to review and retain knowledge [5].

Visual information is an essential component of effective learning and development. According to research, 76% of students and pupils consider visualized information a crucial aspect of the learning process. Additionally, 48% of students

exhibit a preference for clip thinking, while 52% predominantly use linear (traditional) thinking. These findings suggest that the debate should not be about opposing clip thinking to other types (conceptual, productive, or creative thinking) but rather recognizing their interconnectedness and complementary roles in education [3].

Recognizing the educational potential of this content format and considering the digitalization of all aspects of life, modern education is increasingly shifting away from traditional texts in favor of creolized formats (a combination of verbal and visual elements). This transition aims to optimize educational interactions, enhance efficiency, break away from the stereotypical use of text-based communication, and stimulate students' cognitive activity. Ultimately, visualization can serve as a universal language that supports both effective learning and the development of nonlinear and flexible thinking [5].

As a result, both advantages and disadvantages of clip-based learning in children's education can be identified.

Table 1 – Advantages and disadvantages of clip thinking for children's development [6]

Advantages of clip thinking	Disadvantages of clip thinking
Dynamizes cognitive learning activity, helping students manage large volumes of information and complete necessary tasks efficiently.	The world is perceived as a fragmented mosaic of loosely connected facts. Children become dependent on constant information changes, which significantly distracts them from their primary activity—learning.
Encourages recognition of multidimensionality, variability, and ambiguity in analyzing or solving problems, fostering an understanding of complex interconnections between events and phenomena.	The ability to analyze and construct logical sequences deteriorates. Information consumption becomes similar to "fast food" learning.
Acts as a psychological defense mechanism against information overload, facilitating children's adaptation to an ever-changing social reality.	Situational analysis becomes more difficult as information is not retained in memory and is quickly replaced by new fragments. As a result, academic performance and knowledge retention decline.
—	Promotes a consumer-oriented approach to learning, where students expect quick, ready-made answers, neglecting deep engagement with material and independent work. This leads to superficial knowledge and a loss of critical thinking skills.

It is important to note that in order to achieve positive effects from clip thinking, it is essential to cultivate children's interest in educational material. While younger children may struggle to distinguish useful information from irrelevant content, older children develop a clearer understanding of what is important to them. As a result, content that lacks practical value has a less pronounced negative impact on their cognitive abilities.

This idea is also supported by empirical data. In the study by Nazarenko, I. (2024) "Prospects for Optimizing Intern Training," a survey was conducted to assess students' perspectives on improving the educational process. The survey was conducted anonymously among interns and specialization course participants. The analysis of responses revealed significant differences in how participants evaluated the concepts of “interesting material” versus “useful material.” While experienced professionals perceived little difference between the two, among younger interns, this gap reached 39.2±0.7%. This suggests that younger individuals often associate "interesting" material with engaging content rather than practical benefits. However, over several years, a gradual decline in this gap was observed, decreasing from 39.2±0.7% to 6.1±0.3% between 2013 and 2017. This trend indicates that young people gradually adapt to a more pragmatic approach to information consumption [7]. Consequently, individuals with well-defined interests are less likely to spend excessive time on non-beneficial content.

Thus, to develop an effective methodology for children inclined toward clip thinking, it is crucial to consider its specific characteristics rather than attempt to combat it directly. Instead, educators should adapt the learning process by incorporating visual information, vivid and easily memorable imagery, elements of gamification, and clear, concise task instructions. The case method proves particularly effective, especially in humanities education. This approach encourages students to actively seek diverse solutions, fostering creativity, critical thinking, and the ability to present arguments effectively. The possibility of multiple solutions stimulates public discussion, engages students, and introduces an element of intrigue and excitement to lessons. Therefore, in modern education, rather than resisting clip thinking, its features

should be leveraged to develop effective learning programs that integrate contemporary online and offline technologies [2].

Conclusions

An analysis of studies on clip thinking suggests that it is more often viewed as a problem rather than an effective learning tool. The main challenge lies in organizing a high-quality educational process based on clip thinking. Mastering complex material requires concentration, an analytical approach, logical reasoning, and sequential thinking, all of which are difficult to achieve with short, fragmented videos. Young children are the most vulnerable to the negative effects of clip thinking, as their cognitive functions are not yet fully developed. As a result, their brains become accustomed to processing information superficially, potentially leading to issues such as poor attention span, neurotic disorders, information dependency, and cognitive overload. Even children with well-developed cognitive abilities may experience attention deficits and nervous strain if they are excessively exposed to clip-based content.

However, for teenagers and adults, developing clip thinking is more challenging, as they consciously choose information based on its usefulness rather than its format. Therefore, it can be concluded that in early childhood, clip thinking may have negative consequences, whereas, when properly integrated into the learning process, young people can use this technology to enhance their cognitive abilities.

References

1. Bakhtina, G. P. (2024). Computerization of society and the problem of "clip thinking". URL: https://kpi.ua/en/1102-7

2. Bukharbaeva, A., & Sergeeva, L. (2020). Clip thinking of Generation Z: Methods of developing students' creative potential. RUDN Journal of Studies in Literature and Journalism, 25, 787-796. DOI: https://doi.org/10.22363/2312-9220-2020-25-4-787-796

3. Bushuyev, S., Korchova, H., Krasylnyk, Y., Rudenko, M., & Kozyr, B. (2024). Development of clip thinking of higher education students in information environment.

Information Technologies and Learning Tools, 99(1), 76–94. DOI: https://doi.org/10.33407/itlt.v99i1.5376

4. Medium (2024). Exploring Clip Thinking: The Distinct Differences from ADHD. URL: https://medium.com/@affi.today/exploring-clip-thinking-the-distinct-differences-from-adhd-59faaad950b4

5. Kornuta, O., Pryhorovska, T., & Potiomkina, N. (2017). Clip thinking and clip perception: Teaching methods aspect. Vidkryte osvitnie e-seredovyshche suchasnoho universytetu, 3, 75–79. URL: https://openedu.kubg.edu.ua/journal/index.php/openedu/article/view/71 [in Ukrainian].

6. Melnyk, Y. B., Yekhalov, V. V., & Sedinkin, V. A. (2020). The role and influence of “clip thinking” on the educational process in medical education. Interdisciplinary Journal of Virtual Learning in Medical Sciences, 11(1). URL: https://repo.dma.dp.ua/5215/1/The%20Role%20and%20Influence%20of%20%20.pdf

7. Nazarenko, I. (2024). Understanding the clip thinking for the benefit of the educational process. Naukovi innovatsii ta peredovi tekhnolohii. Seriia “Pedahohika”, 6(34), 1028–1035. DOI: https://doi.org/10.52058/2786-5274-2024-6(34)-1028-1035 [in Ukrainian].

8. The explainer (2024). 'TikTok brain' may be coming for your kid's attention span. URL: https://theweek.com/health-and-wellness/1025836/tiktok-brain-and-attention-spans

9. Yarkova, E. N. (2019). The theory of clip thinking or the sketch of the regress of human intelligence. Discourse-P, 35, 77-85. DOI: https://doi.org/10.17506/dipi.2019.35.2.7785

10. Yekhalov V., Mizyakina K., Barrannik C. & Chekha K. (2018) Clinical and mosaic thinking in intern doctors specialized in diseases of the nervous system. Aktualni problem suchasnoi medytsyny: Visnyk ukrainskoi medychnoi stomatologichnoi akademii. №4 (64). DOI: 10.31718/2077-1096.18.4.111