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## **Analyzing the Role of Clip Thinking in the Context of Digitalization of the Educational Environment of the Future**

**Viktoriia Khrenova\***

*PhD in Pedagogy, Associate Professor, Khmelnytskyi National University, Department of Technological and Professional Education and Decorative Arts Faculty of Humanities and Pedagogy, Khmelnytskyi, Ukraine, <https://orcid.org/0000-0001-8384-7554>*

**Alona Kuchak**

*PhD in Physical and Mathematical Sciences Teacher Chernivtsi High School of Commerce affiliated with of State University of trade and economics, Chernivtsi, Ukraine, <https://orcid.org/0000-0001-5056-8719>*

**Liubov Tarangul**

*Head of the Chernivtsi branch State Scientific Institution "Institute of Education Content Modernization", Chernivtsi, Ukraine, <https://orcid.org/0000-0002-9888-9252>*

**Svitlana Vasylyuk-Zaitseva**

*MPhil in Physics (UK), Senior Lecturer, IT institute, department of Mathematics and Physics, Kyiv, Ukraine, <https://orcid.org/0000-0002-0875-462X>*

**\*Corresponding author:** [viktoriahrenova@gmail.com](mailto:viktoriahrenova@gmail.com).

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**Abstract:** The article is devoted to the study of the use of clip-thinking technology in the educational process. The author analyzes the features of this method and offers recommendations for

its effective use. In particular, the author emphasizes the importance of taking into account the age characteristics of students when using video materials, combining clip thinking with other teaching methods and tools, as well as the need to constantly update and maintain the library of video materials. Therefore, the purpose of the article is to study the impact of clip thinking on the educational process in the digital environment of the future. The paper uses general scientific and special scientific research methods, adheres to the principles of objectivity, scientificity, specificity, and systematicity. The results discuss important issues such as the choice of video materials and their relevance to the curriculum and the age characteristics of students. The author emphasizes that teachers and methodologists should be ready to use the technology of clip thinking and know its features and benefits. The results of the study showed that the use of clip thinking is an effective method of organizing the educational process. The conclusions note that clip thinking contributes to the development of critical thinking and creative abilities of students, increases their motivation to learn, and helps them to learn new material. However, the author also points out the disadvantages of this method, in particular, the possibility of distracting students and reducing their concentration on the material. All the conclusions drawn in the article can be useful for teachers and methodologists working to improve the educational process and introduce the latest technologies into educational practice.

**Keywords:** digital technologies, education of the future, critical thinking, clip thinking, educational process.

## **Introduction**

The past decade has seen the spread of such a psychological phenomenon as clip thinking, a form of mental activity based on visual and audio information that can be reproduced in video format. This is due to the growing popularity of videos on social media and the YouTube platform. Clip thinking can have an impact on the formation of the perception of the world, in particular, on the styles of worldview formation. According to research, people who consume video content more often are more prone to visual and auditory thinking and less prone to logical and analytical thinking. It can also be an important element in the learning process. Didactic materials that use clip-based forms can be more effective in engaging and motivating students, especially the younger generation growing up in the digital world. However, some studies suggest that there may be negative consequences of this approach to learning. For example, the possibility of increasing the number of distractions and reducing people's attention span, which can negatively affect their productivity. Clip thinking, as a psychological phenomenon, is an important element of the modern digital world and can have an impact on the formation of styles of thinking and perception of reality. However, there is currently a lack of basic research on the relationship between clip thinking and digital education to better understand their interaction and impact on the future educational environment.

## **Research Problem**

It was found that there is still a problem of insufficient coverage of this topic in the scientific literature. There are no studies that analyze in detail the relationship between clip-thinking technologies and digital education. Many of the available works focus on describing the phenomenon itself and its impact on decision-making processes in society. However, nowadays, more and more curricula and learning resources are based on clip thinking, and it is therefore important to conduct research on how this approach affects the processes of acquiring new knowledge. Another interesting issue is the use of the phenomenon of clip thinking to improve the quality of education in the digital age.

Thus, it is necessary to conduct a detailed analysis of the role of this phenomenon in the context of digital education, paying attention to its advantages and disadvantages, in order to develop optimal strategies for using this approach in the education of the future.

### ***Research Focus***

The material of the study is based on the analysis of publications of scientists and reflects the degree of interconnection of clip thinking and digitalization in the educational process in modern conditions.

The object of the study is the role of technologies based on the psychological phenomenon of clip thinking in education.

### ***Research Aim and Research Questions***

The purpose of the study is to examine in detail the role of clip-thinking technologies in the context of digital education and its impact on the future educational environment.

To achieve this goal, the following tasks were identified:

1. Analyze the theoretical aspects of the phenomenon of clip thinking and its impact on the way people think;

2. To study existing research on the use of clip-thinking technologies in education and evaluate its effectiveness;

3. To explore the possibilities of using clip thinking technologies in digital education and assess its impact on the future educational environment.

### ***Research Methodology***

A wide range of methods of scientific knowledge was used in the course of this study. In particular, an analysis of scientific and pedagogical literature was conducted, which allowed us to summarize the available knowledge about clip thinking and its use in digital education. In addition, the use of clip thinking in the educational process was observed to study its impact on the quality of learning and student development.

Also, a systematic approach was applied to understand the differences between traditional and innovative approaches in education. This approach made it possible to consider technologies based on clip thinking as part of the digital education system and find out how it affects various aspects of the educational process.

### ***Research Results***

#### ***Clip Thinking as a Phenomenon of Modern Digital Culture***

As part of the research, a detailed analysis of the concept of “clip thinking” in the context of digital education was conducted. This term is used to describe a way of thinking based on the visual processing of information, building logical connections, and understanding complex problems with the help of short video clips. The origins of this concept are rooted in the Internet culture, where video content plays a key role in the perception and understanding of information. Modern technologies allow for the rapid creation and distribution of video content, which makes clip thinking particularly relevant to digital

education (Shvydun, 2021). One of the main aspects of this thinking is its visual component. Clips include graphic and visual elements that help convey complex information and make fundamental concepts and ideas easier to understand. Moreover, video can create an emotional connection between the learning material and the students, which helps to increase their motivation and interest in the learning process. Table 1 summarizes the advantages and disadvantages of using video thinking as a teaching and research tool.

**Table 1**

*Advantages and Disadvantages of Clip Thinking*

Advantages of clip thinking	Explanation
Efficiency of memorization	Visuals are more memorable than text, so clip thinking can help learners and students better remember and understand new material
Relative simplicity	Creating a short video can be a relatively simple task that doesn't require a lot of effort or financial outlay
Versatility	Videos can be created on any topic and in any language, making them a versatile tool for teaching and research
Accessibility	Videos can be watched at any time, allowing pupils and students to revisit material they do not understand
Disadvantages of clip thinking	
Dependence on technology	Creating videos requires technology and special equipment that may not be available to some students and learners
Danger of overloading	Too many videos can lead to attention overload and impaired memorization of material
Limited video length	Short videos have their advantages, but they may not be detailed enough to cover complex topics
Inadequacy of the material	Video may not always convey all the necessary material, which can lead to distortion and misunderstanding of the topic

*Source:* development of the authors (Barannyk et al., 2020; Muhammadiyeva et al., 2020; Vafaeikia et al., 2023).

One important aspect of the psychological phenomenon of clip thinking is its brevity. Short videos usually have a very limited duration (from a few seconds to a few minutes), which allows you to convey key information in a limited amount of time. This is especially important in digital education, where students' attention spans can be short.

In other words, it is a type of visual thinking that can be used to solve problems involving visual objects, such as drawings, photographs, videos, and graphs. This mindset is often used in art, design, architecture, and business, where effective communication through visuals can be of great importance (Bahodirovich, 2021).

In the world of digital technology, it is increasingly gaining popularity. Thanks to the development of computer hardware and software that allows you to create videos and other visual materials quickly

and easily, clip thinking is becoming more and more accessible to a wide range of people. This opens up new opportunities for using this type of thinking in education and research.

However, as it grows in popularity, a number of problems and challenges become clear. For example, there is a risk that visual elements may dominate the content, which can lead to distortion or misunderstanding of information. Also, not everyone can develop clip thinking due to individual characteristics of the nervous system organization, which can become an obstacle to effective communication and cooperation.

On the one hand, clip thinking as a mental phenomenon can be a consequence of rapid changes in the information environment, which requires immediate decision-making and adaptation to new conditions. On the other hand, it may be the result of changes in the structure of the brain associated with the growing use of information communication technologies.

As noted by Sushchenko and Sushchenko (2020), one of the main consequences of using the phenomenon of clip thinking for educational purposes is a reduction in attention span. Individuals who have this trait tend to spend less time reviewing longer texts or presentations and more time-consuming short pieces of information. This can lead to an inability to focus on complex tasks and problem-solving that require more time for understanding and analysis.

It should also be noted that excessive use of the phenomenon of clip thinking in learning can lead to a loss of the ability to think critically and analyze. Individuals who are dominated by this type of thinking tend to prefer quick conclusions and generalizations instead of focusing on details and analyzing them. This can lead to impaired ability to think critically and make informed decisions.

### ***Application of Clip Thinking in Education and Science***

Although clip thinking has its drawbacks, technologies based on its principles can be used as an effective tool for teaching and research. For example, the use of short videos and other multimedia resources can increase students' ability to memorize and understand new information. In addition, clip thinking can help to understand complex concepts and processes that are difficult to explain in words through visual examples and illustrations.

In addition, such technologies can be a useful tool for scientific research, especially in the fields of psychology and medicine. For example, videos can be used to record patients, which can help doctors understand the symptoms and characteristics of a disease.

In addition, they can be used to popularize scientific research among the general public. Thanks to the video format, difficult scientific concepts can be explained in a clear and accessible way to different audiences. This can increase interest in science and help educate a new generation of scientists and researchers (Pepin, 2021).

Thus, we can say that clip thinking is an important phenomenon in the modern world that affects various aspects of our lives, from entertainment to science. Although it has its drawbacks, it can be an effective tool for teaching, research, and popularizing science. Understanding and researching clip thinking can help us better understand how people perceive and process information and help us create more effective ways to communicate and learn in the future (Caratozzolo et al., 2022).

## Characteristics of the Modern Digital Educational Environment

Today, in the digital world, education is becoming increasingly dependent on modern innovative technologies. Digital tools are increasingly being introduced into educational processes, which creates the need to understand the features of the digital educational environment (Guryevskikh, 2020).

One of its most obvious characteristics is the emergence of a large number of digital tools and platforms that allow students and teachers to easily interact and collaborate regardless of their location. This can provide more flexible learning environments and increase the accessibility of education for different groups of people. The main characteristics of a digital learning environment are presented in Table 2.

**Table 2**

### *Characteristics of the Digital Learning Environment*

<b>Feature</b>	<b>Description</b>
<b>Speed and accessibility</b>	A digital learning environment allows you to access the information quickly and easily you need from anywhere using a computer, tablet, or smartphone.
<b>Accessibility to new technologies</b>	The digital learning environment provides access to new technologies and tools that can help learners better absorb the material and develop their skills.
<b>Flexibility and individualization</b>	The digital learning environment allows learners to learn at their own pace and level, working with the material in the order they find most effective.
<b>Possibility of interaction and cooperation</b>	Digital learning environments allow learners to communicate and collaborate with other learners and teachers from anywhere in the world, increasing intercultural knowledge and skills.
<b>Lack of personal contact</b>	Digital learning environments can lead to a lack of face-to-face contact between learners and teachers, which can reduce motivation and comprehension of the material.
<b>Dependence on technology</b>	Digital learning environments require technology and internet access, which can be a challenge for some students and schools.

*Source:* development of the authors (Pershina et al., 2019; Shkvyr et al., 2020; Wong & Moorhouse, 2021).

An important characteristic of the digital environment is the possibility of personalized learning. With the help of these tools, teachers can create individualized learning programs that take into account the personal needs and interests of students. This can increase learning efficiency and ensure better results. Also, digital learning environments can provide new opportunities for teamwork. Interactivity and sharing of materials can be achieved through projects, discussions, and other interactive activities. As a result, students are able to acquire a wider range of knowledge and skills that they can apply in real life.

Despite these advantages, the digital learning environment also has some disadvantages and challenges. For example, the use of digital information technologies can lead to students becoming dependent on computers and other devices. This can lead to a decrease in intrinsic motivation and autonomy, as they may rely on technology instead of their own efforts (Kohn Rådberg et al., 2020).

In addition, the development of the digital learning environment may cause a decrease in the quality of interpersonal communication, as students spend more time communicating with computers than with other people. There may also be a problem with maintaining the technical base and infrastructure, which may lead to a decrease in the efficiency and accessibility of education.

It should be noted that the use of digital technologies may lead to a decrease in students' concentration levels, as it may be difficult for them to maintain attention for long periods of time when working with a computer or other digital device. There may be a problem with providing access to a digital resource for students with low levels of technical literacy or limited access to computers and the Internet.

The features of the modern digital learning environment include its global reach and accessibility, which allows you to gain knowledge and interact with students and teachers from anywhere in the world, the detail and accuracy of the information provided to users, and the ability to expand the boundaries of the traditional educational process. With the help of technology, which is the basis of the digital environment, it becomes possible to study and conduct research from anywhere in the world. Users are allowed to register for online courses, access virtual libraries and other resources. This allows students and teachers to receive training and information from any country, which contributes to their development and broadening of their horizons (Melnik et al., 2020).

Another interesting characteristic of the innovative digital education environment is its accessibility. Thanks to the development of technologies that ensure its functioning, learning and obtaining information is becoming accessible to most people, regardless of their location and social position. There is concentrated access to online courses, webinars, and e-textbooks, which makes it possible to study directly from a smartphone or computer.

The detail and accuracy of the information provided in the digital learning environment can ensure high-quality learning and promote the development of students' critical thinking. It is also worth noting that digital technologies provide ample opportunities for individualizing learning and adapting to the needs of each student.

However, the availability of such opportunities can also cause problems, such as the lack of personal contact with the teacher and other students, which can be important for the formation of emotional and social development. Digital technologies can be time-consuming, which can lead to technology dependence and stress.

Digital learning environments provide opportunities for quick access to a wealth of information and knowledge. However, this can also be a problem, as students may become overly dependent on this information and fail to develop critical thinking skills and independent knowledge-seeking (Motornaya, 2022).

It is worth noting that the digital learning environment can have an impact on the health of learners, including their eyesight and mental state. Therefore, it is important to design and use digital technologies taking into account the potential risks and use them with caution.

The development of this environment can have an important impact on the development of skills and competencies that are important for students' future lives and careers. For example, the use of digital tools to teach programming, data visualization, and robotics helps to develop competencies in information technology. In addition, various forms of interactive learning, such as video conferencing,

webinars, and gaming platforms, can be implemented in the digital learning environment, which can increase students' motivation and interest in the learning process.

Thus, the modern digital learning environment has many advantages and opportunities to improve the quality of learning and student development. However, it also has its challenges and disadvantages that need to be taken into account when implementing it in the educational process.

### ***The Role of Clip Thinking in the Process of Acquiring Knowledge in a Digital Environment***

In the process of studying the role of short videos in the process of acquiring knowledge in the digital environment, it was found that this approach is quite effective. Such videos are used in various fields, including education, advertising, marketing, and entertainment. They can have a significant impact on the perception and absorption of information, making them a popular tool in the digital environment.

One of the key advantages of short videos is their accessibility and speed of information absorption. Short videos are usually between a few seconds and a few minutes long, which allows you to gain knowledge without too much effort and time. In addition, they can be produced using a variety of formats, such as animation, documentary, interview, and others, which provides a wide variety and accessibility of learning materials.

Short videos also have a powerful emotional impact on the viewer. They can create strong emotions and impressions, which ensures high-quality learning. Sometimes short videos can convey more information than a book or article because they can be produced using different elements such as sound, images, and text (Dykhnych et al., 2022).

In the digital environment, short videos can be used for a variety of purposes. For example, they can be used as a learning tool for students who can absorb new information with particular ease through visual perception. Such videos can be used as an effective tool for online courses and training programs.

One of their main advantages is their format. They usually last no more than a few minutes, which allows students to quickly absorb information and focus on key points. In addition, they can be easily accessed anytime and from anywhere, enabling students to learn at their own time and pace. Another advantage of short videos is their visual appeal and the ability to use various multimedia elements such as graphics, animation, music, voiceover, and more. This allows you to create more attractive and understandable materials for students.

Short videos can be used to create interactive tasks and tests that allow students to test their knowledge and skills in real-time. This can be useful for teachers who want to create more effective and engaging lessons.

Despite these advantages, short videos also have their drawbacks. One of them is the limited depth of knowledge that can be conveyed through a short video. This means that more complex and detailed topics may require additional materials and resources (Morado et al., 2021).

Given that the human brain is more prone to visual perception, they can be a valuable tool for acquiring knowledge in a digital environment. They can help students understand complex concepts and information that may be difficult to absorb through simple reading or listening. In addition, short videos can help to capture students' attention and make the learning process more interesting and engaging.

## **Discussion**

The research has shown that clip thinking can be an effective tool for improving the efficiency of the learning process. To this end, recommendations have been developed for the use of clip thinking in the organization of learning (Abdukadirova & Mirzajonova, 2021; Liao et al., 2022; Zolotukhina et al., 2021).

First of all, it should be noted that the use of technologies based on the phenomenon of clip thinking as a means of stimulating interest in educational material is quite effective. The use of short videos or animations may seem more meaningful and engaging to students than traditional teaching methods. In addition, such videos can help the instructor to show certain conceptual or practical aspects of the topic they are teaching. The use of short videos can be beneficial because it provides visual and auditory stimulation that promotes concentration. Such videos can play an important role in reducing the tension and stress associated with learning. It should be noted that the use of clip-thinking technologies as active learning tools can contribute to more effective and practical learning.

Visualization and illustration of concepts can help students better understand the material, as well as make it more interesting and understandable. Short videos can be used to create learning tasks and projects, which increases student engagement and interest in learning.

When using clip-thinking technologies in the organization of the educational process, it is necessary to follow some recommendations and restrictions. First of all, it is important to remember that video materials should be of high quality and professional. This means that they should have good sound and visual quality, as well as be carefully prepared and substantiated. Teachers should carefully select and create a variety of video materials to ensure a quality and effective learning process. It is also important to remember that students have different levels of perception and learning styles, so video materials should be tailored to the individual so that each student can find the best way to learn.

It is important to combine the principles of clip thinking with other methods, such as lectures, discussions, workshops, and others. For example, you can use short videos as a supplement to lectures, where they will help you understand theoretical material and illustrate it with examples. You can also use clips to enhance understanding of complex concepts that are difficult to explain in words.

It is important to emphasize the importance of constantly updating the video library. It is important to make sure that the videos are relevant, meet the requirements of the curriculum, and are age-appropriate for students.

In addition, it is important to take into account the peculiarities of students when using clip thinking. For example, it is necessary to provide different options for accessing video materials, such as different formats, languages, and prompts for people with disabilities. You should also make sure that the video materials are not too long to avoid student fatigue and keep their attention.

## **Conclusions and Implications**

As a result, the use of clip thinking can be useful for improving the efficiency of the learning process. Video materials can make learning more interesting and understandable for students, facilitate learning and increase motivation to learn.

However, it is important to take into account some of the challenges and disadvantages of using clip thinking, such as the possibility of dependence on video materials and the need to combine them

with other teaching methods. To effectively use clip thinking in the learning process, it is important to follow the recommendations for creating and using video materials, as well as to ensure their accessibility and relevance to students.

In general, clip thinking, as a mental phenomenon, can be an important tool for improving the quality of learning and preparing future generations for life in the digital age. However, to maximize its effectiveness, it is necessary to ensure a balance between the use of video materials and other teaching methods, as well as to take into account the requirements for the relevance and accessibility of video materials for students and teachers.

### ***Suggestions for Future Research***

The clip thinking study as a psyche phenomenon opens up new perspectives and opportunities for education improving the learning process. The use of video materials in education can have a significant impact on learning effectiveness, contributing to a greater student interest and increased motivation to learn.

One of the main advantages of clip thinking in education is that videos can make learning more interesting and understandable for students. Videos visualise complex concepts, help to imagine abstract concepts, and stimulate more active perception and understanding of the learning material. Thus, the value of using clip-based technologies in the learning process should be explored.

However, some challenges and disadvantages of using such technologies should be taken into account. The dependence on video materials that can make students less independent in their learning should be investigated. The importance of combining the use of video materials with other teaching methods in order to ensure diversity and comprehensiveness of learning approaches is also of great interest.

For the effective use of technologies based on clip thinking, it is necessary to follow the recommendations for creating and using video materials. It is necessary to establish the peculiarities of safe and effective perception of video content by students for further development of educational material. This will provide methodological support in the creation of the necessary visual learning material.

Overall, these technologies can be an important tool for the quality of education improvement and preparing future generations for life in the digital age. Video materials help students expanding their knowledge, developing critical thinking, and contributing to the enrichment and differentiation of their learning experience.

However, in order to maximise the effectiveness of using video-based thinking, it is necessary to ensure a balance between their and other methods use. It is necessary to take into account students' individual characteristics and the diversity of their learning styles, integrating different approaches to learning that combine video materials with textual materials, interactive tasks and collaborative work.

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