

SCTMG 2020**International Scientific Conference «Social and Cultural Transformations in the
Context of Modern Globalism»****INFLUENCE OF CLIP THINKING ON THE COGNITIVE
ABILITIES OF STUDENTS**

Andrey Leonidovich Kraynov (a)*, Nadezhda Vladimirovna Shalaeva (b)

*Corresponding author

(a) Saratov State Agrarian University named after N.I. Vavilova, 1, Teatralnaya pl., Saratov, Russia
krainoval@sgau.ru,(b) Saratov State Agrarian University named after N.I. Vavilova, 1, Teatralnaya pl., Saratov, Russia
shalaevanv@sgau.ru***Abstract***

The article analyzes the influence of clip thinking on the cognitive abilities of students. Being a phenomenon of the information society, clip thinking significantly changes the perception of information by students. Under its influence, their ability to work with text associated with its holistic analysis is reduced, and their skills of working with short text blocks in the form of diagrams and video presentations are strengthened. Clip thinking leads to the loss of critical analysis skills of the information received, which negatively affects decision making. Under the influence of a huge stream of the most diverse information that modern youth is trying to perceive, switching from one application of a digital gadget to another, the consciousness becomes mosaic, snatching out from the surrounding world separate brightest fragments that are not connected with each other and constructing on this basis an eclectic picture of the world, devoid of depth and integrity. Thus, the principle of economy of thinking, its limitations, is formed in modern youth, which consists in the fact that the action is performed first, and then, if necessary, its understanding.. The inability to clearly, logically and coherently articulate one's thought, understand and state the essence of a scientific text or problem, without resorting to gadgets, negatively affects students' learning of teaching material. The way out of this situation is seen in a combination of information technology achievements with traditional methods of working with scientific text, in which gadgets will be used exclusively as an auxiliary source of scientific knowledge.

2357-1330 © 2020 Published by European Publisher.

Keywords: Clip thinking, information society, gadgets, education, mosaic consciousness, manipulation of consciousness.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

The relevance of the study is due to a decrease in the cognitive abilities of students in the learning process, which is reflected in their inability to analyze the scientific text, clearly formulate their thoughts about the problem being studied, and make reasonable and logically consistent conclusions.

Clip thinking is characterized by fragmentation, speed and superficiality. The reason for the intellectual regression is largely related to the digital dependence of modern youth on gadgets that form new cognitive abilities, focused on the perception and analysis of a large number of small unrelated information blocks. As a result of this, clip thinking is formed in students, and their consciousness becomes mosaic, losing their integrity and, accordingly, the ability of a holistic perception of incoming information.

For the first time, the phenomenon of “clip culture” and the associated clip thinking is explored by E. Toffler. In his opinion, the main characteristics of this phenomenon are short modular flashes of information, advertising cut-off news unrelated to each other that does not fit into our previous mental cells (Toffler, 1980).

Following Toffler, the problem of clip thinking begins to be studied by both European and Russian researchers in various fields: from philosophers, psychologists and teachers to neurobiologists. For example, a Russian philosopher Girenok (2014) characterizes such thinking as a certain ability of a person to respond “only to a blow”. He calls clip-thinking “thinking that responds only to a blow.” The Canadian philosopher McLuhan (2005) draws attention to the fact that the active use of IT and electronic means of communication brings humanity back to the “pre-text era”, which leads to the disruption of the linear sequence of characters as the basis of culture.

Clip thinking as a product of clip culture is a product of mass society and global informatization, as a concomitant process of massification. According to Kalashnikova (2014), it is one of the adaptive mechanisms of the brain to ensure maximum adaptive capabilities of a person in relation to his environment.

One of the reasons for the emergence of clip thinking among modern youth is the abundance of information sources in a digital gadget. You need to have time to read all the messages in instant messengers and social networks, posts on forums and blogs, emails and SMS messages, reply to them, and all this must be done very quickly, since new information blocks will arrive during the processing of this information. Thus, such a flurry of information helps to reduce critical thinking, leaving absolutely no time for its addressee to analyze in depth the incoming information, but only for a quick look.

It should be noted that the information that youth daily consumes on the global Internet is not serious, it is very superficial, easily perceived data. According to Russkikh (2015), modern youth is not capable of reading serious information. This is dictated by the entertaining nature of the digital industry. Even when reading a scientific text from the smartphone screen, a student will be constantly distracted by incoming messages and notifications from various applications, switch between them, which will greatly slow down his perception of serious information. This shows the negative effect of clip thinking.

The constant rapid changeability of different information blocks in front of eyes leads to short-term memorization of the general features of the information received: its volume, and the application this block is located in, the color gamut and the general information message (positive or negative). In modern

network slang, the expression “too long, didn’t read” is often found, after a too long text block posted on the forum (Yangurazova, 2015). This means that forum visitors will not, cannot and do not want to perceive anything big and serious, requiring thoughtful reading and analysis (Semenovskikh, 2014).

The selective approach of modern youth to reading information is associated with the small screen size of a digital gadget compared to a traditional book. Historically, the development of digital communication began with short text messages from pagers and SMS messages from cell phones limited to 160 characters. With the advent of modern large-screen smartphones, the text block has also increased, but constantly scrolling text up/down, zooming in and out, switching between windows, narrow viewing angle, much smaller compared to a book, makes working with large text also extremely inconvenient. According to Kovalenko (2012), the narrowness of the field of vision makes it difficult to deeply and accurately perceive the text. The reason for this, in our opinion, is the inability to see the entire text on a small screen (it doesn’t matter whether it is a computer or smartphone) as it happens with paper.

In the educational environment, the inability to establish a causal relationship between events is manifested in the fact that the student cannot meaningfully retell the report or essay prepared for the speech at the practical lesson, is forced to read it from the sheet, while making many lexical errors. One of the modern tendencies of illiterate reading of text among young people is associated with the omission or addition of endings of unknown and difficult to read scientific concepts. For example, quite often the words “tractate”, “skepticism” and “criticism” are reduced by students to “tract”, “skeptism” and “critism”, while the word “existential” almost always turns into “existentional”.

Today, at the federal level, initiatives are considered related to restricting the use of smartphones and other gadgets by students during classes (Balandina, 2018). The constant use of mobile phones during classes leads to distraction from the educational process, a decrease in concentration of attention and mental degradation. Instead of focusing on the questions posed by the teacher, students frantically seek answers to them in search engines, often not knowing where and what to look for. This promotes the reduction of their mental activity, because instead of developing logical thinking, the fine motor skills of fingers tapping on the screen of a mobile device are activated. As a result, students do not mentally develop at all, relying on a smartphone as a “magic wand” being always there to come to the rescue.

Short-term memory is an integral attribute of clip thinking. It is it what prevents the brain from overloading from an excess of information coming into it from all sides. But in educational terms, this effect works in such a way that, after some time after answering a question or speaking with a report, the student cannot repeat the information presented, since his brain has already cut it off and deleted it from memory as unnecessary. In the absence of conscious memorization of a given material, reinforced by taking notes, drawing up flow charts, speaking aloud and retelling, the information found on the Internet, even in printed form, will not enhance the student’s cognitive abilities. This information will exist separately from his consciousness, getting there in a dosed form only for the time it is spoken while reading the report. Upon completion of the answer to the question, the information will be deleted to make room for a thousand short messages of various Internet applications (Pronin, 2014). As an example, it is enough to mention that one of the news aggregators of a famous messenger publishes two to three hundred news a day, ranging from a couple of lines to several smartphone screens. You need to spend a

lot of time scrolling and getting acquainted with such news. To understand the essence of the problem, it is enough to ask the question: “What if the student is subscribed to a dozen such news channels ...?”.

One of the negative aspects of the phenomenon of clip thinking is a decrease in the critical approach to the information received, which, at best, leads to self-deception, and at worst, to openness to the suggestive influence of the advertising and marketing gurus, scammers, extremists and terrorists. According to Dokuka (2013), computer users with clip fragmentary consciousness are often not able to critically evaluate certain messages and establish a causal relationship between events. The problem of extremism and terrorism is very relevant in modern society, and to implement their criminal plans, terrorists often look for potential accomplices through the Internet.

Suggestive impact on people with clip thinking is most often provided through emotional and figurative influence through various graphic images, videos, presentations, commercials. Deprived of the ability of critical reflection, the mosaic consciousness of such individuals with pleasure absorbs these materials, involuntarily undergoing psychological processing.

The formed patterns of antisocial behavior are ready to be updated at any moment, waiting for a certain call to action, which criminal recruiters will not hesitate to produce.

Based on such flexibility of the mosaic consciousness to suggestive influence, it is necessary to revise the methodology of teaching students in the higher school, making maximum use of the interactive methods of perceiving information in the educational process. According to Simakova (2017), modern youth is the Zuckerberg generation, which replaced the Gutenberg generation, and therefore they perceive information in a completely different way than the classical linear way of working with a book. The non-linearity and “clip-like” consciousness of modern students requires an analysis of the old and the development of new methods for supplying them with information.

2. Problem Statement

The dependence on and abuse of digital gadgets when working with scientific text significantly reduces the cognitive abilities of students. The problem is that students' clip thinking is not able to perceive and analyze scientific material either using mobile devices (smartphones) or in the traditional way (working with a book). Instead of realizing the text that has been read and interpreting it meaningfully, students reproduce an incoherent set of memorable phrases, while between phrases there are often no semantic and logically justified connections. As a result, the effectiveness of the practical exercises is significantly lower, which affects the final result of mastering a scientific discipline.

3. Research Questions

The subject of the study includes the formulation and execution of the following tasks:

- the study of the phenomenon of clip thinking;
- analysis of the impact of clip thinking on the work of students with scientific text.

4. Purpose of the Study

The aim of the study is the experimental identification of the cognitive and analytical abilities of students when working with philosophical texts during practical exercises using modern information technologies.

5. Research Methods

The study was conducted on the basis of Saratov State Agrarian University named after N.I. Vavilov among second-year students of the non-humanitarian direction of higher education in one of the faculties.

The essence of the scientific and pedagogical experiment in the framework of classroom (practical) classes is to work with an excerpt from the tractate "About the State" by Plato, "Myth of the Cave" and its analysis.

The main research methods are experiment, observation, comparative analysis of the results.

To conduct research within the framework of one student group, three experimental groups of students of 20 people each were formed to work with scientific texts on philosophy. Students of the first group in their work with philosophical texts could use only smartphones and tablets with access to the Internet. Students of the second group worked with traditional books, outlining them in a classic way. When analyzing a philosophical text, students of the third group could combine work with both print medium and gadgets

The scientific and pedagogical experiment took place in two stages. At the first preparatory stage, students in the form of independent work were invited to watch videos on the Youtube channel about the philosophy of Plato in preparation for a practical lesson at home. Students for viewing and familiarization were given materials of different levels of complexity and length of time:

- Philosophy – Plato (multimedia, 15 minutes)
- Political mythology of Plato (academic version of the lecture, 15 minutes)
- Plato and his doctrine of the state and laws (academic lecture, 119 minutes)

When watching the materials, the first group was to outline information in the gadget, the second group were to do this on paper, revealing for themselves the essence of Plato's philosophy, the third group was given a choice.

At the second stage (the next day), all groups of students were invited to familiarize themselves with the excerpt from Plato's tractate "On the State", "Myth of the Cave." Both groups were asked at the end of the text to answer a number of questions:

1. What two "worlds" does Plato connect in the "Myth of the Cave"? Which of the two "worlds" is easier for a human?
2. What problems did the philosopher raise in the myth?
3. What meanings can you single out in the myth?
4. What symbols does Plato use in the myth? What do they mean?
5. Why did the attempt to exit the cave in the final lead to tragedy? Why was it difficult and risky to get people out of the cave?

6. What ideas do you think Plato put in the myth?
7. What habits does the Commander-in-Chief speak of Socrates' proposal to set the prisoner free?

6. Findings

As a result of the experiment, the following was revealed.

1. When watching educational videos and video lectures, students preferred to watch the first video, arguing their interest in its attractiveness (animated form of the MS PowerPoint program). The abundance of color schemes, schemes, small text blocks, animations, directional arrows contributed to the good assimilation of the material presented by students. Students who outlined the presentation on paper, actually redrawing it, showed the best results in the presentation of the material. Students taking notes or photographing presentation slides using smartphones were slightly inferior to their colleagues in the speed of responses, spending time scrolling the screen to find the necessary information.

The second video – a 15-minute mini-lecture – was watched only 2/3 of all students in the three groups. Students, taking notes on paper, admitted that it was hard to record right away, they had to pause, turn on repeats to get to the bottom of the story and make a note. Only the best students were able to outline the lecture.

About half of the students began to watch the video lecture, but no one could listen to it to the end, explaining the decrease in interest by the duration of the lecture and its certain monotony. Students also noted that such a lecture was difficult to record, because the lecturer did not highlight semantic moments, did no repetitions of what was said (as students were used to), and it turned out to be difficult to independently isolate semantic moments in the long lecture.

Approximately the same behavior of students can be observed when reading a classical lecture in the audience, which makes the most active teachers refuse academicism in teaching and apply multimedia working methods in teaching philosophy.

2. Students who analyzed the philosophical text exclusively with digital gadgets could not clearly structure their answer to the questions posed. They quickly enough found answers to some of the questions posed but could not confirm their knowledge with a text. With a full answer, they often stammered, trying to open the right place on the smartphone, lost their logical connection. Trying to convey in their own words a foreign text found on the Internet, they could not reproduce some words, did not understand their meaning. Digital notes made by students turned out to be rather scarce, due to the inconvenience of the method of entering text on a small keyboard of an electronic device. Often the compendium was a collection of words or hyperlinks to various sources on the Internet. Thus, in answering questions, students of the first group were constantly forced to turn to the gadget.

3. The result of the students of the second and third groups turned out to be slightly better, which was facilitated by the handwritten abstract of the scientific text and its memorization during the writing process. Nevertheless, the lack of skills of modern students to work with text in the traditional way affected the quality of presentation of the analyzed material. Many of them only partially outlined the material, relying on their memory, which, in the end, let them down. Others tried to retell what they read from beginning to end, failing to make instant logical transitions from one place to another source. In

general, a handwritten summary and work with printed text contributed to a better understanding of the material by students.

A common problem for students of all three groups was difficulty in verbal reproduction and analysis of the text studied. Most often, monosyllabic answers with unfinished sentence phrases sounded. Relatively detailed and logically structured thought could be formulated and articulated only by strong students. Most of them, in principle, understanding the essence of the text, could not correctly formulate their thoughts orally, the written language was a little better, but it was also poor in form of explication.

7. Conclusion

During the study, it was revealed that the problem of clip thinking is very closely related to the quality problem of the educational process, declaring itself through the weak cognitive abilities of modern students. Today it is not possible to deprive students of the right to use digital gadgets to prepare for classes, but even if this is done, the “clip” of their thinking and mosaic consciousness will not allow them to fully work with a traditional book. Students' consciousness, aimed at chaotic outbursts of information, cannot focus on serious scientific text, whether in digital or printed versions.

The first day of the experiment, when students were presented with information in a clip form to overcome this problem, confirmed the assumption that the use of modern information multimedia technologies in the educational process can significantly increase students' cognitive abilities. The building of the first day of the scientific and pedagogical experiment and how its students performed showed a few advantages of clip thinking. Given the realities of today, it can be argued that preserving only the academic manner and teaching methods is not enough. The combination of various teaching methods and techniques that combine the traditional approach to teaching using information technology (multimedia presentation is the simplest technique) can have a beneficial effect in the development of students' cognitive and analytical abilities.

Thus, the problem of students' clip thinking can be partially solved by combining traditional and innovative ways of presenting information.

References

- Balandina, A. (2018). *Forbidden connection: will school students' phones be taken away*. <https://www.gazeta.ru/social/2018/09/19/11975401.shtml>
- Dokuka, S. V. (2013). Clip thinking as a phenomenon of the information society. *Soc. Sci. and modernity*, 2, 176.
- Girenok, F. I. (2014). *Clip consciousness*. Akademich. proekt.
- Kalashnikova, L. V. (2014). Clip thinking as a format for presenting information in the process of educational activity. *Ed., sci. and product.*, 4, 68.
- Kovalenko, V. N. (2012). The specifics of dynamic reading as a way to extract information from text. *Bull. of the Volgograd State Pedag. Univer.*, 4, 120.
- McLuhan, M. (2005). *The Gutenberg Galaxy: The Making of Typographic Man*. Akademich. Proekt.
- Pronin, V. V. (2014). Clip thinking of a student in distance learning. *Bull. of the Nizhny Novgorod Univer. named after N.I. Lobachevsky*, 2(2), 469.
- Russkikh, E. V. (2015). Modern youth reading and electronic resources as a way to familiarize yourself with the book. *Bull. of the Bryansk State Univer.*, 3, 236.

- Semenovskikh, T. V. (2014). The phenomenon of “clip thinking” in the educational environment of a university. *Internet J. “Naukovedenie”*, 5(24), 134.
https://elibrary.ru/download/elibrary_23039503_64961526.pdf
- Simakova, S. I. (2017). Clipization of thinking in young people as a consequence of the development of visual communications in the media. *Sign: probl. field of media ed.*, 2(24), 112.
- Toffler, A. (1980). *The Third Wave*. William Morrow and Company Inc.
- Yangurazova, M. K. (2015). Eristic aspects of the content of Internet forums. *Volga Sci. Bull.*, 2(42), 101.