Abstract. This work focuses on the problem of teaching technique, technology and tutorial development for clip thinking. The study describes educational process features and instructions development, provides recommendations to improve effectiveness of teaching students with clip thinking. This way of thinking/perception causes attention deficit, inability to concentrate on a lecture for long time, etc. Therefore, the problem of instructions development is connected the fact technology inconsistency and teaching methods in an education system in rapidly changing digital society. All means of teaching technologies and techniques should refer the way of student’s perception and reproduce changes in types of activities. Students “clip” thinking challenges teacher to keep students attention during all lecture by different “attractors” usage: information structuring, bright colors in slideshows, schemes and images, etc. Engaging students into communication is provided by discussion, brainstorming, debate, forum, round table, etc. Lines between lecture and practical lesson are blurred. Control is becoming secondary importance.

Keywords: clip thinking; clip perception; teaching methods; tutorials; lecture; creolized texts

Introduction. Students (especially students-economists) are the people who live in the modern media world, consciously or unconsciously use different media, including the Internet, computer, TV and video, and are under their powerful influence. Total influence of TV, computer games, Internet and social nets, etc. stimulates students' “clip thinking”/ “clip perception” development (Rosen, 2007).

In connection with the computerization of education, which is now seen as a panacea, there are risks of loss of creative cultural-generating ability of generations. It is inevitable, if the user computer skills (which create the illusion of access to cognitive actions) are not accompanied by a logical comprehension, operationalization, the theoretical mastery of subject areas of academic disciplines, the broad cultural associative perception and understanding of the processes of life, live communication with the teacher and peers. (Semenovskyyh, 2014), (Zelentsov, Tyatenkova, 2009).

Clip thinking leads to: mass syndrome attention deficit disorder; loss of desire of new knowledge; destruction needs and abilities to be creative, helped by the constant use of secondary-level information processing and combination. It leads as well to chaos in the desires and actions; discrepancies mindset lifestyle; inconsistency in decision-making to address the challenges of life and even a purely weakening responsibility for their consequences. It means that one can operate only by the content of fixed length, inability to work with semiotic structures of arbitrary complexity and focus on any information for a long time; reduced ability to analyze and synthesize. There is also "Virtual Addiction" and internet addiction, according to the search for information, communication networks and other human
activities in the information space of the web; anti-intellectualism and plagiarism; mass illiteracy and the phenomenon of young people enthusiastic about their arrogant ignorance. They are absolute certain that they are right, because the people who represent the anti-intellectualism, are not aware of the problem; disparities between formal and actual level of knowledge; sharp decrease in the coefficient of learning and actual performance; falsification of evaluation (Bakhtina, 2017), (“Clip Thinking. Documentary”, 2014), (Keller, 2010).

Features of this way of thinking are fragmentation, attention deficit, discontinuous perception, but multitasking ability, speedy intuition thinking and analyzing. So, there were observed the follow tendencies: impossibility to avoid “clip” thinking development and achievement levels and reduces the assimilation of knowledge and students’ achievement level decreasing with traditional means of methodical guidelines usage. Special way of students’ thinking challenge changes in teaching methods, lectures, tutorial preparation. Active and traditional teaching methods alter the presentation, re-structure the information.

This work discusses the problem of information assimilation of students with clip perception. The goal of this work is summarizing practice in lecture, tutorial preparation and procedural guidelines of “Internet Technologies in Economics” teaching. Course “Internet Technology in Economics”, developed at the Ivano-Frankivsk National Technical University of Oil and Gas (Ukraine), aims to equip students with the essential skills and knowledge to effectively use Information and Communications Technology in their own professional activity contexts. The overall credit hours are 180 (6 credits) taught in two terms. Lectures (18h) and practices (at least 54h in class+108h after class) are included in. It covers the follow topics: Means of Online Communication (including advertising in social media, blogging, etc.); cloud technology and teamwork on shared documents; Internet advertising efficiency and web-site content analyze; Internet Shopping; e-commerce classes: B2B, B2C, G2C; online payment systems and systems of Internet-trading. Due to this discipline content and specifics, it needs advanced methods in its teaching.

Description of Practice. The main idea of proposed approach is all means of teaching technologies and techniques should refer the way of student’s perception and reproduce changes in types of activities. It worth mentioning, clip thinking considering methods do not decrease importance of traditional ways of teaching. Traditional lectures changes: it includes more professional cases, fragmented presentation of information, interleaving of activity types, wide usage of “attractors”, wide engaging students into discussion, etc.

In general, L. Sharafeeva (Sharafeeva, 2016), (Sharafeeva, 2015) defines the follow conditions of organizational effectiveness of the process of teaching the students with clip thinking:
1. the students are motivated to learn the material;
2. the students are convinced in importance and significance of education for professional progress;
3. to maintain the students’ self-confidence during educational process and help reach satisfaction;
4. the training course is divided into the modules the content and deadlines of which are strictly regulated;
5. the methods and modes of learning that include the elements of “clip” information presentation in educational process are chosen: to exclude monotony, change the forms of perception, make the students listen, write, watch; use multimedia teaching material in the form of pictures, tables, charts; give the examples of applying the studied notions;
6. electronic technologies that allow the students to simplify the studied material by dividing it into shorter parts and revise the studied material are used.
The increasing role of visual information, appearance and active using of new information technologies and mass computerization of various areas of life, the emergence of computer hypertext, where codes of different semiotic systems are in close and active interaction. All that allows experts speak of “verbal crisis text”, its displacement in the XXI century by shaped visual messaging. It has greatly increased interest in nonverbal means of written communication.

Instead of the traditional texts in the learning process actively come creolized texts, which texture consisting of two non-homogeneous parts: verbal and nonverbal.

Modern world focuses on visual way of presenting information. Globally activity pushes humanity to create an international language that can be a language of visualization. At first, this language meets the need to optimize human interaction to achieve higher levels of efficiency. Secondly, it meets the need to overcome the hidden stereotypes of literary language. Thirdly, it can contribute to non-linear and more open a new nature of human experience.

According to the opinion of the researchers, creolized texts have the same categories as “classical” homogeneous verbal texts, because basic properties creolized and usual text is wholeness and connectivity.

The main components of creolized text are verbal part (writing, verbal text) and iconic part (picture, photo and table). In different types of text they occur in different combinations. The most common model:

- images + inscriptions (billboard, poster);
- a series of images + inscriptions accompanying them (comic album);
- verbal text + image without inscription (postcard, artistic text);
- basic verbal text + images and accompanying inscription (newspaper and journalistic, document, research, science-fiction inscriptions).

Tutorials, lecture notes, labs guidelines traditionally are free for students. But, as far as the visual perception is dominant for majority of students, all guidelines were developed with wide visual means usage- so called “attractors” to define the most important topics of a lecture.
For instance, lectures were accompanied by slideshow, consists of many slides to structure and fragment information. Instead of the traditional texts in the learning process actively come creolized texts, which texture consisting of two non-homogeneous parts: verbal and nonverbal. Main highlights of the topic were outlined by bright colors (sometimes we used the so-called “acid” colors) and replicated for all slideshow. Wide usage of schemes and images emphasize logic connections among options. Visual images are remembered for a long time, are perceived with maximum speed; create a huge number of associations. Bright, crisp, clear, vivid, memorable language is prior (fig. 1). All formulations should be explained by professional cases. We use brainstorming, debate, forum, round table, etc. during lectures to engage every student into discussion. This approach for lecture preparation and tutorial development is appropriative for teaching large classes, but practical lessons should be provided for small groups of students to effective controlling their knowledge.

Teaching with clip thinking consideration needs knowledge control increasing. Controlling is getting changes too: previously a traditional form of control was a “pass/fall” test with some topics control during semester. Now controlling is walkthrough and every practical lesson begins with computer test, which include 10-15 questions on previous lecture. Besides, role of individual student’s work is increasing too: during semester every student prepares 1-2 essays to discuss during lesson.

**Discussion and results.** To evaluate efficiency of proposed means we compared achievements of 2 groups of students. We provided traditional lectures/practical lessons for students from the first group and usage of the mentioned above approach for the second group of students. Student’s achievements data of are presented in the table 1 and in the figure 2. They reveal clip thinking consideration makes possible student’s average mark increasing, but it increases teacher’s labor costs.

| Option                        | Traditional lectures /practical lessons | Clip thinking consideration |
|-------------------------------|----------------------------------------|-----------------------------|
| Sample size                   | 18 students                            | 19 students                 |
| Average mark                  | 4.1                                    | 4.25                        |

**Tab.1**  
Student’s achievements data

![Fig. 2. Profile of student’s achievement (a breakdown of topics)
**Conclusion.** As far as “clip” thinking becomes more and more spread among students, teachers had to develop new pedagogical approaches. In scientific literature, this phenomenon is considering as a negative one, despite some advantages of this kind of perception as multitasking ability, speedy intuition thinking and analyzing. We are sure, that in future this way of thing will be prevalent; this way tradition teaching forms, method, techniques and technologies will get changes too. We propose herein to conduct lecture referring the way of thinking by engaging students into communication, more discussion, fragmented presentation of information, interleaving of activity types, wide usage of “attractors”, etc. Students “clip” thinking challenges teacher to keep students attention during all lecture by different “attractors” usage: information structuring, bright colors in slideshows, schemes and images, etc. Engaging students into communication is provided by discussion, brainstorming, debate, forum, round table, etc. Borders between lecture and practical lesson are blurred. Control is becoming walkthrough.

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**REFERENCES**

Rosen, L.D. (2007) Me, My Space and I: Parenting the Net Generation. Palgrave Macmillan.

Bakhtina, G. P. (2017) Computerization of society and the problem of "clip thinking". http://kpi.ua/en/node/10137

Aksenov, L. B. (2014). Influence clip thinking on the educational process in high school: Actual problems of the humanities, 10, 1-4.

Sharafeeva, L. R. (2016). Peculiarities of Organization of Training Students with Clip Thinking// International journal of humanities and cultural studies. June, 2016. https://www.ijhcs.com/index.php/ijhcs/article/view/2143

Semenovskyyh, T. V. (2014) A Phenomenon of “Clip Thinking” in Higher Educational Environment. Internet-journal “SOCIOLOGY OF SCIENCE”. Issue 5 (24). September - October, 2014. http://naukovedenie.ru/PDF/105PVN514.pdf (in Russian)

Zelentsov, B.P. & Tyatenkova, I. I. (2009). Formation of Thinking Abilities in Students. Continuing professional education: International collection of scientific articles. Science editor Doctor of Economics prof. N. V. Fadeikina. Novosibirsk: SAFB, 191-198 (in Russian)

Clip Thinking. Documentary (2014) April 29, 2014. http://www.youtube.com/watch?v=qXfNHzNKDkk (in Russian)

Keller, J (2010). Motivational Design for Learning and Performance: The Arcs Model Approach. May 25, 2010. http://www.springer.com/la/book/9781441912497

Sharaeeva, L. R. (2015). The Role and Content of the Course “Mathematical Logic” in Forming Bachelors’ Cultural and Professional Competences on Specialty “Mathematics and Computer Science”. Topical issues of modern pedagogics: the materials of the sixths international scholarly conference. Ufa: Summer, 247-250.