

ственно-научными дисциплинами, что усиливает прикладной, профессиональный характер образовательного процесса;

- сочетание высокого уровня обоснованности и доказательности при изложении учебного материала с наглядностью и доступностью его представления (возможность приведения и анализа статистического материала, результатов важнейших психолого-педагогических исследований, фактов; создание структурно-логических схем; выявление причинно-следственных связей с использованием методов компьютерного моделирования и анализа данных), что способствует овладению студентами методами системного и сравнительного анализа, умениями проектирования и прогнозирования, на основе которых развиваются ключевые компетенции;
- обеспечение эффективной обратной связи на основе сочетания тестового компьютерного контроля знаний с решением обобщенных педагогических задач и представлением их ответов с помощью ИКТ;
- придание процессу обучения личностно-ориентированного характера за счет смещения акцентов с преподавания на учение и расширение возможностей выбора студентами индивидуальной образовательной траектории, что соответствует требованиям гуманистического подхода в профессиональной, в том числе, педагогической, подготовке;
- активизация самостоятельной работы студентов, формирование у них готовности к самообучению, а также информационной компетентности.

SEMIOTICAL ANALYSIS OF DIGITAL MEDIAREPRESENTATION

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Transformation processes of modern society, connected with intense development of mass communication means are becoming a prestep of appearance and establishing of universal multimedia hyperenvironment, that, into all spheres of human activity.

The influence of electronic mediaenvironment on the life of a modern person has a complicated multi-aspect clearactor. It's hard to name a field of social life where there are no consequences of active usage of mediatechnical instruments. The educational sphere couldn't best be touched upon by these processes and that's why the study of questions of mechanics of influence of mediameans on perception and cognitive activity, on the whole, has a special actuality.

The influence of mediameans touches upon lots of sides of cognitive activity – intellectual, psychological, esthetic, artistic and others. The forming of life experience and professional quali-

ties happens, not in the least, under the influence of mass communication means. This experience, being a serious factor of social life, includes elements of interpretation. Results of our observations must be supported by other people (society) or mass communication means (information). If it doesn't occur, we tend to deny these or those directives. Information – communicational technologies (ICT) of nowadays mediaenvironment influence both the sphere of our cognition of environmental reality and the process of self-cognition. They provide us with new examples and measures, with the help of which we define our place in the world; offer us a way of development of our aspirations, the scale of our own self-appraisals. In such a situation the questions of development of mediaculture acquire a special actuality, and, this helps overcome psychological barriers in electronic communicational processes, release the right interpretation of modern mediatexts and use mediatechnical potential effectively in everyday activity.

The wide spreading of multimedia technologies met the contradiction between a technical and content components of digital mediapresentation. Up to recent times only the technical side of the question was worked on, a kind of excitement about electronic tricking. It can be compared with the early period of cinema development, when uncomplicated montage effects created the illusion of something out-of-world and unusual. It turned out, that, many electronic works have drawbacks, a large quantity of factual mistakes, even examples of elementary illiterateness. The obvious “self-adoring” of a “programmist” approach to the question is observed, when the main objective is reaching of agreed work of modernized drivers. Here can be seen the action of the known doctrine of one of the leaders of philosophy school of technical determinism M. McLuhan “The medium is the message” [1]. Meanwhile, the medialanguage of semiotical system, the effective usage of which is possible only at a high level of development of common mediaculture of a specialist.

The language of mediapresentation is organized in a special way, communicative signal system. Semiotical character of medialanguage is explained exactly by the signal combination of digital representation, with the help of which a communicational act is produced. As Y. Lotman marks – “any communicative system can be studied in two aspects: from the point of view invariative structure and as realization of structural principles of this system with the help of some material means” [2]. Electronic communication gives birth to the objectivity of new nature. In the process of digital transformation, both the reflection of an object and receiving of a meaning by it happens. Interaction with a mediatext (perception, processing and further usage of information) presupposes the process of transaction (recording) of a non-verbal (mostly audiovisual) component into verbal. Here we can suppose, that the defining characteristics of a mediatext is sense and contextual non-definiteness. The variety of forms of representing material creates complicated interconnections between the object and modus. Here appears the possibility of getting new additional knowledge, when referring to the text for another time. As S. Eisenstein declares, the structure carries the largest semantic load [3]. When phenomena and processes of unlimited environmental reality turn into a mediashot, visual fragments become signs and define, very often, more than it was presupposed by the initial, elementary context. Semantic relation (interaction of a sign and phenomenon it reflects) acquires a vividly expressed, concentrated character. The form, therefore, has a decisive effect in a cognitive sense. It, in the full manner, agrees with a recent tendency to visualization of human thinking. The development of means of visual communication and, in the first turn, digital technologies of processing display and sound is the reason for dominating of an audiovisual component of modern mediatexts in their full variety. Meanwhile, the display and the image get into our consciousness more spontaneously, than a word and don't require for their perception the formed meaning vocabulary and directly built-up system of knowledge. Image thinking is initial in cognitive activity. Operating with a large quantity of visual images (including the subconscious level) we turn them, step by step, into a speech form. While this, many of thinking processes can be referred to editing mechanics. Comparing in mind these or those events, objects

and acting faces we deliberately use their visual embodiments. The resemblance of many principles of editing in cinema and literature was proved by S. M. Eisenstein in his works of the second half of the thirties of the last century. His theory of intellectual cinema, served as a background for creating modern forms of scientific and academic films, is based on supposition, that the process of intellectual human activity is exactly the editing organization of our visual presentation.

Dealing with examples of verbal communication, in the first turn, with a traditional bookish text, we commit a definite communicative act. Inside of our consciousness there takes place the process of decoding of verbal inpiration and its further transaction into images of a peculiar interior videorow. Moreover, the profoundness and density of these images depends on the development of abstract thinking, that is formed by thinking activity, years of study and life experience. On a large part, this process has an intimate and creative character. With the appearance of a ready, mechanical videorow, that is offered to us from the outside, we become passive participants of what is happening. While this, the creative moment of perception and processing of information disappears and our objective nature is destroyed. From a category of a subject we turn to the space of objects. Here is the main “audiovisual” danger in a human’s life observed. Abstract thinking should be considered as a superior, only human form of logical thinking. Our ability for detachment is defined by reading, firstly (i. e. verbal communication). Audiovisual mediarepresentation helps to form cognition at the level of abstractions. Tendency to the prevailing of this form of cognitive activity undoubtably will lead to the deformation of educational process and pedagogical system as it is. Teaching, in its traditional understanding and activization of speech functions, connected with it, provide analitical approach to studying reality. Moreover, speech influences directly the form of visual abstractions. Absolutely unoccasionally the data of numerous observations tell us, practically, about line dependence of intellectual development of a person and time, spent in front of a TV-set or a computer display. But, word-logical and visual-image thinking are in unsplit connection and the qualitative usage of the latter depends, not in the last turn, on the methology of showing educational information.

Mediadisplay is not a integrated representative fragment of the environmental reality, but a definite combination of variable structural signs. These signs can’t be compared, or, on the contrary, contrasted in different sense meanings. These procedures, fulfilled during a period of time and letting us compare the perceived object in various modus showings make the basis of digital media semanthics. Here, there is lots in common with classical structure of cinema language.

The relations between the object and the modus, letting manage the common building-up of the context, give the possibility to change the initial, material, meaning of the mediasign and change it into the sign of other contents. This can be achieved by varying, in definite limits, the whole modality of the shot. So to say, changes of a shot plan into the side of increasing are perceived, as a rule, as metaphors. For instance, rather increasing of these or those objects or characters on the screen is perceived by us not in a geometrical, but a semantic sense. Increasing makes stronger the importance or the meaningfulness represented. The size of the perceived by us images has a related character. We compare the objects according to their interdisposition and to the limits of a shot space. The space, in its turn, is detached from the environmental reality. And the process of decreasing or increasing images gives to what is happening the complex of absolutely new, non-spacial meanings. One of the defining characteristics of the modus of a displayed object is – a background. Exactly it, in many cases, gives the definite context of perception, and, as a result, the created images have a personal sense. One and the same object has absolutely different qualities in various surroundings.

Comparison at the formula “a subject – a background” let our visual system define correlations more – less, farther – closer and so on. So, images become signs and mean, very often, not only the visual representations of what they are.

Repetitions also have an interesting peculiarity. A definite rhythmic row of repetitions leads to creation of another meaning or context of a depicted object. While that, its initial essence is left behind, and absolutely other sense components are in the focus of our attention. Associative and spatial-image meanings of the object are vividly revealed here.

As a result, these new contexts, formed by digital mediarepresentation, start playing a more important role, than the initial sense load of the depicted. So-called Kuleshov's effect is based on this phenomenon. Its idea is in the fact, that using various editing methods we can create on the screen phenomena and characters, which don't exist in reality.

Focusing attention on the structure of the modus of the object and building it in a definite way, we can reach increasing of semantic load of mediarepresentation. One of the working ways of managing semantic field of digital mediarepresentation is mechanics of varioscopic representation of reality. Educational experience tells us the most appropriate form of showing visual information about environmental world, depending on the contents & spatial disposition. Varioscopic way of showing information allows us to change the shot limits during the demonstration, as well as sizes of the image itself. Our eyesight, in its nature, is horizontal. The angle of view in this cases is more in size than view segments of vertical direction. That's why exactly the main technical improvements of cinematograph were in increasing the screen in horizontal plane. The appearing of widescreen, and then wideformat cinema varied expressive opportunities of this kind of cognitive activity. But while this a sort of impoverishment of technical opportunities of environmental reflection took place. Go to say, unavoidable accent on excessive expressiveness of large plans of wideformat cinema & impossibility of producing the qualified editing in vertical of effective influence on cognitive activity became fewer. Meanwhile, the vertical component of our eyesight plays a significant role in perception & processing information about environment. While the horizontal plane of representation tends to known statics & calmness has common with panorama views, the vertical one underlines dynamics & instability, & also increases information capacity. While this, either horizontal or vertical proportion is defining incognitive sense. Effectiveness of their applying depends on harmonic combination of both the components at a changing format of a shot. Using the methods of varioscopic projection influences, in the most direct way, the context of the perceived. Variable formatting of the shot is exactly the instrument of creating & changing the modus depicted object. Digital technologies of processing images and sounds allow, unlike the classical cinematograph, change quickly the varioscopic modus of the object.

During experimental works, held in the labs of technical means of education by us, a number of essential moments, influencing perception of educational information were marked. Varioscopic fragments of educational mediatext were used as a helping signal; they attracted attention of studying audience & focused on necessary moments in presentation. Information capacity of varioscopic structure of a mediatext exceeds traditional forms of presentation of educational material. In cases, when it takes about half an hour to present information, varioscopic mediatext allows to do it at a several minutes' time. But here it should be remembered, that this sort of projection is preferred to be used at the beginning of explanation the new topic, and also the material of practising & general character.

Classical interpretation of communicative process presupposes consideration of two main levels – a communicative itself & metacommunicative. The former of them is defined by standard characteristics of information influence, the latter provides the modus of a transmitted message. Varioscopic showing of educational information is a metacommunicative message in its way, giving the necessary interpretation to the transmitted contents. Emotional vividness, extraordinary sense and composition decisions of an educational varioshot provides an extra component of information message. Using the case of visual information channel it is worked out on receiving the message. As U. Ecko marks – “Iconic signs reproduces some terminal receptions of an object, but after selection, fulfilled on the basis of the code of recognition and their accordance

with existed repertoire of graphic conventions” [4]. At visual perception from the outside we get only a definite part of information, which plays the role of an investigator, causing the increase of information inside the cognition of the one who perceives information. Varioscopic showing of educational information having its metacommunicativeness, plays the role of a generator (or stimulator) of emerging effective educational activity of students. Varioscopy (in its evristic interpretation) breaks the common for a modern person form of passive perception and saving big amounts of information and is in a way a supporting moment for changing a student’s behaviour in information field. Metha-view character of varioscopic messages helps to a definite connection of an audio-visual language of the screen culture & multimedia mediatexts, which are closer to today’s epoch & real terms of life, that leads to a more effective influence on processes of perceptions of educational information. Emotional environment of varioscopic demonstration deletes the terminal conservative limits in the system ‘the teaching – the learning’ (especially, in the terms of active participation of students in working out and creating educational variofragments).

As there are no definite number of marks, a visual message carries a large amount of information readings. According to the statements of classical communication theory, a message may be regarded from the point of view of its two main components – a communicative (major) and a (extra) ones. The major element transfers the contents of teaching information, and the extra one forms the context of semantics, fulfilling the function of interpretation. A metacommunicative level provides a modus of the transmitted contents and fulfills this or that kind of interpretation. With the help of varioscopic way of presentation of teaching information, besides the main influence to the perception process, there is an indirect influence, created according context of teaching material. The change of space disposition in the structure of teaching material brings new information. Varioscopic presentation of information in its nature is relative to the mechanics of visual reflection transposition. The teaching material in this case may be transmitted into another substance by changing its sizes and form’s density. It can be multiplied by simple copying or complex vitiating (the polyimage format of projection). The studying subject (or phenomenon) may be included into a changed context, unfamiliar to it, or, visa versa, may be exposed in a clean way, is dated from any context.

The studying subject or phenomenon is marked linguistically or visually, and at the same time it itself is a mark, that informs us about its functional component. As a result we deal with the whole complex of its meanings. With the help of varioscopic projection the teaching material may be put into unfamiliar context (enlarged in size, multiplied etc.). As a result there appears a lot of new changing meanings. After this, reobserving and reevaluation of the subject as it is begins. While this there can be seen some features it has already had, but they appeared to be more definite, became more important exactly due to the mechanics of varioscopic transposition. Discovering hidden features in the given subject, that were not available in its initial context, we make a cognitive act that brings us to a higher level of perception. The change of point of view is a push, in some way, to new sensations and impressions while perception. In functions as a supporting signal, switching attention in the needed moments of presentation and favours to more effective cognitive activity of learners at classes.

The usage of methods of varioscopic demonstration of modern electronic visual aids improves processes of perception of teaching information, favours to activization of creative interaction of a tutor and learners and positively influences the cognitive activity of learners.

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