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**SELF-ORGANIZATION OF ACTIVITIES OF STUDENTS IN THE  
SITUATION OF NETWORK EDUCATIONAL COMMUNICATION**

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***Abstract***

The psychological aspects of the network educational activity of students are considered in the article, the ambivalent character of the psychological consequences of information interaction is noted. For example, the Internet provides students with large scale and opportunities for information interaction, it allows you to quickly receive up-to-date information. On the other hand, network resources create mediated communication between people, in which products of information exchange become knowledge without active interaction of participants in this process. Students involved in network communication become "consumers" of the content of various information resources. This situation may threaten the security of the individual. The problem of self-organization is relevant in the process of personal and professional self-realization, and in the effective allocation of a temporary resource. Planning the use of your life time is an important component of modern life and indicators of their personal effectiveness. Personal propensity for self-organization is considered an important component of personal potential, which allows it to resist undesirable changes in the surrounding world. The authors conducted an empirical study of the self-organization of activities of students in the context of networked educational activity. Students who prefer active educational communication, daily plan their activities on the assimilated principles. They fix the pre-planned structure of the organization of events in time, are tied to a clear timetable, use external means of organizing activities. The inadequate development of students' ability to concentrate on the goal and streamline the activity make them more prone to dependence on the Internet.

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**Keywords:** Networked educational communication, self-organization of activity, efficiency..



## 1. Introduction

Internet resources provide students with great opportunities for information interaction. Modern network technologies define the special potential of the virtual educational information environment, which becomes a unique means of professional training for young people, allows the formation of a new information culture of the individual, develops cognitive and personal characteristics of students. Certainly, the virtual environment allows solving new educational problems, generates new educational and psychological-pedagogical effects (Renninger & Shumar, 2002, p. 6).

The choice of the psychological strategy of behavior in networked educational communication is determined by the personal characteristics of users. One of them is the self-organization of activities in the context of planning and efficient allocation of the temporary resource of one's life (Westaby, Pfaff & Redding, 2014).

The problem of self-organization is relevant in the process of personal and professional self-realization, as well as for the effective allocation of a temporary resource. Planning time, ways of distributing time, both in a specific situation, including using the Internet, and in the scale of a lifetime are important components of the life of modern people and indicators of their personal effectiveness.

## 2. Problem Statement

The Internet allows you to quickly get up-to-date information. Network resources create mediated communication between people, in which products of information exchange become knowledge without active interaction of participants in this process. Information is given in a structured and formalized form, does not require independent processing, analysis and additional comprehension. Students involved in network communication become "consumers" of the content of various information resources. This situation may threaten the security of the individual. From the active subject of cognition, the learner can become an object of influence.

In psychological work, communication is understood as information exchange. In the conditions of communication on the Internet, communication processes change, there are specific features in comparison with real personal or professional communication. Written speech with features of oral speech prevails in electronic communication (incompleteness of phrases, reliance on context, shortened spelling of words, simplified vocabulary, jargon). For professional or business electronic communications are typical additions in the form of attaching a file with a document, a photo, a picture. At the same time, the use of emoticons ("smiles") in electronic communication can serve as evidence of a formal expression of one's emotions and sympathy for others.

In the network educational communication, non-linear communication links are used. The network environment creates a new social effect. For example, in the form of a network learning or professional community, for which the norms and values of educational interactions are characteristic.

The development of network resources replaces interaction with reality. Cyber environment creates conditions for new behaviors, for the stereotyping of new activities. The systematic and long-term use of information technology leads to the emergence of other ways of processing, analyzing and presenting information. The virtuality of space, time, social relations form special individual and personal

manifestations. In networked educational communication, not only personal characteristics are manifested, but also the activity of the subject of communication (Borgatti & Halgin, 2011).

### **3. Research Questions**

In the process of network interaction of participants in a virtual educational environment, the setting and solving of learning tasks takes place. Implementation of certain training activities, mutual control and evaluation through the exchange of files with the results of learning activities (completed tasks, answers to questions, discussion of results, etc.).

In the literature, types of networked educational activity are distinguished on the basis of the separation of "activity structures" as certain models of behavior of the participants in the interaction (Harris, 2003). Interpersonal interaction is described through such activity structures as correspondence, "groups", electronic performances, electronic mentoring, impersonation. The second type of interaction is collection of information, which includes such activity structures: information exchange, creation of databases, electronic publications, TV excursions, joint data analysis. The third type is projects aimed at solving specific problems: information search, parallel problem solving, joint writing of electronic texts, creation of serials, simulators, social actions (Harris, 2003).

Among the technologies of e-learning, the most common technologies are realized through interaction of the trainee with educational resources with minimal participation of the teacher and other trainees (self-training); Technologies of individualized teaching and learning, which are characterized by the relationship of one student with one teacher or one student with another student (one-to-one training); Technology, which is based on the presentation of the teaching material to the students by a teacher or an expert, in which students do not play an active role in communication (one-to-many education).

Electronic learning interaction involves the self-organization of activities and the organization of joint distributed activities of students.

### **4. Purpose of the Study**

The research problem is that one of the significant qualities for a modern specialist is his ability to self-organize. The effectiveness of its activities largely depends on how it is guided by its own internal principles, can independently create conditions for its optimization. Personal propensity for self-organization is considered an important component of personal potential, which allows it to resist undesirable changes in the surrounding world. Researchers are studying, in the main, separate aspects of the psychology of Internet communication, but insufficient attention is paid to studying the specifics of the relationship between various strategies of network behavior with personal characteristics, including self-organization of personal activities.

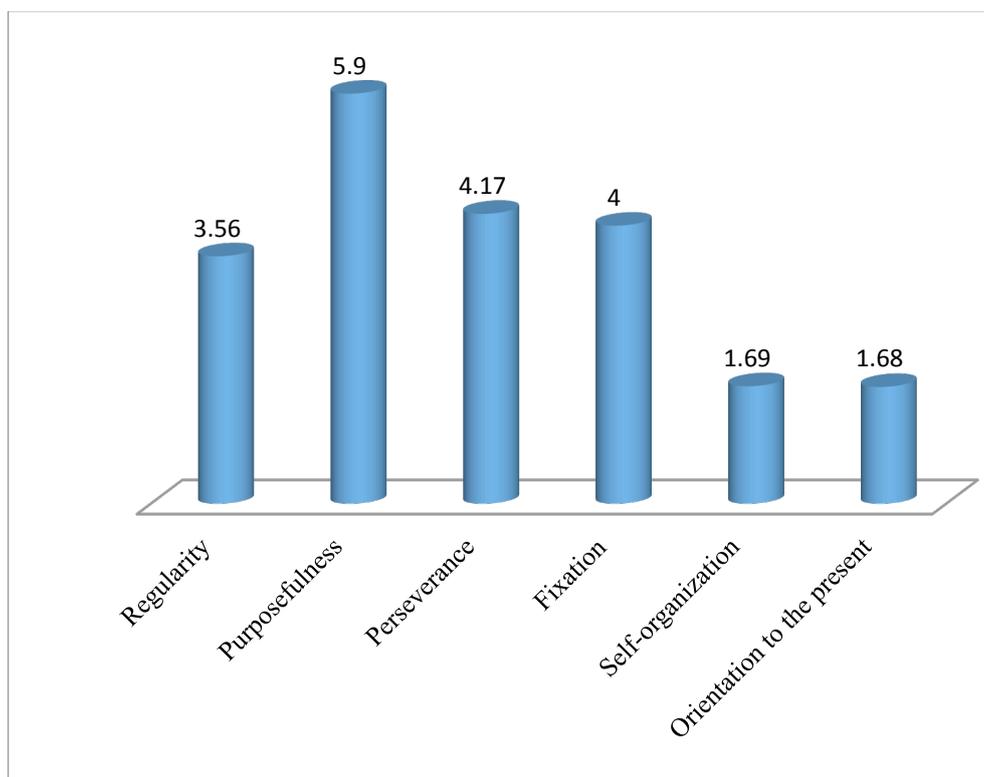
The purpose of our research is: - to reveal the features of the interrelation between the students' network communication strategies and self-organization of activities

## 5. Research Methods

To study the psychological strategies of network activity, the "Online behavior questionnaire" (A.E. Zhichkina) was used. The features of self-organization were identified using the self-organization questionnaire (E.Yu. Mandrikova). The methodology for investigating the psychological effectiveness of the user's interaction with the computer (E.N. Nikolaeva, N.M. Subbotin in the modification of N.L. Sungurova) made it possible to evaluate the specifics of students' interaction with information technologies. Methods of mathematical data processing: descriptive statistics, nonparametric statistics, correlation analysis, factor analysis. Software: Microsoft Word, Microsoft Excel, IBM SPSS Statistics Version 20. 242 students of different faculties (social, humanitarian, technical, physical and mathematical areas) of universities in Moscow and the Moscow region took part in the research. The average age of respondents is 21 years. The average length of use of the Internet is 9.8 years. All participants have experience working with a network educational portal and corporate mail.

## 6. Findings

In Fig. 01 presents a general trend on the scales of the self-organization questionnaire for the entire sample as a whole.

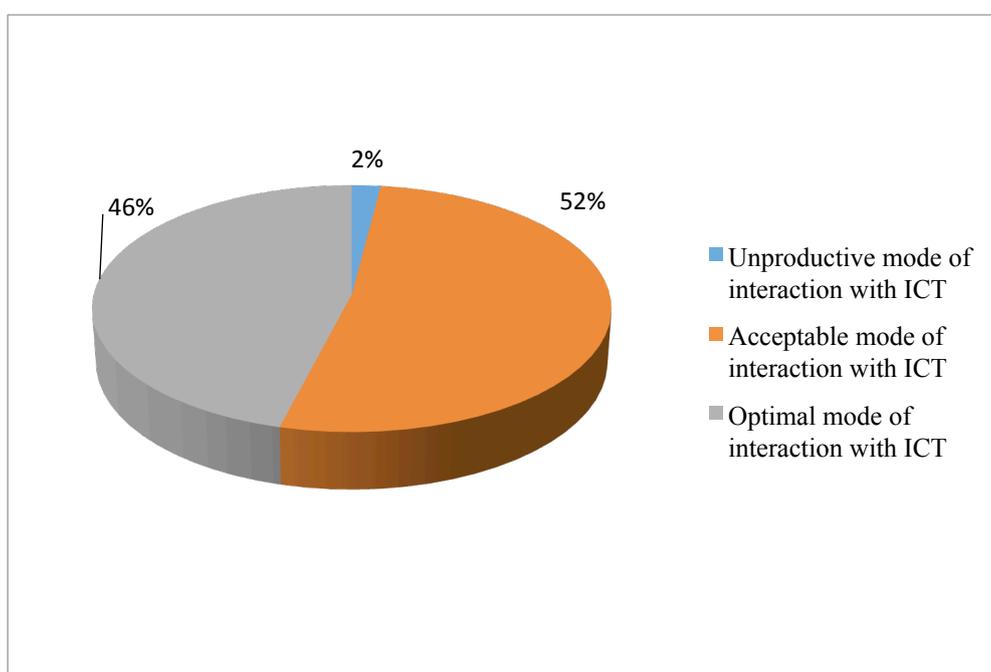


**Figure 01.** Average rank on the scales of self-organization questionnaire]

The ratio of scales on indicators was distributed as follows: the first position is occupied by "Purposefulness" (5,9). Next are " Perseverance " (4.17) and "Fixation" (4), which have close positions. Then follow the "Regularity" (3.56), "Self-organization" (1.69) and "Orientation to the present" (1.68). Mathematical processing with the help of the Friedman criterion revealed statistically significant differences between the scales ( $\chi^2 = 912,455$ ;  $p = 0$ ). Thus, the student describes the ability to focus on

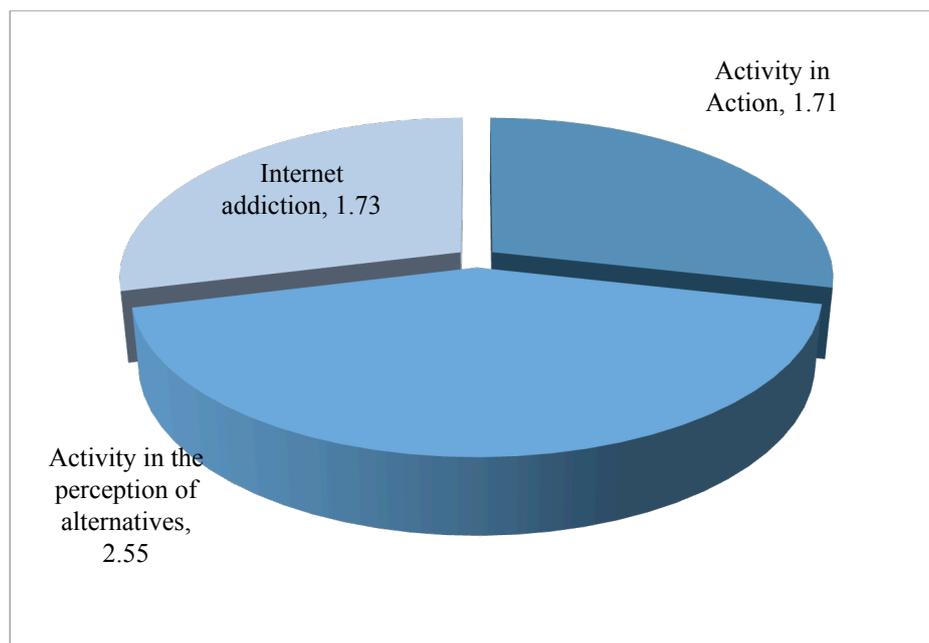
goals, persistence, propensity to commit to a pre-planned organization of events, the tendency to application willpower to complete the business started and a daily plan according to certain principles.

A study of the psychological effectiveness of interaction with information technology (Figure 2) showed that 2% of students are characterized by an unproductive work regime, a low emotional background in interaction with information technology, they are dissatisfied with e-learning, 52% of students are in good acceptable condition, but insufficient for effective e-learning. Most likely, this is due to the self-organization of activities mediated by technology. 46% of the respondents demonstrate a productive mode of work, good performance results, the manifestation of intellectual and creative potentials, a high emotional background for the implementation of e-learning. At the same time, young men are more effective than girls, and also students of technical and mathematical directions in comparison with students of social and humanitarian profile.



**Figure 02.** Percentage ratio of levels of psychological effectiveness of interaction with ICT

According to the type of involvement and degree of Internet interaction, three types of network activity of students are singled out (Zhichkina A.E., Sungurova N.L.). Figure 3 shows the ratio of scales for average ranks. The scale "Activity in the perception of alternatives" (2.57) dominates in this student audience. In second place is the scale of "Internet addiction" (1.73) and then the scale "Activity in Action" (1,7). As the long-term research experience shows, this trend in the distribution of scales is stable for a student audience. Statistical processing of data by the Friedman criterion revealed significant differences in the level of average values of ranks in scales ( $\chi^2 = 136,925$ ;  $p = 0$ ).



**Figure 03.** The average values of the ranks of communication strategies on the Internet

"Activity in the perception of alternatives" characterizes respondents as seeking to find their identity. They are aimed at acquiring new experience in virtual communication. This strategy is manifested in the interest in messages, sites, portals of different content, in the estimated ratio of photos or video materials. The strategy "Activity in Action" is demonstrated by people with a weakly expressed social and role component. In the network they willingly get acquainted, initiate discussion topics; vary with their personal status. Respondents "Inclined to Internet addiction" in network communication are looking for emotional support, help in experiencing loneliness, seek self-expression and self-presentation. (Ivaschenko, Karabushchenko, Sungurova, 2016).

Correlation analysis of the results of the study using the Spearman coefficient revealed the interrelations between the strategies of network activity and the self-organization of student activities. The strategy "Activity in Action" is positively related to "Regularity" ( $r_s = 0.191$   $p = 0.006$ ), "Fixation" ( $r_s = 0.215$   $p = 0.002$ ), "Self-organization" ( $r_s = 0.193$   $p = 0.005$ ). Students who prefer this behavior on the Internet, are involved in the daily tactical planning of its activities on mastering the principles likely to commit to a pre-planned structure of events in time, tied to a clear schedule, exhibit rigidity in the planning, use external means of organizing activities. The strategy of "Internet addiction" is negatively related to "Purposefulness" ( $r_s = -0.163$   $p = 0.019$ ) and "Perseverance" ( $r_s = -0.276$   $p = 0.00$ ). The inadequate development of students' ability to concentrate on the goal and inclination to intensify strong-willed efforts to complete the initiated business and streamline the activity make them more prone to dependence on the Internet.

"Psychological effectiveness of interaction with electronic educational technologies" also positively correlates with "Purposefulness" ( $r_s = 0.288$   $p = 0.00$ ) and "Perseverance" ( $r_s = 0.329$   $p = 0.00$ ). The more students show these qualities, the more effective the educational information interaction. A negative relationship between the "Psychological effectiveness of interaction with electronic educational technologies" and the scale "Addiction to Internet addiction" ( $r_s = -0.163$   $p = 0.019$ ) indicates an opposite tendency.

## 7. Conclusion

The possibilities of using virtual telecommunication environments for the purpose of implementing educational and professional activities make the network interaction a certain space, where different strategies for user behavior (students and teachers) are implemented, their individual and personal characteristics are manifested, and target settings are realized. Therefore, organizing the interaction in a virtual educational environment, it is necessary to take into account the psychological characteristics of students, provide an opportunity for the development of the creative information potential of the individual, increase the cognitive activity of the trainee, and implement individual educational trajectories.

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