

## Internet Access and Youth of Yakutia Awareness on the Health-Promotion Factor

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### ABSTRACT

Thematic justification is determined by the fact that in the conditions of the steady growth of mobile technology the youth accurately does not represent health promotion value when using the Internet at home, at school and other entertainment leisure recreation. With respect thereto this paper is aimed at monitoring general awareness of seniors and students on the importance of the health-promotion factor when they use the Internet in everyday life. The sample interview conducted for the period from 2010 to 2015 is provided in this paper. Schools beyond the river area and of Yakutsk, the Republic of Sakha (Yakutia), were included in the quota sampling. The main focus of study is aimed to clear a true picture of the awareness of Yakutian youth aged from 16 to 20 about the global Internet and its availability level. The second part of the study captures value judgments of seniors and their leading attitudes with respect to the computer and the Internet impact on health. "Strong", "average" and "weak" schools as for provision with the computer technology and the Internet were selected. All problems that were designated above are directed to implement preventive activities in educational institutions when using modern educational technology with connection to the Internet network. The paper data have practical value in analyzing modern technologies impact on personal formation of youth in the conditions of information society.

### KEYWORDS

The Internet, awareness, health promotion, safety, comparative analysis, youth

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## Introduction

Steady growth of the park of personal computers and mobile technologies at home use and at youth workplaces, infrastructure development of mass information technologies and electronic resources market and its daily advertisements in television programs show that young people accurately do not comprehend importance of fostering valuable attitude towards their health, skills of health promotion when using the Internet at home, at school and other places of entertainment and leisure recreation. Now the health problem of citizens and especially children's population preserving is one of the most urgent in a regional education system. Organism mobilization opportunities decrease at

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the younger generation, immunity is weakened, total number of diseases grows especially in the conditions of Far North as for ecological situation changing, sedentary lifestyle, when new information technologies break into day life all round (Nikolaeva et al., 2014; Neustroyeva et al., 2016; Neustroyev et al., 2016). On the other hand massive entry of resources based on ICT and new educational technologies, need of society and educational institutions within the entire territory of Russia, especially in remote areas of Siberia, the Far East and the North, as well as in rural districts to promote and maximize the promotion of new information technologies oblige to study these technologies impact on the health of younger generation (Mikhaylova et al., 2015).

The authors provided studies in the field of the social sphere safety in the earlier published papers in the international database (Barakhsanov and Barakhsanova, 2015; Barakhsanova et al., 2016) which demonstrate the existing safety problem that includes not only an information component, but also an economic, didactic, ecological, social and psychological component. The safety problem is caused by availability of the threat connected with the use of training aids that do not reflect or fail to reflect fully the requirements of the federal state educational standards based on application of the competency building approach and effective methods for measuring the level of the acquired competences in the modern educational environment under the pedagogical and psychological science study (Nikolaeva and Neustroev, 2012). In this regard it is required to note threats to information security from media, television and various websites (Barakhsanov and Barakhsanova, 2015). The authors consider that the threats to psychological, social and ecological safety resulting from transition to distance teaching are connected with reduction of communication time of a teacher with a student and unreliability of tools and methods of information exchange. In this regard the role of educational information representation increases in terms of its perception and adoption. There is a need to assess their compliance to the requirements of the state standard in the education system. All these problems are reflected in the collective monograph "The concept and technologies of life-long pedagogical education in modern higher education institution" (Mikhailova et al., 2015).

It should be noted that fostering of responsible attitude to own health and health of people is one of the priority tasks of the Russian education system. More vigorous complex pedagogical measures to improve health of pupils that directly affects education results are necessary due to children's and teenagers' health deterioration tendency, being steady in recent years (Berezovskaya, 2012). Results of numerous studies show that if to compare respondents' knowledge on healthy lifestyle and features of implementing these principles in practice, then it should be noted that in most cases in the conditions of Internet information dependence of youth the health promotion is an urgent problem for researchers of pedagogical science (Parsons, 2002; Abramova et al., 2013; Kolin, 2003).

The authors consider that lately our younger generation spends out most of the time at the computer, both at work, study, and home. The computer forces out reading books, walks, sports and real communication. The signs of computer/the Internet/computer games addiction are observed. Sitting at a computer, a person is unmindful of time, stops to notice discomfort or fatigue. The age bracket of the first computer skills significantly decreased. Ten years ago only a half of teenagers of 15-16 years had computer skills, now pupils of



preschool age have already got some user skills. Therefore, health promotion and health promotion technologies are urgent for today in education within determination the Internet impact on youth health.

### Literature review

Modern pedagogical science considers health promotion as a complex system process of child identity transformation that is directed to increase in valuable attitude towards own health and health of people based on personal liability understanding by him, acquiring awareness of health conditions and variations, of the ways and methods of its preserving and strengthening (Barakhsanova, et al., 2016). It should be noted that the concept of "health promotion" has come into frequent use since the 90s of the 20<sup>th</sup> century in pedagogical science, though its separate aspects were considered by J. Komensky, J. Locke, I. Pestalozzi, P. Lesgaft, and other scholars. Study of children's healthy lifestyle formation is reflected in the works of Russian scientists such as N.V. Bordovskaya (2011), V.P. Petlenko (1996). Information and communication technology impact as special cultural education was studied by foreign and Russian researchers (Belinskaya, 2013). Influence of information and communication technologies as vocational cultural education has been studied by the Russian researchers (Belinskaya, 2013) and foreign authors of Judith Donath (1999) and Elizabeth Reid (1994).

In view of the health definition given in the Constitution of the World Health Organization (2006), according to which health is a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity and health promotion is the process of enabling people to improve quality of their life, to resist to negative environmental effects, to create active consciousness, ethical attitude towards themselves, people around, mankind in general, the authors consider it necessary to teach youth to introduce to proper health promoting behavior from early age when using communication tools.

Formation of the "information and data security" research area in the Russian Federation is connected with the names of such domestic scientists as A.A. Grushko, V.I. Gerasimov, V.A. Minaev, A.B. Shelkov, etc. Legal aspects of information security found reflection in the works of Yu.M. Baturin, V.A. Kopilov, Yu.A. Tikhomirov, M.A. Fedotov and others. Studies of such scientists as M.V. Vus, K.K. Kolin, V.P. Polyakov, are devoted to the development of education theory and practice in the field of information security. Currently conceptual approaches and psychological and pedagogical bases are created for development and functioning of the information educational environment. Main component analysis of teacher professional activity which efficiency can be increased when using ICT means was carried out by I.V. Robert, S.V. Panyukova, A.A. Kuznetsov, A. Yu. Kravtsova (2008). The work of E.P. Belinskaya (2013) considers the teenagers' information socialization problem: experience of social networks using and psychological wellbeing. In this regard it should be noted that the Internet serves as a communication tool between various clubs, associations on various forms of activities in education. In fact, we deal with the new, rapidly growing socialization structure that creates special communicative subculture and is one of the tools and means of mass information consciousness formation (Barakhsanova, 2016). Historically, computerization studies in the aspect of virtual communication are considered in the works by O.K. Tikhomirov and L.G. Guryeva (1986).



It is worth mentioning that in Yakutia science school studies the influence of information and communication technologies on personality development is considered in the protected thesis researches of lecturers and teachers of the Republic schools, protected under the supervision of Professor E.A. Barakhsanova (A.E. Burnashev, O.G. Gotovtseva, A.K. Vinokurov, A.A. Slobodchikova, M.S. Prokopyev, E.V. Nikitina, T.N. Lukina and others). The analysis of scientific works shows that there are studies considering this problem in the following known philosophical directions: phenomenology, analytical philosophy, philosophy of mind (Abramova et al., 2013).

In this regard, it is necessary to emphasize that virtual information competence formation in students at a higher education institution is the main requirement of the Federal State Educational Standard (FSES) of new generation. The higher education institution as a unique cultural educational environment and universal communicative system is considered in works of K.K. Kolin (2003), T. Parsons (2002) and some others.

### Research methods

The following research methods were used to solve the set up problems: theoretical and methodological analysis, generalization, systematization, classification, and modeling. Empirical methods such as a questioning experiment were applied to identify an involvement level and social media communication based on U.S. Borisova's technique (Borisova and Androsova, 2016). Reliability and validity of results are provided with research procedures used up to the standards of modern experimental psychology, and also a wide class of empirical material record and analysis methods.

The sample of subjects consisted of the respondents aged 16-20 (500 persons in total), including pupils of comprehensive schools, students and young rural dwellers who are active Internet users. Length of the Internet experience, a number of hours per day and per week for virtual communication, number of partners in the Network, types of activity on the Internet were the criteria for assessing an active user. In general the undertaken research had a pilot character and therefore it was limited to one main and very general hypothesis: youth active participation experience in virtual communication causes structural changes in their health personally, and in the social sphere.

Equilibrium system is used when evaluating a multiple choice textual question. Answer weight is determined by formula:  $W = B_{\max}/N = 100\%/N$ , where

$B_{\max}$  – a maximum point for the answer to the task,  $N$  – total number of answers for a question. Calculation of results is performed as follows: for each right answer the weight is added, for each wrong one – it is subtracted.  $W_{\text{total}} = \sum W_{\text{right}} - \sum W_{\text{wrong}}$ , where  $W = W_{\text{wrong}} = W_{\text{right}}$ ;  $W_{\text{right}}$  – a point for the right answer (the answer is right if it is correct and it is chosen, and also if the answer is wrong and it is not chosen);

$W_{\text{wrong}}$  is a point for a wrong answer (the answer is wrong if the answer is correct, but it is not chosen, and also if the answer is incorrect and it is chosen). Further this sum is normalized (a range of points [-100; +100] is reduced to the range [0; +100]):

$W = W_{\text{total}} + 100/2$  (Barakhsanov and Barakhsanova, 2015; Barakhsanova et al., 2016)



## Results and discussion

First of all it should be noted that the vast majority of our respondents (more than 90%) included reference to affiliating with network communities or on represented types of activity on the Internet in their self-description. The main focus of study is aimed at clarifying a true picture of awareness of the Yakutian youth aged from 16 to 20 about the World Wide Web and its accessibility level. The second part of the study captures value judgments of seniors and their leading attitudes with respect to the computer and the Internet impact on health. Sample interviewing was performed in 2010 and 2015. Schools beyond the river area and of Yakutsk, the Republic of Sakha (Yakutia), were included in the quota sampling. "Strong", "average" and "weak" schools as for provision with the computer technology and the Internet were selected. The methodologists and members of the creative team of Institute for Mathematics and Informatics of the Ammosov North-Eastern Federal University were experts-appraisers in this survey.

To achieve the set up objective questions 5-7 were made that considered the following issues: When did you try to work with the computer for the first time? What types of computer equipment do you know and how well? When did you start to use the Internet and digital electronic technologies? Where do you have the greatest opportunities for "communication" with the Internet? How do you think whether excessive computer and Internet using influences your health? What online resources do you use? What ways and methods of safe protection for using new educational technologies do you know? These two mentioned studies included the pool of identical questions on the Internet real using and health promotion importance when the Internet using by 16 and 20-year-olds in Yakutia. The first part of the questionnaire is aimed at manifestation of a true picture of seniors and students' awareness of the Internet resources and level of its accessibility. The second part of the questions captures value judgments of the youths aged 16 to 20 and their leading attitudes with respect to the health promotion. The analysis of the findings shows that steady growth of the personal computer park used at home and at educational institutions, development of information and mobile technologies market infrastructure and mass advertising of their usage in everyday life and in educational process create a problem of the Internet accessibility studying. At the same time the main objective is to monitor youth awareness of the health-promotion factor.

The 2015 sample interview included 300 students of the first and fourth (final) year of the Teacher Training Institute of the Ammosov North-Eastern Federal University. It referred to "Availability of the Internet and general awareness of students aged 16 to 21 of the health promotion importance when using a personal computer for the Internet access". Special test questions were developed for carrying out three big studies. 300 students from first to the fourth years took part in the questioning of 2015. The questionnaire for students included 21 questions of various focus. We tried to cover all aspects of the Internet using as much as possible: user activity, computer games, common view about web-user, and also techniques based on online environment. Results of this research provided insight into the way how students use the Internet for the main basic academic disciplines.

Study among students whose total sampling made 300 seniors of schools of the Republic of Sakha (Yakutia) became the second stage of the research. For



this study the questionnaire was revised and included 20 questions, both sociological, and psychological focus. It comprised questions that determine user activity of school students and its substantial features, views of the Internet risks, awareness in the issues of the Internet resources and also special techniques and learning technologies: Internet Addiction Test by Dr. Kimberly Young, the procedure for determining emotional perception of the Internet, and also a number of open questions that allow carrying out qualitative analysis of the attitude to the Internet.

The third research was focused on youths who work in rural settlements of Yakutia. Within this research 100 people who both use and do not use the Internet were interviewed. The test included questions aimed at clarifying the youth opinion on using the Internet technologies, on determining the Internet addiction control level and general awareness concerning the influence of modern technologies on youth health and behavior. Thanks to such interview form the authors had the opportunity to compare views of rural and urban youth about the Internet impacts on students' health (sight, hearing, bearing, nervous system, musculoskeletal system) and about the health promotion factor. The analysis of the interview results shows interesting and unique data based on which we could carry out the comparative analysis of usage pattern and perception of the Internet by teachers at schools. In this regard one should note implementation of the specific two-level prevention that is capable to resist to affirmed negative manifestations and including: the primary prevention – conscious avoidance and opposition to real temptations of the Internet addiction); the secondary prevention – determination of the ways of consecutive systemic health promotion work when using educational technologies.

The above preventive levels orient youth development to immersion in the formed health-saving culture which is created on the basis of specific means, for example, of the educational system "Our New School" that emphasizes a health saving component as the priority direction of transformations of the Russian educational mainstream.

Conscious acceptance of healthy lifestyle and health values becomes not just significant in the present days but it is the leading factor in the sustainable development of the society and the public relations. Tasks to form, strength and preserve natural, genetically determined health of a person who lives in the stressful information and energy environment, to create emotional and comfortable communication and labor environment become a priority for the human community.

For the Internet not to be an enemy, but turn into a very useful tool that is very facilitating life it is necessary to approach reasonably the issues of a workplace organization, correct selection of activities, time distribution, use of simple physical exercises to reduce fatigue and stress. Visual workload, a constrained pose, diseases of joints of hands, rough breathing, development of osteochondrosis, monitor radiation, mental loading and stress in case of information loss, computer addiction are major harmful factors during the work in front of a computer.

## Conclusion

The conducted research on the health promotion factor in conditions of information dependence of the education system and society shows that e-learning will promote the increasing demand for studying of the Internet impact



on health of younger generation on behalf of the education sector. In this regard, it should be noted that the value of health is of the highest and absolute importance for a person, the society and the state that provides human culture on the basis of health promotion factor comprehension.

The main features of research methodology with regard to the health promotion factors are questioning, testing, conversing, training, creating conditions for self-diagnosis, self-assessment of learners' character traits, providing students with the possibility to choose kinds of activities, forms of control and submit the results of these activities. In our opinion, special attention should be paid to the technology of students' personal goal-setting and reflective technologies.

Healthy development of youth should be understood as growth and formation of personal qualities, properties and capabilities, knowledge and abilities, their integration into socially significant activities, but the headline is when a person actively and qualitatively transforms his/her inner world resulting in an essentially new way of life – to the concept of the health promotion when using the Internet.

### Disclosure statement

No potential conflict of interest was reported by the authors.

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