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## **Information literacy in Russia.**

### **Problems of formation of information literacy and information culture of children and youth: a view from Russia.**

**1. Introduction: traditions of training children and youth to skills and abilities to work with information in Russia.** Concepts like «work with the information», «a person's information training» do not have a clear definition. They include very wide spectrum of knowledge and abilities of a person in work with information and technical means to facilitate this work. Information may be presented on any carrier: a clay tablet, papyrus, paper, CDR. Technology of information processing is also rather variable: from Guttenbergdruck to an electronic book and the Internet. Dealing with a person's training in a human history such social institutes as libraries and schools were traditionally engaged along with a family. In libraries they always taught research skills and information sources usage while at educational institutions they taught methods of extraction, judgment and interpretation of information.

Already in the XVIth century in the first manuscripts and printed learning books special attention is paid to necessity of formation of children's abilities to realize the read. For the first time in the written Slavonic in the book for young readers by Lavrentii Zizania « The Science of Reading and Understanding Slavonic Writing» / Nauka chitanyu I razumenyu pisma slovenskogo/ there appeared explanatory dictionary «Lexis». The aim of the dictionary was to help children to learn independently and use practically educational material. Later in order to form the need of independent conscious reading teachers and then librarians began to develop bibliographic indexes orienting children in the choice of books in the library. Then librarians began using conversations to explain to children how to make use of the library, catalogues and card files, with the help of special library lessons began to train rational methods of work with a book and develop reading culture.

However a particular meaning to information training as an independent kind of special activity was given only at the end of XX century. It is caused by a new attention of humanity to

information. Information got realized as the most valuable resource alongside with natural, financial, labour and other resources of society and state. Information got looked upon as weapon in economical and political fight, a means of controlling a person and society, power instrument. An important role was also played by the growth of information amount in modern society. It was expressed in such phenomena, as «information explosion» and «information crisis», inseparably linked, in turn, with society information, development of information techniques and technology.

The various sides of information training of a person are reflected in various terms and concepts: “librarian bibliographic knowledge”, “librarian bibliographic culture”, “culture of reading e”, “media culture”, “information culture”, “electronic culture”, “screen culture”; “bibliographic literacy”; “information literacy”, “computer literacy”; “media literacy”: “network literacy”, “digital literacy”, “Internet literacy”, etc. Analyzing this it is easy to notice two circumstances. First, the conceptual apparatus in the sphere of information training of a person reflects progress and development of technologies and technical means in information sphere. Second, all these terms are mainly derived from two words: “culture” and “literacy”. Comprehension of these two circumstances is essentially important as allows to understand developed situation in the modern theory and practice of information preparation.

The first circumstance-progress and development of technologies and technical means in information sphere reflects how information training changed according to evolution of objects of information training in the end XXth - beginning of XXIst centuries. Thus in Russia in the 70's of the XXth century in information training the emphasis was on training to using library, library catalogues and card files, development of reading culture. In the 80's the considerable attention was given to training skills of orientation in information resources, to instructions for using information retrieval systems, to assimilation of information search algorithm. The 90's are characterized by inclusion into information training how to use a personal computer and liquidation of computer illiteracy, training to skills of databases using, electronic sources and the Internet. The first decade of the XXIst century was marked by special interest to information-communication technologies (ICT) and e-learning.

It is necessary to underline specific character of information training: necessity of training to skills of rational behaviour in new information environment or assimilation innovative information technologies does not mean at all “cancellation” of their predecessors. So, the Internet “has not cancelled” a traditional library and a personal computer has not relieved a person from necessity to comprehend independently and to analyze critically the received information.

The second circumstance characterizing development of terminology in the sphere of

information training is connected with derivativeness of the majority of terms from two words: “culture” and “literacy”. The word "culture" is polysemantic and possesses huge (hundreds!) quantity of the definitions essentially differing in meaning. The word "literacy", on the contrary, unequivocally, has absolutely concrete meaning - « ability to read and write ». In this connection, the terms derived word "literacy" (library bibliographic, computer, network, media, etc.)? as a rule, always have concrete character? Designate exact list of knowledge and abilities, carry obviously expressed utilitarian meaning. The terms derived from the word “culture” (library bibliographic, computer, network, media – etc.) always correlate with the sphere of culture and spiritual world of a person, they have a distinctly utilitarian nature; their meaning is vault and did not exhaust the list of knowledge and skills.

**2. Information training of young citizens under conditions of information society: international and Russian format.** Entry of humanity into information society is characterized by rapid development of information-communication technologies (ICT) and creation of qualitatively new, information environment of live activity. More and more people are involved in information interaction not only as passive information users, but as well as designers of information resources and services. Information society is firmly associated with «high technologies». In such society a person is required to have an ability to creation and enlarging his/her knowledge. In the scale of the whole earth civilization there appears a global problem - to train timely people to new life conditions and professional activity in highly automated information environment, to train them to act independently in this environment, to use effectively its possibilities and to protect themselves from negative influences.

Establishing of information society made actual the necessity of a person’s special training to the life in a new information-technological and educational environment. The most important feature of a person in a modern dynamically changing society is an ability to work professionally with information, acquire knowledge independently, constantly advance in professional qualification. In this connection a great importance is given to organization of information training of citizens and, in the first turn, of learning youth.

The necessity of a person’s special training to life in the Information Society is underlined in the main documents of the World Summit on the Information Society, two stages of which took place in 2003 in Geneva and in 2005 in Tunis. The leading international organizations, initiating discussion and studying the problems of a person’s training to life in the information society are UNESCO and the International Federation of Library Associations and Institutions (IFLA). Thanks to their efforts at present the concept of information literacy has been formed (1-2).

The problems of information literacy were the subject of discussion at the 75th IFLA

General Conference “Libraries create future based on cultural heritage” (Milan, 21-28 August 2009), where there was a mutual sitting of “Literacy and Reading” sector and “Information literacy” sector. It was united by the theme «Libraries are engines of various kinds of literacy of the XXI century». Analysis of reports presented at this united sitting shows a curious regularity: simultaneous action of processes of differentiation and integration in the sphere of promotion of different literacy kinds. At the turn of XX – the XXIst centuries ICT rapid development led to important differentiation of literacy kinds connected with information work: «Computer, network, electronic, multimedia, visual», etc. Each of this word reflects one special feature of this or that kind of information literacy, connected either with used technical means and technology or information kind. IFLA suggested to use the concept «information literacy» as the generalized term. However striving for reflection in one term the need of a modern person in different kinds of information and complex usage of various ICT kinds led to appearance of new terms: transliteracy (3), multimodal literacy (4).

Thus, researchers in the different countries feel some limitation of the term «information literacy». They are looking for new generalized concepts, allowing to reflect both the diversity of information sources, and multitude of technologies, methods and forms of work with information knowledge of which is so necessary to a modern person. Russian researchers think that such capacious generalized concept is «a person’s information culture». It allows to integrate in citizens’ information training both ICT achievements and knowledge of traditional and network information resources, ability of analytical-synthetical processing, critical analysis of information and independent designing own information products on this base. Moreover the whole information training is organically included in a sphere of the whole culture of a person.

**2.1. Information culture: evolution of the concept and conception of formation.** In Russian publications the term «information culture» first appeared in 70s of the XX century. Initiators of attracting public attention to this phenomenon were librarians. And now the authors of most publications are bibliographers, librarians, and bibliologists. They began to work actively in at information culture branch of the International Informatization Academy (1993). As a result a series of collections «Problems of information culture» was edited. Besides, the Krasnodar State University of Culture and Arts held a number of international scientific conferences devoted to humanitarian issues of information, including the problem of information culture. Further other higher educational schools of culture joined this activity - Moscow and Kemerovo State Universities of culture and Arts, Samara and Chelyabinsk State Academy of Culture and Arts.

Having appeared in the sphere of librarianship the concept of information culture incorporated knowledge from variety of sciences: information theory, cybernetics, computer

science, semiotics, documentary, philosophy, logic, culturology, linguistics, etc. At present information culture is interpreted more often as a special phenomenon of information society. Various kinds of information culture are singled out: information culture of society, information culture of separate categories of information users (children, adolescents and youth; separate categories of professionals: doctors, teachers, lawyers, etc.), a person's information culture.

Since the second half of the 1900's in Russia various definitions of concept «information culture» were included in a branch reference media: «the Explanatory dictionary on information work bases», 1995; the Encyclopaedia «Cultural Science. The XX century»; « Directory of a Librarian», 2000; «The Pedagogical dictionary», 2000; « Short Directory of a School Librarian», 2001. Now the interpretation of this term is also given in the dictionary «The Basic Concepts and Definitions of the Internetics»(<http://www.rol.ru/files/dict/internet/index.htm>).

The analysis of Russian publications allows to state that the problem of a person's information culture formation represents interdisciplinary scientific direction. Its development is contributed by the Scientists of various knowledge areas: philosophy, culturology, pedagogics and psychology, computer science, semiotics, documentary, library science and bibliography. These sciences became the background for realization of principally new approaches for work with information, providing solutions of information crisis problems. Special influence on filling up the concept «information culture» with new content was rendered by the works of specialists in the field of informatics, computer facilities, and new information technologies. So, the stable interest to problems of information culture is shown on the part of both representatives of humanities and technical profile. On the one side it promoted accelerated development of scientific ideas about phenomenon of information culture: its complexity, multidimensionality, ambiguity. On the other side, participation in information culture theory of representatives of various knowledge areas, generates terminological divergence, fragmentariness, lack of integrity and systematics in research, make difficult the work of libraries and educational institutions.

Overcoming the fragmentation, separation of knowledge in the field of work of a person with the information presented both in traditional and in the electronic form, finding of integrity and completeness of ideas about the effective ways of information problems' solving can be done only with development of a new system approach to information culture forming. This idea is in the basis of the concept and technology of a person's information culture formation developed by Research Institute of Information Technologies Social Sphere of Kemerovo State University of Culture and Arts' (5-7).

The concept essence is reduced to the thesis that mass increase of information culture level of society is possible only by organization a special information training of young citizens i.e. organization of information education. Thus presence of special information training,

necessary level of person's information culture are important to the same rate as presence of computers and communication channels, indispensable attribute of the information society.

Within the given concept the following definition of "a person's information culture" is offered. "A person's information culture" is one of the components of a person's general culture; sum total of information outlook and a system of knowledge and skills providing the goal aimed at independent activity in optimal satisfaction of information needs on the base both traditional and new information technologies. It is the most important factor of successful professional activity as well as a person's social protection in information society.

A special place takes information outlook in the interpretation of the concept "information culture". Its essence is valuable relation to information and designed and used information products, technical means, and information technologies. Information outlook is a system of a person's views on information world, and man's place in it. Information outlook includes values, beliefs, ideals, principles of cognition and action.

The connection of outlook knowledge with a personal experience is a very important condition of turning simple knowledge into conviction. Information outlook is impossible "to be hammered into a head", it is necessary to make conditions for a person to come to his convictions. Information outlook is closely connected with learners' motivation to information training, in particular, for learning information literacy. Just motivation of learners defines the success of their information training.

**2.2. Information culture and information literacy: similarities and distinctions** Comparison of the key concepts - information literacy and a person's information culture – allows to clear up similarities and distinctions of two approaches: an international concept of information literacy and Russian concept of a person's information culture formation. Similarity is in that both approaches are aimed at the development of a person's ability to receive, evaluate and use information given in any form or by various technologies. At the same time there are some limitations of the term "information literacy" using in Russia caused by psycholinguistic reasons. In Russian language the word "literacy", meaning ability to read and write is connected only with the simple, elementary level of education. That's why the term "information literacy" involuntarily gives the shade of elementarity to a very complex phenomenon of interaction between a person and information.

The concept "information culture of a person" is wider than the concept of "information literacy". Besides abilities to get, evaluate and use information it includes a motivation component and information outlook. It is closely connected with the sphere of culture, directed

against a confrontation in information society of two polar cultures: technocratic and humanitarian ones.

In general, approaches to information training being in Russian science and practice are compatible with international ones. Distinctions between developing in Russia ideas of a person's information culture and international concept of information literacy do not have a principle character. They only reflect the striving of Russian scientists and practitioners to combine the advantages of international theory and practice with the traditions of national culture and education, accumulated experience of Russian libraries and educational institutions.

**2.3. The activity of schools, colleges and universities in Russia in information training of young citizens.** Increasing interest to the problem of information culture and information literacy in educational institutions is conditioned by the change of education paradigm. All over the world instead of an old paradigm based on the idea of "education for the whole life" there came a new one the meaning of which is expressed by the slogan "learning during the whole life". A new education paradigm is based on understanding that every knowledge is relative and the base of reliability is created only renovation and increase of knowledge lasting for the whole life. Realization of the idea of life-long education is directed to overcoming the main contradiction of modern education system - contradiction between swift tempo of knowledge increase in modern world and limited possibilities of their assimilation by a person in the period of learning. It makes educational institutions form ability to learn, above get information, and extract necessary knowledge.

Unfortunately, in educational institutions in Russia information training of young citizens comes to computer literacy teaching. The main attention is given to technical aspects: PC using, access to the Internet and so on to the detriment acquiring the intellectual procedures of work with information, analysis of content and social aspects of modern global information society. Thus, for example, at secondary educational institutions in Russia (schools, gymnasiums, and lyceums) learners' information training is concentrated within obligatory studying informatics. Studying informatics is regulated by the Russia's Ministry of Education in such documents as "Compulsory minimum of content of education in informatics", "Model curricula of the course of informatics" The part "Information Culture" is also included in these documents, but its meaningful content touches only on computer literacy. Another example is instruction books for learners of secondary schools edited by "Drofa" under the title "Information Culture". But they are only named "information culture". Actually there are principles of computer literacy and programming given here with the characteristics of computer communications and multimedia

technologies. Such emphasis on computer literacy and ICT to the detriment of teaching of intellectual procedures of work with information leads to low levels of reading literacy and comprehension. This is one of the reasons explaining unsatisfactory results of Russian schoolchildren in the research of PISA-2003, 2006 .

In colleges and universities students' information training is mainly based on the courses studying "Informatics", "Information Technologies", "Computer Technologies", "Programming", "New Information Technologies and Computer Technique" etc. They are called to liquidate computer illiteracy and to show application areas of personal computers in professional activity of specialists. But the tasks of these subjects not comprise the forming of abilities and skills in orientation future specialists in professional information databases, providing them with methods analytical-synthetical processing of information and self-study of information products on the profile of study categories.

Known experience of a broader awareness training, is not confined to technical aspects. This positive experience will have M.V. Lomonosov Moscow State University and State University "Graduate School of Informatics", Moscow, St. Petersburg, Krasnodar, Kemerovo State University of Culture and Arts, Samara, Chelyabinsk State Academy of Culture and Arts, etc. In these universities, students study the integrative course "Fundamentals of the information culture." Overall, however, in colleges and universities of Russia, the problem of information students training remains relevant.

**2.4. Activities of school, children's and youth libraries for information training of young citizens.** The importance of the work on information training of younger generation was recognized by Russian libraries of various types: from childhood and school to universal scientific ones. In accordance with libraries' profile, it has always been focused on different social groups in society: children, youth, and professionals. The main components of such training, in order of their appearance, were bibliographic knowledge, reading culture, computer literacy.

The typical forms of libraries in the dissemination of bibliographic knowledge and development of reading culture are:

- individual counseling for bibliographic search and methods of work with literature ;
- group consultations, discussions and lectures about the library (own school, university, libraries of the city, country, world) and the rules of its use;
- tours around the library ;
- practical training in the use of traditional and electronic information resources, including the Internet ;
- library lessons;

- business games, information quizzes, travel games, competitions, tournaments, etc.

To help mastering the bibliographic knowledge libraries produce a variety of directories, reading plans, checklists, guides to the library, and library and information service instructions, guidelines, etc.

Significant role in consolidation of library functions of formation and development of citizens' information culture is played by a standard model of public library. It was developed by the Russian Library Association. This normative document, along with formation and development of reading culture and reading competence of children, youth and adults, support and educate in them the need in reading, an important place is given to a person's information culture. Section 2 "Activities of a library and services", says "2.6. One of the most important activities of a public library is development of users' information culture. For this purpose a library:

- organizes special classes, seminars and trainings on how to use computers and the Internet basics, electronic resources, and with training programs;
- gives library lessons in libraries, in educational institutions;
- conducts regular tours around the library, introduces visitors to the funds, bibliographic directories, technical equipment and technological capabilities (8).

ICT development led to organization of various forms of training children and young people in computer skills in libraries, ability to work in the Internet. Analysis of children and youth libraries' sites of the largest regions of Russia can identify a number of interesting lines of work. For example, Lipetsk Region Juvenile Library within "School of Information Culture" is conducting classes on how to search in databases of a library and the Internet (<http://lil.lipetsk.ru/about/index.php>).

Sverdlovsk Region Library for Children and Youth implements the program "Information Culture" and family classes in bases of computer literacy and the Internet "Learn Together" ([www.teenbook.ru](http://www.teenbook.ru)).

Tomsk Region Junior Library offers the program of bibliographic and information sessions "Go to a library for information culture" for pupils of grades 5-11 and students. The program consists of 3 cycles. Each of them includes a system of classes based on age-appropriate learners, considered on consistent (from class to class) forming knowledge and skills to use books and library.

Kemerovo Region Library for Children and Youth carries on a large-scale, comprehensive effort on information training of younger generation (<http://libkem.ru/>). On its

base classes are organized in “Principles of a Person’s Information Culture” for elementary, middle and high school pupils, and college students. These lessons are taught by librarians and teachers as well. The librarians in this library develop multimedia presentations and other learning tools for information culture. They improve their skills by learning according to “Training of trainers in information culture” which is conducted for teachers and librarians of Kemerovo by the Institute of IT SS of KemUCA.

However, despite the considerable efforts made by libraries, the impact of mass information training is often low. As the analysis of experience shows, organization of information-based education in libraries is paired today with a number of problems: vocational nature of work, predominance of a monodisciplinary approach as teaching either the principles of bibliographic knowledge or computer literacy or mastering the rational methods of work with books, etc. As a result the real state of art in information culture training of various social classes and, first of all, youth, remains disappointing. All this work is certainly important, but having a local character, none of these directions can generate a sufficient level of information knowledge and skills. Therefore, in the conditions of transition to information society and society of knowledge, to a certain extent, becomes necessary the deliberate and systematic information training of younger generation.

### **3. Experience in implementing a systematic approach to improving information culture of children and youth in Kuzbass.**

Kuzbass is the largest coal and steel region of Russia. It is properly called the industrial heart of Siberia. Kuzbass is included in the Kemerovo region, which is one of the subjects of the Russian Federation. Administrative, cultural and educational center in this region is Kemerovo. Research and Development Institute of Information Technologies in Social Sphere (further the Institute) of Kemerovo State University of Culture and Arts (KemUCA) have been working within UNESCO Information for All Programme since 2000. Scientific Researchers of the Institute decided to purposefully and systematically carry out information training of younger generation in Kuzbass. The idea of integration or bringing together different organizations and people from various professions was used for this. The main directions of this integration are:

**3.1. The integration of theory and practice.** « There is nothing more practical than a good theory. » This idea is attributed to many famous scientists: from Kant to Einstein, Bohr, Rutherford and others. Scientific Researchers of the Institute have taken this idea in the development of the theory of formation of a person’s information literacy and information culture. They are looking for answers to the questions: What should I do? Why does this have to be done? How must it be done? How to do it better? Answers to these questions found during the

research are presented in the form of dissertations, monographs, articles and papers at scientific conferences. The staff of the Institute has published over 150 scientific papers on information culture, prepared and presented at international, national and regional conferences over 200 scientific papers and multimedia presentations, more than 30 conferences and seminars were held. Based on studies of the Institute, there were defended three candidate dissertations on problems of advancing qualification for teachers and administrators of educational institutions in the sphere of a person's information culture. Among the publications of the Institute a special place is taken by guide books and educational manuals for information literacy and information culture formation for teachers and librarians. Reviews and feedback on publications by the Institute staff are presented at the Institute website (<http://nii.kemguki.ru>)

The emphasis is paid to the implementation of research findings into practice in the work of libraries and educational institutions. In two colleges and ten schools of Kuzbass, in eight schools of Ryazan, in hundreds of Russian libraries the Institute's developments in formation of a person's information culture are being introduced and tested. Thus, there is a unification of efforts of theoretical scientists and practical teachers, professors and librarians. The usefulness of this approach was highlighted at the state level. In 2006 the Institute's research project "Formation of information culture of students on the basis of public libraries" was supported by the President of the Russian Federation.

**3.2. The integration of various social institutions: libraries and educational institutions.** Scientific researchers of the Institute teamed libraries and educational institutions. For example, in 2009 between the Kemerovo region library for children and youth and the Institute a cooperation agreement was signed. As a result, on the basis of this library "School of a person's information culture" started to work. The library classes are held on the course "Principals of a Person's Information Culture". Over 150 young people were trained in this "School of a person's information culture". Students of Kemerovo Technological Institute of Food Industry, Kemerovo State Professional Pedagogical College, and pupils of 3 secondary schools in Kemerovo. This work was based on close interaction between libraries and educational institutions of the city.

Experience in 2009 was successful, so the administration of the Kemerovo State Professional Pedagogical College continued this work. In 2010, staff at the Institute initiated studies in the "School of Information Culture" in this college. The course of "School" is based on the curriculum "Principles of a person's information culture" developed at the Institute. The course is differentiated according to the three categories of participants: teachers, teacher-tutors and college students. On the base of the college for teachers classes were held on the course "Information Technology in Education: Design and creation of an electronic

textbook”. For teachers, tutors at the Institute there were held special sessions :”Training of trainers”. The purpose of lessons was to train a college teacher able to introduce into educational process the course “Principles of a person’s information culture” for students of all majors. The third category of learners ”School information culture“ were students specializing on ”Social pedagogy”, “Sport”, and ”Construction”. For them, the course “Principles of a person’s information culture” has been specially adapted. In addition to general knowledge and skills in search, process and use of information, students were trained in information resources specifics and varieties of documents, particularities of information products designing which pertain to the studied branch of knowledge like “Social pedagogy”, “Sport”, and “Construction”.

The experience of joint work of libraries and educational institutions is very valuable; it allows to determine the strengths and weaknesses of information training, based upon these, to identify what assistance is needed for teachers and librarians to undertake this work.

**3. 3. Efforts integration of representatives of such different professions as teachers and librarians.** Research scientists of the Institute believe: the key figures in promoting the ideas of information literacy and information culture are teachers and librarians. However, in the training of those and others as translators of ideas of information literacy and information culture there are drawbacks. Thus, teachers do not have enough information, and librarians - psychological and pedagogical knowledge and skills. Teachers feel lack of knowledge in the field of information resources, search techniques and analytic-synthetic processing of information. Librarians lack the knowledge of students’ age characteristics; they find it difficult to choose the appropriate pedagogical techniques, forms, tools and methods. In order for teachers and librarians successfully and productively be engaged in increasing information literacy and information culture of children and youth, it is needed to give them the missing knowledge. To this goal, the Institute train teachers and librarians. The Institute developed different models of training.

First, the training of future teachers and librarians to technology of a person’s information culture formation while they study in colleges and universities. For example, teachers of “Principles of Information Culture” have been graduating from Belovo Pedagogical College since 2002. This was made possible through the development a complete set of educational documents by the staff of the Institute. That allowed the teacher training college in Belovo, Russia, to be the first in obtaining the license for teacher training to principles of information culture from the Ministry of Education of Russia. Another example is training in KemUCA the librarians of higher qualification specializing in the technology of a person’s information culture.

Second is the advanced re-training of employees of educational institutions and libraries in information literacy and information culture. The Institute has strong long-standing contacts

with the two centers of advanced qualification of Kemerovo region. They are: Kuzbass Region Institute of Training and Retraining of Educators which works with teachers and school librarians (KRIT & RE) and Kuzbass Region Institute of Professional Education (KRIPE) which works with teachers and librarians of professional colleges. In these centers, staff at the Institute conduct lectures and workshops “Principles of personal information culture”. Particularly important is regularity and consistency of this work, a wide coverage of educators and libraries in the region of this form of replenishment and renewal of knowledge in the field of information training of young citizens.

Professional advancement of teachers and librarians is not just stationary in the two regional centers. The Institute staff travels to hinterland to conduct training seminars and lectures, master classes on new forms and methods of information for training children and youth in libraries and schools in remote areas of Kuzbass.

Since 2007 the Institute on the base of the decision of the Department of Education and Science Board in Kemerovo region holds large-scale experiment in ten schools in Kuzbass and it acquired the status of “the regional experimental ground.” The purpose of the experiment is to increase the level of information culture of all participants in educational process, including teachers and students. The first phase of the experiment (2007-2008 academic year) assumed “immersion” of teachers into theory and practice of information culture. First, all the teachers should have raised their own information and methodical culture. For them, the Institute staff gave lectures and conducted round tables, brainstorming on the problems of information training. As a result of such training in 2009-2010 school year, schools participating in the experiment began introducing the course “Principles of information culture.” In this case the greatest difficulty was a complete lack of manuals and other instructional resources. Unified scientific theory which brings together participants in the experiment, good planning and pooling teachers’ efforts from different schools allowed to solve this problem. By the end of 2009-2010 academic year, experiment participants set up a complex of “Workbooks” for pupils of 1-11 grades for the course “Principles of a Person’s Information Culture”. Thus, efforts integration of scientists of different research institutes and teachers of schools allowed to solve the task that none of the schools could solve alone.

The second phase of the experiment (2009-2010 academic year) differed from the first of by the form work. If the first phase primary roles were given to the Institute staff as they gave lessons, they taught teachers, at the second phase teachers were training teachers. The form of interaction changed. Instead classes that were held stationary but in the regional center, in KRIT & RE, they used retreats. During the year, all the participants of experiment could visit with each other. At the workshop teachers gave lessons demonstrating the potential of ICT for teaching the

basics of information culture, showed the developed teaching tools. Each workshop was accompanied by lively interesting discussion and debate.

The results of advanced level of teachers and students' information culture were presented at conferences and competitions. Thus, students demonstrate their information skills at the intellectual game "Informina" (2008, 2010) and scientific school conference (2010). Teachers also competed in the intellectual game "Informina"(2010). In addition, the teachers prepared a collection of articles summarizing the experience of work on information training of children and youth.

Scientific researchers of the Institute attach particular importance to ensure the dialogue between teachers and school librarians. Thus, under the advocacy campaign "Days of UNESCO "Information for All" Programme in Kuzbass - 2009" for principals, teachers of schools, as well as school librarians of Kuzbass a master class on "Information literacy and a Person's Information Culture" and a roundtable were held. Both: teachers and librarians share a common goal - all of them in practice introduce the course "Principles of a person's information culture", the program which was designed at the Institute. During this action there was a fruitful exchange of experiences, concrete ways of interaction of teachers and school librarians were identified.

Another form of a dialogue among teachers, professors and librarians is training of trainers. For the first time in Russia at the Institute the training of those who will promote the idea of information literacy and information culture among various groups was actively used. The participants of "Training of trainers" in 2009-2010 were teachers of KemUCA, Kemerovo State Professional Pedagogical College, librarians of Kemerovo Region Library for children and youth, Central City Children's Library named after A.M. Beresneva, Kemerovo Region Library for Blind and Visually Impaired, Kemerovo College of Architecture and Construction.

The purpose of training the trainers is to train teachers and librarians to special methods of classes in information literacy and personal information culture. The trainees received answers to the following questions: how to bring the content of lessons to vital challenges of the specific category of information consumers: children, schoolchildren, students, people with visually impaired? How to do these lessons entertaining? How to show inextricable link of a traditional book, library culture with ICT in the classroom? How to teach to practice the obtained information knowledge and skills?

As a result of training each of "the training of trainers" participants has designed his own profiled set of multimedia presentations and educational materials on the course "Principles of a Person's Information Culture". This kit is designed for clearly defined categories of information consumers: younger students, teenagers, students of a certain profession, visually impaired people.

Summing up the association experience of different structures and different professionals (teachers, professors and librarians) within the Institute, one can affirm that such integration is very fruitful. It allows to consistently and systematically translate ideas of information literacy and information culture via libraries and educational institutions in Kemerovo region. Integration of theorists and practitioners, teachers and librarians is benign. As a result, in Kuzbass, there are following results achieved:

- school principals, teachers and school librarians provide advanced regular training in information literacy and information culture;
- consultations, technical assistance in organization of information training children and youth are given at libraries and educational institutions;
- scientific and practical seminars and trainings on information culture are provided;
- contests of school librarians on the best development of library lessons in a person's information culture are held.

It should be emphasized that all this work is not episodic but systematical one over the years. Evidence of commendable integration of efforts of libraries and educational institutions to promote the ideas of Kuzbass information literacy and information culture can serve the following fact. Since 2009 in the agenda of one of the most prestigious and authoritative international conferences held annually in Sudak (Crimea, Ukraine) scientific and practical seminar "Information culture and information literacy" is included. Organization and delivering of this workshop is assigned to the Institute Director

**4. Teaching the principles of information culture in libraries.** Meaningful and consistent implementation of information for youth from our perspective is possible due to the introduction of a special subject: "Principles of a Person's Information Culture" (7). The goal of the course is to ease the plight of an information consumer in today's "information explosion", to teach him the rational methods of searching, analysis and synthesis of information, to arm with the technique of "information self-service." The generalized model of the course "Principles of a Person's Information Culture" includes the following sections reflecting the content of information training:

Section I. Information Resources Society and Information Culture

Section II. The main types of information retrieval tasks and algorithms to solve them

Section III. Analytic-synthetic processing of information sources

Section IV. The technology of designing the information products

These sections are mandatory and are an invariant part of the course. This part of the course provides the following objectives: to give an idea of joining the global civilization to

information society, to give the trainees an idea of complexity and variety of existing information resources: to equip them with search algorithms and analytic-synthetic processing, retrieving and evaluating information, transformation information found and obtained on this base a new data technology; to teach the design and presentation of the results of independent study, research, professional activity of a user.

Variable, changing within the category of trainees, a part of the course "Principles of a Person's Information Culture" takes into account the age, nature of activities (studies, work), profile and level of training, branch specialization, levels of information culture, information requirements and other factors.

In Russia there is a rich experience of implementing this course in educational institutions (schools, colleges, universities) as well as in libraries.

Analysis of accumulated experience showed that the advantages of training in the course "Principles of a Person's Information Culture" in the library are as follows:

1. Immersing students in a real IT environment, including the current library fund, a specific reference and bibliographic apparatus of a modern library which is inseparably linked with the Internet and huge volumes of electronic information resources; the possibility of mediated immersion into the sphere of culture through the world of books.

2. Students' Awareness integrity, continuity of modern information environment (traditional and electronic), and, accordingly, "fusion", "inseparability" of all major phases of work with information: to search, analyze, synthesize information to independent design of any information product.

3. Going beyond learning situations, overcoming inevitable limitations, "artificiality", inherent to conventional classes, acquiring rational library management skills for personal use, i.e., practical realization of ideology of a competent approach to education.

However, along with advantages of delivering lessons at a library faces several difficulties and problems. First, this issue is the status of the course. The course "Principles of a Person's Information Culture" is not mandatory. So, school before organizing classes in a library should find a possibility to introduce the course and to include lessons on the basics of information culture in the time-table, as well as to provide the appropriate form of control on learning outcomes (credit, exam, test, quiz, etc.)

Second, this is a problem of interaction of an educational institution and library. Conducting classes in the library must be preceded with organizational and advocacy work with teaching staff. Organization of training should be based on a sustained contact and worked out mechanism of interaction between a library and educational institution, while there must be an equal degree of motivation in conducting lessons on the part of libraries and educational

institutions either librarians or teachers. Prerequisite for this is availability of teachers of the necessary level of personal information culture. The most important condition for success is motivation, solicitous attitude of teachers and their involvement in the process of learning organization of information culture principles by students, as well as organization of the results use of this study in the learning process of a particular school, high school, college, and university.

Third, the problem is a lack of staff ready to deliver the course “Principles of a Person’s Information Culture” in full. Mostly teachers and librarians are ready for this work. However, teachers owning the training method of a particular subject, do not always know how to use algorithms for information retrieval in traditional and electronic information environment, are not confident in informational resources orientation, have poor knowledge of analytical information developed in theory and library-information activity. In turn, librarians are well aware of information resources and search algorithms, analytical processing of information have a lack of psychological and pedagogical knowledge, poor command of modern teaching technologies, feel the need to expand its arsenal of forms, methods and training aids.

All three of these problems (the status, implementation organization and staff providing training in the basics of personal information culture) need to be solved at the state level, as the efforts of individual enthusiasts in libraries and educational institutions cannot fundamentally affect raising awareness of information training of young citizens.

### **5. Role of the Russian Library press in promoting best practices of libraries in information training of children and youth.**

In 2010 in the Russian library periodicals there were 4 newspapers and 44 journals for professional library, information and publishing and book business.

Among them, problems of information literacy and information culture is reflected in such publications as newspaper “Biblioteka v Shkole” (A Library at School) and its appendixes, journals “Bibliografia” (Bibliography), “Nauchno-tekhnicheskiye Biblioteki” (Scientific and Technical Libraries).

The most proactive in this issue is journal “Shkolnaya Biblioteka” (A School Library). The magazine has a targeted and consistent policy in information culture formation for those who study and those who teach. It has a special section of “Information Culture” in which over 10 years the best experience of school librarians in Russia to promote information literacy and information culture for students has been shown: the development of library classes, description of activities undertaken, guidelines, etc. Furthermore, in this section theoretical articles and progress of leading Russian scientists and specialists in this field are published. The appendix to the magazine, in a series “Professional library of a school librarian” published some books,

addressed to librarians and teachers: two editions of the manual “Formation of a Person’s Information Culture in Libraries and Educational Institutions” (Moscow, 2002, 2003), and “The School Library as a Center of a Person’s Information Culture”(Moscow, 2009)

The Journal “Shkolnaya Biblioteka” is the “voice” of the Russian School Library Association (RSLA) and this gives an opportunity to promote ideas of information literacy and information culture through professional forums of school librarians. For example, June 29 - July 4, 2009 at the State Museum-Reserve of A.S. Pushkin Mikhailovskoye (Pskov Region, Pushkin Hills) There was All-Russia Forum of school librarians. Within this forum, there was a master-class “Principles of a person’s information culture in the library: conceptual framework and methodology for conducting studies”. During the master class Professor N. Gendina introduced 14 detailed lessons on a person’s information culture in the library. Each theme was accompanied by a presentation and detailed methodological and didactic commentary. Upon completion of the master class each of the listeners, school librarians from all over Russia, received a set of presentations for the classes of personal information culture at a library. Materials of Master Class were also published at the Journal.

#### **6. Barriers to formation of information literacy and information culture for children and youth in Russia..**

In 2006 Sector on Library Theory and Research (LTR) in conjunction with Division VII conducted a study of IFLA “The Role of IFLA in promoting professional norms and standards”. The study was carried out within preparation of the 72nd General IFLA conference in Seoul.

One of the purposes of this study was to evaluate the role of IFLA in improving the information literacy of citizens - involved identifying the barriers that impede the promotion of ideas of information literacy in different countries. In a study conducted in Russia, there was used a questionnaire developed by LTR. Questionnaires were given to the 33 Russian experts. They comprised the most authoritative Russian scientists: library scientists, professors, managers of culture, directors and leading specialists of libraries from different regions of Russia (9).

Of all the barriers to the development of information literacy, the Russian experts, regardless of category, called the three most important, most characteristic for Russia:

- lack of modern means of access to information , i.e. lack of access to information and communication technologies (ICT),
- lack of incentive to improve information literacy,
- inability to search: to find, select and evaluate information.

Among other barriers to information literacy named by the Russian experts were:

- lack of broad understanding in society of the importance of the issue of information literacy and information culture of an individual; there is no formed opinion about the danger of

non-using the information, and an inability to work with information

- the absence of strong public policy, neglect of state and government to the problems of information training of citizens to live in the information society as a consequence of the general underestimation of the problem in Russian society

- the shortcomings of traditional educational system focused on broadcasting and reproduction of knowledge, not forming a person's awareness of the need for lifelong education and, therefore, the need to master skills to work with information, lack of information literacy learning at the current level, starting from junior school.

In this case the responses highlighted the Russian peculiarities: a huge area, remoteness of many settlements from information and cultural centers, not high enough level of informatization. As a result a person living in the remote regions does not always have access to a variety of reliable information resources because of the lack of reliable and branched telecommunications, communication channels, lack of computerization of a library and information sector. A special problem is the lack of a system of information training, consistent with the principles focusing on personality, integrity, consistency, continuity in training, information knowledge and skills.

**7. Perspectives for promotion information literacy and information culture in Russia in global information society.** The analysis of theoretical publications, experience study in educational institutions and libraries in Russia to build information literacy and information culture of youth, the results of expert evaluation of Russian specialists can identify the following perspectives:

1. Need to attract the widest public attention to the problem of information culture and information literacy: from the level of leaders of educational system and libraries of Russia to the level of professional library and information associations and other voluntary organizations, media, libraries need to encourage a public interest to the problem of information culture and information literacy.

2. There should be a public recognition of the importance of libraries in enhancing the level of information culture and information literacy as a key condition for the preparation of citizens to life in the information society and knowledge society. The improvement of library activity is needed at this point to develop users' skills to carry out an information search with the help of modern ICT, select and evaluate information, design on this basis their own information products.

3. Looking for the organization of complex research on the information culture and information literacy: the need to standardize terminology and to develop a glossary of terms, covering the most frequently used in terms of information, training criteria for evaluating

information literacy should be developed and on this basis to create Russian standards of information literacy-oriented for various categories of consumers of information that are a subject to international standards.

4. The need for a targeted teacher training to principles of information culture and information literacy based on higher pedagogical and higher library and information education.

5. It is necessary to develop a variety of training aids for users on the base of information culture and information literacy: guides, manuals, guidelines, teaching materials, etc. as in a traditional form of books and electronic media forms. One should clearly differentiate these manuals and guides. First, we need a guide for users, differentiated according to the age of students: from childhood to old age. Second, we need guidelines on the organization and methods of teaching the principles of information culture and information literacy, a manual for teachers and librarians (trainers), i.e, those who teach information culture and information literacy. These instructions must also be both in traditional and electronic form.

In conclusion, it should be noted that at present the information training of citizens is of particular relevance and social significance in relation to the development and growth of information society, the global nature of ICT, the strategic direction of Russia on the path of innovative development of key sectors of economy and public life. Analysis and interpretation of experiences with the information training suggest that the solution to this problem is not possible through ad hoc, non-system libraries, carried out solely on the basis of the initiative. The state approach is required to organizing information training of citizens. One solution is to introduce into the educational process of educational institutions at all levels of education as a compulsory course “Principles of a Person’s Information Culture”. The real help in its practical implementation could be made by libraries. Implementation of the course “Principles of a Person’s Information Culture” in a library is the best way to demonstrate the educational function of this social institution.

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