THE ROLE OF ICTS IN PHILOLOGICAL EDUCATION:
EDUCATIONAL AND METHODOLOGICAL ASPECTS

Maria Alexandrovna Aristova (a)*, Natalia Vasilyevna Belyaeva (b), Larisa Romanovna Berdysheva (c), Zhanna Nikolaevna Kritarova (d), Valentina Maximovna Shamchikova (e), Zhanna Igorevna Strizhekurova (f)

*Corresponding author

(a) Institute for Strategy of Education Development of the Russian Academy of Education, Makarenko str, 5/16, Moscow, Russia, arismar@yandex.ru, +79104300439
(b) Center of philological education, Institute for Strategy of Education Development of the Russian Academy of Education, Makarenko str, 5/16, Moscow, Russia, n-belyaeva@yandex.ru
(c) Institute for Strategy of Education Development of the Russian Academy of Education, Makarenko str, 5/16, Moscow, Russia, l-berdysheva@yandex.ru
(d) Institute for Strategy of Education Development of the Russian Academy of Education, Makarenko str, 5/16, Moscow, Russia, kritarova@rambler.ru
(e) Institute for Strategy of Education Development of the Russian Academy of Education, Makarenko str, 5/16, Moscow, Russia, valmaks@inbox.ru
(f) Institute for Strategy of Education Development of the Russian Academy of Education, Makarenko str, 5/16, Moscow, Russia, strizhekurova11@mail.ru

Abstract

Nowadays the role of ICTs in the process of learning is of central importance. Thus, the problem of the use of ICTs in teaching-learning activity requires a detailed investigation. The purpose of the study is to identify problems with the use of ICTs in educational process; determine why, in the process of reading and studying literature, internet resources and multimedia are used insufficiently and in an unsystematic way; provide the rationale for the need for ICTs both in the self-education of the teacher and in the process of teaching. In accordance with the aim of the study, the systematic approach, theoretical and sociological methods were employed in the course of research, but the priority was given towards empirical methods related to the collection of the data on the degree of the ICTs usage in educational process. The study shows conclusively that ICTs should be used systematically in the process of teaching literature and while exposing learners to reading, as well as in promoting independent literary and creative activity. ICTs, then, will provide for the development of an interactive way of understanding a literary text, development of critical thinking, communication competencies, independence, and for the enhancement of information culture of learners throughout their lives. Thus, it is useful to draw up methodological recommendations on the use of different types of ICTs and multimedia for educational purposes so as to motivate the new generation of learners to read and study literary texts.

© 2019 Published by Future Academy www.FutureAcademy.org.UK

Keywords: ICTs, philological education, literary texts.
1. Introduction

In the 21st century, the role of Information and Communication Technologies in process of learning is of central importance. In view of this, these days the problem of the use of ICTs in the teaching and learning activity requires a more detailed and comprehensive analysis.

It is important to note here that the present-day world calls for a person who not only possesses knowledge and skills, but also constantly updates them, is capable of putting these skills into practice relying on the new information and communication technologies. The entire educational system should change drastically together with the rapidly changing information space in which the modern man exists.

These days the fundamental components of modern education are recognized throughout the world “as a complex and adaptive comprehensive knowledge enterprise committed to discovery, creativity, and innovation” (Crow & Dabars, 2015, p. 55) as well as oriented towards gaining knowledge through the use of ICTs.

Particularly noteworthy is the fact that "for a long time the implementation of ICT had been perceived by the education authorities only as the implementation of hardware and software", but "quite recently the attention was re-focused on the impact of ICT on curriculum, learners’ activities, the role of the teacher in the implementation of such programs, evaluation of learning outcomes with the use of ICTs, etc.” (UNESCO IITE, 2013, p. 297).

Christian Andre Olsen (2015), a Norwegian researcher, points out that learning outcomes depend not only on providing schools with ICT tools, but also on the ability of teachers and schools to effectively integrate ICT into the learning process: “While well-placed funding and provision is vital to better integrate ICT in the learning arena, adequate training across the board for implementers is equally vital. Linking willingness to spend and willingness to learn aided by ICT opportunities is in many ways dependent on the capacity of teachers and schools to implement ICTs effectively, drawing both on competence as well as pedagogical skill and experience to implement the ICTs in a pedagogically sound way” (p. 8).

Bulgarian researchers suggest that the integration of ICT in the teaching-learning process changes the very role of the teacher in education: “The integration of ICT in education doesn't change teaching methods, but transforms information transfer from a passive communication into an active one. In its essence this is paradigm shift: teachers change their role from information-deliverer to organizer and adviser” (Terzieva, Paunova, Kademova-Katzarova, & Stoimenova, 2014, p.6).

2. Problem Statement

In this paper we proceed from the assumption that it is much easier to stimulate a modern pupil, who is equipped with various gadgets for communication, games and reading, to learn his/her native language (Aleksandrova & Gosteva, 2016) and fiction in school with the use of information and communication technologies (Shamchikova, 2017). Moreover, it is well known that many researchers consider the gamification of learning, when ICTs play an important role, to be quite promising (Noor-Ul-Amin, 2013).

These premises of the research are supported by the works of modern scholars who deal with the problems of the informatization of education and argue that the nature of ICT tools has an impact on the thought-process. Paper text is organised linearly, that is why the reader's thoughts run in sequences being
interspersed with logical conclusions. ICTs have produced a new type of texts (electronic textbooks, multimedia presentations), where information is presented non-linearly: in the form of quotes, images, symbols, tables and/or supplemented by sound, colour, animation. This type of information delivery changes the structure of thinking processes and develops the ability to perceive hypertext, because "due to the simultaneous impact of graphical, audio, photo and video information such tools carry a high emotional charge" (Grigorev & Grinshkun, 2005, p. 35), which sparks students' interest in reading.

Researchers observe the changed pattern of reading when "the modern reader perceives the book not as a cultural phenomenon and certainly not as a book of life, but as one of the sources of information and means of mass communication" (Aristova, Berdysheva, Kritarova & Strizhekurova, 2017, p. 415), which brings about a change in the approaches to school literary education. The use of ICT plays an important role in this process.

A person’s motivational activity is needed to increase the level of intellectual, creative and professional development of each individual. Many studies on psychology are devoted to this problem: Erich Seligmann Fromm, Carl Gustav Jung, George Alexander Kelly, Carl Ransom Rogers, Abraham Harold Maslow, who argued that the need for self-improvement and personal development is inherent to the nature of humans. “Being "self-actualized" is an ideal state, perhaps unattainable, like any other ideal state. <…> But what is most important for teachers and parents… is their duty to foster self-actualization” (Weinberg, 2011, p. 16-21).

These opportunities are provided by the use of ICT in educational process, especially in the organization of individual and team project activities during Literature lessons. The problem of using ICT in teaching and learning activities can only be solved by the restructuring of the content and forms of education, as well as their alignment with the conditions of the modern information and educational environment.

3. Research Questions

The article analyses the use of ICTs in the process of philological (literary) education.

4. Purpose of the Study

A sectional survey of pupils and literature teachers showed that while learners want to make active use of Internet resources, electronic and audiobooks, electronic libraries in the process of reading and studying literature, teachers, on the contrary, are reluctant to use ICT or they use it in bits and pieces, preferring traditional teaching methods. It is necessary to identify the reasons behind the current situation which persists in literary education of pupils and to provide the rationale for the use of ICTs both in the teacher's self-education and in the teaching process.

The aim of the research is to identify problems with the use of ICTs in the teaching-learning process, determine why, in the process of reading and studying literature, internet resources and multimedia technologies are used insufficiently and in an unsystematic way. Besides, the present paper sets out to explain how the educational process in the field of literature can be improved realising the multimedia
potential of ICT tools, as well as gives an analysis of information and learning platforms that are used effectively in modern literary education.

5. Research Methods

The following methods were employed in the course of the study: systematic approach, theoretical and content analysis, sociological method. In accordance with the task of the research, priority was given towards empirical methods related to the collection of the data on the degree of the ICT usage in the teaching-learning process. Based on observation, questioning, analysis of the results of learners’ activity, the role of Information and Communication Technologies in the learning process was analysed, the experience of their integration was generalised, problems as well as their possible solutions were identified.

6. Findings

The study found that Information and Communication Technologies should be used systematically in the process of teaching literature, as well as while exposing learners to reading and in promoting independent literary and creative activity of pupils. In this case, ICTs will provide for the development of a new interactive way of understanding a literary text, for the development of critical thinking, communicative competencies, independence, as well as for the enhancement of information culture of learners throughout their lives.

Even though computer technologies can significantly diminish the importance of the teacher in pupils’ education (König et al., 2014), it should be noted that teachers-philologists make active use of the infosphere to grow professionally. The analysis of Internet resources, which contain literature lesson plans, offer best practices for teaching, provide an opportunity to discuss regulatory documents in the professional community, showed that these materials are used by teachers quite often. Besides, teachers communicate via social networks and create their own webpages and sites. Therefore, first and foremost, literature teachers need ICTs for self-education – it is how 73% of the interviewed teachers-philologists answered. 20% of the respondents search the Internet for the necessary information to be used in the Literature classroom – texts and screen adaptations, virtual literature museums, audio-visual materials, etc. The remaining 7% do not use Internet resources or multimedia technologies.

However, practically all teachers create and use PowerPoint presentations on literary topics for their classes. They note that multimedia presentation is an effective and efficient way of making learners aware of the writer’s life and work, especially when inserting portraits, photographs, drawings, fragments of literary texts and their illustrations. As a rule, the PowerPoint presentation is accompanied by the teacher’s commentary.

Teachers note that the lack of the necessary infrastructure in the classroom makes it impossible to use multimedia tests (including diagnostic ones), training devices for assessing learners’ knowledge, which makes it difficult to conduct end-of-unit and final summative assessment.

The display of adaptation snippets during Literature lessons makes the literary text more understandable to modern pupils, makes them more engaged in reading, and “it is important to embrace these innovations: they should help us recreate the status of “literature” as the leading school subject”
(Lanin & Lanina, 2015, p. 119). Nevertheless, teachers hardly ever show movies and animated films in the process of teaching literature in school. Electronic and audiobooks, electronic libraries are left on the shelf too. The reason for this is not hard to find: most classrooms are technically inadequate and there are too few recommended practices for the systematic use of ICT and multimedia in Literature classes.

It goes without saying that ICT tools bring about the need for the new methods of working with the text during literature lessons, since processing of information with the help of ICTs develops lateral thinking, which is impossible with paper medium. As Barthes (1988) put it, “what founds the text is not an internal, closed, accountable structure, but the outlet of the text on to other texts, other signs; what makes the text is the intertextual” (p. 261-293).

The intertextual nature of literature can be demonstrated by the hypertext services of multimedia presentations that show both the main text and pretexts containing hidden quotes on the same screen. Information on the slide can be structured in such a way that pupils learn it non-linearly, with the help of hyperlinks to other verbal, visual and auditory pieces. Colour highlighting of significant words and animation effects, such as “blinking”, actualize the semantic elements of the text. When paper medium is treated in the same way, its semantic unity becomes fragmented. According to the teachers of literature who use ICTs extensively, "hypertext displayed on the screen preserves this unity" (Ehehlmaa & Fedorov, 2012, p. 140). Therefore, multimedia information is more expressive than conventional texts and raises the level of perception and understanding of literature among pupils born in the information society.

In modern education, the learner-centred and activity-based approaches, interdisciplinary integration, the formation of not only subject but also meta-subject skills are in the limelight, which is why one of the most effective mediums of instruction is the project method and the corresponding ICT-supported research activities. In this regard, literature as a school subject provides an opportunity to carry out a large variety of projects.

Preparing and defending projects on literature with the use of ICT tools generates interest in reading and facilitates the development of independent creative activity. Such projects can be represented by the preparation and application of a multimedia library with presentations about writers, exposure to virtual museums that are dedicated to this or that author. "The virtual multimedia environment is completely normal for a modern person, but the development of an information culture ... is of great importance ... The use of the Internet in the process of completing literature assignments becomes meaningful, reflexed" (Strizhekurova, 2017, p. 522). As for ICTs, the project method appears to be one of the most efficient ways and can be implemented seamlessly in group activities, including the telecommunications project (Kritarova, 2016).

Topics for projects can be concerned with the syllabus, extracurricular reading, literary anniversaries, regional literature, local history, museum activities, etc. The result of the project activity can be as follows: a multimedia collection of literary works (the search for and selection of texts, the title, the introductory article, illustrations, sound recordings); an album dedicated to the literary work or a writer; a newspaper, a magazine, a booklet; a presentation; a report; a literary walking tour; a school play or a literary-musical composition with the use of the learners’ creative work (drawings, photographs, sound recordings) (Kritarova, 2017). The key thing is that the topics for the proposed projects should not be copied from the Internet; they should focus the groups on their own independent creative activity.
In the process of studying works of art it seems to be useful to use group forms of work that, along with the individual, pair and collective activities, are regarded as collaborative learning methods (Dyachenko, 2001). Group activities are of particular importance in the Literature classroom when they are complemented by ICTs, since, according to academician Gershunsky (1987), the multimedia information and educational environment is more intensive and quicker to form such thinking properties as a tendency to experiment, flexibility, coherence, structure, which are characteristic of cognitive processes associated with creative activity. Therefore, it is important to use ICT in lessons not only as an illustrative material, but, first and foremost, as a basis for the structuring and systematization of information, the creative application of the knowledge gained.

Having analysed the place and role of the current forms and methods of using ICTs in school literary education, we shall dwell on another extremely important aspect that determines the further development of the methodology in this area. The underlying didactic principle is the reliance on scientific achievements in each of the subject areas. From the standpoint of this research, it is necessary to consider a new interdisciplinary direction in liberal arts – DH or digital humanities - and to determine the possibilities of applying certain projects made by the scholars-philologists who work in this field in the process of studying literature in school.

Digital humanities came into the spotlight as a separate branch of scientific activity in the second half of the 20th century in the research centres of the United States and Western Europe, primarily the UK, but its heyday is closely connected with the development of the Internet (Rosenzweig, 2011). Currently there are several leading DH research centres in Russia, mainly in the largest Russian universities: Moscow State University, the Higher School of Economics, St. Petersburg State University, RSUH, MosGU and others. It should be noted here that from the very beginning it was philology that made the breakthrough in the field of DH, due to the invention of linguistic corpora, text databases and computer methods of textual analysis. The current state of DH is characterised by the aspiration of scientists to not only expand and deepen the scope of their research, but also to make this area of scientific knowledge as accessible as possible to specialists and students of the specialized university educational programs, as well as to a wide range of users. "Openness, being the fundamental principle of DH, is truly conquering the digital world... In strict accordance with the goal of DH to democratize knowledge, western resources of the Shakespearean spheres are aimed at reaching a much more wider audience than academic journals are capable of, they try to involve society in the process of knowledge production and realize this through the use of online services such as Twitter, Digg, Facebook, Blogger, etc.” (Titova, 2016, p. 79-80).

This trend can also be clearly observed in the research projects prepared by Russian philologists within the framework of DH over the last couple of years. A vivid example is the Russian information web-resource "The World of Shakespeare: an Electronic Encyclopedia", which represents the original part of an integrated scientific research developed by a team of Russian scientists (the project is now completed, but is being constantly updated and supplied with new materials) (Sovremenniki Shekspira, 2018). Although the aim of the project is related to fundamental research in the field of Shakespeare studies, it includes both teaching and learning resources and materials of interest to the general public. During literature lessons in school, teachers can successfully use not only various textual, audio-visual and multimedia information
from this electronic resource, but also invite the students to participate in a very interesting international project "Letters to Juliette", presented in the section of the topical website "Romeo and Juliet", in real time.

It is quite telling that even now, within the framework of corpus-based technology in the field of philology developed by the scientists of Lomonosov Moscow State University and the Higher School of Economics, which are primarily meant for fundamental research, there is a whole lot of special thematic studies declared as a resource targeted at the widest possible audience.

For example, the corpus “A.S. Pushkin’s Poetry and Drama”, which seems to be a universal tool for philological research of the poet's texts, is prepared at the Faculty of Philology of MSU within the framework of the KIIS system (corpus-based information and research system) and, according to its developers, is useful not only to scientists and scholars. "… Everyone, from schoolchildren to specialists, face the necessity to find the right line of the poem, to find out what the poet was thinking on this or that occasion, what phenomena and concepts were important to him" (Laboratory for General and Computational Lexicology and Lexicography, MSU, 2010). Indeed, a fairly simple and easily understandable system for working with this corpus allows it to be used successfully even when studying literature in secondary school.

The openness and accessibility as the main principles of modern developments in the sphere of DH can be shown even more clearly by the recently finished project "Tolstoy Digital" – a joint development between the specialists of The L.N. Tolstoy State Museum and the HSE. It is a semantic electronic publication which describes not only words, but also facts, dates, quotes and their contextual links. This project includes several separate parts: "All of Tolstoy in One Click" - an electronic version of the collected works of Leo Tolstoy in 90 volumes; "Karenina. Live Edition" - the Internet version of the global reading marathon held in 2014; "The 91st Volume. Index to Tolstoy" - a web application that includes an index of proper names for the Complete Works of Leo Tolstoy; the student project "Annex to the Museum" whose task is to bring the literary heritage of the writer nearer home to the young readers with the help of modern formats and services.

However, in our opinion, the part of this project eloquently titled "Live Pages" - a mobile application for smartphones and tablets, gadgets extremely popular among children and teenagers, - is of special interest as far as their use in the teaching and learning process in school is concerned. The use of the widespread gadgets in the process of studying literary works of the great writer is a clear example of the possibility to combine the DH developments based on innovative technologies and modern literary education.

In this mobile app the acknowledged classic of Russian literature - the novel "War and Peace" - is presented in a modern interactive format, which makes its reading more fascinating to the youth. The use of infographics in the table of contents of the novel, the colour-coded peaceful and military topics, as well as a brief annotation of chapters allows the reader to quickly navigate the novel during class.

The calendar shows the chronology of historical events in relation to the story arc and the author's comments, which allows for a comparative analysis of the literary text and real historical facts. Working with the offered interactive map includes a detailed description of the place, selected quotes, a list of heroes who visited these places. In the "Routes" section the user can choose one of the main characters of the novel to trace his movements: the places he visited are connected on the map with a line. Portraits of the characters
are presented in a new way – with a personal card (avatar) provided with main quotations, the epithets which are most frequently used by the author and references to "Route" and "Destiny" on the map of events.

Such work in the classroom will allow the students to learn about historical prototypes through the use of visualization tools, to follow the changes in the writer’s attitude to the novel’s characters, to observe the development of the relationship between the characters and the intersection of their destinies. "Live Pages" includes a quiz section "Word Game", which allows the users to check their knowledge of archaic words and guess a particular historical event or a scene from the novel by its description.

We should point out that the use of information and communication technologies developed under the framework of DH research in school literary education serves as a new interactive way of perceiving and understanding the literary text, as well as helps to solve the problem of reading among modern pupils.

At the same time, it should be noted here that in the Russian education system the task of didactic and methodological support of the use of the newest DH technologies and the entire package of the existing ICTs in the process of studying literature in school is only outlined and needs further development on the part of the pedagogical community. It is important not only to carry out research, provide methodological assistance to teachers, but also to reorient education in pedagogical universities towards this direction, since these institutions are designed to train professionals who can enter the digital age as equal participants of this truly global process.

7. Conclusion

The present study shows conclusively that all participants of the teaching-learning process should use ICTs for the purposes of education in order to improve the quality of literary education. In view of this, it is useful to draw up methodological recommendations on the use of different types of ICTs and multimedia for educational purposes so as to motivate the new generation of learners to read and study literary texts.

Certainly, a teacher-philologist should use combinatorial complexes (Kudina & Tikhomirova, 2017) reasonably, apply traditional and information and communication technologies in accordance with learning goals, be able to plan literature lessons so that modern students could use ICT and multimedia technologies since this motivates learners to read and study works of art, improves the quality of their literary education, intensifies work during the lesson.

It was shown that due to their hypertext potential the use of computer presentations allows the users to determine the intertextual nature of the literary text, contributing to its perception in the context of intra-disciplinary and inter-disciplinary connections and broadening the literary and general cultural horizons of pupils.

Working with ICT in the process of preparing projects helps to improve the information culture of learners if it takes place in cooperation with a teacher who has a methodology for organizing research and development activities with the use of the Internet, multimedia, etc. Studies on the subject show that the effectiveness of the teacher depends on the favourable environment formed in school: “Teachers working in schools with more supportive professional environments continued to improve significantly after three years, while teachers in the least supportive schools actually declined in their effectiveness” (Coe, Aloisi, Higgins, & Major, 2014).
Group activities in the process of working on a project that is based on ICT open up huge possibilities for comprehending literature, stimulates independent activity, forms basic research skills – everything that can be found in the requirements for the modern lesson in the sphere of philology.

It is necessary to consider the best way to include the achievements of digital humanities into the process of literary education in school by promoting the development of its didactic and methodological support.

References


Corresponding Author: Maria Alexandrovna Aristova

Selection and peer-review under responsibility of the Organizing Committee of the conference
eISSN: 2357-1330


