A PROFESSIONAL COMPETENCE OF RUSSIAN TEACHER IN THE CONDITIONS OF EDUCATIONAL DIGITALIZATION

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Abstract

The article addresses the issues of the formation regarding the professional competence of Russian as a foreign language (RAF) teachers in the conditions of digitalization of the educational process. The main focus is on the essence of information and communication-technological competence (ICT competence). The component structure of the ICT competence teacher has been determined on the basis of which the structure of competence was stated. It was completed the characteristic of the types activities by teachers, the levels of assimilation of these types of activities, and criteria. In accordance with the obtained structure, it was identified the indicators of the ICT competence teacher in the education’s digitalization. Based on the formulated indicators for the manifestation of competence, consisting in the totality of knowledge, skills, possession, presence of motivation and necessary personal qualities, it was made an attempt to describe the content of the ICT competence. Received structure of the ICT competence and indicators of the ICT competence of teacher served as a basis for setting guidelines for selecting the content of an educational program aimed in training teachers in a digital environment. It was highlighted the academic disciplines that contribute to the development of the ICT competence of teachers.

Keywords: Russian as a foreign language, professional competence, information and communication and technological competence (ICT competence), ICT competence structure, ICT competence indicators, guidelines for selecting the content of an educational program.
1. Introduction

Innovative development of the Russian higher education is focused on the active educational and cultural activities of future teachers, taking into account the needs of the labor market and the current level of requirements imposed by employers to specialists in the structure of teaching Russian language in a digital environment (Alexankov, Trostinskaya, & Pokrovkskaia, 2018; Bylieva, Lobatyuk, & Rubtsova, 2018; Fersman, Zemlinskaya, & Novak-Kalyayeva, 2017; Shipunova & Berezhovskaya 2018; Sokolova, Pylkin, Stroganova, & Antonian, 2018). Currently, the digitalization of social life is occurring rapidly and developing inseparably from the modern educational space, which tends to optimize the learning process through the usage of electronic and digital educational resources. This entails a natural change in the training requirements of future specialists. One of the components of the professional activity for a teacher of Russian as a foreign language is the ability to efficiently and effectively use in their own teaching practice the electronic and digital didactic teaching notes, which have already become an integral part and an indicator of the level of educational process, moreover independently create electronic and digital educational content, organize and implement distance and real-time training.

2. Problem Statement

In order to solve this problem is necessary:

- identify activities that reflect the content of the ICT competence of teacher;
- consider the ICT competence criteria of teacher and indicators of their manifestation;
- characterize the indicators of the ICT competence of the future for teacher in accordance with the criteria of the ICT competence and types of the ICT activity;
- form the structure of the ICT competence of teacher;
- identify guidelines for selecting the content of an educational program aimed at training teachers in Russian as a foreign language in a digital environment;
- identify academic disciplines that contribute to the development of the ICT competence of teachers.

3. Research Questions

3.1. Educational programs for the preparation of comprehensively developed, highly qualified, competitive teachers of Russian as a foreign language it must take into account the current needs of employers and the conditions for the implementation of the modern educational process as follows the tendency towards digitalization of teaching Russian as a foreign language.

3.2. One of the components of the professional level of teaching in a digital environment is the ICT – competence.

3.3. The ICT competence of teachers of Russian as a foreign language is correlated with three types of activities:

- search and analytical;
- information and communication;
- information and instrumental.
3.4. The constraints for the ICT competence of teacher are: motivational, cognitive, activity, personal.

3.5. The levels of development of the ICT competence future teachers are: reproductive, productive, creative.

3.6. Indicators of the ICT competence is a combination of knowledge, skills, possession, presence of motivation and necessary personal qualities.

3.7. Guidelines for choosing a training program aimed at training teachers in the digital environment determine the academic disciplines that contribute to the development of the ICT competence of teachers.

4. Purpose of the Study

The purpose of the article is to theoretically substantiate the structure of information, communication, and technological competence in the conditions of education’s digitalization, and determine the guidelines for selecting the content of an educational program aimed on training teachers of Russian language in a digital environment, and academic disciplines that contribute the development of the ICT competence for teachers.

5. Research Methods

In order to form a theoretical base of research, the following methods of scientific knowledge were used: analysis and synthesis of research results and publications. A practical part of the study was made on the basis of empirical methods of knowledge: observation, comparison, modeling. The conclusions were drawn from the deduction method. In this connection, it becomes obvious that high-quality preparation of the future teacher’s information, communication and technological competences is necessary.

In the conditions of annually increasing volume of exports of Russian educational services provided in the distance format, the development of the ICT competence is one of the priority tasks for a higher education, since this competence is directly related to the quality of training future foreign specialists. The teachers activity provides the implementation of a multitude of labor functions, which, in turn, are provided with a certain set of competencies embodied in the form of knowledge, skills, and personal experience of the teacher, which allows to determine the overall level of his professionalism.

Among the set of competencies that determine the effectiveness of the work of a teacher of Russian as a foreign language, the foreground are those that most reflect and embody both the trends in the development of modern education and society as a whole. One of such professionally significant characteristics of teacher’s professionalism is his preparedness in terms of information and communication technologies.

The relevance of this article is caused by the discrepancy between the requirements of modern employers, the modern consumer's ideas about the process of learning Russian as a foreign language and the insufficient development of theoretical, methodological, organizational and methodological
foundations for the formation of information, communication and technological competence of teacher as a leader in digital education.

The basis for building ICT competence structure of teacher is to characterize the indicators of ICT competence and to determine the guidelines for selecting the content of an educational program aimed on training RAF teachers in a digital environment, were the scientific studies of ICT competence outlined in the works of Noskova, Pavlova, & Yakovleva (2018), Sysoev and Evstigneev (2014), Tryapelnikov (2014), Akapev (2012), Boronenko and Fedotova (2016), Dmitriev and Seryozhkina (2010), Podnebesova and Efremov (2018), Nagovitsyn, Zamolotsky, Rassolova, Farnieva, & Oborotova (2018), Khromov, Gulyaev, Apalkov, and Nikonova (2015) on the one hand “the authors” own observations of the process of formation the future teachers, the presence and degree of development of teachers’ competence, which allows the process of learning Russian in a digital environment, on the other hand.

In order to clarify about competence and expertise as the basis we are taking the definition of Khutorskoy (2006), with the respect to studying process under “expertise” in this work as used here as the sum of individual’s interrelated qualities (knowledges, abilities, skills, ways of working) by asking related to the educational process questions and necessary to implement a high quality productive pedagogical activity (substance). “Competence” is ownership, teacher’s possession of necessary expertise including his personal relationships to pedagogical activity (the ability to use this substance).

In the scientific and pedagogical literature there are concepts of information-computer, information-pedagogical, information-research, information-communication, information-technological competencies, reflecting various aspects of the teacher’s activities.

However, taking into account the work and definition of the ICT competence of a foreign language teacher proposed by Sysoev and Evstigneev (2014), we consider it appropriate to characterize information, communication and technological competence as independent educational content based on the theoretical knowledge of modern information and communication technologies and practical skills of using them in the learning process.

Accordingly, to the information and communication-technological competence of the teacher it consists in having the ability to effectively carry out the process of teaching foreign citizens a Russian language and a culture, namely the development of language skills, speech skills and speech skills of students using information and communication technologies.

According to the theoretical and methodological analysis, we can conclude that the concept of information, communication and technological competence as a process of formation in future teachers, is currently at the stage of a comprehensive scientific and methodological study. An example of this is the research work of Deryabina and Dyakova (2019) devoted to the study of the professiongram of the teacher of Russian language in the conditions of digitalization of the educational process. The subject of research is the professional competence of the teacher, allowing to organize online learning.

Nowadays scholars pay attention not only to the content and the process of formation of the informational, communicational and technological competence of the future teacher, but also to the tools through which this happens, as evidenced by Starichenko and Yavich (2018), Kuptsova (2016), Khromov, Gulyaeva, Apalkov, and Nikonov (2015). It should be noted that these tools: web resources, educational
Internet technologies and others, are a didactic means of building this teacher's competence and at the same time serve as a linguistic didactic tool of education.

ICT competence of a teacher seems to be quite a complex phenomenon, therefore, following Akapev (2012) we propose to consider it through the synthesis of search-analytical, information-communication and information-instrumental activities.

According to the theoretical and methodological analysis, we can conclude that the concept of “information, communication, and technological competence,” as the process of its formation among future teachers, is currently at the stage of a comprehensive scientific and methodological study. The ICT competence of teacher in its structure seems to be quite a complex phenomenon, therefore we suggest considering it through the synthesis of search-analytical, information-communication and information-instrumental activities.

It has been established that it can be used as an educational process (digital didactic tools: infographics, charts, tables, text libraries, electronic worksheets, etc.), analyze, organize it, store, process and convert.

Informational and instrumental activity combines the activities of teacher allowing to use computer technologies, technical meaning of synchronous and asynchronous Internet communications (e-mail, Skype, web platforms, web forums), work with Internet resources (educational Internet portals, Internet RCI study pages, online tutorials, test systems, linguistic trainers, linguistic corpses, information and reference resources, podcasts, blogs), online services (voice notebooks, personality generators, simulation of the learning situation, video and audio editors, text editors, image processing), cloud services, distance learning systems, etc.

Thus, the ICT competence of teacher includes the search for educational information, management of this information and the usage of the educational process.

In 2011, UNESCO jointly with Microsoft Corporation and leading experts in the field of informatization of basic general education prepared international recommendations, which formulated the requirements for the competence of teachers - UNESCO’s ICT Competency Framework for Teachers. These recommendations are presented in the form of a structure that takes into account the three stages of professional development of teachers engaged in the educational process in the digital educational environment:

1. Application of ICT.
2. Mastering knowledge.

Speaking about the competence structure of RAF teacher in the field of the ICT, the defining place is occupied by the formation levels (mastering levels) of this parameter, which, in our opinion, should have full diagnostic ability and allow the future teacher to accurately determine the training goal, as well as be tested with the required accuracy. In this regard, we propose the following taxonomy of the levels of formation of the information-communicational and technological competence of the teacher.

The reproductive level. At this level, the activity of a teacher is associated with such mechanisms as recognition, discrimination, classification, reproduction, and interpretation of educational information.
The productive level of learning embodies in the use of educational information in practice, in the process of learning Russian as a foreign language.

The creative level. Creating an educational product, resource, conducting research, creative activity, applying learned information through its transformation, improvement and creation of its logically developing sequels, explanation of new phenomena and facts, search for the best solutions in non-standard situations, based on specific data.

As you know, competence is decomposed into results that serve as necessary indicators and sufficient conditions for the formation of competence. Learning outcomes, in turn, are a description of students' knowledge and skills (possessions) after the successful completion of a certain stage of training.

Based on the theoretical analysis of the scientific and pedagogical literature, in order to more accurately describe the indicators of the ICT competence development of teacher Russian as a foreign language, the following criteria were identified: motivational, cognitive, activity, personal.

The motivational criteria reflects the understanding and positive assessment by future teachers of goals of learning Russian as a foreign language; the conviction of the personal and social significance of supporting, spreading and preserving the Russian language in the world. The application of modern technologies in the fields of information and communication as a didactic tool is confirmed by the presence of students' cognitive needs. The indicators of this criteria are: the presence of a motive for mastering information and communication technologies, cognitive and internal need, to make the process of learning of Russian as a foreign language effective, interesting, modern, original, attractive.

The cognitive criteria is represented by knowledge of the theory and methodology of teaching in various conditions, in adult and children's audiences, in the language environment and beyond, in intensive and normal pace, with systematic and coursework, at all levels of and others. This criterion is expressed by indicators of the completeness and strength of knowledge about the means, methods, techniques, methods of teaching using the ICT.

Completeness is transmitted by the knowledge of all the essential features of the educational process in the digital environment and the features of the process in question. Strength is characterized by the preservation of knowledge in time and their reproducibility in the required conditions. The activity criteria reflects the level of mastering the totality of actions that make up the ICT competence structure of RAF teacher in searching, selecting digital and electronic means of training, diagnosing students' knowledge and skills, content, method, teaching methods, processing educational material (analysis, structuring, synthesis and etc.), application in the educational process and the creation of new academic knowledge. As noted by Darzhania (2009), activity criterion is expressed by the indicators of correctness, transfer and speed of action. The transfer reflects the possibility of applying the formed skills in modified conditions, taking into account the peculiarities of the new conditions, i.e. skills to solve methodological problems in non-traditional situations through information and communication technologies. The speed of performing the considered skills is the speed of performing operations that make up the structure of these skills.

For each specific criteria of the ICT competence for teachers, we highlight the following indicators: “have”, “know”, “be able and own”, “have”, which are defined in accordance with the levels of learning and activities. In order to form a clearer and more vivid picture of the ICT competence of
teachers, we offer each of the indicators to be related to a specific set of teacher actions, personal characteristics and degree of motivation:

“To have” is an indicator reflecting the inner qualities of a teacher, formed under the influence of certain external conditions, expressed in the presence of interest in a certain factor and in its own attitude towards it;

“To know” - to reproduce, submit and explain educational material in accordance with the theory and methodology of teaching in the conditions of digitalization of the educational process;

“Be able to” - to solve typical professional tasks based on the reproduction of standard solution algorithms;

“To own” - to solve complex tasks in the process of gaining work experience, to transform existing experience into new knowledge, transfer this experience, create an educational product;

“To possess” is an indicator reflecting the inner qualities of a teacher, formed on the basis of the process of self-regulation of an individual, which is aimed at activating the potential to form in the future teacher of in a digital environment such professional qualities that contribute to personal professional development.

Based on the above activities, levels of learning, criteria, the authors of this article attempted to present these parameters in the form of a table in order to demonstrate the structure of the ICT competence of teacher in terms of digitalization of the educational process and designate indicators of ICT competence. Under digital educational information in this structure is meant an extensive system consisting of a set of subsystems of various levels (differing in form, addressee, purpose, method of use, etc.) created and organized by computer means.

**Table 01. The information and communicational technologies competence structure and indicators of the ICT competence**

<table>
<thead>
<tr>
<th>Mastery level Activities</th>
<th>Reproductive</th>
<th>Productive</th>
<th>Creative</th>
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<tbody>
<tr>
<td><strong>Motivational criteria</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Search and analysis</td>
<td>has a desire to organize the systematic search and selection of digital educational information</td>
<td>has a desire to analyze, compare, systematize and store digital educational information</td>
<td>has a desire handling and processing educational information, as well as creating new digital educational information</td>
</tr>
<tr>
<td>Informational communication</td>
<td>has an interest in organizing the reproduction, demonstration, transmission of digital educational information</td>
<td>has an interest in organizing the transfer and practical use of digital educational information in teaching RAF</td>
<td>has an interest in organizing the interaction of participants in the educational process, which consists in the mutually beneficial exchange of digital educational information</td>
</tr>
<tr>
<td>Informational and instrumental</td>
<td>has a need to make the learning process effective and attractive through the use of the ICT</td>
<td>has a strong habit of using the ICT when teaching RAF</td>
<td>has an internal need for the systematic use of the ICT and the creation of logically developing sequels</td>
</tr>
<tr>
<td><strong>Cognitive criteria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search and analysis</td>
<td>knows basic algorithms for searching and selecting digital educational information</td>
<td>knows basic algorithms for analyzing, comparing, systematizing and storing digital educational information</td>
<td>knows basic algorithms for processing, processing educational information, as well as creating new digital educational information</td>
</tr>
<tr>
<td>Information-communication</td>
<td>Knows techniques and practices of using the ICT in the process of learning RAF</td>
<td>Knows ways of playing, demonstrating, broadcasting digital educational information</td>
<td>Knows methods and specifics of organizing the interaction of participants in the learning process of RAFs through the ICT</td>
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<td>-------------------------</td>
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<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Informational and instrumental</td>
<td>Knows the ICT tools, their capabilities and scope</td>
<td>Knows principles of using technical means of the ICT implementation in the process of learning RAF</td>
<td>Knows technical means of using the ICT to transform digital educational information and create new</td>
</tr>
</tbody>
</table>

**Activity criteria**

<table>
<thead>
<tr>
<th>Search and analysis</th>
<th>able to search and select digital educational information</th>
<th>able to analyze, compare, systematize and store digital educational information</th>
<th>owns methods of processing and transformation of educational information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informational communication</td>
<td>able to reproduce, demonstrate, broadcast digital educational information</td>
<td>knows how to choose the most effective methods and ways of using the ICT in the process of learning RAF</td>
<td>owns ways of organizing the interaction of participants in the educational process through the ICT</td>
</tr>
<tr>
<td>Informational and instrumental</td>
<td>able to handle the technical means of the ICT implementation</td>
<td>able to apply the ICT in the learning process RAF at different stages of learning</td>
<td>owns the tools to create new digital educational information, create a new educational product</td>
</tr>
</tbody>
</table>

**Personal criteria**

<table>
<thead>
<tr>
<th>Search and analysis</th>
<th>possesses analytical thinking, observation</th>
<th>has ability to analyze, reflection, personal maturity, responsibility</th>
<th>has formation of professional ideals, devotion to the chosen profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informational and instrumental</td>
<td>possesses high emotional - strong-willed tone, communicability</td>
<td>possesses visual-figurative thinking, flexibility, stability of the nervous system, demanding of itself</td>
<td>possesses stability of a professional position, readiness for a continuous process of self-education and professional development</td>
</tr>
<tr>
<td>Informational and instrumental</td>
<td>possesses purposefulness, diligence, perseverance</td>
<td>possesses practical thinking, good performance</td>
<td>possesses creative thinking, organization, intellectual activity, creativity, self-criticism, initiative</td>
</tr>
</tbody>
</table>

As we can see from this table 1, the information and communication technologies competence of teacher carrying out pedagogical activity in the conditions of digitalization of the educational process consists of the interrelation of types of activities and levels of learning that can be characterized in terms of the criteria set out. Indicators of the interconnection of the components of the structure of the information and communication technologies competence, consisting in the totality of knowledge, skills, possession, presence of motivation and necessary personal qualities, reflect the information and communication technologies competence.

The ICT competence has significant potential in the professional training of modern teachers of Russian as a foreign language, but in the conditions of digitalization of the educational process it requires special measures for its formation. Society periodically formulates a set of requirements that must be met by higher education. The search for new ways of organizing the educational process that meets the trends in the development of modern education has become a daily practice of Russian universities.

In this regard, we consider it necessary and timely to consider issues of an educational program aimed at developing information and communication technologies, teacher competence, and having the ability to conduct education in the conditions of digitalization of education.
Taking into account the study of Boronenko and Fedotova (2016), who examined the problems the formation of scientific and pedagogical concerns in the three-tier system of higher education and the results of our own analysis of the trends in the development of vocational education, will highlight the main recommendations for choosing the content of the educational program aimed at preparing comprehensively developed, highly qualified, competitive teachers of Russian as Foreign in digital environment:

- fostering a valuable attitude to the use of information technology in the education system;
- readiness to introduce ICT into the methodology of learning Russian from a foreign audience in different conditions (in adult and child audiences, in linguistic and non-linguistic environments, in conditions of limited time, at different stages of training, etc.);
- development of skills for using the for processing educational material in order to improve the didactic function, to simulate an educational speech environment, the processes of developing language skills for students, developing speech skills and abilities, and solving non-standard methodological and pedagogical tasks;
- training of teachers is to create a high-tech information and educational environment in the educational organization (the creation of digital educational content);
- mastering new social and pedagogical roles of a teacher (tutor, mentor, coordinator, partner in educational activities);
- building a system of knowledge and skills in local and global computer networks, the ability to use telecommunications to provide access to new sources of knowledge, to carry out independent information retrieval, to extract, analyze and process information, to organize electronic communication;
- development of readiness to use information technologies in education management (modeling and design of facilities and processes, including their own activities and the work of the team).

This educational program should involve the development of skills in the use of digital and electronic didactic tools for teaching Russian as a foreign language, interactive technologies in our own teaching practice, the development of skills in distance learning using Internet communication tools (Skype) and the creation of digital learning content on the basis of online services.

We believe that the above guidelines for selecting the content of an educational program aimed at training teachers in a digital environment allow us to designate academic disciplines that, in our opinion, should be included in the curriculum of educational programs.

These disciplines include such disciplines, the substantive content of which reveals the essence of the ICT competence, namely:

- Practical application of theoretical knowledge in intercultural communication
- Methods of teaching
- Information technology in linguistics
- Electronic didactics in teaching
- Interactive technologies in teaching speech communication in Russian
- Innovative didactics in the formation of a bilingual personality
• Testing and practice of didactic testing for
• The introduction of foreign information linguistic foundations in the practice of teaching
• Linguistic and methodological basis for creating educational content

We believe that the proposed list of academic disciplines will enable the ICT competence in the field of teaching to form at a high level and in full according to the above structure of the ICT competence, and the result of mastering these academic disciplines will form the basis of the modern professionogram.

It should be noted that such content of the educational program aimed at training future teachers of Russian as a foreign language corresponds to the tasks of innovative development of Russian education, focused on an active position in the field of digitalization of the educational process, creating a modern effective educational environment, training highly qualified, competitive specialists of the future.

6. Findings

So, in this article we reviewed the activities, the levels and the criteria that reflect the composition of the competence of teacher in the future, in terms of digitalization the education. Based on this, the structure of the ICT competence of teacher was outlined, which became the basis for determining the guidelines for selecting the content of an educational program aimed on training teachers in a digital environment.

The identified guidance for the content of the educational program for its part made it possible to designate academic disciplines that contribute the development of the ICT competence for teachers.

Conclusions from the foregoing can be formulated as follows:
1. ICT competence is one of the components of professional competence of a Russian language teacher in a digital educational environment.
2. Teacher’s of Russian as a foreign language competences are: motivational, cognitive, active, personal.
3. The assimilation levels of the ICT competence for future teachers are: reproductive, productive, creative.
4. Indicators of the ICT-competence formation of teachers correspond to three types of activities: search and analysis, information and communication, information and instrumental.
5. ICT criteria of the ICT competence for teacher on all three levels, within the framework of the identified criteria and in relation to the types of activities, are: “have”, “know”, “know and own”, “own”.
6. The guidelines for the content selection of the educational program aimed at preparing teachers of Russian as a foreign language in the digital environment determine academic disciplines that contribute to the development of the ICT competence for teachers of Russian as a foreign language.

The fact of studying the content and structure of the ICT competence of teacher in the context of growing digitalization of the educational process is essential both for understanding the nature for the ICT competence, searching for an effective process of forming professional competence of future teacher, and for the further development of the Russian education system in terms of preparing comprehensive, highly
qualified competitive future teachers who are ready to export Russian education to digital environment.

7. Conclusion

The findings presented seem to us convincing and promising to determine the further tasks of studying the process of the ICT competence development for teacher, developing and building up an educational and methodological base for training future specialists of this profile, namely creating educational materials, work programs for disciplines, a fund of assessment tools etc.

The results of this article can be fruitful both for further research of the content, structure, process of the ICT competence development of teacher, and for practical use in the design of basic and additional educational programs for the training and advanced training of teachers of Russian as a foreign language in a digital educational environment.

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