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**LINGUAL EDUCATION SPEECH DEVELOPMENT OF YOUNG  
RUSSIAN LANGUAGE LEARNERS VIA DIGITAL RESOURCES**

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***Abstract***

Open borders and migration processes in the modern world require multicultural and multilingual states to find ways to the maintenance of the consolidating status of a state language (or languages), on the one hand, and to preserve and develop minority languages, on the other hand. The authors present the construct of bilingual and multilingual education that validates the application of digital learning objects (DLOs) in the curriculum of preschool and primary school age children who learn Russian as a state language, second language or heritage language. The construct is based on the empirical data collected in 2018 for the research study funded by the Russian Foundation for Basic Research. The participants of the study were preschool age bilinguals and their teachers (tutors or teachers of Russian language) representing four experimental sites in multilingual regions of the Republic of Tatarstan. The results of the study showed that the design and further integration of digital resources into very young learners' curriculum requires the consolidation of expertise of psychologists, linguists, experts in the field of multimodal digital technologies as well as teachers and parents. In addition, the model of integrating these technologies into teaching Russian language and culture to bilingual children living in the multilingual regions of the Russian Federation and abroad should be based on interconnected and interdependent conceptual dominants, namely 1) understanding the crucial role of the child's personality in child-teacher-DLO trinity, 2) high professional competences of the teacher, 3) the use of high-quality digital resources that stimulate cognitive interests of the child, and 4) the promotion of the Russian language and culture as a consolidator of the Russian society and the Russian diaspora abroad.

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**Keywords:** Bilingual education, multilingual education, digital learning objects, Russian language, pre-school education.



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## **1. Introduction**

Open borders and the migration processes of the modern world require that multicultural and multilingual countries make decisions that, on the one hand, help to maintain the consolidating status of the state language (or languages), and on the other hand, provide conditions for the preservation and development of minority languages. In this regard, the development of a multicultural and multilingual (or, as they say in the European Union, plurilingual) personality (Andersen & Ponti, 2014; Common Sense Media, 2017) is the task of national and global security. Therefore, a number of multinational countries established state bodies and state acts aimed at attending this matter (Tan & Liu, 2004; Golonka, Bowles, Frank, Richardson, & Freynik, 2014). In particular, the Council of Europe has the Language Policy Department, which develops and implements advanced multilingual technologies in the education system.

In the Russian Federation, there are also a number of laws and regulations governing the language policy in the country (Golikova & Vafina, 2014). A significant number of multilingual educational institutions include children of different nationalities who speak different languages. In this regard, Russian educators face the challenge of creating conditions that enable their students to effectively teach the Russian language (Varlamova, Bochina, & Miftakhova, 2016; Vafina, Sadykova, & Kayumova, 2018), which functions as the main means of communication in the bi- and multicultural environment and plays the role of a force that consolidates Russian society.

## **2. Problem Statement**

In the modern pre-school education system in Russia the crucial question is how to integrate digital technologies into teaching Russian language and culture to bilingual children living in the multilingual regions of the Russian Federation and abroad. While studies report high motivation of children to use computer and mobile applications for their everyday activities (Common Sense Media, 2017), including those related to language learning, educators have little understanding of crucial elements that should guide their choice of digital resources and ways they use them in the classroom for speech development of Russian language learners.

## **3. Research Questions**

The study was guided by the following research question: What are the fundamental dominants (principles) that underlie the construct of bilingual and multilingual education that validates the application of digital learning objects (DLOs) in the curriculum of preschool and primary school age children who learn Russian as a state language, second language or heritage language?

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

This paper aims to present the construct of bilingual and multilingual education that validates the application of digital learning objects (DLOs) in the curriculum of preschool and primary school age children who learn Russian as a state language, second language or heritage language.

## 5. Research Methods

The construct is based on the empirical data collected in 2018 for the research study funded by the Russian Foundation for Basic Research. The participants of the study were preschool age bilinguals and their teachers (tutors or teachers of Russian language) representing four experimental sites in multilingual regions of the Republic of Tatarstan.

The study employed a qualitative method of data collection and analysis. Triadic scaffold protocol, the method developed and successfully tested in the U.S. (Meskill, 2005), played the role of a key instrument for collecting data. This method enabled video recording with subsequent analysis of the interaction of the teacher, student and multimedia material (digital learning object). In addition, the following data sources were used: 1) a questionnaire for educators (N=42); 2) interviews with teachers (tutor / parent) who conducted activities aimed at developing Russian language and sociocultural competences using digital material (N=4); 3) Internet databases, regulatory documents, and research studies.

The research employed Vygotsky's (1984) sociocultural theoretical framework that advanced the principles of child development and training. The Soviet psychologist's ideas, put forward in the 20-30s of the twentieth century, were applied in numerous educational research studies including those on distance learning and on cross-cultural and transnational (mass) learning (Andersen & Ponti, 2014; Sadykova, 2014; Whiteside, 2015; Marginson & Dang, 2017). For the purposes of this study, the most important is the concept of the social situation of development, where educational objects, including digital ones, are part of the child's surrounding that influences his or her development. Digital learning objects become stimuli-tools (Vygotsky, 1984) that take on the role of a mediating agent that promotes the effective mastery of speech skills. Following the ideas of Vygotsky, we understand the learning process as a socially oriented interaction.

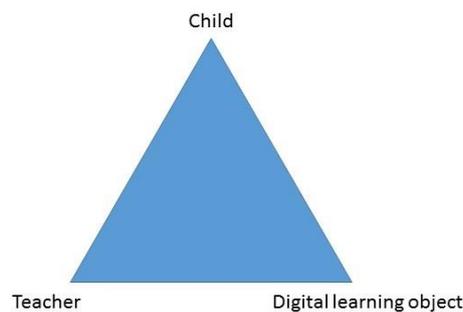
## 6. Findings

Data analysis enabled us to identify four fundamental dominants of the construct:

- 1) The child-teacher-DLO trinity where the child's individual needs play a key role;
- 2) The teacher as a subject of the learning process and an object of study;
- 3) DLO as a mediator of knowledge, virtual buddy and motivator (stimulus-tool);
- 4) Russian language and culture as a consolidator;

### **The child-teacher-DLO trinity**

Bi- and multilingual education of children with the use of digital educational objects should be based on what we call child-teacher-DLO trinity (Figure 1) that involves the creation of a learning trajectory where the teacher chooses digital resources (or their individual functions and features) corresponding to psychophysical abilities, cognitive needs, the preferred style of learning and the interests of the child.



**Figure 01.** The Child-Teacher-DLO Trinity

Educators and scholars agree that modern pedagogy should create and apply in the education system such methods and techniques that respond to the needs of an individual student (Golikova & Vafina, 2014), whose life is currently unthinkable without the presence of digital (computer, mobile, electronic, robotized) systems and devices. Information acquiring methods developed by Digital Age children require adequate forms of knowledge transfer to the student from the very first days of his or her involvement in the educational process. As such, utilizing digital forms of transferring knowledge to the child becomes reasonable and justifiable (Sadykova, Vafina, & Kayumova, 2018).

Summing up, it is the needs and interests of the child that should determine both the choice of a DLO and the methods and techniques that the teacher (educator, parent) uses in the learning activities with digital resources.

The teacher as a subject of the learning process and an object of study

While the child's needs determine which digital resources and how to use them, the teacher is to make this choice. The professional competence of the teacher becomes critical in determining the trajectory of the child-teacher-DLO interaction.

The survey that involved 42 educators demonstrated that the vast majority of teachers understand and support the use of digital educational resources with preschool children. Over 62% of respondents also indicated that they use digital material on a regular basis. However, field research (observation of classes) revealed that professional competencies of educators related to the integration of DLOs into the classroom are very limited. Teachers often do not know how to fully utilize the functionality of existing resources, are limited in the repertoire of electronic tasks that they create independently and have insufficient understanding of how to involve children in the child-teacher-DLO interaction. At the same time, the study revealed that it is the teacher who can create conditions for the effective development of speech and sociocultural competencies even when a digital resource has significant drawbacks from the point of view of pedagogical design.

### **DLO as a mediator of knowledge, friend and motivator (stimulus-tool)**

In Vygotsky's (1984) sociocultural paradigm of child development, an important role is played by stimuli-tools, that is, those tools that create a nourishing environment for the child. DLOs designed and created by experts in the field of early childhood education, speech development, instructional technologies and educational games, can and should become mediators of knowledge, motivators, and even virtual buddies. Data analysis showed that a child may perceive digital characters as real and the learning process

as a fun game. For example, in Live Fairytales, the online Russian language school for children of 3-5 years old, the teaching material is presented through the characters of original fairytales – a 3-year old girl Masha, a 4-year old boy Misha, a gnome-like creature Domovoj and a dragon Zmey Gorynych. These characters not only participate in the storyline of fairytales, but they also take on the role of a more capable other (Vygotsky, 1984), that is the teacher who explains the tasks, motivates them to perform interactive exercises, and gives a reward for the tasks they complete. Video recordings of classes showed that children happily join the activities and see these characters as their virtual buddies; they find it interesting and engaging to move from a story to a story, from task to task with digital characters. Thus, the educational design of DLOs and the way a teacher chooses to integrate them into curriculum play a key role in ensuring the effectiveness of developing speech development and sociocultural competencies.

### **Russian language and culture as a consolidator**

The presented construct of bi- and multilingual education is based on the need to create conditions where every child living in the Russian Federation, children with Russian citizenship living outside of the Russian Federation, as well as heritage Russian learners of Russian immigration, have access to quality resources, including digital material for developing Russian language and sociocultural competences. The study shows the acute demand for educational material with a strong cultural component that helps raise a child's understanding of the wealth of Russian culture, shape the mentality of a Russian citizen, and encourage learning the best phenomena of the Russian children's subculture.

The audiovisual content of digital resources for the development of the speech of bilingual children should reflect the diversity of Russian society (that is, include content associated with various regions of the Russian Federation, including ethnic groups) and contribute to understanding the role of Russian as a consolidator of multinational Russia. Such digital resources enable a teacher or a parent to create learning situation where Russian language and culture are perceived as tangible, understandable and close to a child that lives outside of Russian-speaking environment and/or whose home language is other than Russian.

### **Discussion**

The proposed construct makes it possible to implement practice-oriented learning by creating a virtual reality that is closest to the interests of the learner and helps recreate the learning situation that matches his/her individual needs (Varlamova, Bochina, & Miftakhova, 2016; Miftakhova & Yapparova, 2017). In this sense, the combination of so-called 'traditional' learning (teacher-learner) and learning with digital material actively involves the learner into the information society. This also develops the intellectual and creative potential of the student. Moreover, the student's socialization is accelerated thanks to the high educational potential of electronic resources (Meskill & Mossop, 2000) and joint child-teacher-DLO learning activities that simulate natural interaction.

The quality of digital resources for language learning, as well as the professional skills of the educator, are of primary importance for effective learning to happen (Meskill & Sadykova, 2011; Golonka et al., 2014). Our study showed that the linguistic component embedded in digital learning objects should reflect the linguistic picture of the world of a Russian-speaking child of the appropriate age. Our observations support previous findings that revealed that for young language learners the content should be

built on 1) a language map that defines the lexical minimum and speech structures for the appropriate language proficiency level and age group, 2) psychological and pedagogical maps that define the type of tasks and the principles of their integration into the DLO in accordance with the psychophysical and cognitive development of the child, and 3) culture map that promotes the introduction of Russian culture for the development of sociocultural competencies (Sadykova et al., 2018).

The construct of bilingual and multilingual education that validates the application of digital learning objects (DLOs) in the curriculum of preschool and primary school age children should necessarily include the professional development of preschool educators and methodologists. Practical training, master-classes and open lessons on the subject under discussion should be an integral part of the training programs for educators and methodologists working with bilingual and multilingual children. In this regards, recently developed training manual (Miftakhova & Yapparova, 2018) may assist educators (and some parents as well) in introducing digital resources in Russian as a foreign language (non-native, second native) classroom of young learners.

## 7. Conclusion

Digital educational resources in Russian, including those that are publicly available on the Internet, can and should contribute to the development of the speech and sociocultural competences of children for whom Russian is not native or is not the first primary language of communication in the family. At the same time, research suggests that only a small part of the available content, even if children of preschool or early school age are declared as the target audience, can be recommended for integration into educational programs of preschools and primary schools and into homeschooling (Sadykova et al., 2018; Yapparova & Miftakhova, 2018). The creation and implementation of digital resources for the development of children's speech require the joint efforts of child psychologists, linguists, specialists in the field of multimodal digital technologies and, of course, teachers and parents. The model of integrating these technologies into teaching Russian language and culture to bilingual children living in the multilingual regions of the Russian Federation and abroad should be based on interconnected and interdependent conceptual dominants, namely 1) understanding the crucial role of the child's personality in child-teacher-DLO trinity, 2) high professional competences of the teacher, 3) the use of high-quality digital resources that stimulate cognitive interests of the child, and 4) the promotion of the Russian language and culture as a consolidator of the Russian society and the Russian Diaspora abroad.

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