Directions for improving the quality of master’s program for future teachers: North-east of Russia

1. Introduction
To make it to the world’s top 10 countries in terms of school education quality by 2024, the current policy of the Russian Federation sets the scientific and academic community a strategic goal to create conditions for developing the competitiveness of domestic education in the context of globalization. Today, it can be confidently stated that the...
social prestige of the teacher’s profession is growing, and this condition proves the relevance of the material presented.

Many studies have examined the problem of master’s education of a teacher of the new generation. E. N. Gevorkyan and S. N. Chistyakova note that one of the objectives of the master’s program is the formation of such pedagogical competencies as the ability to train, develop training programs, implement, and evaluate the effectiveness and efficiency of training programs (Chistyakova et al., 2016; Zeer, 2015; Morosanova et al., 2017). L. A. Kazantseva and V. A. Chistousov emphasize that the quality of education is determined by the state of the pedagogical community: qualifications and professionalism of teachers, their readiness to search for new solutions in the field of training and education, creation of conditions for teachers’ professional life cycle counseling, which includes enrolling talented young people in educational programs in pedagogical specialties (Kazantseva and Chistousov, 2014).

M. Kawito and T. Gounko consider foreign experience in master’s studies through the application of active teaching methods (Kawito et al., 2014). The issues associated with teacher education in the northeast of the Russian Federation are discussed in the studies by E. A. Barakhsanova, A. D. Nikolaeva, A. I. Golikov, etc. (Barakhsanova et al., 2017; Orechova and Polunina, 2014, Savvinov. 2017, Firsova and Narchova, 2013).

Many researchers note that the formation of research and project competencies is becoming an integral part of students’ training in a pedagogical master’s program (Vesmanov S. V. et al., 2014; Balyer and Gunduz, 2012; Ghorbani et al., 2018; Castejon et al., 2018).

The issues of pedagogical education development result from the staffing-related issues of the entire education system in the Russian Federation, which is facing more and more challenges. All this motivates the researchers to consider renewal of pedagogical professions, high-quality training of bachelors and masters who will possess the adequate competencies. At present, the changes in the pedagogical education system are considered drivers for the development of training teachers of the new formation. At the same time, the modern educational agenda covers a number of challenges and new tasks that bring domestic education to a new level of development; and this explains the appropriateness of this issue.

Modern universities provide a wide range of educational programs of higher and supplementary vocational education in Pedagogy. A unified educational space is being formed, focused on ensuring the continuity of all levels of education. At the same time, the following contradictions affect the training of the education system workers in the universities: the contradiction between the need of society for highly qualified, competent teachers, and the low motivation of applicants who have high scores for teaching specialties; the contradictions between the need to ensure the reproduction of teaching staff and the unwillingness of young people to work permanently in the sphere of education, especially in rural areas, etc. (Mikhailova, 2015; Kuzminska et al, 2017; Margolis, 2015; Mikhailova and Shelyapina, 2018).

Analysis of the practice of professional pedagogical education in Russian universities allows to identify the following trends: development of a “school-university” partnership; network interaction of educational establishments involved in training and professional development; psychological and pedagogical counselling to teachers; planning of diversified educational routes for training teachers in high school; an increase in the number of educational programs of master's training in Pedagogy; and the transformation of higher educational institutions into masters and post-graduate universities; development and implementation of modern educational technologies aimed at the individualization of future direction in teacher education; increasing requirements imposed on research and social work, conducted by students; increasing requirements for a university professor through the introduction of a performance appraisal system, etc. (Sokolova et al., 2015; Glubokova et al., 2015; Makovec-Radovan and Ravodan, 2011; Sokolova, 2014).

The purpose of the research is to study the motivation of students in masters programs
in Pedagogy as the most important component of training teachers of a new type, with the consideration of specifics (namely, remoteness from the nearest settlements, insufficient development or lack of internet connection; climatic and natural conditions, inadequate development of the infrastructure, etc.) of the educational process' structure in schools found in the northeast of the Russian Federation, as well as the far north.

The objectives of the research are: 1) determination of the specifics of types and kinds of general educational establishments in the northeast of the Russian Federation; 2) study of motivation and challenges in training masters students of the Pedagogical Education specialty in the North-Eastern Federal University, specifically master’s program students’ ideas about teachers of a new generation in the Arctic; 3) consideration of the educational process of the master’s program in Pedagogy in the NEFU, with the consideration of ethno-cultural and regional properties.

The practical significance of this material is intended for use by professionals involved in solving problems of higher education and by people interested in teacher education related issues.

Two educational establishments of higher pedagogical education: Federal State Budgetary Educational Institution of Higher Education "North-Eastern State University" (NESU) and Federal State Autonomous Educational Institution of Higher Education "Ammosov North-Eastern Federal University" (NEFU) should be mentioned when describing properties of the educational space in the North-east of the Russian Federation.

So, NESU (Magadan) offers the following master's programs: Inclusive education establishment; Psychological and pedagogical counseling to children in defectologic education; Information and communication technologies and management in the education system; Supplementary education. Pedagogical education master's programs in NEFU (Yakutsk) include: Pedagogical counseling to children in the North; Family tutoring; Pedagogy and psychology in student education in a multicultural society; Innovative processes in education; Theory and methods of upbringing a multilingual personality in a multicultural society; Project management in education; Preschool Pedagogy; Primary Education, etc. (Mikhailova, 2015).

Thus, there is a sufficient number of master's programs in Pedagogy. Teachers’ education in the northeast of the Russian Federation has its own specifics due to the types and kinds of general educational establishments in the region.

The analysis of types and kinds of general educational establishments in the northeast of the Russian Federation is revealed in (Table 1), which shows, for example, the modern nomadic school affects all aspects of the social and economic development of indigenous peoples who live in the North, and helps to maintain the status of family, creates an efficient educational process, which combines ethnic and cultural traditions. Due to the remoteness of nomadic schools from the regional centers and rural settlements, the computerization of education becomes extremely necessary, and in view of this, training teachers in application of distance learning technologies becomes a priority objective of the higher pedagogical education.

<table>
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<tr>
<th>Type of School</th>
<th>Brief characteristic</th>
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<tr>
<td>Small school</td>
<td>a small number of students; no parallel classes; general secondary education ensures the proper level of standard observation</td>
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<tr>
<td>Nomadic school (ancestral nomadic school; seasonal nomadic school; stationary nomadic school; nomadic</td>
<td>natural and climatic conditions of the far north are taken into account, the school follows to the route of resettlement of reindeer-breeding groups; open for a certain period of time; could be of family relevance</td>
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Table 1
Types and kinds of educational establishments in the north-east of the Russian Federation
The modern teacher should be able to develop a system and tools of e-learning even under the conditions in the Arctic zone. In the framework of this approach, the Teacher in the Arctic program is implemented under the auspices of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Government of the Republic of Sakha (Yakutia). This program aims to facilitate information and resource support and interaction in one educational space of the circumpolar world. This goal requires improvement of the interdisciplinary specialist education quality of a wide range of pedagogical specialties.

Thus, there are various educational establishments in the region that consider the needs of urban and rural societies and the national and cultural identities of the people living in the northeast of the Russian Federation. These establishments are municipal, private, ungraded, nomadic, author, and associated schools and schools of gymnasium and lyceum education that develop subject-oriented education. Future teachers and researchers foresee an increase in the quality of education under such conditions.

The character of past, present, and future teachers is a complex set of perceptions, ideas, concepts, and judgments that constitute the ideal of teacher education. At present, a cardinal positive shift is reflected in modern standards, practice-oriented education, approval of the competency paradigm, and formation of a national system of teaching staff. The personality of a teacher is the typification of a national character, which combines the past and the future. A teacher is a bearer of a national culture, ideals, and traditions. A teacher transfers accumulated experience from generation to generation. In the current global educational system, the character of a teacher possesses a national identity, which is a reflection of national culture, aspirations, and hopes for the future.

Each region of the world has its own authentic educational system, whose key element is the character of a teacher, which incorporates national characteristics. However, a teacher inevitably possesses characteristics and values that are inherent in an “ideal character” that is beyond national or geographical contexts.

In the context of the modern requirements imposed on teachers, which specify the necessary professional and ethical behavior besides the universal characteristics needed by the profession, the following competencies should be noted: ability to accept the personal diversity of teachers; ability to respond to the individual needs and demands of teachers; ability to create an educational space with a healthy climate; ability to understand various cultural, social, and national contexts in education; ability to generate new ideas; ability to predict the future with regards to trends in education and the needs of subjects; and ability to take responsibility for the process and results of teaching (Fedorov et al., 2016; Savenkov et al., 2014).

Determining the universal ethical norms that need to be observed by teachers in the context of a multipolar world has become a key objective of modern education. This issue is being studied by leading European and international teacher associations. The conceptual basis for building an ethical code comprises the principles of justice, objectivity, and legality—a combination of complementary activities and axiological approaches that form a basis for the precise regulation of teachers’ professional behavior.

In general, the Russian ideal of a teacher can be regarded as follows: the subject of worship, respect, and admiration; a means of identifying and consolidating the national
community and creating a holistic worldview; a means of controlling and manipulating society.

“The teacher of the future in Russia” is the incorporation of a system of interdisciplinary competencies in the training of bachelors and masters, structural and content changes in basic vocational educational programs and in individual and group educational routes, and replacement of the bachelor’s thesis with a joint project, accompanied by reflection and expert assessment.

2. Methods

North-Eastern Federal University (NEFU) is a leading center for training highly qualified specialists in the education system not only in the Sakha Republic (Yakutia) but also in the entire northeastern part of the Russian Federation. The University provides education in the following areas: history, physics, biology, technology, mathematics, oligophrenopedagogy, social pedagogy, speech therapy, foreign language, physical culture, corporate management, vocational education, pedagogy and psychology, preschool pedagogy and psychology, computer science and computing, Russian language and literature, pedagogy and methodology in primary education, and others.

A pilot study was conducted in February–March 2019 involving 59 master’s students of pedagogical education specialties of 1st and 2nd grades of the Pedagogical Institute, Institute of Foreign Philology and Regional Studies, Philological and Historical Faculties of NEFU. The representativeness of the sample was guaranteed by the following criteria: age, teaching experience, and possession of higher pedagogical education.

The study considered the motives of students in applying to master’s programs, the difficulties they encounter, and the educational effects they observe in the course of their education. The students’ ideas about the character of a future teacher and about the qualities of a teacher working under the conditions of the far north and the Arctic zone were likewise explored.

3. Results

According to the results of the survey among the master’s students in pedagogy, the answers of students, who lived in the far north and the Arctic zone, appeared to be particularly interesting.

A master’s program student has the following characteristics. The average age is 23 years. Moreover, 78% of the students possess basic higher pedagogical education, and 22% have higher education in other spheres (legal, economic, technical, philological, culturological, etc.). The majority undergraduates are employed; 61% of them work in educational establishments (kindergartens, schools, colleges, technical schools, universities, supplementary education centers); 15% of the master’s students work in different enterprises, companies, and organizations whose activities are not related to the education system; 24% of the students are unemployed. The results of the survey indicate that the master’s students are mostly teachers who have different practical experiences and lengths of employment.

The analysis of students' motivation for application to the master's program in Pedagogy identified the following main motives: 1) implementation of 100 Master's Students program - a joint program realized in cooperation with the administration of Yakutsk to train highly qualified personnel; 2) continue education after completion of a bachelor’s program, be involved in research activities; 3) improve the qualifications for professional development; 4) get a diploma to change professional activities; 5) formalize the accumulated experience as a product that can be implemented, realized and distributed; 6) new opportunities, new knowledge, etc.

Concerning the different age of the master’s students, the young students consider the master's program as an opportunity to continue vocational training, deepen professional knowledge, communicate with more experienced colleagues, continue education in postgraduate program.
For the experienced teachers, the master's program is associated with the opportunity to learn how to conduct scientific and pedagogical research, to analyze their educational activities and with a way to make a break in the everydayness to enhance personal and professional self-development. It is traced that experienced teachers have a more conscious intrinsic motivation, and university professors are very interested in communicating with them during the education process. But at the same time, teachers demonstrate an overestimated self-esteem; they are vulnerable and react painfully to ratings below “excellent”. This category of students is sure that the constant attendance of classes, their professional achievements (awards, experience, titles) guarantees a high rating even in case of mistakes made in the training tasks.

As a response to the question on difficulties in the master’s programs, the students note a large scope of independent work and material; lack of time; lack of understanding of the purpose of certain academic disciplines; lack of basic knowledge; the impossibility to choose an individual learning route. This is mainly associated with the self-management and self-organization issues in the course of educational activities performance.

As an answer to the questions about employment, 42% of master's students responded that they would return to their schools and kindergartens, many of which are in the Arctic zone and the far north. They continue working in nomadic or small kindergartens or schools, build nomadic camps for children of reindeer herdsmen in the summer, study and develop the ethno-cultural education.

As a suggestion, the master's students offered to use more active learning methods and technologies, practice-oriented forms in the educational process; increase the number of learning tasks fulfilled in the Moodle e-learning system.

Futurologists in Pedagogy note, that due to the individual psychological characteristics of Z-generation, in the nearest future the educational system will require the presence of the following specialists: children psychological safety specialist, on-line platform coordinator, web psychologists, educational trajectory developer, electronic assistant, project training manager, startup mentor, learning games administrator, etc. (Ginerva et al., 2016).

In this regard, the results of the “Teacher 2030+” survey indicate and the students note that, first of all, the teacher should possess all tools and forms of IT-didactics, be sociable, like children, be creative and enterprising, have professional experience in educational technologies, be well-informed, empathic, demonstrate equal attitude to people of different nationalities, have excellent skills in languages (Russian, Yakut, English, and possibly a language of indigenous peoples of the far north), etc. In the opinion of the future Master of Education, teacher of a new school should demonstrate an active life position, civic responsibility, aspiration and possession of personal and professional qualities that build up professional activities.

In order to identify employers' expectations regarding the qualifications of modern newly graduated teachers, a study was conducted to evaluate the opinions of experts representing the pedagogical community and entrepreneurial structures operating in the sphere of educational services in Yakutsk.

The interview involved twenty-nine representatives of the administration of general education establishments in Yakutsk. The criteria for selecting respondents included significant work experience in the field of education, cooperation with the university in the sphere of student practical training arrangement, and leadership position.

The results show that most of experts (57%) emphasized the need to update modern professional pedagogical education with the consideration of the requirements of the labor market and innovative changes affecting all spheres of social life. 83% of experts insisted on the need to improve the quality of training the graduates – the future schoolteachers. More than a third of the interviewees realize the change in teaching methods, the increase in the share of independent student work and the emphasis on the formation of professional competencies as the conditions for “improving quality of teacher education”.

The implementation of innovations in education is traditionally associated with the use of
active and interactive teaching methods, which results in increases of student’s involvement in the process of new knowledge acquisition. Forty-four percent of experts noted the need to create "an environment for communication, conditions for the revitalization of students' life and study, and introduction of other teaching formats." According to the experts' opinion, such a “reformatting” of the educational space will make it possible to attract more applicants and promote the revitalization of students' creative and innovative activities in the future. 38% of experts underlined the necessity to work "in a proactive mode" in the process of implementing innovations in the educational process.

Inviting potential employers to attend demonstrations of students’ achievements, or any other celebration of their academic success is not a new phenomenon. Nonetheless, development of a system through which such events can be scheduled would allow graduates to better demonstrate their skills to prospective employers. Moreover, 63% of the interviewed experts stated that, in their opinion, a modern graduate should possess not only professional competencies, but also personal qualities required by prospective employers.

Experts see a modern graduate of a pedagogical university as "an innovative teacher who is able to ensure his or her own self-development and progress in the social and economic growth of a city and a region; the teacher demonstrates personal and team initiative, creative freedom; realizes the need for maintaining civil liberties and personal responsibility for the development of a city, a region and a country; has a strategic mindset, an ability for effective communication, well-developed speech; capable of general project activity, possesses new technologies, methods and means of pedagogical activity; speaks several languages (at least bilingual)".

4. Discussion

Thus, besides general professional, occupational and special competences, NEFU Master's programs in Pedagogical Education covers a competence (RC-1) which expresses the graduate's readiness to perform professional activities for the social, economic and innovative development of the north-east of Russia and the circumpolar world. The educational process of the master's program for future teachers includes the following subjects and considers such regional peculiarities as: Social policy in the sphere of general education (social and cultural aspect); Modeling occupational guidance work in the educational environment of the region; Socialization and upbringing of younger schoolchildren in the conditions of the multicultural space in Russia, “Olonkho pedagogy in the regional educational program of the elementary school, Ethnic psychology of the peoples of the North and the Arctic, Ethno-cultural traditions of educating children of the North, Creation of the educational space in nomadic and small school in the North, Ethnic psychology and regional technologies for family counseling, Psychology of inter-ethnic relations, Pedagogy of tolerance, Multicultural education, Culture and intercultural interaction in today's world, Peoples and cultures of the circumpolar world, Pedagogy of interethnic communication, Psychology of interethnic relations, and others.

For example, the objective of the “Pedagogical counseling to children under conditions of the North” master's program is the provision of in-depth and fundamental training for specialists working in pre-school and primary education sphere, as these specialists should be able to perform research, organizational, managerial, project and educational activities with the consideration of the specifics of the North. During the educational process, a modular interdisciplinary educational program is implemented, which employs training technologies, contextual learning, gaming technologies and practice-oriented technologies.

The master's theses defended at the Pedagogical Institute of NEFU comprehensively cover the problems of education in the specific conditions characterizing the north-eastern region of the Russian Federation, the far north and the Arctic. For example, as a part of the Primary Education master's program, students explore the issues arising in the course of the educational space creation in a small school in the Arctic; development
of the ethnic culture in the education offered to the indigenous peoples in the north; features of small and nomadic schools under the unique conditions characterizing the far north; ethno-cultural traditions of raising children in the north; active teaching of the native language of the indigenous peoples of the Arctic region in elementary schools (using the example of Evenki and Yukagir languages); issues arising in the course of voluntary work in the social and pedagogical counseling provided to children of labor migrants in the north-eastern region of the Russian Federation; formation of the ecological culture among schoolchildren by means of familiarization with the nature of the north-eastern region of Russia; multicultural and multilingual upbringing of children using fairy tales of the peoples of the far north, etc. (Panina et al., 2016, Sergeeva et al., 2015).

At present, teachers working in the north-eastern region of Russia have to combine and integrate pedagogical directions due to the differentiation of the pedagogical work (see Table 2).

Table 2
Functional characteristics of pedagogical direction (Fedorov et al., 2017)

<table>
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<tr>
<th>No</th>
<th>Name of the pedagogical direction</th>
<th>Activity content</th>
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<tbody>
<tr>
<td>1.</td>
<td>Teacher-tutor</td>
<td>Provides diagnosis of children's inclinations and abilities and helps to develop an educational program based on them</td>
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<tr>
<td>2.</td>
<td>Teacher-moderator</td>
<td>Creates a platform for an open discussion; teaches cooperation technologies, teamwork skills, the ability to speak out, listen to the opinion of other people</td>
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<tr>
<td>3.</td>
<td>Subject teacher</td>
<td>Possess a high level of professionalism, considers age-related characteristics, demonstrates good orientation in his subject area</td>
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<tr>
<td>4.</td>
<td>Project manager</td>
<td>Searches for an interesting task in the surrounding world, formulates a plan for a joint project involving schoolchildren and possibly their parents, conducts creative researches</td>
</tr>
<tr>
<td>5.</td>
<td>Game teacher, learning games teacher</td>
<td>Arranges a lifelike educational space, involves students</td>
</tr>
<tr>
<td>6.</td>
<td>Online Platform Coordinator</td>
<td>Coordinates the network interaction of educational establishments cooperating in the Internet mode due the large area of the North-east of the Russian Federation</td>
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5. Conclusion
Currently, pedagogical universities consider master-level education as one of the main directions of their activities, since this level of higher education is believed to be required for facilitating the creative, scientific and methodological activities of an educational establishment (Mikhailova, 2015).

However, this study has identified several contradictions that directly influence the teacher education in higher education establishments: (1) the contradictions between the societal need for highly qualified and competent teachers, the potential opportunities of an educational establishment, and the low prestige of the teaching profession; and (2) the contradiction between the lack of motivation of applicants who have high scores for
teaching specialties and the need to ensure the reproduction of teaching staff, which arises due to the unwillingness of young people to work permanently in the sphere of education, especially in rural areas and regions of the far north.

Under these conditions, the objective to improve the quality of pedagogical education must include a large-scale implementation of innovations that would enhance the educational process and ensure its continuity, while promoting the involvement of all interested parties in the education of the future teachers.

To let a student of a vocational education establishment build an efficient professional career and flexibly adapt to the living conditions in a changing world, it is required to teach him how to set an independent education direction, thereby helping him to realize his creative potential in the best way.

The ecological education system maintains and enhances the role of administrators of educational environments in the framework of educational programs. The new teacher finds it important to have the opportunity to develop a strategic design of the educational environment. Educators become the navigator of change.

The most important and the most actual personal characteristics of teacher of the future are: flexibility, hospitality, willingness to accept and create new things. A modern teacher should possess competences in the field of project-oriented education, research training, game pedagogy, mentoring and coaching.

Efficient professional education of a student of pedagogical specialty implies the involvement of each subject of modern living in the reality: through the traditions of the university, corporate culture, short-term project associations, sustainable existing communities, etc.

The master's program for pedagogical personnel of higher qualification should consider the main factors determining the structure and content of training of a competent specialist in the higher education system, such as: the individual needs of a personality and the level of basic training; requirements of Federal State Educational Standards for Higher Education (FSES HE) as a regulatory document; the demands of the labor market in terms of the future activities; the state and demands of society beyond the sphere of the professional activity.

The formation of general cultural, general professional and occupational competencies among master's program graduates (in specialties: Pedagogical education, Psychological and pedagogical education, Special (defectological) education) facilitates their mastering of teacher's labor activities within the performance of the following labor functions: planning and implementation of educational process in educational establishments of pre-school, primary general, basic general, secondary general and special education; educational and learning activities.

The integration of the requirements of the Federal State Educational Standards of Higher Education and the professional standard can be traced in establishing the correspondence between the labor actions and the general professional and occupational competences in line with each generalized labor function.

Thus, a higher educational establishment faces a complex challenge which requires preserving the best learning traditions and conducting an update of the master's program under the conditions of digitalization of education, and involves the following actions: to ensure the quality of education and its relevance to the current and future needs of the educational practice; to form a set of competencies of graduates of master's programs in Pedagogy, which allows to perform teaching activities at a high professional level in compliance of teacher's professional standard and national and territorial peculiarities of the North-east of the Russian Federation.

As N. A. Kotova, R.G. Sakhieva and V.K. Vlasov noted, that it is the master's education that serves as a modern form of promoting the professional growth of a teacher and the implementation of master's programs in Pedagogical education (Kotova, 2016; Sakhieva and Vlasova, 2016).

V.P. Ovechkin, E.N. Glubokova, S.A. Pisareva and A.P. Tryapytsyna indicated, that the
master's programs in Pedagogy allow to achieve the following results: for a master's program student - the implementation of an individual direction of vocational training, professional becoming and professional development; for a higher education establishment - improvement of the quality of teacher education, ensuring its variability, flexibility, optimality, achieving recognition of the own brand of training master's students in Pedagogy in the educational services market; for educational establishments it provides the possibility for selecting highly qualified competent teachers for the creation and implementation of the educational process (Ovechkin et al., 2017; Glubokova et al., 2015).

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