



Philosophical and Pedagogical Aspects of Career Guidance Policy for Learners and Students

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Abstract

The article substantiates the main approaches to career guidance which is becoming increasingly critical for mastering such meta-professional traits as “mobility”, “the ability to self-development”, “learning throughout one’s lifetime”, and “the analysis and reflection of one’s professional achievements and intentions” to be competitive in the global knowledge economy. These personal traits are tightly linked with the application of new technologies, fundamental changes in the future job market, new trends in profession and the emergence of new “careers for the future/ professions of the future” associated with more complex problems and new challenges for qualified specialists. Systematicity and dialectical methods, personality-centered and competence approaches have been chosen to carry out this research. This paper presents the analysis of tendencies in career guidance policy, describes its specific in the modern socio-cultural environment. Moreover, it reveals new meanings of career guidance with focus on the image of “professions for the future”. The article also presents new forms of career guidance for learners and students, including the activity on the basis of advanced vocational training centers.

Keywords: vocational self-determination; career/vocational guidance; specific of career guidance, professions for the future, professional trials

1 Introduction

Modern world is dynamic and technological and new economy transforms the demands of the labor market. Where new technologies have been introduced, demand for new professions, particularly high-skilled information and communication technology (ICT) workers, has increased. There is a world tendency when new professions emerge and old extinct which leads to permanent changes in the functional structure and competence content of all kinds of professional activity (3). The recent survey has shown that 47% of Russians do not work in the field of their study;

citizens of the Russian Federation who have never tried to find a job in the field of their study account for 28%; 30 % of participants explain their refuse to work in the field of their study by impossibility to be employed and only 20% of participants claim that the change of their career helped them to find the right way and professional satisfaction (17).

The survey conducted by specialists from National Research University “Higher School of Economics” has shown that 28% of university students want to work in different commercial sectors (managers, analytics, private clinics, schools, universities). 19% of the pollees are in favour of being top- or middle-ranking managers in private firms, 13 % of pollees would like to be entrepreneurs and run their own business. Only 10 % of students plan to work somewhere in an academic or scientific area (17). It is

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necessary to emphasize that among the most in-demand trades are salespeople, drivers, cooks, motorcar mechanic, laboratory assistants, carpenters and etc.

Here are the most in-demand jobs in the system of secondary vocational education (according to the rating of the Ministry of Labor and Social Protection):

- Motorcar mechanic;
- Database manager;
- Graphic designer;
- Cosmetician;
- Chemistry lab technician;
- Master - decorator;
- Master of carpenter's finish;
- Metrologist;
- Mechatronics engineer ;
- Robot technician;
- Industrial mechanic / millwright;
- Operator of pilotless vehicles ;
- Application software developer;
- Optical mechanic;
- Tile layer;
- Pastry cook;
- Programming specialist;
- Web and multimedia application developer;
- Plumber;
- Electronic Assembler (specialists of electronic equipment and devices) (20).

The forecast of the most in-demand jobs created by the Ministry of Education and Science, the Agency for Strategic Initiatives and big HR-companies has shown the need for blue-collar jobs which confirms the prestige of secondary vocational education (20).

It is vital to make our future generation ready for being flexible and able to change their professional career several times within their life. The analysis of modern studies conducted by Russian and foreign scientists allows us to conclude that there is a high probability that a modern man will change his job almost each 7-10 years. The Department of Labor of the USA claims that many young people will change their work 10 times till the age of 40 (18).

The reasons for the current state in the system of vocational self-determination are (8): “almost complete absence of the state status of the career guidance policy in Russia, its irregularity, unpreparedness of teachers and other practitioners to carry out this activity, lack of coordination and continuity among schools, parents, the system of vocational education, industrial plants, employment services and other social institutions ...” (8).

Here are some other reasons for the lack of correspondence between vocational self-determination (occupational guidance) and post-industrial society needs (22):

- the tendency to prepare school-leavers for getting university education and, therefore, the concern of career guidance policy with this idea;
- strong conviction about prestigious/not prestigious institutions dealing with education and imbalance in the number of university alumni and college graduating students;

- absence of a united information system dealing with occupational guidance;

- underestimation of partners' role in career guidance and lack of cooperation between partners and technological and qualification markets, market of parents' expectations, and young people needs;

- absence of coordinated quality management system dealing with career guidance (22).

The analysis of shortcomings revealed by some famous scientists (8, 22) allows us to state that they have a negative impact on vocational guidance activity leading to its worsening.

In spite of revealed shortcomings, we should accept some positive changes in the system of general and higher education in the Russian Federation. The direction of these changes is determined by the Presidential Address (2015) that outlines some measures for quality assurance of secondary vocational education and specifies some steps for improving training of qualified middle-ranking specialists and workers. Secondary vocational institutions should have satisfied 50% of needs for qualified staff in 50 professions by 2020. The transition to the standards of the fourth generation (TOP -50) and the improvement of cooperation between educational institutions and employers yield concrete and positive results.

Through training improvement, alumni will be able to work in the field of their study and be winners of the International WorldSkills Competition. It is necessary to emphasize that 100% of alumni of the leading educational vocational institutions find the employment. To compete in the knowledge economy, it is necessary to train workers through a new model, which involves a “in-plant probation period/on-the-job training” carried out by institutions of secondary vocational education. The probation period allows students to enhance their knowledge and make a conscious career choice upon the analysis of their own interests and abilities. That is why the number of students who wants to study at institutions of secondary vocational education is steadily increasing.

Modern technologies and constant changes in trade trends force us to find new ways for improving career guidance. Students must not only analyze their abilities, personal traits and preferences for motivating choice of the future professional activity, but also be aware of a variety of professions and able to predict the demand for a certain profession/trade over a period of 5-10-15 years. People involved in the career guidance must know all information about institutions engaged in vocational education, predict the changes on the labor market, and be aware of job trends and perspectives of future employment in a certain region.

Agency for Strategic Initiatives (ASI) and SKOLKOVO business school published “The Atlas of New Professions” in 2015. Several thousands of specialists, scientists and representatives of many leading companies took part in its preparation. This atlas is an almanac of promising industries and occupations for the next 15 to 20 years. It was created through a unique analysis of technological, social and economic changes, as well as development plans of leading companies to understand which industries will be actively developing; what technologies will be created; what kind of new professionals will be in demand.

Andrey Sharonov, the rector of the Moscow School of Management SKOLKOVO claims that: “The Atlas is a good reason for comprehension what education we and our children need” (5). The atlas is a first step towards the development of vocational guidance system for young people and shows the scale of the problem and approaches to its solution. At present complexity and versatility of work carried out by qualified specialists is one of the most important tendencies. Multi-disciplinary education will be one of the competitive advantages for future specialists. There is a need for specialists with interrelated competences who are able to design and adapt new products, carry out marketing research and manage the production process (5).

The Atlas contains the description of new professions in 25 major industries and technology areas of Russian economy. Moreover, this Atlas features goals and tasks that the future specialists will face. It also presents meta-professional skills and competences required in each sector of the economy. It also includes a brief description of trades and professions that will emerge by 2020 and after 2020.

The chapter “Where can you get the basic education to being a specialist?” is also extremely important for carrying out vocational guidance. This chapter includes universities and higher educational institutions able to give a full range of knowledge, competences and skills required for a certain sector of the economy. Let us turn to the list of future professions that will be relevant in the medium and long term in fast-growing “Mining and processing of fossil fuel” sector of the Kemerovo Region economy to illustrate how this Atlas can be used. Professions that will emerge by 2020:

- System mining engineer;
- Eco-analyst in mining industry;
- Engineer – interpreter of telemetry data;
- Roboticists;
- Operator of a pilotless aerial vehicle for mineral exploration.

A Coordinator of distributed drivers' / tunnellers' teams will be a new profession after 2020. It is a specialist whose aim is to ensure the coordinated cooperation among people on site and those who are busy with projects (work distantly). A coordinator is responsible for team communication, tactical task development and disagreement and conflict elimination (5).

The first chapter “What is changing in the sector?” reviews the mining and processing sector and features future goals and tasks:

- Design, development and service of automated complexes for mining;
- 4D-modelling for a mining lifecycle from drilling to closure and recultivation;
- Analysis and foresight of ecological threats caused by mining of mineral deposits;
- Design and development of automated ecological monitoring

Here are the most important meta-professional skills and competences in a mining sector (according to the authors of “The Atlas of New Professions”):

- systemic thinking;
- interindustry communication;

- project management;
- programming / robotics / artificial intelligence;
- client-centering;
- multilingual and multicultural abilities;
- work with people;
- work under uncertain conditions;
- economical production;
- artwork skills;
- ecological way of thinking (5).

The Atlas of New Professions includes:

- Recommendations on the choice of universities, providing basic training in the field of the professions of the future;
- The list of Russian companies where alumni can be employed after completing their education.
- The most famous and popular with potential employers (oil and gas, metallurgical and mining companies) universities that train specialists for mining and processing sector;
- Full information about new professions of the future for specialists involved in the vocational guidance (5).

Though modern school leavers unlike students who finished schools 10-20 years ago have free access to information about future professions and vocational education through the Internet, social and special Web sites and mobile gadgets, vocational and educational guidance is still very important. Vocational and educational guidance helps understand what kind of new professionals will be in demand and what “professions of the future” will be popular in a couple of years. It also informs what kind of salary a specialist can get working in a certain field or industry. Thus, the importance of this activity can scarcely be overestimated since these factors are critical when choosing the future career.

The analysis of average pay (by the end of 2018) made by the Center for Testing and Developing “Humanitarian Technologies” (according to Superjob, Rabota.ru and HeadHunter) has shown top 10 highest paid professions (19):

- 10th place. *Dentist*.
- 9th place. *Obstetrician-gynecologist*.
- 8 place. *Boring engineer / drill operator*.
- 7 place. *Risk-manager*.
- 6 place. *IOS and Android developer*.
- 5 place. *Big Data analyst*.
- 4 place. *Civil pilot*.
- 3 place. *Consultant on SAP* (SAP – Service Advertising Protocol)
- 2 place. *Java / Ruby programmer (developer)*. (19).
- 1 place. *Shipmaster*.

IT specialists, managers, narrow medical specialists and bank managers are well-paid in Moscow. The heads of IT departments, IT specialists, financial officers, directors of marketing and sales, financial analysts draw high salaries in St. Petersburg. The highest paid professions for girls and women are marketing specialists, flight attendants/stewardesses, PR managers, psychologists, real estate brokers, lawyers and bookkeepers. IT specialists, pilots, shipmasters are among the highest paid professions for men. Engineers working for oil and gas companies as well as

design engineers, maintenance engineers and etc. are also well -paid in Moscow and St. Petersburg (19).

The specialists of the Center for Testing and Developing “Humanitarian Technologies” MSU” claim that the highest paid professions in 5-10 years will be:

- IT specialists;
- Financial analysts;
- Specialists working in mining and chemical industries

(19).

It would find difficulty to quarrel with this list made by specialists of MSU since IT technologies, financial analytics and mining industry are bases which ensure efficient economic development of the Russian Federation. This fact is admitted by the Ministry of education of the Russian Federation. Federal and national projects “Education” and “Modern School” developed for general secondary education are evidences of this clear-eyed understanding.

Special Centers for Humanitarian and Digital Education “Points of Increase” have already started their operation in pilot regions of the Russian Federation. This project developed for 3 years is aimed at material and technical resources renewal and content updating in fields of “Technology”, “Information Science” and “Health and Safety”. The project also specifies social and cultural events and focuses on the implementation of supplementary education programs in such important areas as IT technology, mass media, chess, and projects as well as outside the classroom activity. “Points of Increase” is aimed at widening schoolchildren’s opportunities for getting qualitative education so that they have a chance to grow highly sought-after professionals through “implementation of new approaches, modern educational technologies and techniques, as well as the content upgrading and improvements of methods in “Technology” (14).

2 Methodology

With dynamic changes in working environment and new tendencies in professional trends there are also some shifts towards occupational guidance as a critical activity for man’s vocational self-determination. If people are to take responsibility for managing their learning and vocational self-determination, they need information about themselves, the society in which they live, and the economy in which they function. Career information and guidance policy help provide the link between these sources of information and learners’ aptitudes and interests.

In the early 20th century F. Parson came up with the idea that there is only one profession that suits to each man according to his own personal traits, talents and abilities. In the early 21st century focus is on person’s mobility and the need for lifelong learning which is self-motivated pursuit of knowledge that not only enhances social inclusion and personal development, but also professional competence, as well as competitiveness (3). These approaches are reflected in “Concepts for Learners’ Guidance in their Vocational Self-Determination in the Lifelong Learning Environment”. Many studies recognize the need for implementing career development policy in order to facilitate and promote lifelong learning and vocational self-determination (Blinov, Sergeev,

Zachesova, Esenina, Kuznetsov, Novikov, Pryazhnikov, Rezapkina, Rodichev, Serebryakov, Yatsenko).

There are many reasons for global changes in professional trends. The primary reason is the application of new technologies along with economic growth, and development of science and engineering causing the emergence of new industries and new professions and disappearance of outwearing. This process is dynamic and, therefore, the man should also be flexible and mobile. Person’s successfulness is becoming of a great importance in this new professional environment. Only resourceful people possessing “creativity” and “self-development ability” can determine their career path and be successful in adapting to the highly competitive environment. A successful man must be ready to analyze and consider his professional inclinations and achievements, to take decisions on his future career choice or career changes and be able to make a professional career and, if necessary, to correct it. Thus, personality development is a complex task for education system.

S.N. Chistyakova and N.N. Zakharova (1987) claims that the model of career development and promotion will be nonlinear for many school leavers and exact prediction of their “entry and leaving” will be more unlikely. The career or occupational choice will be replaced by the choice of social strata.

The shift of emphasis is reflected in Federal Standards for secondary schools and higher education. Traditional education methods are ill suited to providing people with the skills and knowledge they need and the teacher’s role is no longer to provide content but rather to work with learners to explore new territory. Academic knowledge is substituted by competences and new standards are based on systemic and activity approaches.

The Federal State Educational Standard (2010) of General Education specifies new requirements to learning outcomes and emphasizes the importance of personal, meta-subject and subject components. It focuses on personal traits i.e. the comprehension of professional activity which is vital for sustainable development of society and world. Graduates must have the following general competencies:

- Ability for abstract thinking, analysis and synthesis;
- Self-development and self-education skills;
- Conscious choice of individual path and its construction basing on professional preferences, cognitive interests,;
- Respect for socially significant labor and active participation in it (12).

The Concept for long-term socio-economic development of the Russian Federation until 2020 acknowledges the need for developing career guidance system and emphasizes the importance of people’s psychological support for promoting their motivation to labor activity in the determined career path (2).

Federal law of the Russian Federation “About education in the Russian Federation” No. 273-FZ (the last edition from 17.06.2019) formulates a range of regulations related to career guidance:

- Learners’ preparation to social life, independent choice of their future career, lifelong learning and professional activity (chapter 66);

- Guidance and support for learners who have difficulties in the acquisition of general education programs, the choice of their future career path and social adaptation (chapter 42);

- Supplementary education programs focused on vocational guidance (chapter 75) (11).

Students' vocational self-determination depends on a range of factors; their individual peculiarities, value orientations and life experience. Vocational self-determination is based on psychological consistency with conscious attitude to the solution of problems in a complicated professional environment. It can be described as mediated (indirect) act of behavior motivating a person to achieve the desired goal and is the result of inner preparation to postponed or complicated action. It can also be considered as the result of a person's previous spiritual activity that encompasses objectives, goals and corresponding means to achieve them (10).

If training is provided correctly, there is a chance to develop and even implement some learners' plans at the stage of general education (21).

The efficiency of making learners ready to life activity depends on a range of social, psychological and organizational factors. Upon the review of the literature and scientific publications these factors can be divided into three groups:

- 1) *Common factors*, which content depends on the economic and social framework (socio-economic living conditions, spiritual culture, mass media and etc.);

- 2) *Regional factors*, conditioned by the specific of economic and demographic development of the region, i.e. institutions of vocational training, cultural and educational level of a family, the social and cultural potential of a region and etc.;

- 3) *School* – the specific of organizational and pedagogical conditions in educational institutions: personality characteristics (inclinations, abilities, interests and psychophysiological qualities, personal experience and etc. (6).

It is essential to integrate career guidance policy better and to align different elements of the system: "vocational education (informing), diagnostics, professional consultation, career guidance, vocational selection". Each element of this integrated system must ensure "the solution of certain problems connected with vocational self-determination" (15).

Some psychologists and teachers attribute job specification, vocational selection and adaptation to the elements of career guidance.

The authors of "The Concept for pedagogical counseling and guidance of learners' vocational self-government in the lifelong learning environment" believe that it is necessary to create integrated career guidance environment for learners and to develop some special qualities for better labor activity. These measures facilitate the shaping of skills necessary for professional and personalized self-realization. This new environment can attract attention of many specialists (teachers, counselors, psychologists, tutors, form masters, training officers and etc.) to career guidance (3).

The cooperation of all specialists involved in career guidance should be coordinated and regulated by well-defined goals and objectives.

There are heated discussion in mass media (TV, newspapers, magazines, and social networks), schools, universities, institutions of supplementary education and among scientists, teachers and psychologists about the necessity of the interaction between a person and society and the consideration of modern trends in career selection.

V.V. Afanasyev, S.M. Kunitsyna, S.L. Frolova (2017) who researched modern tendencies in career guidance for learners and studied advanced models of a subject-oriented training believe that career guidance helps them understand modern job trends, what kind of new professionals will be in demand, aptitudes and interests, the society in which they live, and the economy in which they function. They have determined 4 main tendencies:

- Focus on a range of profession rather than on a certain career;

- Orientation to specific professional sphere relevant to a particular person, i.e. more suitable for him;

- Orientation to promising professions that will meet the labor market demands;

- Prior consideration of learners' professional interests, abilities, inclinations, and aptitudes to help them determine their career path (4).

Subject-oriented or industry-specific training plays a vital role in mastering of learners' vocational self-determination. The implementation of subject-oriented vocational training allows widening opportunities for applying person-centered and outcome-based approaches and leads to the improvement of cooperation between schools and institutions of vocational education.

The introduction of the subject-oriented or industry-specific training is one of the major aspects of ongoing reforms. Subject-oriented or industry-specific training is considered as a system of occupational training aimed at learners' personalization, differentiation and socialization. The choice of specialization (major) by an educational institution is mainly determined by the degree of cooperation between society and institutions of vocational education. The development of elective educational program is one of the directions of this cooperation. Representatives of society, authority, business, professional association can and must take an active part in the implementation of industry-specific training objectives.

3 Results and Discussion

The aim of the career guidance policy articulated by S.N. Chistyakova (1983) correlates with modern educational objectives: "to support and master those abilities and skills that are necessary for future successful career, self-knowledge, social cognition, adequate self-assessment and all-round development of an individual (9).

Here are the main directions of career guidance in comprehensive secondary schools:

- To provide information about the specific of certain professions and modern forms of labour organization;

- To study own abilities, inclinations and their correspondence with future careers;

- To master personal traits required for successful career in the future;

- To support career guidance for 8-9 and 10-11 form students and to help them in their vocational self-determination and further educational path;
- To arrange and carry out probation periods for students of 8-9 forms;
- To support subject-oriented/industry-specific classes and courses and provide them with consultation service;
- To organize and run social activities together with social partners;
- To inform students about the ways for getting vocational education and places where this education can be completed.

It is impossible to differentiate these directions since all events are aimed at solving a range of problems.

New technologies aimed at pedagogical counseling of learners' career guidance are acquired in the system of secondary vocational education and in the Advanced Vocational Training Centers, where some activities on career guidance for people studying in educational organization are carried out. Career guidance is defined (in instructional guidelines on creation and functioning of Advanced Vocational Training Centers) as a system of successive scientifically substantiated activities aimed at assurance of vocational self-determination and individual educational and career path (13).

The number of 6th and 11th form students who will take part in activities held by the Advanced Vocational Training Center (in Kemerovo Region) will increase from 10% in 2019 till 15% in 2021. This increase is specified by order No 485 from 26 November 2018 approved by the Administration Board (Annex 2 to the Concept for creation of the Advanced Vocational Training Center in Kemerovo Region). Thus, 300 learners will have completed their training through job-training programs (first profession) by 2019, 500 people by 2020, and 700 people respectively by 2021 (1).

The number of teachers and training officers who will complete their training in the Advanced Vocational Training Center through professional proficiency programs, according to the approved documentation, increases from 5% in 2019 to 10% in 2021 (1).

Competence, person-centered and activity approaches, as well as individual learning path are fundamentals for choosing and developing the content, forms, and methods of learners' career guidance and their counseling. The personalized and competence learning model takes into account the key conditions of training and helps learners gain more ownership of their learning, increase motivation and commitment to learning. It's a motive force for learners' stronger understanding of what they are capable of, what are the most in-demand jobs and what drives them to succeed.

Thus, learners should not only acquire the basis of their future profession but also be able to adapt to different types of professional activity to satisfy their professional interests in the changing environment of career trends, and develop and perfect themselves throughout their life. Whereby the new role of career and educational guidance is to create favorable social, educational and organizational conditions (content, activity, motivation, outcomes) for learners' vocational self-determination where a learner/a student is

treated as an important member of cooperation and interaction with teachers and tutors.

Material, technical, manpower, social (the cooperation with social partners) resources of the Advanced Vocational Training Center and educational learning materials ensure successful solution of problems concerning career guidance policy and make it possible for pupils of secondary schools, university students, adults and unemployed people to complete a vocational training course (in the most in-demand jobs in a region) through a special crash/ accelerated program.

The image of an ideal vocational guidance system and the level of its development are different in the rest of the world. However, there are 3 required elements in each vocational guidance system:

- Career guidance testing;
- In-plant probation period/on-the-job training in real sectors of economy;
- Information about trends on the labor market;

In-plant probation period/on-the-job training is one of the most efficient forms of career guidance. In-plant probation period/on-the-job training can be defined as a modeling of professional activity in the real working environment, where learners get information and gain work experience in their field of study by "trying their future job/profession on" (5).

The order "About organization and conduction of in-plant probation periods/on-the-job training for learners studying in different educational organizations in Kemerovo region" approved by the Department of Education and Science is aimed at improving quality of training and preparing individuals for the changing workplace of the 21st century. This order is designed to approve "Terms and conditions of in-plant probation periods/on-the-job training for learners studying in educational organizations in Kemerovo Region". It is a comprehensive document developed to specify the legal basis of in-plant probation period/on-the-job training, its durability, the requirements to the content of educational programs, to the teaching staff and educational learning materials. It also determines the number of students and the forms of cooperation among all organizations involved in the training process (16).

Municipal authorities dealing with educational management are responsible for the monitoring of the coordination of all activities carried out by educational organizations involved in career guidance. Institutions of supplementary education, universities and employers are also active participants of these activities (16).

4 Conclusions

Each year thousands of school-leavers after completing secondary school (9th and 11th forms) face the challenge what career (specialty/ major) to choose to succeed in society and be employed in the future. The problem arises because some senior pupils are not informed about labor market changes and trends. They are also unable to decide what professions corresponds to their interests, preferences and personal traits because they do not have specific knowledge about complexity of the workplace, skills, and experience necessary to identify options, explore alternatives, set goals and plan their career.

Thus, the choice of a career is one of the most important and most difficult choices in life. To be successful in choosing the right occupation it is necessary to avoid accidental and ill-considered choices that can have a negative impact on professional and personal maturing. The choice of occupation is an important skill involving an objective analysis of inclinations and talents necessary to understand the professional predispositions and the potential of a person. Learners must be aware of trends on the labor market, requirements to a certain profession and employers' expectations and needs. Knowing in what areas of activity learners have a maximum chance of success, self-realization, and emotional fulfillment, they will be able to choose an appropriate institution for their studies, and will not be tormented by regrets.

Thus, it is occupational guidance which must provide an accurate evaluation of the character, temperament, talents, abilities, professional preferences, strengths and weaknesses of a person; offer guidance on the most effective use of one's most pronounced inclinations; determine the variety of appropriate professions, in which learners can be the most successful. Schools, universities and institutions of secondary vocational education must take joint steps towards coordinated and systemic vocational guidance and developing new educational programs, so that we have a chance to solve problems mentioned above and grow highly sought-after professionals.

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