

APPROACHES TO THE FORMATION OF PUPILS' VOCATIONAL SELF-DETERMINATION IN CHANGING LABOR MARKET CONDITIONS

¹Dmitriy V. Yankin, ²Olga A. Chopik, ³Svetlana I. Posdeyeva, ⁴Oleg Yu. Pokhorukov, ⁵Valery A. Nikolayev, ⁶Vasilii Ya. Sinenko, ⁷Inna V. Shimlina

¹Principal, Secondary School 60, Novokuznetsk, Russia. E-mail: d.yankin@mail.ru

²Doctor of Education, Professor of the Department of Penitentiary Psychology and Penitentiary Pedagogy, Kuzbass Institute Federal Penitentiary Service, Novokuznetsk, Russia. E-mail: mlinisoi@mail.ru

³Doctor of Education, Professor of the Department of Pedagogy and Methods of Primary Education, Tomsk State Pedagogical University, Tomsk, Russia. E-mail: svetapozd@mail.ru

⁴PhD in Education, Director of the Institute of Physical Culture, Health and Sports, Siberian State Industrial University, Novokuznetsk, Russia. E-mail: olegpokhorukov@yandex.ru

⁵PhD in Education, Principal of the Educational complex "Our School", Novosibirsk, Russia. E-mail: mdlab@nshkola.ru

⁶Doctor of Education, Editor-in-chief of the Siberian teacher magazine, Novosibirsk Institute of Advanced Training and Retraining of Education, Novosibirsk, Russia. E-mail: sinenk.vasily@gmail.com

⁷Doctor of Education, Director of the Institute of Pedagogical Education, Siberian State Industrial University, Novokuznetsk, Russia. E-mail: ryabtseva2010@mail.ru

Abstract

The relevance of the study is due to the fact that the world of work is dynamic with dramatic changes underway. Current changes in the labor market are caused by new jobs being created and some professions being no more relevant. Moreover, new career and job trends impose additional requirements for professional qualifications of workers, their mobility, as well as their personal, communication and business qualities. This article considers the impact of the rapid changing labor market on the formation of students' vocational self-determination and aims at developing modern approaches to organization of career guidance in a secondary school where educational and technological cluster are viewed as an integral link of this work. The article provides a brief overview of scientific literature dealing with the above mentioned problem. The paper highlights some social factors affecting the education of a teenager, the development of his personality and vocational self-determination. Upon the theoretical analysis and pedagogical experience of providing this service in schools, the interpretation of the definition of the concept "vocational self-determination in a changing labor market" has been clarified. The authors single out a range of external and internal prerequisites for the formation of students' vocational self-determination in changing market conditions. The focus of this paper is also on pedagogical conditions required for the formation of vocational self-determination in the modern socio-cultural (organizational, conceptual, effective) situation. This research has practical significance, since it presents the ways and different vocational guidance activities used by schools in the Kemerovo region (for example, school No. 60 in Novokuznetsk) in order to solve the problem of the development and formation of students' vocational self-determination and their professional identity in the changing labor market. The experience of implementing an innovative project aimed at vocational guidance and the creation of an educational and technological cluster in cooperation with enterprises and social partners can be in great demand and of great value for the education system.

Keywords: vocational self-determination, vocational guidance, comprehensive secondary school, labour market, innovative project, educational and technological cluster.

INTRODUCTION

One of the leading factors of human self-realization is his professional activity. The real choice of the further occupation confronts a teenager at the stage of graduation from a secondary school. It is the time when the sound choices must be made whether to continue his education at school or join a professional training institution (college) which best chances to find a job.

As our study has shown, among social factors affecting the education of a teenager the development of his personality and vocational self-determination the following are the most significant:

- polarization of the population's income (the division into “the rich and the poor” leads to stratification of society, to the difference in people’s possibilities of consumption, education, professional choice);
- social marginalization (loss of contacts with representatives of their culture, society, community);
- high level of unemployment among economically active population;
- wars, economic, technical and social catastrophes causing the refugee population growth and forced migrants, both adults and children;
- alcohol and drug addiction (substance abuse), criminalization – spreading not only among adults, but also among students;
- malnutrition or low quality of nutrition among a certain categories of the population, insufficient level of protein consumption (of animal origin), vitamins and etc. by schoolchildren.

Overlapping each other, these and other phenomena have an increased impact on demographic and social processes, the formation and development of youth as the most vulnerable social group. Negative socio-economic impact has a range of psychological consequences. The person feels unprotected and experiencing a constant threat (Orekhovskaya et

al., 2019; Kanbul et al., 2021). Besides, individual and social values are devalued; the meaning of education, work and even life might be lost.

One of the leading messages allowing overcoming these negative trends is to change the priorities in the formation of vocational self-determination, which means to draw maximum benefit from providing career guidance to pupils. First of all, vocational guidance should be properly established in schools ensuring pupils’ readiness for lifelong education, including professional choice, professional growth, and professional development adequate to the needs of the changing labor market.

Methodology

Despite the fact that the pedagogical literature pays attention to the problem of the relationship between vocational self-determination and the situation in the labor market and emphasizes its significance, we have identified that such work is insufficient, especially in relation to general education schools.

In addition to the above mentioned social problems affecting pupils’ vocational self-determination, we have identified a range of other factors related to vocational guidance work. First of all it is the socio-economic situation in the labor market associated with the emergence of new professions and the withering away of previously existing jobs and insufficient preparedness of teachers to provide support to pupils in their vocational self-determination in these new socio-economic conditions. Moreover, there is a lack of a psychological, pedagogical support and rendering personal vocational guidance to help pupils with their vocational self-determination which is the basis of educational guidance. It is necessary to emphasize that the cooperation with all essential forces including social partnership between schools and specialists is also underestimated.

Upon the analysis, we have come up with the idea that to make progress in pupils’ vocational self-determination it is necessary to consider some current realities which include: ongoing

changes in the forms of ownership (state, cooperative, private and joint-stock); change in relations – the transition to market relations of new professions and specialties, the acquisition of new functions of the previous professions; unemployment and peculiarities of female labor; using the experience of the regions, laws aimed at revealing the talents of the individual, its full self-realization, social adaptation, stability and prosperity of Russia.

In their works, A. Marshall (1993), J. Schumpeter (1982), S.A. Kartashov and Yu.G. Odegov (1998), K.G. Kazimov (2014), A.R. Masalimova and A.R. Shaidullina (2016), A.R. Shaidullina et al. (2018), M. Valco et al. (2019) etc. consider such complex aspects as the labor market and the cooperation of all social partners in changing labor market conditions.

Meanwhile, the unity of views on the definition of the concept “labor market” has not been achieved yet. Interpretations of this concept are usually associated with such interrelations as “market - mechanism, market - economic or geographic space, market - system of relations” (Kazimov, 2014: 76). K.G. Kyazimov defines “the labor market” as “a system of relations and a mechanism of interaction between employers, employees and social partners through agreement on condition for the formation, distribution, exchange and employment of labor” (Kazimov, 2014: 417).

J. Schumpeter (1982) states “... that a person cannot sell his own labor”. Therefore, to describe the subject of transaction, he uses the term “labor services”, and calls the market “the labor market” (Schumpeter, 1982).

Despite the development of the labor market according to the law of supply and demand similar to any other markets, it has its own features, differences, factors affecting its development. The goods (commodity) market is influenced mainly by economic factors, while the labor market can be affected by social, political, demographic factors and etc.

As K.G. Kazimov (2014) claims, that final goals of the labor market are: “to meet the professional and vital interests of the population, including the supply of labor, national security and defense; to achieve full, efficient and freely chosen employment” (Kazimov, 2014: 77).

The results-based monitoring and public opinion poll have clearly demonstrated how professional and vital interests of the population are really satisfied, i.e., whether the functions of reproduction of labor-power are achieved (including its formation, industrial distribution and etc.). For example, a public inquiry conducted by the All-Russian Center for the Study of Public Opinion (VTsIOM) has shown that 47% of Russians do not work within the profession they were trained for; 28% of Russian citizens have never tried to work in the careers they have acquired; 30% of the survey participants explained their refusal to work within specialty after their graduation by impossibility to find an appropriate job; only 20% of the respondents believe that the change of their career helped them to find themselves (Arguments of the week, 2019).

The opinion poll conducted by specialists from the National Research University Higher School of Economics among students who are studying at Russian universities demonstrated that only 28% of students want to work in the commercial sector (managers, analysts, private clinics, schools, universities); 19% of the respondents plan to become top and middle-ranking managers in private companies, 13% hope to be entrepreneurs, 10% of students want to work in the academic scientific field (Arguments of the week, 2019).

At the same time, the current labor market has a great demand for salesmen, drivers, auto mechanics, cooks, laboratory assistants, carpentry masters, and etc. The future generation needs to be better educated and trained to be ready to change their occupation several times in a lifetime. The results of the analysis made by domestic and foreign scientists demonstrate a tendency existing in the labor market which is associated with the need to change the professional sphere or career approximately every 7-10 years.

To be successful in vocational guidance work, it is important to collect information about the forecast of vocation trends, to follow the changing requirements of the labor market (employers), to navigate new emerging professions or vocations that may appear on the labor market (“professions of the future”), to be aware of advantages and prospects of employment in the region of the person’s residence.

Authors of the "Concept of vocational self-determination support to students in the context of continuous education"(The concept, 2015) note, that at the beginning of the XXI century it is necessary to focus on the formation of person's professional mobility associated the "with the need for continuous renewal of employee's professional competence, mastering new general and professional competencies in his own field of occupation as well as in related areas of professional activity" (The concept, 2015).

We consider vocational self-determination in close relationship with the labor market and therefore, study and analyze pedagogical literature, education programs, syllabuses, regulatory and legal documents related to this issue.

The change in approaches to vocational self-determination is reflected in fundamental documents such as the Federal State Educational Standard (FSES) of General Education and the Federal State Educational Standard of Secondary General Education. Both federal government standards represent a set of requirements which implementation contributes to the development of secondary education in the Russian Federation. FSES of General Education describes the individual's characteristics of a graduate which include guidance in the world of vocations, comprehension of the importance of professional activity importance for sustainable development of society and nature (Federal State Educational Standard, 2010). FSES of Secondary General Education states "a conscious and sound choice of a future profession (occupation), individual's possibility to realize his own life plans as well as his attitude to occupational activity as an opportunity to participate in solving personal, social, state, national problems" (Federal State Educational Standard, 2012)

The concept of long-term socio-economic development of the Russian Federation until 2020 claims, that the close relationship between vocational guidance and labor markets is the most important and essential component of ensuring steady improvement of innovative economy (Tastan & Davoudi, 2017). In pursuit of this goal, the concept formulates forms and mechanisms that are necessary "to develop a system of vocational guidance and

psychological support to the population, including pupils' vocational guidance, to increase their motivation to work in chosen professions, to help them to have a satisfactory vocational adjustment, to give adequate information regarding the world of work around them and the demand for professions on the labor market" (A concept for the long-term socio-economic development of the Russian Federation, 2011).

Many scientists emphasize the need for systemic changes in the career guidance that must be aimed at learners' vocational self-determination in the context of socio-economic changes to achieve maximum success and satisfaction in their future vocation. S.N. Chistyakova (2017) in her research insists on changing approaches, methods, technologies, and techniques in order to help pupils in their vocational self-determination and achieve the highest quality careers education, information, advice and guidance services.

The author considers problem-related, scientific-research, data-driven, project, contextual, simulation (modeling), productive approaches as the most adequate in modern conditions (Chistyakova, 2017: 10-14).

According to the definition accepted by scientists in the analysed scientific literature, "vocational self-determination is a kind of self-determination associated with personal, social, life and other types of self-determination. Direct evidence of this fact is the concretization of the concept of "vocational self-determination" in psychological and pedagogical research.

N.S. Pryazhnikov (2003) defines vocational self-determination as the process of "searching for personal meaning and finding it in the chosen, acquired, mastered and performed labor activity, as well as the process of finding meaning in the process of self-determination" (Pryazhnikov, 2003). S.N. Chistyakova and N.V. Rodichev (2012) consider vocational self-determination as "the process of forming a personal attitude to professional and labor activity and a way of self-realization and coordination of individual and socio-professional needs as a necessary condition for personal and life self-determination" (Chistyakova & Rodichev, 2012). E.A. Klimov understands vocational self-determination as "an important manifestation of mental

development, an active search for opportunities enabling the development, formation of a person as a fully valid member of a professional community” (Dolgushina & Yurevich, 2013).

As noted in the reference pedagogical literature “vocational self-determination” is “one of the forms of personal self-determination. It characterizes the process of searching for a career and acquiring it which is carried out as a result of analyzing individual’s abilities and capabilities in relation to vocational needs and requirements” (Encyclopaedical dictionary in psychology and pedagogics, 2013). In this definition, vocational self-determination is presented as one of the forms of personal self-determination. In the context of the research topic, it seems important to define this concept as a process because of its complex nature which participants are not only schools, but also institutions of secondary vocational education (SVE), higher education (HE), additional education (DL), as well as industrial enterprises as the subjects of regional labor market.

Many scientists highlight insufficient connection between the pupils’ vocational self-determination and the situation in the labor market as one of the most critical problems of education. For example, Z.Kh. Valitova (2016) and her colleagues point out that due to its specifics, the educational services market (including vocational guidance activities in the context of the educational process) is not ready to respond rapidly to changes in the labor market. According to E.P. Tavokin (2016) “insufficient adjustment of young people to the needs of the labor market after their graduation has a negative impact on the development of the production sector”.

It should be noted that among factors affecting the choice of future occupation are not only socio-economic changes in the country, but also the transformation of the value system of society in general, and the younger generation, in particular. Despite the fact that the overwhelming majority of school graduates associate their future with university education, “a certain number of young people are ready to live without working – regardless of the source of income, which implies the admissibility of a welfare mentality, as well as participation in a shadow and openly criminal employment” (Kolesnikova, 2018). With reference to the above mentioned, the problem of vocational

self-determination of youth in the context of constant changes in the socio-economic conditions in the country, new labor market needs and increasing requirements for employers’ professional training becomes both pedagogical and social, and therefore requires more attention from society, government and employers.

It is necessary to mention some changes in approaches to pupils’ vocational self-determination, driven by competitive business environment. These approaches are focused on meeting employers increased requirements to the workforce quality (personal trait, professional skills, competencies, health, professional mobility, willingness to work in a situation of a labor market uncertainty, as well as to be efficient in extreme situations).

The external prerequisites for the formation of vocational self-determination include: socio-economic processes taking place in the society; labor market and its state; the level of production technology development; business situation and its modern business trends; legal environment of modern business; informational support and computerization of economic and production processes; internationalization and labor mobility, etc.

Internal prerequisites constitute: increased amount of educational information necessary for students’ acquisition; growing need for information technology in education; the creation of a professionally-oriented learning environment; the formation of backlogs of orders for high-skilled workers and specialists.

Upon the analysis of scientific literature related to the problem of vocational self-determination and practical experience of pedagogical activities, we have formulated our own vision and view on the problem of vocational self-determination of pupils studying at general education schools in changing labor market conditions.

We consider pupils’ vocational self-determination in changing labor market conditions as a multicomponent (complex) process of joint activities and collaboration (of general education schools, institutions of secondary vocational education, higher education, extended education, authorities, parties (participants) of a regional labor market) ensuring the readiness of the individual for

lifelong education throughout his life including: occupational choice, career development, professional growth, desire and motivation to master new professional competencies with the possibility of changing the field of professional activity with due regard for the individual's characteristics, personal qualities, professional intentions and achievements that are adequate to the trends and needs of the regional labor market, including those focused on careers of the future.

The formation of pupils' vocational self-determination in the changing labor market is aimed not only at creating conditions for ensuring the graduate's readiness for successful vocational adjustment, but also at making changes in the of vocational guidance work with the identification and selection of approaches, forms, methods, technologies that are adequate for the modern education system.

Results and Discussion

The analysis of the problems related to the vocational self-determination formation of pupils studying at municipal budgetary educational institution "Secondary school No. 60" (hereinafter school No. 60) in Novokuznetsk made it possible to identify the problems associated with vocational self-determination at the secondary schools stage in the context of changes in the regional labor market and to determine the particular ways to overcome and minimize them. The review of steps and stages is presented in Table 1.

Table 1. *Problems of vocational self-determination formation of students studying at secondary school No. 60, Novokuznetsk*

<i>Problems of pupils' vocational self-determination formation</i>	<i>Opportunities to overcome negative tendencies</i>
Imperfection of pre-subject oriented instruction (industry-specific training), insufficient use of the principle of individuality in subject-oriented instruction	Provision of the greatest personal orientation and education flexibility, differentiation and individualization.

(industry-specific training)	
Poor knowledge of the regional labor market by students and their parents	Awareness created by students and their parents of the modern labor market through increasing number of vocational guidance activities and services
Insufficient level of motivation to participation in the competitive and Olympic movement of students having low learning outcomes and low self-esteem	Planning of participation of students with low learning outcomes in vocational skills contests, professional tests, creating a situation of "success" at these events.
Frequently negative parents' attitude towards child training in the system of secondary vocational education (SVE)	Social partnership between a general education institution and vocational educational organizations (VET), free access to information being provided
Passive attitude of some school teachers to the exchange of experience in vocational guidance work and innovations	Person-centered approach to each teacher, methodological support through in-house (in-company) advanced training.

The solution of the above mentioned objectives can be solved through integrated (comprehensive) approach to vocational guidance management in schools. "Regulations on vocational guidance" for School No. 60", developed by school No. 60 in Novokuznetsk, defines not only goals, objectives, directions, principles of vocational guidance, but also offers some important mechanisms for its implementation and rendering, based on close cooperation of all the essential forces including higher education institutions, secondary vocational education institutions, heads of enterprises (companies, organizations) and secured by clear distribution of authority among all subjects of interaction.

Such guidance, if properly established, allows securing continuity between general and vocational education, creating conditions for a differentiated transition to the educational process with a wide and flexible range of opportunities for pupils to build their individual educational programs and helps them to have a

satisfactory social adaptation and vocational adjustment in modern economic conditions.

The systematization of the work between the teaching staff working at secondary school №60 and pupils studying there and their collaboration took place within their joint participation in developing and implementing the innovative project "Formation of vocational self-determination of pupils studying at a secondary school in the educational and technological cluster system". The goal of the project was to study, to substantiate and implement the process of vocational self-determination formation of students studying at a comprehensive secondary school under regional labor market conditions.

To achieve the desired goal, the following tasks were specified:

- to conduct a theoretical and pedagogical analysis of the vocational self-determination formation of students studying at a comprehensive secondary school in Russia and foreign countries; to identify the educational potential of an effective career guidance experience for mass general education practice;

- to find out the influence of the labor market on the formation of vocational self-determination;

- to develop a system of vocational guidance for students studying at a comprehensive secondary school in conditions of the regional labor market through creating an educational and technological cluster on the basis of an educational institution;

- to determine a range of pedagogical technologies required for the vocational self-determination formation in the context of cooperation among all the essential forces including general educational institutions and social partners and assurance of the continuity of forms, methods, techniques of vocational guidance in the partnership system consisting of a general education school – an institution of secondary vocational education, a general education school – a university, a general education school – an enterprise, a comprehensive school – social partners;

- to carry out experimental work aimed at vocational self-determination formation of students studying at a comprehensive secondary school in the modern socio-cultural situation;

- to develop scientific and methodological recommendations for the formation of vocational self-determination;

- to create an educational and technological cluster.

Upon the goals and objectives set in the project, it is possible to devise the frequency (schedule) of activity stages for teaching staff (working at a general education institution (in the table - EI)) that is responsible for the implementation of the developed project. This should be done in cooperation with universities, vocational educational organizations (in the table - VET), supplementary education establishments, industrial enterprises, social partners. The stages of the project implementation are presented in Table 2.

Table 2. *Stages of innovative project implementation called "Formation of vocational self-determination of secondary school students in the educational and technological cluster"*

№/ №	Stages of innovative project implementation	Content of activities
1.	Diagnostic (2018)	<ul style="list-style-type: none"> - study and analysis of regional labor market conditions; - study and analysis of EI teaching staff readiness to acquire and master modern technologies necessary for the formation of vocational self-determination; - the choice of adequate pedagogical technologies for the formation of vocational self-determination in the regional labor market system - study of the functional capability of cluster-network forms of cooperation: EI – university; EI – VET; EI – industrial enterprise; EI – social partners.
2.	Organizing (2019, first half-year period)	<ul style="list-style-type: none"> - study of the theoretical and methodological foundations of the formation of vocational self-determination of students studying at a comprehensive secondary school in Russia and abroad, the identification of the educational potential of effective experience for mass general education practice; - selection of modern pedagogical technologies for the formation of vocational self-determination.

3.	Predictive (forecasting) (2019, second half-year period)	<ul style="list-style-type: none"> - participation in the development and implementation of the educational and technological cluster model in cooperation with VET, universities, employers and social partners; - planning a range of measures of vocational guidance; - development of effective forms of advanced training for teachers in accordance with the topic of the innovation project
4.	Activity stage (2020-2021)	<ul style="list-style-type: none"> - development of the concept, content of activities and scientific and methodological recommendations for the formation of vocational self-determination in changing labor market conditions; - implementation of a set of measures of vocational guidance in accordance with the approved plan; -institutionalization of school activities in framework of the project implementation in the educational institution of a municipality and a region.
5.	Summary stage (2022)	<ul style="list-style-type: none"> - analysis of results of the team members' performance on the formation of vocational self-determination in the regional labor market system; - preparation and publication of teaching aids and scientific and methodological recommendations with generalized materials and post-implementation review of the project activities; - dissemination of the work experience on the topic of an innovative project.

The innovative project as well as a range of measures will not be successful unless a system of psychological and pedagogical support for the vocational self-determination of students is developed. The main idea of this vocational self-determination is to put the individual in the center of this process and to make him the major player in it.

Formed competences enable a young person to reach successful adjustment to the constantly changing labor market conditions, to be aware of the regional vocation needs and be ready for socio-economic instability. The teaching staff of a general educational organization should be aware of positions and jobs available and their requirements, type of assistance that must be given to an individual in solving problems related to occupational choice and progress with due regard for the individual's characteristics. They should also understand that the primary school is the crucial stage for rendering vocational guidance to pupils.

At present, pupils are involved in projects such as "Ticket to the Future" ("Agency for the Development of Professional Communities and Workers" Young Professionals"), "Vocational Guidance in the Digital Age" (Russian movement of schoolchildren) that are aimed at early vocational guidance. Within the framework of the project, various vocational guidance events are organized and carried out:

- monitoring of school leavers' self-determination and their opinion poll;

- research and practical conference "My professional career";

- defense of the project called "Skill Steps";

- professional tests on the basis of secondary vocational schools and universities;

- university and college taster days;

- vocational guidance excursions, etc.

Along with the above listed events, new forms, methods, technologies of vocational self-determination have been developed and tested. Among them are TED laboratories, master classes, role-playing and business simulation games, quests, round tables, virtual excursions, participation in "Young Professionals" contest (WorldSkills Russia), meetings with employers, young and experienced specialists.

Schools are responsible for the development and implementation of new forms of cooperation and interaction with partners, vocational educational organizations and industrial enterprises within the educational and technological cluster.

The main directions of vocational guidance are the pre-industry specific training and subject-oriented instruction, including professional tests on the basis of vocational educational organizations and industrial enterprises.

Secondary school No. 60 in Novokuznetsk has developed a model for the formation of vocational self-determination of students in the

context of pre-industry specific training and subject-oriented instruction. This model contains conceptual foundations and distinguishes external and internal factors affecting the vocational self-determination of students (external – social factors and internal – from the side of the child). The model also specifies the main requirements for curricula and education programs used in pre-industry specific training and subject-oriented instruction. The main directions, forms and methods that contribute to vocational self-determination, as well as organizational and pedagogical conditions for assisting pre-industry specific training and subject-oriented instruction have been determined. To identify and evaluate the efficiency of vocational self-determination of students in the context of pre-industry specific training and subject-oriented instruction, some special criteria and indicators have been developed. They are essential not only for evaluating the merits and demerits of vocational guidance but also for the benefit of the individual concerned.

Issues of vocational guidance and self-determination are addressed in a comprehensive manner at regional and municipal levels. For example, in the Kemerovo region, Governor's Order approves an annual plan of vocational guidance. The order of the Department of Education and Science of the Kemerovo Region approves a range of relevant documents such as the "Regulations on the Student's Portfolio in General Education Organizations of the Kemerovo Region" (Order of the Department of Education and Science of the Kemerovo Region, 2018), "Regulations on organizing and conducting professional tests for students of educational institutions of the Kemerovo region" (Order of the Department of Education and Science of the Kemerovo region, 2017) etc.

A special program for vocational guidance and self-determination of students in educational organizations for 2018-2023 has been developed in the municipal education system of Novokuznetsk. Pedagogical teams (school staff) of educational organizations are responsible for the program implementation. The purpose of this program is to form students' internal readiness for a conscious and independent choice of professional activity through the development of an effective system of vocational guidance and self-determination with

regard to the socio-economic situation of the region (Solovyova, 2018).

Thorough study of effective practices of vocational self-determination under the condition of close interaction and cooperation with partners (VET, universities, supplementary education establishments, industrial enterprises) allowed us to identify the following pedagogical conditions for the formation of vocational self-determination of pupils in modern socio-cultural situation:

Organizational conditions:

- systematization of teaching staff performance in order to determine the regional / municipal labor market needs through the creation of a vocational guidance center in schools;
- the creation of interaction and cooperation system among general education schools, secondary vocational education institutions, preschool education, universities and enterprises which is implemented in the process of developing and introducing cluster-network forms;
- the creation of a system of educational and methodological work with subject teachers and class teachers for organizing vocational guidance work with students that is carried out through the implementation of a single methodological topic, the development of innovative projects and programs, the revision of elective courses, review of plans for educational guidance, the development of a range of measures for vocational guidance and etc.

Content-related conditions:

- the main directions of activities aimed at vocational self-determination formation are as follows: professional education, continuous psychological and pedagogical support to students, the conduction of professional tests in cooperation with institutions of secondary vocational education, higher education, preschool education, and enterprises;
- creation of a system for searching and testing new effective forms and technologies of vocational guidance services which include: TED-laboratories, master classes, role-playing and business games, quests, scientific and practical conferences devoted to career

guidance, round tables, virtual excursions, participation in the events such as "Young Professionals" (WorldSkills Russia) contest, meetings with employers, specialists, young professionals, defense of projects, professional tests on the basis of institutions of secondary vocational education, preschool education and universities, university and college taster days, applicants' days, etc.

Effective conditions:

- ☐ high percentage of students studying in grades 8-9 and 10-11 who have passed professional diagnostics;
- ☐ high percentage of students and parents who have taken part in professional counseling;
- ☐ "high percentage of school leavers who continue their studies in vocational educational institutions of a certain municipality;
- ☐ high percentage of students who have chosen priority professions and careers in demand by the municipality" (Kilina, 2018);
- ☐ high percentage of students participating in career guidance activities related to "the world of professions, career opportunities, needs of the region for high-qualified personnel and prospects of the labor market ..." (Model regulation, 2017).

The following measures and activities made it possible to improve significantly the quality of vocational guidance work, to perform wise and experienced leadership, to reach the individual students optimum educational development and contribute to the vocational self-determination of students in the system of the regional labor market: (1) set (combination) of all pedagogical conditions, identified and verified in the course of the conducted experiment, necessary for the formation of vocational self-determination of pupils in the modern socio-cultural situation; (2) unification of institutions and organizations involved in the system of vocational guidance work; (3) creation of an effective management system for vocational guidance work in schools; (4) approbation of new effective forms, methods, technologies utilized in vocational guidance work, and (5) the creation of a career guidance center on the basis of the secondary school.

Conclusion

To sum up, at the secondary schools stage the vocational self-determination is most needed and the scope of this particular type of guidance is vast. Its solution requires a complex approach to vocational guidance work which includes: continuity between general and vocational education; the creation of conditions for a differentiated transition to the educational process with broad and flexible possibilities for developing individual educational programs; access to relevant, reliable and complete information about options; social adaptation in modern economic conditions; the development of innovative projects and follow-up programs for proper pupils adjustment to new vacations; career guidance activities helping the pupils in entering into new careers by giving adequate information about the employment opportunities and getting them well acquainted with the current trends of employment market and the demand and supply position.

The basis of the guidance work progress and its efficiency is the creation of a relevant search and testing system of new effective forms and technologies of vocational guidance work. The essential condition to progress in vocational guidance is to establish close cooperation among educational institutions, industrial enterprises, science, government in the context of social and public-private partnership and cluster-network forms of interaction.

The combination of the developed measures and the results obtained help in solving problems related to occupational choice and ensure skilled and sensitive vocational guidance in school education systems in the context of network and cluster interaction among educational organizations, enterprises, and social partners. It also contributes to coping with problems of education modernization and pupils' progress with due regard for the individual's characteristics and their relation to occupational opportunity and vocational self-determination in a changing labor market.

Reference

- [1] A concept for the long-term socio-economic development of the Russian Federation until 2020 (2011). A concept approved by the order of the Government

- of the Russian Federation from 8 December 2011, n. 2227-p. URL: <http://www.rtp.ru/node/506>. (access date: 04.09.2021).
- [2] Arguments of the week. (2019). The future is not for everyone. Arguments of the week, 19(663), 6-8.
 - [3] Chistyakova, S.N. & Rodichev, N.F. (2012). From studies to employment career. Moscow: Publishing center «Academia».
 - [4] Chistyakova, S.N. (2017). Systemic organization of pedagogical support for learners' vocational self-determination in the environment of socio-economic changes. *Kazan pedagogical journal*, 1, 4-14.
 - [5] Dolgushina, T.N. & Yurevich, S.N. (2013). Vocational self-determination as a component of professional personality development. *Scientific and theoretical journal*, 3(4), 101-107.
 - [6] Encyclopaedical dictionary in psychology and pedagogics. (2013). Vocational self-determination. URL: https://psychology_pedagogy.academic.ru/13776/ (access date: 04.09.2021).
 - [7] Federal State Educational Standard. (2010). Federal State Educational Standard of General education (5-9 forms) (approved by the order of the Ministry of Education of the Russian Federation from 17 December 2010 r. № 1897). URL: [http:// Ministry of Education of the Russian Federation](http://Ministry of Education of the Russian Federation) (access date: 04.09.2021).
 - [8] Federal State Educational Standard. (2012). Federal State Educational Standard of Secondary General Education (approved by the order № 413 from 17 May 2012 by the Ministry of Education and Science of the Russian Federation). URL: [http:// Ministry of Education and Science of the Russian Federation](http://Ministry of Education and Science of the Russian Federation) (access date: 04.09.2021).
 - [9] Kanbul, S., Zaitseva, N.A., Ikonnikov, A.I., Kalugina, O.A., Savina, T.N., & Evgrafova, O.G. (2021). Determining expert opinions of the faculty of education on the development of distance learning course. *International journal of emerging technologies in learning*, 15(23), 52-62, DOI 10.3991/ijet.v15i23.18783
 - [10] Kartashov, S.A. & Odegov, Yu.G. (1998). Labor market: problems of formation and management on the example of Moscow. Moscow: Finstatinform.
 - [11] Kazimov, K.G. (2014). Labor market and employment of the population. Moscow: MIK.
 - [12] Kilina, I.A. (2018). Basics of vocational guidance science. Presentations of the head of the Vocational Guidance and Post-Residential Care Center. Kemerovo: State Institution of SVE «KRIRPO».
 - [13] Kolesnikova, O.A. (2018). Vocational self-determination of young people: performance review and ways of improvement. *Bulletin of Voronezh Institute of High Technologies*, 4(27), 148-152.
 - [14] Marshall, A. (1993). Principles of Economics. Moscow: Progress.
 - [15] Masalimova, A.R. & Shaidullina, A.R. (2016). Study of International Mentoring and Coaching Practices and their Constructive Application in the Russian System of Corporate Education and Training. *International journal of environmental & science education*, 11(8), 1797-1806.
 - [16] Model regulation. (2017). Model regulation of activities for learners' vocational guidance in general education institutions of Kemerovo Region. URL: <http://www.krirpo.ru/activity> (access date: 04.09.2021).
 - [17] Order of the Department of Education and Science of the Kemerovo Region. (2018). On the approval of the Regulations on Learner's Portfolio (cumulative files) of educational institutions of the Kemerovo region. Order of the Department of Education and Science of the Kemerovo Region of 12.01.2018, n. 42. URL: ...
 - [18] Order of the Department of Education and Science of the Kemerovo Region. (2017). On the approval of the Regulations on the organization and conduction of professional tests by students of educational institutions of the Kemerovo region. Order of the Department of Education and Science of the Kemerovo region of 20.12.2017 No. 2282. URL: www.kkcr.pf/attachments/article/57/poloj-enie_ob_organizazii_i_provedenii_professional_nyh_prob.pdf. (access date: 04.09.2021).
 - [19] Orekhovskaya, N.A., Chistyakov, A.A., Kryukova, N.I., Krokhina, J.A., Ospennikov, Y.V., & Makarova, E.V. (2019). Orthodoxy and Modernity their

- Contact Facets in Russian Society. *European Journal of Science and Theology*, 15(2), 67-77.
- [20] Pryazhnikov, N.S. (2003). The methods for promotion of vocational and personality self-determination. Voronezh: MODEK.
- [21] Schumpeter, J. (1982). The theory of economic development (an inquiry into profits, capital, credit, interest and the business cycle). Moscow: Progress.
- [22] Shaidullina, A.R., Zakirova, V.G., Kashurnikov, S.N., Arestova, E.N., Shmidt, A.N. & Kovaleva, N.I. (2018). Students training for innovative entrepreneurial activity: social responsibility competences. *Espacios*, 39(02), 15-26.
- [23] Solovyova, Yu.A. (2018). Municipal education system of the city of Novokuznetsk. Novokuznetsk: Изд-во.
- [24] Tastan, S.B., & Davoudi, S.M.M. (2017). The Relationship between Organisational Climate and Organizational Innovativeness: Testing the Moderating Effect of Individual Values of Power and Achievement. *International Journal of Business Innovation and Research*, Inderscience Publishers, 12(4): 465-483.
- [25] Tavokin, E.P. (2016). Russia's youth at the labor market from experts' view. Public opinion survey: Economic and social changes, 2, 175-184.
- [26] Valitova, Z.K. (2016). Profession hierarchy from the perception of pupils from Kazakhstan. *Sociological research*, 1, 125-131.
- [27] Valco, M., Petro, M., Kardis, M., Shagieva, R.V., Kuznetsova, M.A., & Kryukova, N.I. (2019). Ecumenical Trinitarian Reflections and the 'De Regnon Paradigm': A Probe into Recovering the Social-Trinitarian Emphases of the Cappadocian Fathers. *Konstantinove Listy-Constantines Letters*, 12(1), 76-89. DOI: 10.17846/CL.2019.12.1.76-89