Professional self-determination of students in the implementation of competency-based learning in vocational education

Autodeterminación profesional de los estudiantes en la implementación del aprendizaje basado en competencias en la educación vocacional.

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ABSTRACT:
In accordance with competency-based approach to education in the process of professional development, a specialist should be able to create something new in his/her profession, even if on a small scale. Professional self-determination is viewed by researchers both as a process and a result of personal development, each stage of which is characterized by different content. The solution to the problem of professional self-determination of an individual today is carried out in two directions: theoretical and practical. Recently the interest of vocational education institutions to the problem of self-determination of students has increased. This is due to the fact that the timely and informed choice of a career, a specialty of training is the guarantee of both the personal success of future specialists and the sustainable development of society. The main characteristics of self-determination as a psychological and pedagogical phenomenon are subjectivity, processuality, consciousness and independence. Thus, self-determination is a conscious, self-directed, purposeful
1. Introduction

The goals and objectives of modernization of education system in Russia are determined by the orientation of the country's economy towards the development of high-tech industries, regional and national labor markets and the need for advanced vocational training of workers and specialists in market conditions. The foundation of the competency-based approach on which the third-generation State Standards for vocational education rely is the culture of self-determination. In accordance with this approach to professional development, a specialist should be able to create something new in his/her profession, even if on a small scale (new technique, method, etc.), to bear independent responsibility for the decision-making, to determine goals based on own values (Skvortsov, 2017).

The period of study in vocational education institution is the most important in the life of a future specialist, since it is at this time that a young person becomes a participant in industrial relations, forms his/her views on the career choice, changes the system of values, motivations for professional activity. Vladimir Putin, speaking of the importance of the system of vocational education, urged to orient it to the needs of entrepreneurship and industry: “Training in vocational colleges or technical schools today has actually become an intermediary before entering a university, therefore the very meaning of vocational education is lost, and its main purpose is only reproduction of mid-level skilled personnel” (Suhodtseva, 2017).

These circumstances determine the need for qualitative changes in functioning of the system of vocational education, the search for ways to intensify it, formation of a competitive, socially mobile, professionally independent specialist, able to implement not only the accumulated experience of previous generations, but also own creative potential in designing, creating and developing new technologies, production equipment, technology and services.

Of course, strengthening of personal responsibility for asocial and professional career should be accompanied by strengthening the responsibility of an educational institution for the quality of vocational training. The growing role of an individual in the formation of personal “educational routes” requires educational technologies that enable one to activate personal capacities, to give a student an opportunity to express interest in professional development, to provide freedom and choice. However, according to expert opinions, vocational education institutions still adhere to the traditional knowledge paradigm, where a student is the object of influence, which leads to a lack of initiative, irresponsibility and infantilism. Creating the conditions for successful self-expression and self-realization of every student, identifying and realizing potential opportunities have not yet become a common practice.

According to scientists and practicing educators, it is possible to solve these problems from the standpoint of self-developing pedagogical systems that determine main activities of educational institutions, employers, and entire professional community to ensure the quality of the professional environment in general and in the vocational education in particular. The most important factors of these activities are:

- strengthening of professional self-determination, active position of students in the expression of their interests, and their orientation towards professional and creative
2. Methods

According to researchers (Kolchina, 2015; Nikitina, 2016; Sokolova, 2013), self-realization in modern education is a priority, correlating and integrating many different personal values. At its core is the understanding of human as the highest inherent worth, which is the necessary basis for the existence of all other values. The value of self-realization is existential and has a crucial meaning in the life of a person. Experimental and theoretical studies carried out in Russia and other countries have convincingly shown that various parameters of a person’s life self-determination fulfill an essential function in the regulation of professional self-determination (Volkov et al., 2008; Skvortsov, 2016; Ulyanchenko, 2007).

Professional self-determination is considered by researchers both as the process and as the result of professional development, each stage of which is characterized by different content. A particularly important role is given to early adolescence since it is precisely at this time that the problem of choosing a career becomes the main challenge for a young person (Kolchina, 2009).

The solution to the problem of professional self-determination of an individual today is carried out in two directions: theoretical and practical. In theoretical studies scientists try to answer the questions concerning the essence of professional self-determination, its structural components, principles and approaches to the study of this phenomenon. Practitioners develop pedagogical conditions, select educational technologies and facilities, develop and implement models of the most effective professional self-determination of students at various levels of education. Both theoretical researchers and practical educators believe that a high level of professional self-determination is observed only in a small proportion of secondary and vocational school graduates. This fact leads to the low percentage of students and graduates staying in the profession, social and economic losses of state and society. Therefore, it became necessary to develop proper conditions for professional self-determination of young people, as well as to develop adequate methods for its implementation. This research is currently taking place in several directions, including the study of pedagogical conditions of students’ research activities as a factor in professional self-determination of future specialists (Oreshkina, Tsibizova, Nosova, 2015).

In the conditions of transition to high-tech economy, society determines the social order for training specialists with the skills to solve complex problems, ability to determine the level and prospects for the development of scientific and technical creativity. Constant updating of information flow, new discoveries, and rapid change of technologies also orientate vocational education to the new level of development of science and technology, the formation of students' research style of thinking, active intellectual activity. In this regard, the use of research work as the basis for building educational technologies creates conditions for the development of students' most important tool for the operational knowledge of reality—the ability to perceive and assimilate not only the amount of ready-made knowledge, but the methods of acquiring new knowledge in conditions of a rapid increase in their volume (Kolchina, 2013).

However, developing research activities of students as a mandatory element of vocational training is a fairly new direction in vocational education, since in previous years, it was considered the prerogative of higher education and the most talented students. Traditionally in vocational institutions, students’ research activities were directed to practical educational
result. Such activities were considered one of the forms of educational process, but not the way of self-development and self-realization of the essential capacities and abilities of a future specialist (Nikitina, 2016).

Considering the above mentioned provisions, we can assume that the quality of graduates’ professional training and the level of their professional self-determination could be determined by the following conditions: how successfully the independent research activity of students is organized, to what extent it meets the requirements of scientific research and upcoming professional activity, and also in what way it is related to the potential employment of graduates. The activities of an individual in professional self-determination and research activities have the same organizational and psychological characteristics and methodological grounds. These grounds are the anticipation of a result, awareness of the possibility of its achieving, availability of appropriate means and orientation in interpersonal relations, evaluation of the process and results of activities, solving general organizational problems.

3. Results

The quality of education in a broad sense is understood as balanced compliance of education (as a result, as a process, as an education system) to diverse needs, goals, requirements, norms (standards), and conditions. As one of the priorities of updating the system of vocational education in Russia and the most important criterion of its quality we should consider the competitiveness of young specialists, which involves not only mastering the profession, orientation in related fields of activity, and readiness for effective work in the specialty at world standards, but also the professional self-determination of graduates, formation of personal self-concept. That is why in recent years the interest of vocational education institutions to the problem of students' self-determination has been increasing drastically. It has become an axiom that the timely and informed career choice is a guarantor of both the personal success of future specialists and the sustainable development of society (Volkov et al., 2008).

It is known that the UN recommends the concept of sustainability capital, which consists of three interrelated and interdependent components:

\[ C_{\text{sustainability}} = C_{\text{manuf}} + C_{\text{n}} + C_{\text{h}}, \]

where

- \( C_{\text{sustainability}} \) – sustainability capital;
- \( C_{\text{manuf}} \) – manufactured capital (manmade, anthropogenic, technogenic);
- \( C_{\text{n}} \) – natural capital;
- \( C_{\text{h}} \) – human capital.

Moreover, the importance of human capital (knowledge, skills, health, traditions, culture) for the creation of technogenic capital increases sharply in modern conditions of information technologies (Tsibizova, 2013). Nevertheless, a significant part of human capital still remains unclaimed because of simple disregard for it or inability of a person to realize and discover own potential, to determine own life and career.

Much attention to this problem of education in general and secondary vocational education in particular is explained by the following circumstances.

First, a thorough study of the issues of professional self-determination meets the urgent needs of development, modernization and restructuring of the vocational education system. This is due to the fact that the incompleteness of socialization and professional self-determination, the length of this process in time are the main reasons for the lack of satisfaction of graduates with the acquired profession, opportunities and prospects for career and social growth. This leads to the turnover of employees, which in the conditions of shortage of qualified specialists, causes considerable damage to the economy of the country. In addition, there are numerous factors complicating the development of vocational education. Among them is the restructuring of the continuous education system, optimization of the educational institutions number, reduction of the applicants’ number, reorientation of graduates to other professional areas, replacement of monoprofessionalism.
with polyprofessionalism, etc.
Second, students of vocational schools and colleges are mostly older adolescents and young people, and for representatives of these age groups, self-determination (social, personal, professional, moral, etc.) is the main task. In adolescence, the value of self-realization includes the desire to demonstrate one's individuality and personal achievements, thereby attracting attention, self-affirmation, and gaining respect among the peer group, which is dominant in this age period, regardless of socio-cultural environment. A. Maslow noted that it is necessary to use the internal activity inherent in this age in educational process for self-creation, the search for vocation, creative aptitude, mission and destiny.

Recent psychological studies show that at the age of 16-17 years the development of the psychological function of planning is not completed, it continues even after twenty years. Consequently, graduates of vocational education institutions are often not ready to make a mature career choice due to the insufficient development of corresponding psychological functions. Nevertheless, the choice of future professional field is at the core of the self-determination process at this age, therefore, the issues of professional self-determination should occupy a significant place in educational sphere (Kolchina, 2015).

Third, the problem of professional self-determination is one of the most important in the psychology and pedagogy of vocational training. This problem is considered, on the one hand, as the core, the most significant component of a person’s professional development; on the other hand, as a criterion of one of its stages (Klimov, 2004). The study of main psychological and pedagogical laws of professional self-determination, development of criteria system and indicators of its success are the basis for the system of career guidance (Tsibizova, 2012).

It should be noted that the solution of this problem has many different approaches, models and conceptual directions. These include, for example, the Trait-oriented Approach by Parsons (2000); professional development models (the Theory of Life Stages by Ginzberg et al. (1951); the Theory of Scenario Types by Miller and Form (1951); the Theory of Productivity Pictures by Lehmann (2014); the Theory of Stages of Professional Formation by Klimov (2004), the Theory of Stages of Adults’ Professional Formation by Bodrov (2001); the Theory of Self-concept and Professional Maturation Stages by Super) (1973); motivational theories (the Two-factor Theory known as Herzberg’s motivation-hygiene Theory which states that there are certain factors that cause job satisfaction; the expectancy theory of motivation by Vroom (1964), which has three components: expectancy, instrumentality and valence; McClelland’s concept of “need for achievement”; Maslow’s hierarchical need theory, on the basis of which Roe (1956) constructed a psychological classification of occupations); theories of individuality or development of self-understanding (the concept of assistance in developing of self-understanding by Tyler; J. Holland’s theory of career choice; other studies of self-understanding) (Koshkina, 2007).

Fourth, the functional approach to vocational training led to the formation of an adaptive strategy for personal development of students, decrease in the level of creativity, personal responsibility, and decline of social and moral values. In this regard, the orientation of educational process towards the formation of students' values of life and professional self-realization has become extremely relevant. The results of a phenomenological study of subjective world images among adolescents indicates alienation (from their feelings, from themselves and their capabilities, from relationships with other people, from existence itself), which is a painful way to survive, to adapt in modern conditions. For 70% of young people, the value of creative work as a way of self-realization, a form of social vocation and conditions for the prosperity of society, has lost its relevance. Many researchers point to the primary importance of work in this direction (Skvortsov, 2016; Sokolova, 2013; Suhodtseva, 2017; Tsibizova, 2013).

Fifth, in modern conditions, each participant of educational process must perform certain functions of self-development, self-realization and possess a set of specific means and methods. Kodzhaspirova (2003) notes that subjectivity is a person’s ability to create strategies of activities, to set and adjust goals, to be aware of motives, to build one’s own life plans. This definition, in our opinion, corresponds to the status that must be taken by a
student as a subject of educational process, especially when he/she becomes a participant in research work. As a researcher, a student independently sets goals, determines and finds the best ways to achieve them, analyzes and corrects the results. Thus, he/she becomes a subject of learning and at the same time solves the problems of professional self-determination (Kodzhaspirova, 2003).

Being a fundamental scientific problem, the problem of professional self-determination has three levels: methodological, theoretical, and experimental. In this connection, all these aspects were highlighted in this research.

Professional self-determination of an individual is one of the actively developed problems. It is studied within various conceptual approaches by philosophers, educators, psychologists, sociologists, and methodologists, which make it multidimensional in accordance with the context, methods of solving and defining the very concept of self-determination. Self-determination is used in a wide range of meanings: from making vital decisions to one-time independent actions. As a result, this concept summarizes many phenomena that have different content.

4. Discussion

The Academic Dictionary of Modern Russian Language interprets self-determination as an action, derived from the verb “to determine oneself”, which means: to realize oneself, one’s public interests, to define one’s own existence, one’s place in life, in society, to begin to exist independently.

Numerous scientific research works study personal, social, life, professional, moral, family, religious, and existential self-determination. The main types of human self-determination, identified on the basis of potential for freedom of self-realization, are the following: self-determination in a particular labor function, operation; self-determination at a particular job; self-determination in career; self-determination in profession (in the group of related professions); life self-determination (where professional self-determination is the most important part); personal self-determination (as the highest level of life self-determination); self-determination in culture, access to “social immortality” as the highest level of personal self-determination.

Analysis of the concept of “self-determination” based on the logic of system analysis (Lomov, 1984) makes it possible to identify its essential features. The word “self-determination” means an act or action. On the one hand, determination is a search, process of determining essential features of an object or phenomenon; on the other hand, it is a result of a specific search process. The first part of the word “self-determination” “self” indicates the peculiarities of search process: it is carried out consciously (a person as a subject of self-determination sets a goal, selects means, implements, corrects, evaluates) and independently (a person relies on internal motivation).

Thus, the main characteristics of self-determination as a psychological and pedagogical phenomenon are as follows: intrinsic motivation, awareness, independence. These characteristics allowed us to formulate a working definition of the term “self-determination”. Self-determination is a conscious, independent, purposeful process of determining and disclosing the essential capabilities and abilities of a person, ways of its development and realization, carried out in interaction with other people.

Focusing on this definition, more detailed investigation of the concept of professional self-determination was undertaken by the authors.

In Russian and foreign pedagogy, considerable experience has been accumulated in the theory and practice of managing the process of professional self-determination, which largely determined modern approaches to solving this problem. At the same time, it should be noted that today the approaches that consider the subject of study of professional self-determination and career success as a certain amount of personality factors are replaced by the understanding of need for research at the level of a subjective paradigm. The integrity of personality is considered on the basis of life concept and focuses on the value-sense sphere as the main component of professional self-determination and development.
Our approach to solving the problem of professional self-determination of students in the vocational education system is determined by the position of Mitina (2003), who believes that professional development is inseparable from personal development. The grounds of both of them are based on the principle of self-development, which determines the ability of an individual to transform own life activity into the object of practical development, leading to the highest form of life activity – creative self-realization. We do not distinguish between personal and professional self-determination, assuming that personal self-determination involves the development of other types of self-determination. Self-determination in all forms of personal self-development is aimed at the maximum revealing of aptitudes and abilities, adequate and flexible behavior, performing actions that meet the expectations of others and personal goals. In other words, the role of self-determination is to unlock the potential of an individual, which will contribute to professional growth.

We believe that if a graduate of a vocational school or college acquires positive experience of self-determination, self-development in the process of learning and participation in scientific research, he/she will be able to successfully use it in future professional and social activities. In this regard, in our study, we pay particular attention to self-determination of a person at the stage of professional development. This position is the methodological basis for finding effective approaches to the study of professional self-determination of students.

Professional self-determination is a complex and continuous process, covering almost the entire life of a person, requiring special measures of assistance and psychological and pedagogical support and not ending in the choice of a career. It should be considered as the central and leading component of life and professional formation and development.

5. Conclusion

Analysis of the essence of professional self-determination from the standpoint of philosophy, psychology, sociology, acmeology and pedagogy confirms the complexity and multidimensionality of this phenomenon, the need to apply a system approach to its study. Taking into account the dialectic correlation of social, acmeological, psychological and pedagogical aspects of the process of self-determination, professional self-determination can be presented as:

- process unfolded in time;
- activity depending on the stage of development of personality as a subject of labor;
- process and result of an individual’s awareness of his/her needs, motives, interests (“I want”);
- aptitudes, inclinations, professionally significant abilities (“I can”);
- relatively stable, entrenched psycho-physiological qualities (“I possess”);
- their correlation with the requirements that are imposed by the socio-production situation (“it is required”).

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