Project Management for Professional Self-Determination of Students with Intellectual Disabilities

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Abstract

The relevance of the problem under study is due to the State program “Accessible Environment”, approved by Decree of the Government of the Russian Federation of March 29, 2019 No. 363, the purpose of which is to ensure equal access to rehabilitation services, including professional development and employment of persons with disabilities, as well as widespread adoption in society inclusions. According to the document “Scenario conditions for the long-term forecast of the socio-economic development of the Russian Federation until 2030”, developed by the Ministry of Economic Development of the Russian Federation in April 2012, among the main trends determining the long-term development of the Russian economy, a beginning decline in population was recorded in able-bodied age in combination with an increasing shortage of skilled workers. Therefore, involvement of unemployed able-bodied citizens with disabilities in employment, taking into account their capabilities and abilities, becomes not only a goal, but also a resource for the country’s socio-economic development for the coming years.

In this regard, the article proposes the development, testing and management of a project for professional self-determination of students with intellectual disabilities, discusses the features of professional self-determination of students with intellectual disabilities and the specifics of project management for professional self-determination of students with intellectual disabilities. The effectiveness of project management is considered by the authors through the prism of key functional areas of project management. The purpose of the article is to describe the implementation of the project for the professional self-determination of students with intellectual disabilities and experimental verification of the effectiveness of managing this project.

Keywords: project, specifics of project management, professional self-determination, intellectual disability, especially students with intellectual disabilities.

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Introduction

The fundamental legislative act regulating the education of children with disabilities (hereinafter referred to as HIA) in the Russian Federation is Federal Law On Education in the Russian Federation (2012) " The law regulates the right of children with disabilities to education and obliges federal state bodies, state authorities of the constituent entities of the Russian Federation and local self-government bodies to create the necessary conditions for receiving, without discrimination, a quality education by persons of these categories in order to correct developmental disabilities and social adaptation. Also it is emphasized in this law that one of the most important indicators of the effectiveness of modernization of Russian education is the success of vocational guidance. In this regard, the professional orientation of students with intellectual disabilities of the upper grades, which provides a conscious and rational choice of a profession in accordance with personal capabilities, inclinations, and interests, is of great public importance. The aim of the implementation of this project is to ensure the implementation and testing of a program for professional self-determination of students with intellectual disabilities by May 2019, which can solve the problem of inconsistency of professional interests with the possibilities of their implementation in professional activities; the lack of an adequate labor orientation for the acquisition of professional skills; lack of awareness of the spectrum of available professions, their characteristics and labor functions. Through an integrated system of vocational guidance, which contributes to the development of interest and inclinations of students with intellectual disabilities to the recommended types of professions; the ability to correlate individual psychological characteristics, taking into account the requirements for these types of professions, through acquaintance with the world of professions and taking into account the psychophysiological characteristics of each child.

Although the problem of professional self-determination of students with intellectual disabilities has been studied by various authors (Sakharov, 1982; Khokhlina, 2003) remains insufficiently disclosed. The reason for this, first of all, is that this category of persons usually has a combination of several disorders: intellectual, speech, emotional-volitional, and often motor. A significant part of students with intellectual disabilities are characterized by inadequate (overstated or underestimated) ideas about the nature of work in a particular profession, about the compliance of their capabilities with its requirements, impaired motivation to work, and sometimes difficulties in mastering labor movements. Therefore, a much narrower range of professions is available to this category of students, and it is much more difficult for them to find their place in the labor market. The choice of profession for such students is narrowed down to employment in a limited number of specialties available to them. In addition, in the conditions of the innovative development of society, the further progress of science, technology and culture, the state imposes ever-higher demands on the professional activity of the individual. Increasing the pace and quality
of productive labor, the steady reduction of uncomplicated types of work in social production, the transition of enterprises to new ways of managing create certain difficulties for the social adaptation of students with intellectual disabilities, so the question of the right choice of a profession is of great importance in the life self-determination of students with disabilities and special needs.

Thus, the social significance of the problem and the analysis of scientific and pedagogical literature made it possible to identify significant contradictions between:

- increased qualification requirements for the training of specialists and features of mental and psychophysical development of students with intellectual disabilities;

- expanding the list of professions in the modern labor market and a limited number of professions for which people with intellectual disabilities can be employed.

An effective management project aimed at professional self-determination of students with intellectual disabilities is aimed at solving the identified problem: how to promote the formation of the need for recommended types of work for students with intellectual disabilities with a view to the possibility of further employment.

In the process of studying the literature on the research topic, theoretical and methodological foundations affecting project management for professional self-determination of students with intellectual disabilities are identified. As a result, we offer a system of measures aimed at the formation of professional self-determination of students with intellectual disabilities, which includes:

1. The program for professional self-determination of students with intellectual disabilities, including: professional diagnostics, professional advice, professional education, professional selection.

2. Comprehensive educational and methodological support for students with intellectual disabilities, taking into account the peculiarities of their psychophysiological development, the requirements of professional standards, the views of employers; which consists of successively implemented blocks: diagnostic (assessment of the current state of the level of professional self-determination through valid diagnostic techniques), advisory (organization of individual and group consultations on the choice of professions with students and their parents; seminars with employers on the possibility of employing people with intellectual disabilities); effective (conducting a survey of students to determine the level of professional self-determination).

Methodology
The experimental base of the study was the Kirov Regional State General Educational Budgetary Institution “School-boarding school for students with disabilities No. 2 of Nolinsk”.

The study of the problem was carried out in three stages.

At the first stage, a theoretical analysis of the scientific literature on the research topic was carried out, the conceptual foundations of project management for professional self-determination of students with intellectual disabilities were determined. At the second stage, the project “Professional self-determination of students with intellectual disabilities” was developed and tested; conducted an experiment. At the third stage, the results of an empirical study were processed and analyzed, the effectiveness of project management for professional self-determination of students with intellectual disabilities was evaluated.

Methodological Grounds:

- Professional self-determination and career guidance of schoolchildren (Bodrov, 2001; Pryazhnikova, 2006; Klimov, 2004; Golomshtok, 1979; Mitina, 1997; Elkonin, 1989);

- Patterns of mental development of mentally retarded children (Rubinstein, 1986; Shif, 1965; Lubovsky, 1989);

- Professional self-determination of mentally retarded students (Turchinskaya, 1976; Vinogradova, 1961; Chistyakova, 1993; Dulnev, 1969);

- Theories of vocational guidance and personal self-determination (Sakharov, 1982; Chistyakova, 1993; Vasenkov, 2004);

- Standards of the International Project Management Association (PMA, IPMA).

Research methods:

- theoretical: analysis of psychological and pedagogical research; generalization of scientific literature, comparison, generalization, systematization, structuring of material, high-quality processing of research results;

- empirical: pedagogical experiment, survey, questionnaire, analysis of activity products, expert assessment;

- statistical: quantitative processing of the research results, Wilcoxon T-test.
Results

Structure and content of the model

In the process of the analysis of the variety of existing approaches to the interpretation of the essence of the concept of “professional self-determination”, an interpretation by definition of Zeer (2003) was used in the framework of the dissertation research. Zeer says “professional self-determination is a conscious choice of a profession, taking into account its characteristics and capabilities, the requirements of professional activity and socio-economic conditions” (p. 48). According to the definition of Zeer, the components of professional self-determination were highlighted: conscious choice of profession; consideration of features and capabilities; taking into account the requirements of professional activity; social and economic conditions.

The analysis of scientific works allowed us to identify factors that influence the formation of professional self-determination. Among these factors, several groups were identified: socio-economic, socio-psychological, psychological, psychophysiological.

Based on the literature studied, we found that: professional inclinations of students with intellectual disabilities depend on the degree of formation of professional interests, self-esteem, a positive attitude to work; manifest and form in activity. The professional interests of students with intellectual disabilities are not formed and are not stable; interests in inaccessible professions prevail.

In the process of studying the literature on the research topic, the features of professional self-determination of students with intellectual disabilities and the specifics of the project management for professional self-determination of students with intellectual disabilities, which are taken into account during the development and implementation of this project and affect the project, were identified. The following features of professional self-determination of students with intellectual disabilities were identified:

- inconsistency of professional interests with the possibilities of their implementation in professional activities;

- the lack of an adequate labor orientation for the acquisition of professional skills;

- lack of awareness of the range of available professions, their characteristics and labor functions.
Based on the studied scientific and methodological literature, the specifics of project management for professional self-determination of students with intellectual disabilities were determined, which consists in taking into account:

- features of professional self-determination of students with intellectual disabilities;

- requirements of professional standards of specialties for which there are no special conditions for admission to work for persons with intellectual disabilities;

- employers’ requests for qualifications of persons with intellectual disabilities in the performance of their labor functions.

When managing the project “Professional self-determination of students with intellectual disabilities”, five management groups were used in the context of six subject areas: project subject area management, project time management, risk management, communications management, human resources management, project quality management.

Experimental work

Pilot work was carried out on the basis of the Kirov Regional State Educational Institution "Boarding School for Students with Disabilities No. 2 of Nolinsk."

The experiment involved high school students. The implementation of the project involved the following stages of experimental work.

When substantiating the need to implement a project on professional self-determination of students with intellectual disabilities, an assessment was made of the strengths and weaknesses of the project, as well as an assessment of the opportunities and threats of the project emanating from the environment. A decomposition of work on the phases of the project life cycle and a diagram of the organizational structure of the project has been compiled, a project management team and a project team with their functionality, key project stages have been described, a consolidated project management plan has been drawn up. SMART technology acted as an effective tool for setting and clarifying the goals of the project.

The customer of the project “Professional self-determination of students with intellectual disabilities” described the criteria for the success and failure of the project, according to which a conclusion will be drawn on the effectiveness of this project. When managing the project “Professional self-determination of students with intellectual disabilities”, five management groups were used in the context of six subject
areas. At the intersection of management groups and subject areas, project management processes were defined, the description of which is presented in the Charter of the project. To manage the project on professional self-determination of students with intellectual disabilities, the standards established in GOST RISO 21500 - 2014 were used. Table 1 presents the classification of processes by management and subject groups relative to the project for professional self-determination of students with intellectual disabilities, compiled in accordance with the standards established GOST RISO 21500 - 2014.

http://docs.cntd.ru/document/1200118020

Table 1. Classification of project management processes by management and subject groups

| Subject group | Management group |
|---------------|------------------|
|               | Initiation       | Planning | Organization and control | Analysis and regulation | Completion |
| Project subject area management | 1 | 2 | 3 | 4 | 5 |
| Content Definition | Development of the Charter of the project | Landmark Office | Preparation of a progress report | Preparation of the final report |
| Defining success and failure criteria | Determining the structure of the decomposition of WBS | Project Content Management | Compare report with plan | Analysis of lessons learned |
| | SWOT analysis | Change control | | Preserving lessons learned |
| Time Management | 6 | 7 | 8 | 9 | 10 |
| Workflow Definition | Networking (Gantt chart) | Coordination of the project according to time parameters | Project timing control | Preparation of a progress report |
| Estimation of the duration of work | | | | |
| Management | 11 | 12 | 13 | 14 | 15 |
The effectiveness of the project management for professional self-determination of students with intellectual disabilities was evaluated based on the analysis of the results of a set of diagnostics in the following areas: analysis of product management of the project for professional self-determination of students with intellectual disabilities and analysis of project management for professional self-determination of students with intellectual disabilities. The project management analysis was carried out based on the project triangle, and included three stages.

Stage 1 - analysis of the management of time parameters was carried out at key points in the project. All work was completed on time or have minor deviations within the normal range.
Stage 2 - analysis of cost and project management. Analysis of the "plan-fact" of the project cost by the method of utilized volume showed that the actual cost of the completed work of the project does not go beyond the planned estimate;

Stage 3 - using the previously specified criteria for project success and failure, we conducted an analysis of project quality management: of the seven criteria for success, six criteria were fully implemented and the seventh partially.

The analysis of the project management “Professional self-determination of students with intellectual disabilities” led to the following conclusions:

• all project work is completed on time and deviations in the time frame are within normal limits;

• the actual cost of the completed work of the project does not go beyond the planned estimate;

• the quality of the services provided, evaluated by the criteria of success and failure, meets the requirements of the project customer.

Summarizing, the data on all indicators from these areas, we conclude that the project management for professional self-determination of students with intellectual disabilities was carried out effectively.

Discussions

The problem of professional self-determination of students with intellectual disabilities proves the relevance of our study.

The study allowed us to draw the following conclusions:

1) Professional self-determination of students with intellectual disabilities has its own characteristics, which are:

- in the discrepancy of professional interests with the possibilities of their implementation in professional activities;

- in the absence of an adequate labor orientation for the acquisition of professional skills;

- lack of awareness of the range of available professions, their characteristics and labor functions.
2) The specifics of effective project management for professional self-determination of students with intellectual disabilities, which consists in accounting for:

- features of professional self-determination of students with intellectual disabilities;

- the requirements of professional standards for professions for which there are no special conditions for admission to work for persons with intellectual disabilities;

- employers’ requests for qualifications of persons with intellectual disabilities in the performance of their labor functions.

3) The project “Professional self-determination of students with intellectual disabilities” was developed and tested.

4) The effectiveness of the project management for professional self-determination of students with intellectual disabilities was evaluated on the basis of the analysis of the project management “Professional self-determination of students with intellectual disabilities”.

In general, summarizing all the data analyzed, we conclude that the project management of "Professional self-determination of students with intellectual disabilities" was carried out effectively for all indicators from these areas.

The study of psychological and pedagogical literature allows us to state the absence of special studies on the problem of project management for professional self-determination of students with intellectual disabilities. However, issues related to the formation of professional self-determination of students with intellectual disabilities were considered by a number of researchers.

Having analyzed the interests of high school students, Afanasyeva (2015) found out that high school students are interested in those professions that are well known, or about which they have a specific idea. Most often, we are talking about the professions available to them, which teachers and parents told them about. However, at the same time, high school students with intellectual disabilities prefer professions that are inaccessible to them.

For example, many students do not show a steady interest in the profession being studied, and some have clearly exaggerated professional self-esteem and level of claims. They even claim professions related to intellectual work, which indicates a high level of claims and a very high self-esteem. Therefore, one of the important problems in the formation of professional self-determination, as noted by Dulnev (1969), is that
professional opportunities do not correspond to professional interests. As a result, professional intentions diverge from the possibilities of mastering the profession.

An analysis of research in the field of special pedagogy allows us to note that the processes of perception and representation, memory, thinking are violated in this category of people.

In addition to impaired intellectual development, this category of children has impaired emotional and volitional spheres. The peculiarity of mental development is due to the characteristics of higher nervous activity. Mentally retarded children have a violation of the basic properties of nervous processes - strength, mobility and poise. Conditional connections are formed slowly, they are fragile, inert and weakly differentiated. The interaction of the first and second signal systems is broken.

Students with intellectual disabilities do not always objectively evaluate themselves and their actions. Often they are not capable of self-control and self-regulation, they do not seek learning and self-education. As a result of the analysis of psychological and pedagogical research, Alenkina (2011), Baranauskene (2007) identified difficulties in the professional self-determination of students with intellectual disabilities:

1. Inadequate self-esteem and inability to adequately assess their capabilities in determining the profile and content of the profession. Most of the children apply for professions related to intellectual work (programmer, doctor, teacher).

2. Ignorance of their own capabilities and of what qualities are required to master a particular profession.

3. The complication of an intellectual defect in various behavioral disorders, impulse disorders, lack of personal qualities.

4. Many professions are inaccessible to children with intellectual disabilities (students receive only one profession within the framework of the correctional school).

5. The knowledge of students in this category about a profession is limited: they cannot correctly divide professions into industrial and agricultural, and also do not have clear and precise ideas about the professions that they would be able to do.

6. Many students are not interested in the profession being studied.
7. The position of the parents. Many parents do not correlate the abilities and inclinations of their child with vocational training in the future, they do not realize the importance of preparing their child for vocational training and work.

8. The professional self-determination of students with intellectual disabilities is incomplete, fragmented, characterized by a lack of informed choice.

In the works of Shcherbakova (1996), Khokhлина (2003) and others, the following problems are identified that confront students with impaired intelligence:

- incorrect assessment of their abilities and capabilities, inadequate self-esteem;
- lack of knowledge about real production, about the requirements for business and professional qualities of workers;
- lack of information about the possibilities of obtaining professional education in your region, about the procedure and potential for employment;
- the lack of opportunities to get advice and assistance in planning and building a path for the development of your career;
- unsatisfactory social adaptation, lack of formation of the required social skills;
- inertia, unpreparedness for labor installation and work;
- inability to separate real possibilities from imaginary, ideal attitudes.

Conclusion

As a result of our study on the project management “Professional self-determination of students with intellectual disabilities,” we identified the following:

Professional inclinations of students with intellectual disabilities depend on the degree of formation of professional interests, self-esteem, a positive attitude to work; manifest and form in activity.

The professional interests of students with intellectual disabilities are not formed and are not stable; interests to inaccessible professions predominate.
Features of professional self-determination of students with intellectual disabilities are:

- in the discrepancy of professional interests with the possibilities of their implementation in professional activities;

- in the absence of an adequate labor orientation for the acquisition of professional skills;

- lack of awareness of the range of available professions, their characteristics and labor functions.

When implementing a project on professional self-determination of students with intellectual disabilities, it is necessary to take into account the features of professional self-determination of students with intellectual disabilities and the specifics of the project management for professional self-determination of students with intellectual disabilities.

The effectiveness of the management of the developed and tested project for professional self-determination of students with intellectual disabilities is checked using the analysis of the project management “Professional self-determination of students with intellectual disabilities”.

The reliability and validity of the study is ensured by the adequacy of the applied valid methods for assessing the effectiveness of project management “Professional self-determination of students with intellectual disabilities”.

The effectiveness of project management for professional self-determination of students with intellectual disabilities is determined in accordance with the project triangle:

- analysis of the management of time parameters;

- analysis of cost and project management;

- analysis of project quality management.

References

Afanasyeva, R. A. (2015). Career guidance work with children and adolescents with disabilities. *Science and School, (62)*, 148-154.

Alenkina, O. A. (2011). Study of readiness for professional choice among students with intellectual disabilities and their peers from secondary schools. *Correctional pedagogy, (1)*, 24-30.
Baranauskene, I. (2007). Models of vocational training for young people with insignificant intellectual impairment: evaluation aspect. *Defectology, (4)*, 60-69.

Bodrov, V. A. (2001). *Psychology of professional suitability: textbook for universities.* Moscow: PER SE.

Chistyakova, S. N. (1993). Professional self-determination of youth. *Pedagogy, (5)*, 33-37.

Dulnev, G. M. (1969). *Fundamentals of labor training in an auxiliary school.* Moscow: Enlightenment.

Elkonin, D. B. (1989). *Selected psychological works.* Moscow: Pedagogics.

Golomshtok, A. E. (1979). *The choice of profession and education of the student.* Moscow: Education.

GOST RISO 21500 (2014). [http://docs.cntd.ru/document/1200118020](http://docs.cntd.ru/document/1200118020)

Khokhlina, E. P. (2003). Study of the psychological and pedagogical foundations of the corrective orientation of labor training of students with disabilities. *Defectology, (2)*, 25-34.

Klimov, E. A. (2004). *Psychology of professional self-determination.* Moscow: Academy.

Lubovsky, V. I. (1989). *Psychological problems in the diagnosis of abnormal development of children.* Moscow: Pedagogics.

Mitina, L. M. (1997). Personal and professional development of a person in new socio-economic conditions. *Questions of psychology, (4)*, 28-38.

Professional standard: 05.006 Accompanying persons with disabilities, persons with disabilities and minors. [https://classinform.ru/profstandarty/05.006-soprovozhdaushchii-invalidov-lit-s-ogranichennymi-vozmozhnostiami-zdorovia-i-nesovershennoletnykh.html](https://classinform.ru/profstandarty/05.006-soprovozhdaushchii-invalidov-lit-s-ogranichennymi-vozmozhnostiami-zdorovia-i-nesovershennoletnykh.html)

Pryazhnikova, E. Y. (2006). *Career guidance: a training manual for students. higher textbook.* Moscow: Academy.

Rubinstein, S. Y. (1986). *Psychology of a mentally retarded schoolboy.* Moscow: Education.
Sakharov, V. F. (1982). *Vocational guidance of students*. Moscow: Education.

Shcherbakova, A. M. (1996). Problems of labor education and vocational training of students of auxiliary schools. *Defectology*, (4), 24-28.

Shif, J. I. (1965). *Features of the mental development of secondary school students*. Moscow: Education.

Standards of the International Project Management Association (PMA, IPMA). https://pmpractice.ru/training/sertification/ipma/.

Turchinskaya, K. M. (1976). *Career guidance in an auxiliary school*. Kiev: Radyanska school.

Vasenkov, G. V. (2004). Technology of labor training of children with intellectual disabilities. *Defectology*, (3), 60-66.

Vinogradova, M. D. (1961). *Educational work with adolescents at the school of their choice of profession*. Moscow: Academy of Pedagogical Sciences.

Zeer, E. F. (2003). *Psikhologiya professiy: Uchebnoye posobiye dlya studentov vuzov*. Moscow: Akademicheskiy Proyekt.