

ISCKMC 2020

International Scientific Congress «KNOWLEDGE, MAN AND CIVILIZATION»

MECHANISMS OF INVOLVING TEACHERS INTO LEARNERS' PROJECT-RESEARCH ACTIVITY

Khouzu Edilsultanovna Mamalova (a)*, Vakha Shamanovich Rasumov (b),

Zaynap Muhadinovna Akhmadova (c)

*Corresponding author

(a) Chechen State University, 32, Sheripova str., Grozny, Russia, mamalova_1964@mail.ru,

(b) Chechen State University, 32, Sheripova str., Grozny, Russia, vakha66@mail.ru,

(c) Chechen State University, 32, Sheripova str., Grozny, Russia, akhmadova-64@mail.ru

Abstract

Project-based learning stimulates research activity of a learner and suggests a set of methods to implement it. That is why; we deal with the modern practice of organizing project and training research activity of learners in the educational establishment. This determines superior values of pedagogy: all-round development of a socially important and inherently valued person. The article studies, analyses theoretical and applied aspects of organizing and instruction of learners' project and research activity in educational establishments. Deficits in teachers' training to the instruction of the project-research activity and the mechanisms for involving teachers in the learners' project-research activity have been disclosed. A necessity of the project and research activity supervisor in the educational establishment has been proved. No rates for labour payment of learners' project and research activity supervisors and teachers' supervisors in the educational establishment have been determined. The mechanisms for involving teachers into the project-research activity have been determined but to achieve results these mechanisms should be fulfilled in complex. The conducted research put new organizational and pedagogic issues on further development of project and research skills of managers at all levels of education. It is fulfilled via creating children-adult research groups, conducting conferences in universities on project and research activity for students and schoolchildren, internship for students of pedagogical and psychological majors in educational establishments.

2357-1330 © 2021 Published by European Publisher.

Keywords: Project-research activity, training research, project work, a teacher, a learner



This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

Introducing project and research activity at all levels of education starting from the pre-school education involves a wide range of public. These are not only learners, but their families, teachers, preschool teachers, managers, psychologists, librarians, and other workers of educational establishments. The transition to FSES programs – individual projects has been completed.

Exploration (research) approach to studying is based on natural striving of a person to individual acquisition of the world. In the project-based learning the study process is premised on independent exploration of new informative landmarks by learners.

A learner can introduce own project not only inside an educational establishment but at the district, city, regional, all-Russian and international level. Reaching every level, learner's scientific scope broadens; the work becomes more precise and wide-spread. It is guaranteed by the experienced expertise of learners' works at every level, engaging scientists in the conferences jury and competitions of research and project works; conducting events on advanced training and retraining of research works supervisors who can be not only teachers but also parents.

2. Problem Statement

The article deals with the issue of a mechanism for involving teachers into the learners' project activity.

Contemporary educational standards state that bachelor and specialist graduates should have project skills, have current project technologies, to be able to create and use projects in the professional activity. A synthesis of pragmatic, competence and process approaches both in the profession-oriented and pre-profession-oriented education is necessary.

The project activity is included into the structure of the professional activity in FSES HE "Teacher Education". As a result, a modern teacher should possess managerial, creative, communicative and reflective skills to develop and implement the project activity in the educational process (Egorova, 2020).

Project-research learners' activity is an educational technology when learners solve a research, creative task under the supervision of a specialist. In this activity a scientific method of cognition is implemented. A pedagogic support of the learners' project-research activity is assumed. This concept implies the formation of the favorable and safe environment in the educational establishment, which fosters learner's independent creative cognition of the surrounding. These conditions require high involvement of teachers, and project supervisors in the activity. Involvement is understood as a psychological state and effects of behaviour which result in productivity increase.

There is a discrepancy: the work on project and research supervision exists; as well as professional training to it, but there are no payment rates for it.

Changes in payment for the pedagogical work, transition to new mechanisms differentiate the size of interest from the post salary and act to raise the job prestige and form motives in workers supported by money reward.

Payment for the work of a teacher-project supervisor is a kind of incentive rewards. It should be paid taking into account a number of projects supervised by a teacher as a number of participants differs in individual projects and in a mini-group.

It is especially important for inexperienced teachers who will receive the payment equal to experienced ones. Rewarding career opportunity of the learners' project (its success at the external competitions and conferences), can be taken into account by the administration in bonus payments. It is important to note that in different regions in Russia teachers' salary can differ dramatically. It depends on the welfare of the region and district (Kramarenko, 2007).

Today the basic challenge to the education is the process of information ranking and its verification. A person should be prepared to constant self-education. Project activity of learners and research-scientific training stimulates all the project participants to this.

We work in a team of teachers with a team of learners, mostly of different ages, with the age difference per 1–2 years between the learners. Thus, the grown-ups give an example how to work in a team, task sharing, mutual assistance, and learners try to work together and solve the tasks together. For example, the theoretical material is chosen and based on the literature recommended by a teacher and chosen by the learners themselves. A number of issues is suggested to the children and distributed among them on the mutual agreement. Thus, every member of a team prepares a part of the text and a speech on the work done and during the seminar learns the materials prepared by other team-members. A seminar is conducted; materials are accepted in an electronic form and compiled into one text. Of course, not all material is included into the final text which helps children to make a conscious choice of the material and meaningful summary of the text. It should be noted that further work on presentation helps the participants both study the final text of the work and learn how to make a synopsis and choose main ideas from the text.

Learners should be able to trace the way of ideas implementation: from definition of objectives and means choice; forecasting the difficulties in the process which must be overcome to achieve the aim; and finally, transition to practical work and its fulfilment. Planning a lesson, a teacher involves all participants in the implementation of the creative tasks of the project, forecasting the possible contribution of every learner basing on the age, individual abilities, so combining the teamwork and individual work at every lesson. In this case, an important component of interaction at the lessons is creating the atmosphere of respect and trust. It is important to admit the right of every person to have own point of view and make a mistake, which enriches the team experience and individual experience of every participant including the supervisor.

Project and research activity of the learner helps people around create an adequate opinion about him, build new contacts, increase self-esteem, and as a consequence, his position in the educational establishment (Belova, 2020).

Analyzing a professional standard of a teacher we see among labor actions: managing public performance, encouraging their performance in the debates at school conferences and other forums, including internet-forums and internet-conferences; and necessary skills: managing independent learners' activity including the project activity (Shakhmardanova, 2017).

The project supervisor not only gives scientific consultation but also is an ideologist, critic, producer that is learns new educational technologies. Contemporary educational standards state that bachelor and specialist graduates should have project skills, have current project technologies, to be able to create and use projects in the professional activity. However, experienced teachers study them independently.

Today, a graduate of the higher educational establishment should strive for independent education, understand the relative nature of knowledge and critically estimate own professional preparedness, master worker skills, use and enrich knowledge, acquired during the process of higher education. There is a necessity to improve qualification, learn the educational world and national practices, methodological experience of colleagues-mentors, as well as report own ideas at disputes, workshops, seminars, brainstorms and scientific conferences.

One of the skills, necessary to turn from an inexperienced teacher into a recognized specialist is developing a program for managing and conducting a scientific experiment, psychologo-pedagogical research, creating behavioral characteristics of a learner, improved during his development, whose results are monitored in the long run.

The results of the experimental work should be reported; the data should be statistically handled and competently delivered in the scientific style, what is important they should be delivered in the public performance attractively for the audience.

We suppose that a graduate teacher received the skills of independent scientific research in the university, is able to formulate and conduct the experiment and is prepared to work in a research team not only with adults, but also in a combined one – with children and adults. In the sphere of any activity both of a person and a group experience is accumulated and evolves.

Basing on the contemporary requirements, a specialist should be able to solve problems, answer contemporary challenges, appearing during the scientific-research activity by choosing adequate research methods and developing new ones which can meet the main problem of the conducted research. Having deep professional expertise and innovative skills it is necessary to know changes in the related fields; it is a complex and continuous process of self-development. He/she should conduct work and report the results according to contemporary demands using information technologies; as well as independently summarize the structure and give sense to the received empirical material, relate the data with the contemporary situation in Russia and the world, participate in conferences, training, follow publications in the Internet on the issue (Bubentsova & Porezanova, 2020).

How to be successful in all types of educational activity and translate this experience to the learners? What environment should be for this? These are problems important for every entrant into the teacher-supervisor position.

The psychology of the social cognition develops in the world practice, which is reflected in the national and world literature: combination of social and intellectual aspects reflect the studied tendencies. Gaining experience in independent project and research activity, managing it, means full immersion of a teacher in the studied problem, reflects understanding own abilities by a teacher to change a situation at the local, regional, and global scale. Fast social changes require fast adaptation via new competences.

Experience in searching, ranging, and structuring information, its interpretation and finding true knowledge is a main direction in the work with modern learners of any age.

The concept “Life-long learning” has been introduced and a career path for 50–60 years is a new reality of the XXI century. How to plan such a long period in instability, fast changing trends and challenges in the modern world? A person must be ready to learn constantly in order to be in demand at the labour market. That is why, there is a rise of self-employment in the country. People leave a conventional path: learning – getting profession – job tenure and learn acceptable specialities, find acceptable for their age areas to fulfil their potential. Human potential in professions is different. Ballet, professional sport are the first areas to retire people, then, militarized structures, teaching, that is why the issues of the professional retraining are always acute in our country. The world changes and a person changes the activity, leaves the scope of own functionality, develops professionally.

A human analyzing the information about the social and biological environment, creates own world view. The main issue of the teenage is finding the ways of further development and applying own potential in the society; strives to be equal to grown-ups. World cognition should be closely connected with action in it. For the teacher, acquiring profession via creating common intellectual product (a project, research, role game, a show) together with children is a way to self-development. A teacher when developing a project together with learners or conducting a research plays a role of an expert and a supervisor (Saenkov, 2006).

The learners should find their approach in the work, the role of the grown-up is pedagogical support and leading the process, fast help in case of difficulties, creating the atmosphere of trust-based collaboration. The research requires a mini-group (25 participants), in the ideal a children-grown-ups group, more often of different ages. In fact several similar problems arise: no skills of team-work and coordination of actions of all the participants; there is a different level of learning skills and abilities results in unequal distribution of functions in the research group, finally, unequal contribution of every participant into the final result of the work; the problem of hypothesizing, planning the stages of work, choosing the object of the research. Thus, the teacher encounters the task of purposeful formation research behaviour in children which will result in developing his/her research abilities.

To fulfil this type of activity a teacher must have different forms of managing project-research group, when the result of the finished stage will show the way of the next stage. They are: brain-storming, discussion, debates, a round table with scientists-consultants, subject teachers, parents-professionals in the studied area. The result of the meeting can be modelling a future experiment, creating a road-map for the research group.

For the successful work of the team it is necessary to establish close interactions between not only participants but also a supervisor. It is important to keep communicative contacts virtually so a learner can ask questions any time. Virtual conferences allow choosing convenient time for all participants when they can concentrate on the issues discussed. If it is necessary, these discussions can be on the topic and regular. A project leader organizes and directs the work of the group, controls the deadlines of every stage, provides driving towards the intended objective via successive solution of the determined problems. During the work a teacher-supervisor of the project group should distribute the sphere of activity of every person, taking into account age and individual features so that the contribution of every

participant was significant, and individual tasks were manageable. Unified and system requirements, necessity to achieve a quality result help form research competences in learners.

It is necessary to create a time-table of the educational events, connected with the succession of the project stages and research work. An educational event is a form of organizing the team activity of children and grown-ups which differs from the conventional ways of organizing the educational process in the educational establishment. They are: defending a theme, reporting a theoretical part, monitoring, preliminary defence of the work, school conference, possibly further development of the project at the interdistrict, regional, all-Russian and international level. Every stage of the project is reported to confirm a successful participation of every learner in the educational event.

To determine the adaptation mechanisms to a new social role, reality of the required professions in the society as purposes and tasks of the education in the this century change on the whole.

3. Research Questions

The subject of the studied problem is a mechanism of involving teachers into the learners' project-research activity.

4. Purpose of the Study

The purpose of the study is to develop mechanisms of involving teachers into the learners' project-research activity.

5. Research Methods

The following methods were used: analysis of information and study-methodical resources, analysis of recommendations, experiences and practices on organizing project and research activity of learners in Russian educational establishments.

6. Findings

The mechanisms of involving teachers into the learners' project-research activity:

1. Teachers' adaptation (mentoring, individual consultations, co-supervision, corporate training).
 2. Success acknowledgement (perks and bonuses for teachers from administration) – if the staff is devoted to the affair it is stimulated by the people around and develops the educational organization.
 3. Collective activity (constant collaboration of teachers) – devotion to the activity, team involvement stimulates the work, raises mutual interest, establishes new professional contacts.
 4. Methodical help and informative ability.
 5. Professional development (developing new competences, participating in the scientific activity) – thematic interaction, atmosphere of search, collective interest.
- Mutual interest (strive for learner's personality development, increasing the results of the activity of the educational establishment).

7. Conclusion

The article studies, analyses theoretical and practical aspects of organizing and managing project and research activity of learners in the educational establishment. Deficits in teachers' training to supervision of the project-research activity have been determined and the mechanisms for teachers' involvement into the project-research activity have been suggested:

1. Fulfillment for children's personality development (creative motivation, cognitive activity, perspectives of the professional development).
2. Personal professional development (scientific and methodical activity).
3. Career development (increase in salary, getting new functions).
4. Teachers' adaptation: corporate training, individual consultations, co-supervision with a more experienced colleague.
5. Success acknowledgement (perks and bonuses from the administration).

References

- Belova, T. G. (2020). *Research and project learners' activity in the contemporary education*. <https://cyberleninka.ru/article/n/issledovatelskaya-i-proektnaya-deyatelnost--uchaschihsya-v-sovremennom-obrazovanii/viewer>
- Bubentsova, T. E., & Porezanova, V. P. (2020). *Project-research activity at the lessons and extra-curricular activities – as a way of formation and developing universal learning activities. Couching in organisation of the project activity within FSES requirements*. <https://nsportal.ru/shkola/obshchepedagogicheskie-tehnologii/library/2018/03/05/proektno-issledovatelskaya-deyatelnost>
- Egorova, S. V. (2020). *FSES: bases of project and research activity*. Educators' social networking. <https://nsportal.ru/nachalnaya-shkola/materialy-mo/2018/04/03/fgos-osnovy-proektnoy-i-issledovatelskoy-deyatelnosti>
- Kramarenko, O. K. (2007). Integrative approach to teaching in the secondary and high school. In *Mater. of the II Int. sci.-pract. Conf. Topical social-psychological issues of personality development in the educational space of the XXI century* (pp. 108–110). Publication House Tudor.
- Saenkov, A. I. (2006). *Psychological bases of the research approach to teaching. Textbook*. Os'-89.
- Shakhmardanova, R. R. (2017). Learners' project-research activity in the context of FSES: problems and ways of solution. *Pedag. and Ed.*, 2, 49–57.