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THE METHOD OF PROJECT IN THE EDUCATION OF STUDENTS – EFFICIENCY AND COOPERATION

Ключевые слова: *метод проектов, студенты, пожилые люди, сотрудничество.*

Один из самых популярных методов научно-исследовательской деятельности в области образования – это метод проекта. Специфика социального проекта связана с его использованием в качестве метода подготовки будущих специалистов вспомогательных профессий (социальных работников, медицинских работников). Выполнены исследования, используя анкету для оценки эффективности совместной деятельности студентов в проекте «Протянуть руку». Результаты исследований дают основание предполагать, что проведенные мероприятия проекта способствуют созданию атмосферы сотрудничества и поддержки между партнерами.

Keywords: *method projects, students, old people, cooperation.*

One of the most popular research activities in education is the project method. The specifics of the social project are related to its use as a method of training of future specialists in auxiliary professions (social workers, medical specialists). Carry out a survey using a questionnaire for assessment of the effectiveness of the students' collaboration activities in Land a Hand project. A survey was carried out with the students participating in the project with the purpose of «Establishing the effectiveness of cooperation between students majoring in different disciplines in a multidisciplinary team using the opportunities for project work in the course of their training» and examine the effectiveness of cooperation between students and users of social services (old people from specialized institutions). The research results provide a basis to conclude that the activities carried out by the project contribute to an atmosphere of cooperation and support between the partners.

1. Actuality of the problem

In the processes of training and learning a constant interaction occurs between lecturers and students. The specifics of the learning, expressed in its distinctive individual character, are reflected in the end results as students' achievements and their attitude to the academic discipline. On other hand, professional competencies and personal merits of lecturers also influence the complete educational process. The very process of cognition and discovery of scientific truths often remains within the frames of learning. This defines a need to develop creativity thinking in students and its application in practice.

Introduction of elements from students' research activities in pedagogical technology brings opportunities for lecturers to not only provide training, but to assist the students in their learning and to guide their cognitive activities. One of the most popular research activities in education is the project method [11].

In the environment of the modern secondary and higher education the training through projects already leaves the frames of the method and is transformed into an organizational form of training [1, p. 135].

1.1. The Project Method

The project is intent or objective that one strives to achieve. It is a developed plan for a structure, construction or building, or design of a something [3, p. 408]. It is a set of pre-defined, interrelated activities for reaching certain objectives [7, p. 313].

The project specific features are: limited duration; clear objectives that can be reached through implementation of a number of technical, economical, organizational and other requirements; internal and external relations of operations, tasks and resources; fixed start date and end date; limited resources; unique objectives and conditions of project implementation, to some extent; inevitability for some conflicts, etc. [5, p. 68]. The projects for various sites include not only scientific and technical, economical and designer's solutions, but also a system of social parameters. The social projects are based on social and economic effectiveness, ecological optimum, social integration, social and organizational manageability, social activity [5, p. 68]. In its essence, the development of social projects as a process is «...a motion from theory

knowledge to reality, with the purpose to not only recognize it, but to change it» [6, p. 357]. The development of social projects as a process has the following specifics:

1) theoretical knowledge to social action. It is related to the answer of the question «why is this needed?» and if needed for the commissioner, is it needed for other social subjects. The field of values lies between these two;

2) creation of an ideal model of the designed project. Before submitted for implementation, the social project goes through an experimental check;

3) each project is developed on the basis of historical and cultural traditions of new problems, available resources, regional specifics;

4) the set of motives, interests, prejudices, laying in the basis of the project development activity and also in assignment and assessment of social projects is examined [6, p. 357].

These specifics of the social project are related to its use as a method of training of future specialists in auxiliary professions (social workers, medical specialists).

Within the widely popular American pragmatic pedagogy already John Dewey and his follower W. Kilpatrick created the new «teaching technique» known as the method of projects [3, p. 408]. The project used in the training of the students facilitated their development of social sensitivity, assuming different roles, practicing skills, interaction and collaboration. The participants get accustomed to assume themselves as part of this reality, and not as isolated specialists, relying only on their own efforts [10, p. 176]. Working on a project in the learning process of students is a challenge. It provided experiences and information to be processed. The project develops in the students, future professionals, the sense of belonging to a community, of self-realization, supplements the dynamics of their personal growth [10, p. 177–178].

During the training of students through project work the steps below are followed:

1) the students select a problem, significant for the educational discipline and their future professional preparation. In the selection process the students use accumulated knowledge and analyze the reality;

2) when analyzing the reality, they use skills for data collection, assessment of various social processes, work in community;

3) a group of students works on the problem and tests in practice the acquired skills for solving the problem;

4) the needed resources for solving the problem – financial, social, human – shall be gathered, then an action plan is elaborated;

5) the group and each participant become carriers of change;

6) the participants in the project accumulate knowledge for the reality, connections and experiences, social practice, by using the feedback mechanism and self-reflexivity [10, p. 177–178].

The specifics of the project work justify it to be actively involved in the training of students from different disciplines whose future professional competencies would be related to solving significant social problems. Namely project work in a training and practical situation allows the various future professionals to acquire skills of cooperation, partnership and support being a part of multidisciplinary team based work subjecting their individual interests for the sake of the realization of a common goal.

2. «Lend a Hand Project»

The specific features of the project work justified to be proposed the idea to students majoring in Medical Rehabilitation and Ergotherapy and Social Activities in their training courses in Medical Rehabilitation and Ergotherapy in Geriatrics and Social Pedagogy to develop a joint project related to issues of social inclusion of adults and elderly people.

It is known that elder people have a large amount of free time and strive to use it and make it worthwhile. They are most often helpers in domestic chores (shopping, cooking, cleaning, care for children or sick family member) [8, p. 179–186], but there are cases of spending time with a favorite activity – a hobby. In practice, a separate part of Physical and Rehabilitation Medicine has been formed, well-known as work therapy [2, p. 15–19]. This is an active method of impact, where work activities are applied with healing purposes, and it has various types: *functional work therapy*, targeted at restoration of lost or diminished motion function; *professional work therapy* – for training and re-training of people with permanent locomotive restrictions for a new

profession; *work therapy for children* with disabilities, in different age groups; *entertaining work therapy* -often applied to adults and older people [4, p. 7–11].

On other hand the problem for social inclusion of adults and older people is subjected to the interest on behalf of various specialists in the field of auxiliary professions (social workers, medical specialists). The professional activities of these specialists are performed in cross-functional collaboration team, with concentrated work load and improved cooperation, at many levels, between experts with special functions [12].

Within the framework of training and practice, the students from the two departments developed a joint project – Land a Hand. The project main objective is stimulation of the social importance of adults and older people when performing everyday household and work activities, through their active inclusion in entertaining work therapy.

Three groups of activities with deadlines and responsible students were structured in the action plan.

The first group of activities related to studying the attitudes for the implementation of the objective was focused on investigating and analyzing the interests and needs of the adults and elderly to be involved in favorite and significant activities of daily life. Fifty-three persons were surveyed on voluntary principle, users of the social service in two institutions for adults and elderly in the district of Pleven, Bulgaria. After the survey data were processed and a plan for joint activities with the students was developed.

The second group of activities – main activities with participants in the target group comprised the following experiences.

2.1. «My hobby»

Stitching of the sewing machine, work with yarn and textile materials (knitting with two pins or crochet – production of various products according to individual preferences; embroidery on tapestries and embroidery on tambour; work with hemp – tying of knots and knitting macrame – flower containers, bags, posters); working with natural and other materials (elaboration of the knits of sisal, corn leaves, willow branches, dry grass, veneer); work with lumber, matchsticks, cones put, acorns, seed, leaves of

variety timber (production of souvenirs, models, paintings from veneer, souvenirs puppets, cauterly of wooden objects); work with leather (elaboration of purses and wallet, pouch of the glasses or mobile phone, tape to mark in books); work with metal foil (elaboration of paintings and objects); recreational games (the jigsaw; game of dominoes, card games, game of chess) [9, p. 52–54].



Figure 1. «My hobby»



Figure 2. «We work together»

2.2. «Celebrating together»

Working with paper and cardboard (elaboration of greeting cards and cards using the «Quilling», elaboration of festive decorations of colored paper, elaboration of pre-sens pouches from luxury paper, decorate the glasses and utensils using the «Decoupage» [9, p. 52–54].



Figure 3. «Celebrating Together»

2.3. «I love to cook»

Working with plastic materials (cooking Baked Goods – tortillas, pies, buns, funnel cakes, sweets for treats in celebration of various feasts or organizing culinary exhibition at a particular event).



Figure 4. «I love to cook»

2.4. «My flower garden»

The cultivation of indoor plants and work among nature (treating the soil with various agricultural instruments, planting flowers and care for them, watering the plants, arrangement of flowers for decoration, gathering of fallen leaves from the trees, gathering of seeds).



Figure 5. «My flower garden»

With the third group of activities «Presentation and Reporting of the Project Results» – within the carried out investigation the students involved in the project participated with a scientific paper and presentation in Jubilee Conference for Students and Instructors on the topic Prevention and Rehabilitation for Life Quality Improvement

organized by the Medical College – Stara Zagora, Bulgaria. The presentation was related to Social Aspects of Entertainment Occupational Therapy for Elderly People – Need and Opportunity. The project results were made public among students from different disciplines in Medical University – Pleven, Bulgaria.

3. Results of the survey

Was conducted a questionnaire survey in two directions: among students participating in the project; among users of social services (old people from specialized institutions). Respondents voluntarily filled in questionnaire form. Criteria and indicators are set in advance. Previously are determined point scale about Evaluation of the replies.

3.1. Efficiency of joint activity of students

A survey was carried out with the students participating in the project with the purpose of «Establishing the effectiveness of cooperation between students majoring in different disciplines in a multidisciplinary team using the opportunities for project work in the course of their training.» A total of 38 students were interviewed, participating in the project – 4th year in Medical Rehabilitation and Ergotherapy (19 students) and 2nd year in Social Activities (19 students) in the Medical University – Pleven, Bulgaria. Participation in the survey was voluntary, after completion of the project. The survey was standardized including three main groups of criteria: joint activity in the task implementation, level of activity and level of partnership. Three indicators were defined for each group of criteria. The results for each indicator are summarized as a percentage ratio of the number of provided answers to the number of participants from each major, as well as for the total number of the project participants. The assessments were determined by five point scale: 2 – «not observed», 3 – «satisfactory», 4 – «good», 5 – «very good», 6 – «excellent».

The results by criterion «joint activity in the task implementation» are presented in Table 1 for each of its indicators.

Table 1

Joint activity in the task implementation

	clear objectives	striving to achieve the objectives	taking joint decisions
Specialty «Medical Rehabilitation and Ergotherapy»	2 – 0% 3 – 0% 4 – 10,53% 5 – 36,84% 6 – 52,63%	2 – 0% 3 – 11,11% 4 – 10,53% 5 – 42,10% 6 – 42,10%	2 – 0% 3 – 11,11% 4 – 11,11% 5 – 52,63% 6 – 36,84%
Specialty «Social Activities»	2 – 0% 3 – 0% 4 – 11,11% 5 – 47,37% 6 – 47,37%	2 – 0% 3 – 0% 4 – 10,53% 5 – 47,37% 6 – 42,10%	2 – 0% 3 – 0% 4 – 10,53% 5 – 52,68% 6 – 36,84%
Overall assessment of students from both specialties	2 – 0% 3 – 0% 4 – 7,84% 5 – 42,10% 6 – 50,00%	2 – 0% 3 – 2,63% 4 – 10,53% 5 – 44,74% 6 – 42,10%	2 – 0% 3 – 2,63% 4 – 7,84% 5 – 52,63% 6 – 36,84%

The students from both programmes did not point for any indicator the score «not observed». The students in Medical Rehabilitation and Ergotherapy, were a little bit more critical, who although low (11,11%) rated as «satisfactory» the indicators «striving to achieve the objectives» and «taking joint decisions». The other results from the assessments of the students from both programmes were approximately equal. The total values revealed that the indicator «clear objectives» had the highest «excellent» rating (50,00%), followed by the indicator «striving to achieve the objectives» (42,10%) and «the indicator «taking joint decisions» (36,84%). The «very good» rating had approximately the same values as only for the indicator «taking joint decisions» it was the highest (52,63%).

The results justified the assumption that the project objectives were clear, specifically focused to the interests of the future specialists and related to resolving current socially relevant problems. The higher results indicated the aim of the team working on the project to achieve the specified objectives. However, students are critical to any colleagues who do not show enough commitment. Most of the team members actively

participated in the decision taking. They approved the way of decision-making, which in this case stimulated discussion and sharing of ideas between them.

The results of the survey for the criterion «level of activity» per indicators are shown in Table 2.

Table 2

Level of activity

	support	acceptance of different viewpoints	commitment to work
Specialty «Medical Rehabilitation and Ergotherapy»	2 – 0% 3 – 0% 4 – 10,53% 5 – 31,58% 6 – 57,89%	2 – 0% 3 – 0% 4 – 10,53% 5 – 47,37% 6 – 42,10%	2 – 0% 3 – 0% 4 – 10,53% 5 – 36,84% 6 – 52,63%
Specialty «Social Activities»	2 – 0% 3 – 0% 4 – 11,11% 5 – 42,10% 6 – 52,63%	2 – 0% 3 – 0% 4 – 10,53% 5 – 42,10% 6 – 47,37%	2 – 0% 3 – 0% 4 – 10,53% 5 – 42,10% 6 – 47,37%
Overall assessment of students from both specialties	2 – 0% 3 – 0% 4 – 7,89% 5 – 36,84% 6 – 55,26%	2 – 0% 3 – 0% 4 – 10,53% 5 – 44,74% 6 – 44,74%	2 – 0% 3 – 0% 4 – 10,53% 5 – 39,47% 6 – 50,00%

The assessments of the surveyed students revealed the same tendency for this criterion. For example, none of the indicators were rated as «not observed» and «satisfactory». Again and the other assessments of the students in both programmes were almost equal. The highest «excellent» rates were given for the indicator «support» (55,26%), followed by the indicator «commitment to work» (50,00%) and «acceptance of different viewpoints» (44,74%). The values for all three indicators as «good» were low. The rates as «very good» were almost equal, as the higher rating was for the indicator «acceptance of different viewpoints» (44,74%).

The students – respondents rated highly the support they had provided and received by their peers during the implementation of the activities. The project participants were able to listen to the other team members. Different viewpoints were disputed in an open discussion and the joint decision was taken. The students exhibited high activity and commitment to the implementation of the project activities. It was also

important to be noted that the team members were critical and strict to the implementation of the commitments of each of its members.

The results of the survey for the criterion «level of partnership» per indicators are presented in Table 3.

Table 3

Level of partnership

	self-assessment for the work on the project	assessment of collaboration with colleagues from the speciality	assessment of collaboration with partners
Specialty «Medical Rehabilitation and Ergotherapy»	2 – 0% 3 – 0% 4 – 10,53% 5 – 47,37% 6 – 42,10%	2 – 0% 3 – 0% 4 – 10,53% 5 – 36,84% 6 – 52,63%	2 – 0% 3 – 0% 4 – 10,53% 5 – 36,84% 6 – 52,63%
Specialty «Social Activities»	2 – 0% 3 – 0% 4 – 10,53% 5 – 42,10% 6 – 47,37%	2 – 0% 3 – 0% 4 – 11,11% 5 – 42,10% 6 – 52,63%	2 – 0% 3 – 0% 4 – 11,11% 5 – 42,10% 6 – 52,63%
Overall assessment of students from both specialties	2 – 0% 3 – 0% 4 – 10,53% 5 – 44,74% 6 – 44,74%	2 – 0% 3 – 0% 4 – 7,89% 5 – 39,47% 6 – 52,63%	2 – 0% 3 – 0% 4 – 7,89% 5 – 39,47% 6 – 52,63%

The tendency from the previous criterion was kept for this one too as there were not pointed ratings «not observed» and «satisfactory». The students from both programmes were a little bit more self-critical for the indicator «self-assessment for the work on the project». For this indicator in the overall assessment for «very good» and «excellent» they gave the same values (44,74%). For the other two indicators of the criterion («assessment of collaboration with colleagues from the speciality» and «assessment of collaboration with partners») the values were the same both in the ratings per majors and in the overall rates. For example, in the overall rate the values were as followed: «good» – 7,89%, «very good» – 39,47%, and the highest «excellent» – 52,63%.

Despite the high rates of the assessments for this criterion the students had critical attitude to their self-assessment for their work on the project. They greatly appreciated their collaboration with colleagues both from their speciality and with the colleagues from other speciality. This joint work was defined as a condition for building cooperation and support, as a condition for acquiring and developing professional skills and competencies to work in a multidisciplinary team.

3.2. Cooperation between students and older people

Examine the effectiveness of cooperation between students and users of social services (old people from specialized institutions).

The opinion of totally 53 project participants is examined, older people from Nursing Home in Bohot village, municipality of Pleven, district of Pleven – 26 persons, and Nursing Home in Gorna Mitropolia village, municipality of Gorna Mitropolia, district of Pleven – 27 persons.

The inquiry is done through a questionnaire for assessment of the effectiveness of the students' collaboration activities in Land a Hand project. The questionnaire consists of two general groups of criteria: general assessment of the project and assessment of the partnership between students and users. For each group of criteria three indicators are set. The results on each indicator are summarized in % for number of answers against number of participants in the inquiry. Assessment is done using a three-point scale: 0 – weak, 1 – good, 2 – excellent. The questionnaire has an additional question: «What do you obtain from the collaboration work on the project with the students?». The older people have the option to give more than one answer. Results are calculated in %, for a number of answers against total number of participants in the inquiry.

The results for General Assessment of the Project are displayed in Table 4, for each indicator of the criterion.

Table 4

General Assessment of the Project

Specialized institution	project objectives	access to activities	project results
1. Nursing Home in Bohot	0 – 11,53%	0 – 3,85%	0 – 7,69%
	1 – 34,62%	1 -26,92%	1 – 34,62%
	2 – 53,85%	2 – 69,23%	2- 57,69%

2. Nursing Home in Gorna Mitropolia	0 – 7,41% 1 – 40,74% 2 – 51,85%	0 – 3,70% 1 – 29,63% 2 – 66,67%	0 – 7,41% 1 – 37,03% 2 – 55,56%
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The results show that the participants in the inquiry, from the two specialized institutions, give the highest rating – 2 points, to the indicator access to activities (Nursing Home in Bohot village – 69,23%, Nursing Home in Gorna Mitropolia village – 66,67%). Next in rating are project results (57,69% и 55,56%) and project objectives (53,85% и 51,85%). The ratings of this criterion received a few low points – 0 (weak). These ratings are highest for project objectives indicator (Nursing Home in Bohot village – 11,53%, Nursing Home in Gorna Mitropolia village – 7,41%). For project results the ratings of Nursing Home in Gorna Mitropolia village have the same value (7,41%), and the ratings of Nursing Home in Bohot village – 7,69%. Respectively, for access to activities the values are the lowest ones (3,85% и 3,70%).

The ratings in the questionnaire answers provide grounds to assume, that the project objectives have pressing and important character for the older people, users of the social service Nursing Home. The planned activities are adequate to set goals and to the abilities and interests of the users. The project results have an immediate relation to the process of social inclusion of older people

The results for criterion assessment of partnership between students and users are displayed in Table 5.

Table 5

Assessment of partnership between students and users

Specialized institution	making joint decisions	collaboration between students	collaboration with students
1. Nursing Home in Bohot	0 – 0% 1 – 38,46% 2 – 61,54%	0 – 11,53% 1 – 34,62% 2 – 53,84%	0 – 0% 1 – 26,92% 2 – 73,08%
2. Nursing Home in Gorna Mitropolia	0 – 0% 1 – 37,03% 2 – 62,96%	0 – 7,41% 1 – 40,74% 2 – 51,85%	0 – 0% 1 – 33,33% 2 – 66,67%

As a whole, the ratings of this criterion do not have 0 points, with the exception of *collaboration between students*, where the values are 11,53% for Nursing Home in Bohot and 7,41% for Nursing Home in Gorna Mitropolia. The highest ratings – 2 points

(excellent) – are given for *collaboration with students* (73,08% и 66,67%). The indicators *making joint decisions* (61,54% и 62,96%) and *collaboration between students* (53,84% и 51,85%) follow. It is a favorable impression that the ratings for this criterion, given by the two groups of participants are almost equal.

The results give grounds to state, that, within the framework of project implementation, connection of collaboration and partnership between the students and the older people -users of the social service, is established. The possibility to discuss and make joint decisions ensured the successful realization of the activities. The participants interact and build a partnership relation which grants the effectiveness of the project.

The participants reply to the additional question:»What do you obtain from the collaboration work on the project with the students?» as follows: satisfaction – 60,38%, moral support – 62,26%, confidence in own powers – 75,47%, independency – 58,49%, improved general physical and health state- 73,58%, friendship – 77,36%, sense of importance – 79,25%, trust – 71,70%, self-respect – 81,13%.

The results give grounds to assume, that the participation of the older people in the project activities, related to entertaining work therapy, bring satisfaction, moral support and sense of confidence in their own powers. As a whole, they improve their general physical and health state by performing interesting and important activities, together with their friends – the students. In environment of trusted communication they feel important and before all, are not lonely. The options to do interesting things bring out satisfaction and self-respect.

4. Conclusion

In conclusion, it could be stated that the project work in the training of students is a prerequisite for the formation and development of professional skills in the future specialists. The project participants assumed the implementation of the planned activities as a challenge, as an opportunity to put into practice the theoretical knowledge.

Ideas and knowledge are being exchanged, and professional experience is accumulated in the future specialists. Demand and supply of various forms of communication between the students and the users of the social service is stimulated.

Students realize their ideas in a supportive and safe environment, they learn how to make decisions and take responsibility. So they develop their professional competencies for collaboration and cooperation with other professionals in a multidisciplinary team.

The inclusion of the older people in various activities, important to themselves, and that support their dignity and develop positive concept of their own significance define the effectiveness of the exercised project method in students' training.

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