The Impact of the Project Method on the Development of Leadership Skills in Students

VALENTYNA O. TYURINA[1], HANNA Y. SHEVCHUK[2], YULIYA D. KRIUKOVA[3],
MYKOLA M. LUKASHCHUK[4], VIKTORIIA M. SAVISHCHENKO[5]

[1]Department of Sociology and Psychology, Faculty №6, Kharkiv National University of Internal Affairs, 27 Lva Landau Avenue, 61080, Kharkiv,
UKRAINE

[2]Department of Pedagogics and Innovative Education, Lviv Polytechnic National University, 12 Stepana Bandery Street, 79013, Lviv,
UKRAINE

[3]Department of Foreign Languages for Sciences, Faculty of foreign Philology, Lesya Ukrainka Volyn National University, 13 Voli Avenue, 43025, Lutsk,
UKRAINE

[4]Chemical and Pharmaceutical Disciplines Department, Faculty of Medicine and Pharmacy, Municipal Institution of Higher Education "Rivne Medical Academy" of Rivne Region Council, 53 Karnaukhova Street, 33000, Rivne,
UKRAINE

[5]Faculty of Law, Dnipropetrovsk State University of Internal Affairs, 26 Gagarina Avenue, 49005, Dnipro, UKRAINE

Abstract: — The article examines the influence of the project method on the development of leadership skills of students. The information on using the project method in high school and specifics of development of the leader's personality in student age is analyzed. A set of research methods was used: pedagogical experiment, testing, observation, Student's t-test. The study involved 292 people. The predominance of medium indicators of leadership skills of respondents was revealed. Such components as motivation for success and volitional self-control were the least developed. After conducting a formative experiment in the control group, no significant changes were found in all the studied parameters of leadership. In the experimental group, where individual projects were implemented, positive changes were recorded only in the component of motivation for success. The method of group projects has demonstrated effectiveness for the development of all the studied skills, except volitional self-control. The significance of all detected changes is at the level of p=0.05, which determines the need for further modification of the method used. Areas of improvement of group projects are prevention of possible conflicts, complication of educational assignments, realization of qualitative discussion of the final result, taking into account the connection of activity with the specifics of professional training. The obtained data can be used in the practice of teachers and psychologists of higher educational institutions (HEIs) in the development of the leadership skills of students. Further prospects for scientific research include studying the leadership competence of students and finding the correlation of leadership skills with the structural components of personality.

Keywords: — Project method, leadership skills, communication skills, organizational skills, motivation for success, volitional self-control, emotional intelligence.

1. Introduction

THE problem of leadership is very relevant in pedagogical science, as its solution allows to optimize the interaction in groups of students, which will increase the efficiency of teaching and education. In this context, it is important to clarify the basic terminology. It is typical to define leadership as the power of a participant in social interaction (leader), which is manifested in the recognition of the right to make responsible group decisions, determining the direction and nature of community activities [1]. That is, the leader is the most authoritative person in the social group. Theoretical literature distinguishes between the phenomenon of leadership (informal, spontaneous, based on interpersonal communication) and management (official, organized, controlled, based on a system of sanctions) [2].

In modern science, the popularity of the concept of emergence is growing, which involves the analysis of the phenomenon of leadership as a system with the characteristics determined not only by personality traits but also by the

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activity of other participants in the interaction [3]. It is also relevant to study the development of so-called collective leadership, which is to develop the leadership skills of all members of the group, not a particular person [4]. The studies are based on the use of the principles of the so-called "Telos Leadership Lens". According to the provisions of this concept, the phenomenon of leadership is defined through the following theses: 1) the collective thrive for a certain goal; 2) the responsibility of the majority, not the privilege of the minority; 3) compliance with the sustainable development goals [5]. The humanistic tradition corresponds to the concept of leadership-service, which reflects the altruistic orientation of the authoritative person, care for subordinates, lack of authoritarian tendencies, focus on community cohesion [6]. This is why modern science urges an approach that excludes authoritarian tendencies and describes leadership influence on the basis of positive group processes and the dominance of benevolence.

A necessary condition for the success of a modern young person is the ability to produce social interaction. Therefore, the issue of developing leadership skills that determine the active position of young people in society is topical. In this context, it should be remembered that quality higher education involves not only the professional development of students in a particular major, but also the full development of personality. Initiative, communication, organizational skills, social determination, developed emotional intelligence — all these qualities are the basis of effective leadership and need to be developed during the student age. Regulatory acts, as well as educational and professional programs emphasize the importance of developing leadership skills of students, but this task often remains at the level of declaratory statements and does not find practical implementation. This situation is due to a number of reasons, one of which is the lack of scientifically sound methodology for the development of the leader's personality in student age. It is important not only to search for new approaches to the development of leadership skills, but also to turn to well-known educational approaches that involve active social interaction in the educational process.

In the context of the development of leadership skills, educational institutions should adhere to the following recommendations: 1) definition of a productive philosophy of leadership; 2) clear formulation of goals and results of development programs; 3) creating an effective system for assessing the level of leadership skills; 4) development and discussion of specific curricula aimed at developing student leadership; 5) optimal integration of leadership development classes in the educational process of HEIs [7]. The main conditions for the effective development of leadership skills in students are the following: 1) expanding the rights and opportunities of students; 2) creating situations of success, which involves focusing on feedback and opportunities for participants in education; 3) ensuring the cognitive interest of students in educational activities; 4) providing teachers' support [8].

In the context of the topic of our study, it is advisable to consider the basic characteristics of the implementation of the project method in the pedagogical process. Project-based learning is a method that involves the independent activity of students in the implementation of significant projects and the development of real — material or ideal products. The use of the project method in primary, secondary and higher education demonstrates high efficiency [9]. The main features of this technology are topical research issues, focus on educational goals, implementation of projects in the context of curriculum implementation, cooperation between students, activity planning, creation of material or ideal objects (summarizing), presentation of results [10]. In this case, the need to create the final product is defined as the main characteristic of the method [11].

The author of [12] identifies the following types of projects: 1) research, where the leading research activity is based on the selection of a particular problem and a particular plan; 2) creative projects do not provide a clear plan, but only focus on the image of the final product (film, newspaper, event, presentation, etc.); 3) role — the activity is implemented in accordance with the defined roles and the selected plot; 4) information, involving the collection, analysis and systematization of data on the subject of research; 5) introductory-indicative are considered as a module of information projects; 6) practice-oriented — their result is determined at the beginning of the activity and takes into account social interests. There are also individual and group projects, depending on the number of participants who perform the assignment.

The issue of evaluating the implementation of the educational project is important. There are the following indicators of the effectiveness of students' work on the project: 1) clarity of formulation of goals and objectives; 2) quality and depth of theoretical analysis of the problem; 3) consistent study of statistical data; 4) the logic and feasibility of the proposed ways to solve the problem; 5) the level of reflection in the process of solving an individual creative assignment; 6) the quality of the presentation of the final product [13].

The study of the impact of the project method on the development of personal qualities of students is episodic. However, we found a study that analyzes the effectiveness of the project method for shaping the leader's personality in the student age [14]. In particular, the reasonability of using projects to develop the ability to work in a team, purposefulness, determination, and communication of students was confirmed.

Thus, the analysis of theoretical literature shows the high topicality of studying the phenomenon of leadership, features and methods of shaping the leader's personality in the student environment. A promising area is the study of the possibilities of using the project method for the development of leadership skills in the process of obtaining higher education.

The aim of the article is to explore the possibilities of implementing the method of individual and group projects for

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the development of the leader's personality in student age.

Objectives of the study:

1) find out the peculiarities of the development of leadership skills in the student age;

2) determine the conditions for the effective use of the project method to stimulate the leadership potential of students;

3) analyze the quality of the impact of the project method on the development of leadership skills in students.

2. Materials and Methods

A study was conducted to achieve the aim and fulfill the objectives, that included the following stages:

1. Theoretical — analysis of the features of the project method in higher education, consideration of factors and structure of the development of leadership skills in students. This stage provided for distinguishing the studied components and the levels of their development. The following leadership skills were chosen: leadership abilities, communicative and organizational skills, motivation to success, perseverance, endurance, general volitional self-control, emotional intelligence. The selected components reflect the most relevant characteristics of the modern leader and reflect the main substructures of personality — communicative, motivational, emotional, volitional, cognitive. The levels of the studied components — high, medium, low — are determined. The basis for the selection of these levels are the scales of selected methods.

2. Planning, conducting and describing the results of the summative assessment. The stage involved a preliminary study of the levels of leadership skills of students. The total number of subjects was 292 people. Students aged 19-21 took part in the initial empirical data slice. Empirical data were collected at Lesya Ukrainka Volyn National University, Lviv Polytechnic National University, and Kharkiv National University of Internal Affairs. The empirical data slice was made between January and February 2021. A set of diagnostic tools was chosen [15]:

1) Diagnostics of Leadership Skills (Ye. Zharikov, Ye. Krushelnytskyi);

2) methods of assessing communicative and organizational skills — COS by V.V. Siniavskyi and B.A. Fedoryshyn;

3) methods of studying the motivation for success of T. Ehlers;

4) volitional self-control questionnaire;

5) N. Hall's Emotional Intelligence Test.

It should be noted that we paid attention only to the general indicator and did not evaluate individual scales in the methods for determining self-control and development of emotional intelligence. The indicators of the scales of the selected tests were evaluated according to the levels that we determined.

To confirm the validity of the means used, a group of 50 people who did not participate in the main study was previously formed. The results of the respondents were checked through expert evaluation. Teachers and classmates of

the subjects acted as experts. In the vast majority of cases (92%) the identity of test results and expert opinions was recorded, which indicates the validity of the tools used. The reliability of the methods was checked by re-testing. As a result of this procedure, the presence of similar qualitative levels of the studied traits in 88% of respondents was revealed. The results indicate that the tests used meet the psychometric requirements. 3. Planning and conducting a formative experiment. The experimental (101 and 102 people) and control samples (89 people) were formed from among the participants of the summative assessment. The experimental impact involved the implementation of the project method as an independent variable. Accordingly, the dependent variable determines the leadership skills of students. Individual projects were implemented in the first experimental group, while group projects were implemented in the second one, the project method was not used in the control group. This approach was chosen to determine the impact of social interaction on leadership skills in the course of the project implementation. The formative experiment was conducted in February – April 2021.

The topics of the projects and the plan of their implementation were previously agreed with the teachers. Topics were selected according to the majors of the students — History, Foreign Language, Legal Psychology, Legal Aspects of Social Life. Examples of selected assignments: "The main difficulties of self-study of foreign languages", "Psychological features of learning English grammar", "Features of the discussion of historical issues on the Internet", "Components of the historian's competence", "The offender's image in public", "Legal aspects of the network trolling". So, the projects that went beyond the curriculum and required an active research position were selected for the study. Implementing group projects provided for active, equal interaction of participants in educational activities. Let us note that due to quarantine restrictions, the interaction of project participants was carried out through video communication platforms (Zoom, Google Meet).

4. Repeated diagnostic data slices and analysis of the results of the formative experiment, namely — the transformation of the levels of the studied leadership skills. Student's t-test was used to identify the significance of differences.

5. Drawing general conclusions about the effectiveness of the project method (individual and group) for the development of leadership skills in students. Thus, the following methods were used in the research — formative experiment, observation, testing, statistical data processing methods. Data processing was performed in SPSS, Version 16.

Students' prior consent was required to participate in the study. Also, the content of the methods used does not demean the subjects.

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3. Results

Table 1. The results of an empirical study of leadership skills of students

Leadership skills	Development levels					
	Low		Medium		High	
	%	Number of people	%	Number of people	%	Number of people
Leadership abilities	29.79	87	49.32	144	20.89	61
Communicative skills	10.89	32	67.81	198	21.32	62
Organizational skills	23.63	69	57.88	169	18.49	54
Motivation for success	20.89	61	69.52	203	9.59	28
Volitional self-control	25.34	74	60.62	177	14.04	41
Emotional intelligence	17.46	51	59.25	173	23.29	68

Analyzing the results of the summative assessment (Table 1) it was found that the vast majority (half of the respondents) of surveyed students are characterized by medium indicators of leadership skills. The low level of the studied component somewhat prevails in comparison with the high one. According to the results of this methodology, no students were prone to dictation in the manifestations of leadership. Let us note that in the context of the methodology, the ability to lead is understood as the ability to confident social behavior and productive influence on others.

The dominant part of the surveyed students has medium-level communicative skills. The high level of parameter prevails in comparison with a low one. In general, the manifestations of communicative skills exceed the manifestations of leadership abilities. That is, communication skills do not necessarily involve the possibility of social influence.

Organizational skills are an important condition of a leader's behavior, as they reflect the ability to coordinate group interaction. The trend of dominance of the middle level continues. At the same time, the organizational skills of the surveyed students are less developed than the communicative skills, which is manifested in the low ability to coordinate joint activities.

Motivation for success is a necessary condition for the effective leader's influence. The dominance of the medium values of the component was revealed in the studied sample. High values of the parameter are insignificant. We can say that the studied period is not characterized by a strong desire to succeed. We explain this situation by frustration with the chosen profession and objective difficulties that hinder the self-realization of an individual. Lack of a clear focus on success hinders productive manifestations of leadership skills.

Volitional self-control reflects the possibility of striving to overcome obstacles in social interaction. The medium level of the component dominates. Problems with volitional control can be associated with manifestations of maximalism and increased personal impulsiveness.

Emotional intelligence in its most general form can be explained as the ability to understand other people, which determines the choice of the most optimal social strategy. The trend of the predominance of medium values continues. Low and medium values were distributed similarly. That is, students of the study period can quite effectively understand the emotions of others.

Let's analyze the results of the formative experiment. Typical features of the implementation of educational projects were recorded in the process of observation. In particular, group projects were better implemented, which was reflected in higher estimates of the final product. However, during the group work, there were conflicts related to the distribution of functional roles in joint work. At the same time, students who implemented individual projects were more often encouraged by teachers to work independently.

Let's analyze the shifts for each studied component that were found in the process of secondary diagnosis. The results of the formative experiment are presented in Table 2.

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Table 2. Dynamics of levels of leadership skills of students as a result of formative experiment

Leadership skills	Development levels	Number of respondents											
		CG				EG 1 (individual projects)				EG 2 (group projects)			
		Before the impact		After the impact		Before the impact		After the impact		Before the impact		After the impact	
		%	Number of people	%	Number of people	%	Number of people	%	Number of people	%	Number of people	%	Number of people
Leadership abilities	Low	32.58	29	29.21	26	30.69	31	26.73	27	26.47	27	6.86	7
	Medium	48.31	43	51.69	46	50.5	51	54.46	55	49.02	50	49.02	50
	High	19.19	17	19.19	17	18.81	19	18.81	19	24.51	25	44.12	45
Communicative skills	Low	10.11	9	7.87	7	13.86	14	8.91	9	8.82	9	1.96	2
	Medium	69.66	62	71.9	64	66.34	67	69.3	70	67.65	69	58.82	60
	High	20.23	18	20.23	18	19.8	20	21.79	22	23.53	24	39.22	40
Organizational skills	Low	24.8	22	24.8	22	24.75	25	20.79	21	21.57	22	6.86	7
	Medium	54.97	49	54.97	49	58.42	59	61.39	62	59.8	61	51.96	53
	High	20.23	18	20.23	18	16.83	17	17.82	18	18.63	19	41.18	42
Motivation for success	Low	24.8	22	22.47	20	19.8	20	9.9	10	18.63	19	3.92	4
	Medium	66.29	59	65.17	58	70.3	71	65.35	66	71.57	73	65.69	67
	High	8.91	8	12.36	11	9.9	10	24.75	25	9.8	10	30.39	31
nal self-	Low	29.21	26	28.09	25	23.76	24	23.76	24	23.53	24	24.5	25

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	Medium	58.43	52	59.55	53	61.37	62	56.44	57	61.76	63	58.82	60
	High	12.36	11	12.36	11	14.87	15	19.8	20	14.71	15	16.68	17
Emotional intelligence	Low	26.97	24	26.97	24	13.86	14	13.86	14	12.76	13	2.94	3
	Medium	56.18	50	56.18	50	62.38	63	60.4	61	62.75	64	58.82	60
	High	16.85	19	16.85	19	23.76	24	25.74	26	24.49	25	38.24	39

The control group did not show significant changes on the component of leadership skills. The number of people with a high level has not changed at all. Medium and low levels of leadership skills have changed insignificantly — by 3.3%. No significant changes were found in the experimental group, where individual projects were implemented. The high level of the component did not change after the formative impact. The medium values increased in four students, that is by 3.96%. Accordingly, the low level also changed to a similar percentage. In the second experimental group, where the method of group projects was implemented, more significant changes in the level of leadership skills were revealed. The low level of the component decreased by 19.61%. The medium level remained stable, but its qualitative distribution changed. The high level of leadership skills, respectively, increased in 19.61% of students. That is, the method of group educational projects turned out to be the most effective for the development of leadership skills, which is explained by the need for intensive social interaction when completing educational assignments.

In the control group, low and medium levels of communicative skills changed in two respondents after the experiment (by 2.24%). The high level of the component remained unchanged. In the first experimental group, the number of students with a low level of communicative skills decreased by 4.95%, the number of people with a medium level increased by 2.9%, and the high level changed by 1.9%. That is, the implementation of individual training projects does not significantly affect the development of communication skills. In the sample where group training projects were implemented, the indicators of low level of communicative skills decreased by 6.9%, and the medium — by 8.83%. At the same time, the percentage of people with a high level of the studied component increased by 15.79%. That is, the method of group projects is effective for the development of the communicative skills of students.

The results of the analysis of the dynamics of organizational skills indicate the absence of qualitative changes in the control group. Secondary diagnostics revealed the stability of the primary empirical data slice. In the first experimental sample, the low level changed in four individuals (by 3.96%). The medium level of organizational skills increased in three people (by 2.97%), and high rates increased in one student. That is, the method of individual projects has shown little effect on the individual's ability to social organization. In the second experimental group, the percentage of people with a low level of this quality changed by 14.71%%. The medium level decreased in eight subjects (by 84%). The high level increased to 22.55% of students. The effectiveness of the impact of group projects on the development of organizational skills can be explained by the specifics of their implementation, which requires high coordination of efforts and productive distribution of roles.

The low level of motivation for success in the control group changed in two people — by 2.33%. Changes in the average level in one subject were recorded. The high level increased in three people — by 3.45%. That is, the changes found in the control group are insignificant. When using individual projects, the low level of motivation for success decreased in 9.9% of students. The medium level of the studied component changed by 4.95%. High rates of motivation for success increased by 14.85% after the formative impact. The second experimental group revealed the following trends: the low level of the studied component changed by 14.71%, and the average level decreased by 5.88%. The number of people with high indicators increased significantly - by 20.59% of respondents. Thus, the implementation of group projects has a positive effect on the motivation for success in student age. This situation can be explained by the positive impact of social competition and the focus on positive self-presentation in society.

Indicators of volitional self-control in the control group almost did not change: the high level remained stable, and the shift of medium and low values was recorded in only one person. In the first experimental group, the low level of the component remained constant (found in 23.76% of students).

Medium and high levels of symptoms were transformed in five respondents, that is 4.93% of subjects. In the second experimental group, low values of volitional self-control decreased in one person, medium — in three people, and high values increased in two respondents. The percentage differences in the detected changes are 0.97%, 3.24% and 1.97%, respectively. That is, there was no significant positive dynamics of self-control indicators in all three samples. This situation may be caused by the lack of complexity and control of the proposed form of work.

Indicators of emotional intelligence in the control group did not change after the psychological and pedagogical experiment. In the experimental group, where individual projects were implemented, the number of subjects with low components did not change. Medium and high levels of emotional intelligence were transformed in two respondents. In the second experimental group, the changes in the studied component are more significant. The low level decreased in

9.82% of students. The medium level changed in four subjects (3.93%). High levels of emotional intelligence increased significantly in 13.95% of respondents. Thus, the method of group projects is effective for developing the ability to understand other people in the student age.

The Student's t-test for dependent samples was used to confirm the hypothesis about the effectiveness of using the method of individual and group projects for the development of leadership skills in students. It should be noted that the use of this statistical tool was justified by the fact that the studied statistical series are dominated by averages. That is, the trends of the array of the studied data correspond to the normal distribution, which gives grounds for the use of the parametric criterion of significance. With this in mind, Student's t-test was chosen for the dependent samples, which allows determining the relevance of the difference between the results of primary and secondary diagnostics.

The results of the analysis are presented in Table 3.

Table 3. Indicators of Student's t-test of leadership skills

Components of leadership skills	Student's t-test		
	Control group	Experimental group 1	Experimental group 2
Leadership abilities	1.01	1.37	2.21*
Communicative skills	0.91	0.93	2.35*
Organizational skills	0.23	1.46	2.45*
Motivation for success	0.88	2.03*	2.12*
Volitional self-control	0.67	0.56	1.13
Emotional intelligence	0.94	1.02	2.53*

The coefficients marked with an asterisk reflect the significance of the differences at the level of p=0.05, and the coefficients with two asterisks show the significance of the differences at the level of p=0.01.

All the studied parameters in the control group, namely — leadership skills, communication and organizational skills, motivation for success, volitional self-control, emotional intelligence — have not undergone significant changes. This conclusion is confirmed by the relevant coefficients.

In the experimental group, where individual projects were implemented, significant changes were detected only in the component of motivation for success. The analysis of indicators of other studied structures gives the grounds to state lack of efficiency of application of individual projects for the development of the leader's personality.

In the experimental group, where the method of group projects was implemented, significant differences were not found only in the parameter of volitional self-control. The analysis also showed the effectiveness of the chosen method for the development of leadership skills, communication and organizational skills, motivation for success, and emotional intelligence. The significance of all identified differences in leadership skills is at the level of p=0.05. Such results open opportunities for optimization of the used formative programs. Thus, statistical data processing confirms the effectiveness of

using the method of group educational projects for the development of leadership skills in students. At the same time, the implementation of individual projects did not demonstrate significant effectiveness.

4. Discussions

The summative assessment revealed the predominance of average indicators of leadership abilities and the lack of propensity to dictate in the surveyed students. It is interesting that by studying engineering students, researchers have concluded that the relevance of flexible leadership skills is gradually declining and that rigid behaviours are becoming more important [16]. The differences in the results can be explained by socio-cultural conditions and the specifics of the major of students.

The dominance of the average indicators of the studied parameters of student leadership opens up opportunities for both development and their regression, depending on the peculiarities of the organization of the pedagogical process. In general, modern students are characterized by a tendency of insufficient development of leadership skills, which is confirmed by the results of a study of students of economic universities [17].

In the mentioned scientific research, the level of leadership skills in students is determined by the following criteria: 1) personal (erudition, activity, determination, confidence); 2) professional and managerial (persistence, independence, initiative, organization, diligence, creativity); 3) command-leadership (sociability, ability to persuade, emotional attractiveness, self-control, ability to positive group influence). These criteria can serve as guidelines for expanding and deepening further research on the problem.

Other researchers have also confirmed the effectiveness of the project method in the formation of leadership qualities [18, 19]. There is also a relationship between academic performance and student management of educational projects [20]. In this context, it is worth noting that leadership relationships provide for four basic elements: influence-based interaction, the subjects of interactions, the desire for real change, the focus on common goals [21]. Note that researchers emphasize the socio-psychological problems in the implementation of project-based learning, in particular the lack of clear rules for interpersonal interaction [22].

Leading qualities of modern student leaders are the ability to stimulate the strengths of the environment to achieve the goal, adequate assessment of emotions, management of their own emotional sphere, empathy, motivation, social skills, ability to prioritize and delegate [23]. Such considerations confirm the reasonability of the leadership skills chosen for our study. The importance of emotional intelligence for effective leadership corresponds to the conclusions about the need for empathy in the activities of student leaders [24].

The positive influence of the project method on the success of students' learning in the study of chemical science [25], ecology [26], biology [27], in the field of teacher training [28] and engineers [29]. There is a positive impact on the motivation of students [30]. These scientific researches testify to the positive influence of the project method on the academic success and personal development of students, which is confirmed by the results of our research.

In the context of our work, the study of the peculiarities of the development of leadership skills in students in the use of information technology is worth noting [31]. Such researches are topical because they will help optimize the implementation of remote developmental influence in the context of quarantine restrictions.

The analysis of statistical data gives grounds to assert that the use of the group project method for the development of leadership skills needs further optimization. In particular, it is advisable to pay attention to the reorganization of social interaction when completing assignments. The activities in project groups may involve the division into subgroups, where a certain part of the participants act as critics and objectively analyze the quality of the product [32]. This approach will update the competitive aspect of social interaction and stimulate the development of leadership skills in students.

The basic conditions for the development of leadership skills in students are worth noting: 1) ensuring a variety of activities; 2) development of effective student self-government; 3) ensuring the stimulating role of learning; 4) development of student body; 5) teacher's productive influence on group processes [18]. In exercising the formative influence, we tried to comply with these requirements, but a promising vector is the integration of educational projects with the activities of student self-government. It is also necessary to take into account the relationship of leadership with the specifics of vocational training of students [33].

Optimization of research problems involves changing the subject — from leadership skills to leadership competence. At the same time, the concept of leadership competence of students is explained as a component of professional competence, which involves the ability to achieve the goals and objectives of leadership, the availability of relevant knowledge, emotional attitude and value structure [34].

Thus, the obtained results confirm the effectiveness of the method of group projects for the formation of leadership qualities of students. This trend can be attributed to the high intensity of social interaction in the form of work used. The individual form of project activity has a minimal impact on leadership qualities, as it does not involve strong communication. The dominance of average leadership indicators among students can be explained by the lack of purposeful pedagogical work aimed at the development of the phenomenon under study. The results of the analysis of theoretical sources open opportunities for improvement of formative activity

5. Limitations

Note that the implementation of group projects took place through networking, which also affected the results. Further, it is necessary to explore the features of the impact of project activities on leadership qualities in the context of direct communication.

6. Conclusions

Improving the effectiveness of the development of leadership skills in students depends on the reasonable use of methodological tools, where the method of projects is especially relevant, which involves active independent activities of students and the focus on product creation. Usually, the influence of project methods on the success of students' learning activities is studied, while the importance of using projects for personality development, in particular, leadership skills is insufficiently studied.

The summative assessment revealed the dominance of the medium level of the studied parameters. The least developed leadership skills are motivation for success and volitional self-control, which can be explained both by the peculiarities of age development and the unfavorable social situation of development. The method of group projects has shown effectiveness in the development of leadership skills on all criteria, except volitional self-control. Individual project

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technique is effective only in developing the motivation for success. It can be stated that the key factor in the development of leadership skills of students in the course of project implementation is the structure of social interaction. With this in mind, the main areas of improvement of group projects are conflict prevention, complication of educational material, discussion of the end result, taking into account the relationship of activities with the specifics of professional training, and effective management position of the teacher. It is reasonable to use the obtained data in practice of higher educational institutions in the context of the development of leadership skills in students and improvement of a project method implementation. Further prospects for studying the issue include studying the leadership competence of students and finding the correlation of leadership skills with the structural components of personality.

7. Conflict of Interest

The authors declare no conflict of interests.

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)
All authors contributed equally to the creation of the given scientific article.