



The Use of Creative Projects Method by Primary School Teachers as a Means of Enhancing the Learning Motivation

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Journal for Educators, Teachers and Trainers, Vol. 14 (2)

<https://jett.labosfor.com/>

Date of reception: 04 Jan 2023

Date of revision: 17 Mar 2023

Date of acceptance: 20 Mar 2023

Marianna Ostrovska, Kateryna Margitych, Nadiia Bryzhak, Ihor Bopko, Marianna Bedevelska (2023). The Use of Creative Projects Method by Primary School Teachers as a Means of Enhancing the Learning Motivation .*Journal for Educators, Teachers and Trainers*, Vol. 14(2). 487-499.

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ABSTRACT

The aim of this study was to determine the influence of the creative projects method on the learning motivation of primary schoolers. The following methods were used for this purpose: semi-structured interviews, surveys. The Torrance Tests of Creative Thinking (TTCT) and the Motivated Strategies for Learning Questionnaire (MSLQ) were used. Mathematical methods of data processing, Pearson's test, Cohen's kappa, Cronbach's alpha coefficients were applied. The study involved 796 third-grade primary schoolers and 39 primary school teachers. It was found that almost half of the teachers do not use the creative projects method in primary school. They believe that pupils do not yet have the necessary skills and abilities. Teachers who use this method note its positive impact on the growth of students' cognitive activity in class. The authors established that the creative projects method contributes to the growth of the creativity level. It also enhances the learning motivation of primary schoolers. An average of 10% increase in the academic performance of third-grade pupils was observed over the six months. Therefore, the creative projects method contributes to the enhancement of students' activity, their level of creativity, stimulates motivation and increases their success. Future research should be focused on studying the influence of the creative projects method on the motivation of students in all education grades.

Keywords: activity approach, interactive methods, innovative technologies, project-based learning, creativity, academic performance.

INTRODUCTION

All further education and life depends on the quality of education received by a child in early childhood (Lamrani & Abdelwahed, 2020). After all, the development of a child's brain has an impact on his/her cognitive abilities, which is a good basis for developing abilities necessary for further education. As of 2018, Ukrainian primary schoolers have achieved the following skills, which rank 36th-41st in reading, 41st-46th in mathematics, 36th-42nd in natural sciences compared to other 78 countries of the world (OECD, 2019). The researchers also note a decreased interest of Ukrainian students in learning and a decreased motivation caused by the pandemic and the war (Volyaniuk, 2022, Novyk, 2019). Therefore, an important task of a primary school is to find the most optimal forms, strategies, and methods of learning, in order to ensure the interest of all pupils without exception in learning and the growth of their internal motivation. According to the 2006 UN Convention (Lindner & Schwab, 2020), the problem of teaching a pupil to learn is relevant in view of the need for the development of 21st century skills, including lifelong learning (Voskamp et al., 2022). The rapid pace of development of ICT in education in general and in primary school in particular (Bui et al., 2020) poses a challenge to change learning styles just as quickly in order to meet the educational needs of the new generation of the digital age (Bhati & Song, 2019).

The success of pupils and their learning behaviour is influenced by motivation (Tokan & Imakulata, 2019), which is intrinsic to a greater extent. A passive pupil does not learn much educational information, in contrast to an active pupil who shows interest, curiosity and attentiveness to new things (Lamrani & Abdelwahed, 2020). The researchers Engin (2020) and Wardani et al. (2020) define motivation as a factor that stimulates a certain behaviour, its continuity and repetition, which gives a person determination to achieve a goal. Motivation can be the driving force behind academic achievement. The teachers are to maintain activity, not to suppress the students' initiative by dragging it onto themselves, but to give the opportunity to develop curiosity, to satisfy it independently, and not by giving ready answers to the questions that arise. The teachers should allow students to make mistakes and learn from them. They should create optimal conditions (not too easy and not too difficult) for the transition from existing knowledge to new ones. The teacher can show creativity when developing the student's creative personality by creating a favourable atmosphere in the classroom (Mirici, 2019; Shkabarina et al., 2020).

Although the academic literature considers the issue of increasing motivation, as well as the importance of the project method in teaching, there is no information on the use of the creative project method as a motivator for teaching primary schoolers. Therefore, the aim of this study was to consider the creative projects method as a means of increasing the motivation of educational activities, using the example of the third-grade primary schoolers.

The aim involved the following research objectives:

- 1) Determine the teachers' attitude to the project method: frequency of use, appropriateness, method of implementation and form of presentation of results, impact on students;
- 2) Introduce the creative projects method into the educational process in the experimental group;
- 3) Determine how the use of the project method affected the level of pupils' creativity, how their motivation changed, and how this was reflected in academic performance by comparing the relevant variables before and after the study.

LITERATURE REVIEW

Many studies deal with the methods of enhancing students' learning. Various strategies, technologies and methods are aimed at solving the problem of increasing interest in learning. They include the strategy of independent or experimental work (Bagila et al., 2019), thinking development pedagogy (Rissanen et al., 2019), implementation of interactive technologies, use of mobile applications, augmented reality (Iatsyshyn et al., 2020), robotics (Chiazzese et al., 2019), case method, project method, problem-based learning, portfolio (Shkabarina et al., 2020). It is especially important to connect the theoretical knowledge acquired by students with the possibility of their practical use (Adriyawati et al., 2020). The use of educational media (Puspitarini & Hanif, 2019), for example, interactive audio-visual aids (Hanif, 2020), also contribute to the growth of motivation of primary schoolers.

Most teachers are in no hurry to move to the stage of independent acquisition of knowledge by students, which in itself is a tool for their motivation, because it is difficult and requires their knowledge, skills, time and experience (Voskamp et al., 2022). It is worth starting this stage by providing students with clear instructions on the organization and implementation of independent learning. It also takes time and skill to create educational materials that students can use when working on the material and on projects. Independent work of primary schoolers needs support from adults (teachers, parents).

Teachers often lack experience in supporting students' independent learning. Under such conditions, teachers should be trained to improve their pedagogical and methodical skills at seminars, trainings, round tables, etc. (Izatulloyevich, 2020). It is also important that training in pedagogical educational institutions is conducted using innovative learning technologies that would form a professional, creative future teacher (Shkabarina et al., 2020).

Playing remains the main activity of primary schoolers. Therefore, gamification of the educational process of first-fourth graders is quite common (Tangirqulov, 2022). According to researchers Lamrani and Abdelwahed (2020) and Hallifax et al. (2020), the educational game helps the child to be motivated, creative and innovative, more attentive and more involved, which positively affects the acquisition of knowledge. Computer games play an important role in a child's life (Quintas-Hijós et al., 2020). Therefore, the main thing now is not to convince the child of the harmfulness of digital games, but to create such games that would have a positive effect on the child's physical and intellectual development ().

Augmented reality technologies are widely used in the study of different subjects, for example, biology (Fuchsova & Korenova, 2019). The researchers Midak et al. (2021) have also developed a mobile application enabling children to simultaneously learn the alphabet in an interesting way and expand their knowledge of the solar system thanks to augmented reality. Besides, the use of the application contributes to the development of spatial orientation, memory, deepening the perception of information, develops digital skills. Bhati and Song (2019) used Bloom's taxonomy to improve learning styles, and the learning process included the following mandatory stages: remember, understand, apply, analyse, evaluate, and create. The researchers Aguilera and

Ortiz-Revilla (2021) and Chiazzese et al. (2019) suggest introducing the STEM approach into the educational process in primary school, which, for example, promotes the development of students' creativity. Its growth is also influenced by an integrated approach to the study of academic subjects, as well as a combination of the STEM approach and the project method. It is important for the teachers to support the development of students' creativity, naturally inherent in everyone.

The project method belongs to those that provide an innovative, activity-based (Anwer, 2019), person-oriented (Koban et al., 2019), interactive approach to learning (Iatsyshyn et al., 2020). It helps to enhance students' motivation (Indrawan & Jalinus, 2019), which is important for both face-to-face and online learning (Aliyyah et al., 2020; Stark, 2019). It is considered a method of improving higher order thinking skills (Eliyasni et al., 2019). The use of the project method in the educational activities of students is a prerequisite for the development of their key competencies (Iatsyshyn et al., 2020) and practical skills for reflection, research, management, communication, public speaking, evaluation, and cooperation. Llorent García et al. (2022) emphasize the role of the project method in building socio-emotional competence and improving students' literacy. It can also contribute to the development of entrepreneurial attitudes of primary schoolers (Koban et al., 2019). Working on projects enable students to acquire theoretical knowledge and learn to apply it in practice when solving practical problems.

The skills needed in the future to solve professional problems are developed in this way. The task of the project is to expand the worldview, to obtain theoretical knowledge for a better understanding of life. Work on the project should contribute to the versatile and creative development of the student's individuality. The content and structure of the project is influenced by the creativity and interests of its performers. And the project method ensures the implementation of a differential approach, while taking into account and developing the individual cognitive interests and capabilities of each student. A project is a specific process of an individual creative search for original new solutions to problems. However, it requires step-by-step teacher control (Adriyawati et al., 2020), especially in primary school.

The result of working on a creative project should be a product created by using new ideas (Eliyasni et al., 2019). Adriyawati et al. (2020) advise using STEAM principles when working on projects. Special software, for example, Salamstein Studio has been developed to facilitate the management and control of the project execution process. It enables monitoring the status of tasks that are components of the project implementation scenario (Iatsyshyn et al., 2020). It is recommended to use multimedia tools for the public presentation of the results of work on the project (Indrawan & Jalinus, 2019).

METHODS

Research design

This study was carried out in three stages. The first stage involved a semi-structured interviews conducted in order to determine the attitude of primary school teachers to the project method, establish ways of implementing creative projects in the educational institution, the frequency of their use, how the teacher organizes and manages the work of students on projects. A survey of pupils was also conducted according to the methodology of Anwer (2019). Besides, the level of development of students' creative abilities, the degree of their motivation and academic performance was assessed.

The second stage provided for the introduction of training using the creative projects method in the experimental group for one academic semester.

The third stage involved determining the final level of students' motivation and creative abilities.

Sampling

The sample consisted of 796 third-grade pupils of the 19 general secondary education institutions in 6 regions of Ukraine: 401 pupils in the experimental group, and 395 in the control group. The age of students was 78% - 9 years, 19% - 10 years, 3% - 8 years. There were 46% of boys and 54% of girls among the pupils of the sample. The selection was random. The selection criteria were the full completion of the pupils' adaptation to school, which was complicated and stretched over time because of quarantine restrictions. This is why the third-grade pupils were chosen. Another necessary condition for pupils' participation in the study was their ability to read well and understand what they read. Besides, it was necessary for pupils to be able to make requests for information necessary for the implementation of the project, to understand the assigned tasks, to be able to analyse and implement ways to resolve them. The pupils' ability to reflect was also an important condition.

The sample included 39 primary school teachers who, at the time of the research, were teaching third-grade pupils included in the sample. A preliminary survey established which of the teachers had a positive attitude towards the project method, and which resolutely did not use this method in primary school. The teachers of the first group were included in the experimental group together with their pupils, and the second — into the control group.

Method

Semi-structured interviews conducted among teachers and pupils were used during the research. They included both open-ended and closed-ended questions. Their goal was to determine how many primary school teachers use the project method in their practice, how they implement it, and what academic results it allows to achieve. Semi-structured interviews of pupils were conducted with the aim of determining the factors that influence their interest in learning. The methods of determining the creative abilities of students through the Torrance Tests of Creative Thinking and determining the level of pupils' motivation through the Motivated Strategies for Learning Questionnaire were used during the research. Recommendations for the introduction of creative projects method and recommendations for keeping a log of observations of their implementation and familiarization with project evaluation criteria were also developed. It was carried out using the Clark's assessment form for the objectivity of the assessment of project-based learning, (Bui et al., 2020). His technique included teacher evaluation, mutual evaluation of pupils in a group that performed one project, and pupil evaluation of projects of other performers in the class. Thinking, cooperation, communication and creativity were evaluated.

The questions of the semi-structured interview were checked for reliability by using Cronbach's alpha. A coefficient of 0.792 was obtained, which indicates acceptable reliability. Besides, an expert opinion was obtained. Kolmogorov-Smirnov normality test showed $\alpha > 0.05$. Homogeneity test – variance test gave a value of $\alpha > 0.05$.

Torrance Tests of Creative Thinking were used to assess the degree of creative thinking in this study. The scale was the following: up to 30 points is a very low level, 30-34 - below the norm, 35-39 - slightly below the norm, 40-60 - the norm, 61-65 - slightly above the norm, 66-70 - above the norm, above 70 - excellent. They have reliability in the range of 0.89 - 0.9. Besides, the test had high predictive validity. The correlation coefficient was within 0.33 - 0.73. χ^2 was calculated to assess goodness when using Torrance Tests of Creative Thinking.

The Motivated Strategies for Learning Questionnaire (MSLQ) was used to determine the degree of motivation (Pintrich et al., 1990). A 7-point Likert scale was applied, where 1 is "not right for me at all", 7 is "very right for me". The reliability coefficient ranged from 0.74 to 0.89, while the correlation coefficient ranged from 0.33 to 0.73 with a significance of 0.05. A standard test was created and checked for reliability by 3 experts in order to determine the level of pupils' academic performance. After making the changes proposed by the experts, a pilot test of the test data was carried out and an alpha test was conducted for reliability, which was 0.824. Kolmogorov-Smirnov normality test showed $\alpha > 0.05$. Homogeneity test – variance test gave a value of $\alpha > 0.05$.

The results were processed using Statistica software. At the same time, mathematical methods of data processing, Cohen's coefficient, Pearson's test were used.

All adult participants and parents of pupils in the sample gave their written consent to participate in the study. Participation in the study was voluntary and free of charge.

RESULTS

Semi-structured interviews conducted among primary school teachers at the beginning of this study revealed their attitudes towards the project method. It was found that almost half of the teachers (51%) use the project method at least once per semester. However, 49% consider this method unacceptable for primary school, as pupils have not yet developed all the necessary competencies for its full implementation (Figure 1).

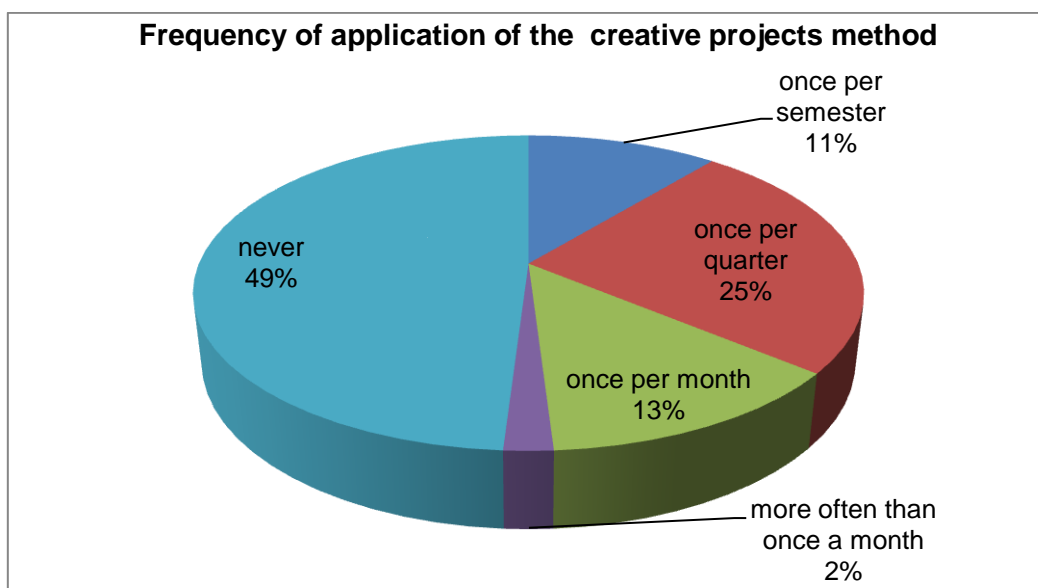


Fig.1: The frequency of the use of the creative projects method by primary school teachers

Among teachers who organize pupils' work on creative projects, 74% do it outside of school hours (during homework in an extended day group or at home under the supervision of parents). The forms of presentation of results that teachers most often recommend to their students are: a poster (62%), a product made of natural materials (23%), a report or a written work (8%), others (7%).

All teachers who used the project method in elementary school note their positive impact on increasing students' interest in the educational material (76%), on the development of their confidence in expressing their own opinions (25%), on increasing the activity of students in class (82%).

A semi-structured interviews conducted with pupils of the sample showed that their favourite school subjects are drawing, reading, music, and English. In other words, these are the subjects where every pupil can be actively involved and show their creativity while acquiring new knowledge. The survey also showed that pupils like subjects that interest them the most (39% of all respondents). The second factor influencing students' choice of a particular academic subject is the grade that pupils can receive in class for a completed assignment (31%). A total of 16% of pupils prefer subjects taught by energetic, active teachers. Most of all, pupils like to do practical tasks independently or in small groups. An interesting, free atmosphere in the classroom motivated pupils for learning the most (14%).

The creative projects were implemented in the experimental group in compliance with the following requirements:

- 1) sufficient freedom in choosing information sources and information processing methods;
- 2) sufficient time to work on the project, taking into account the individual characteristics of pupils;
- 3) use of a wide range of educational resources developed by the teacher;
- 4) project topics should be formulated in such a way as to stimulate independent learning of new things, based on the pupils' experience;
- 5) work should be carried out in a friendly atmosphere, cooperation and respect, not to put pressure on project performers, ensure flexibility of learning;
- 6) it is possible to attract external resources not directly related to the educational institution, for example, museums, research institutions, industries, etc.;
- 7) the results of work on a creative project were presented in the form of a demonstration and commenting on a poster created by pupils, or a demonstration of a finished product made of natural, artistic and other materials (lego, plasticine, dough, sand, water, cubes, constructors, etc.). It was also possible to use ICT tools, etc.

Testing conducted among pupils of the sample according to the Torrance Tests of Creative Thinking showed that the introduction of project methods into the educational process had a positive effect on the development of their creative abilities (Figures 2, 3). It was found that the number of students with a normal creativity level increased by 8%, with a level of creativity slightly above the norm — by 6%, above the norm — by 2%, and the highest level — by 1%. The number of students with a very low level of creativity decreased by 8%, and with a level of creativity below the norm — by 5%, slightly below the norm — by 4%.

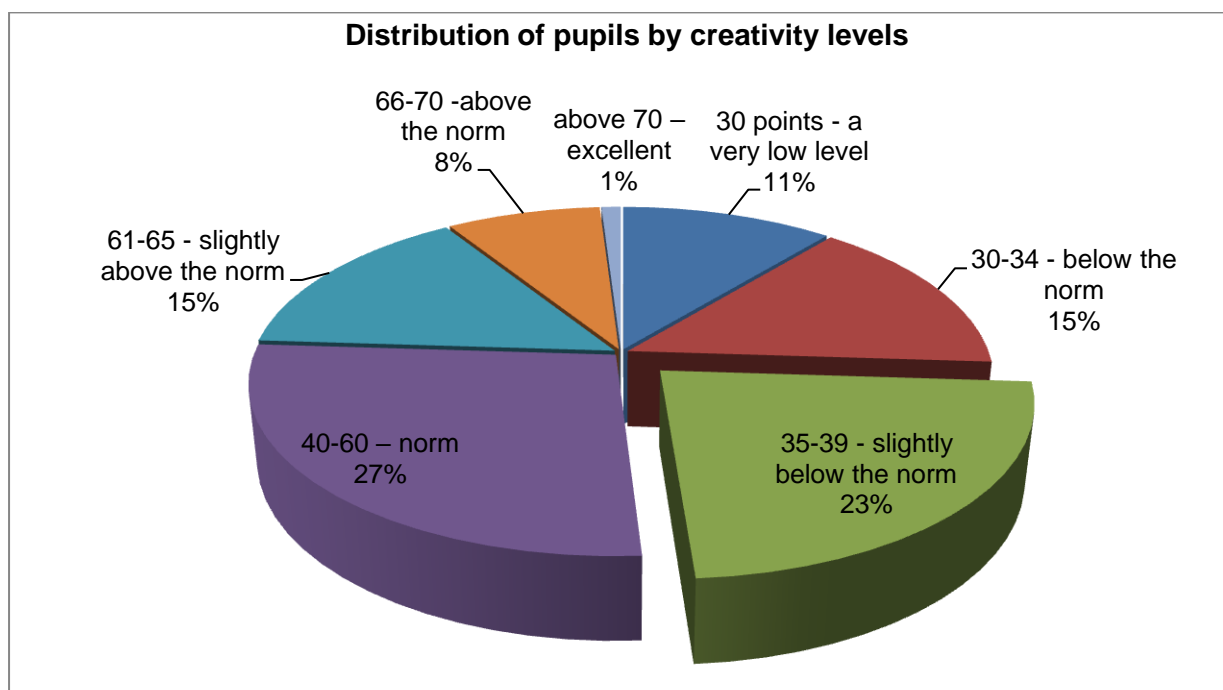


Fig.2: The results of the Torrance Tests of Creative Thinking in the experimental group before the introduction of the project method

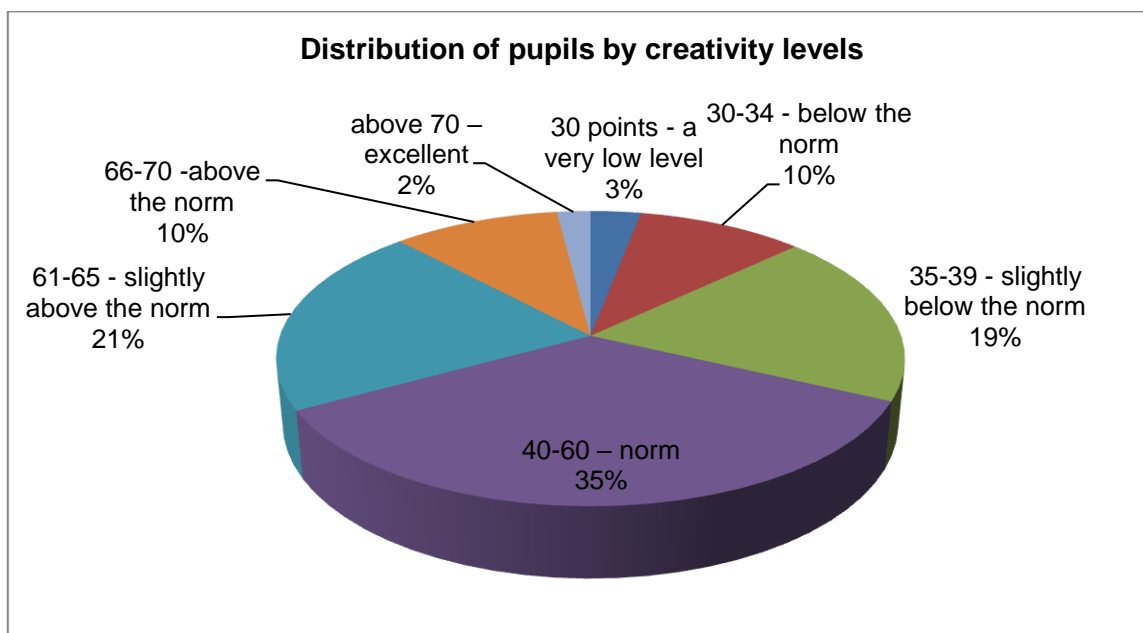


Fig.3: The results of the Torrance Tests of Creative Thinking in the experimental group after the introduction of the project method

Table 1 presents the results of the evaluation of the project-based learning, carried out with the use of the Clark form.

Table 1: Assessment for a creative project

	thinking		cooperation		communication		creativity		Points total
	M	SD	M	SD	M	SD	M	SD	
Grade									
Of teacher	6.7	0.29	6.8	0.45	6.5	0.53	6.2	0.59	26.2
Of pupils in the group	7.9	0.37	7.4	0.52	7.6	0.48	8.1	0.36	31.0
Of pupils out of the group	7.1	0.52	6.3	0.38	7.1	0.32	7.7	0.48	28.2
Total score	21.7		20.5		21.2		22.0		85.4
Maximum	30		30		30		30		120

The sum of the points ranging 1-29 indicates the initial level, 30-59 — medium level, 60-89 — sufficient level, 90-120 — high level.

The criteria for evaluating thinking included: the ability to identify problems, propose the solutions, generate ideas, select the necessary tools for project implementation, develop a project plan, implement it, and be able to explain the obtained results. Cooperation was evaluated according to the following criteria: participation in all stages of work on the project, ability to cooperate, exchange ideas and information in a creative group, respect for group members. Communication was evaluated according to the following criteria: clear, coherent, free, timely, informative. Creativity involved the ability to creatively search for a solution to set problems, and creatively present the solutions found.

As Table 1 shows, the teacher evaluated the results of the pupils' work with a lower score (the total score given by the teacher is 26.2 out of a possible 40 points) than the pupils. The score put down by pupils who were not part of the group was lower (28.2 out of 40) than those who did the work together (31.0 out of 40). The total score shows that, on average, pupils' creative projects were completed at a sufficient level.

Table 2 presents the results of the application of the Motivated Strategies for Learning Questionnaire (MSLQ), the questions are presented in Appendix A.

Table 2: Results of motivation evaluation according to MSLQ

Question No.	Control group				Experimental group			
	Before the experiment		After the experiment		Before the experiment		After the experiment	
	M	SD	M	SD	M	SD	M	SD

1.	4.48	1.01	4.72	0.99	4.47	1.02	5.49	0.96
2.	3.58	1.36	3.59	1.27	3.58	1.35	3.55	1.31
3.	3.48	0.89	3.29	0.94	3.47	0.91	2.30	0.87
4.	3.47	0.91	3.62	0.87	3.47	0.89	4.49	0.92
5.	4.15	0.77	4.27	0.83	4.16	0.81	5.87	0.83
6.	3.98	0.82	4.02	0.95	3.97	0.93	5.20	0.99
7.	4.94	0.83	5.02	0.76	4.92	0.87	5.38	0.85
8.	3.56	1.29	3.60	1.18	3.57	1.23	4.59	1.11
9.	3.47	0.86	3.54	0.89	3.48	0.92	3.26	1.02
10.	3.09	0.98	3.11	0.78	3.08	0.89	4.19	0.93
11.	3.84	0.76	4.07	0.83	3.86	0.94	4.94	0.77
12.	3.98	0.92	4.15	0.87	3.99	0.83	2.15	0.91
13.	3.76	1.10	3.91	1.07	3.77	0.97	4.98	0.89
14.	4.11	0.73	4.29	0.85	4.10	0.89	4.79	0.84
15.	4.18	0.93	4.26	0.87	4.19	0.95	5.13	0.92
16.	3.97	0.86	3.99	0.92	3.96	0.90	3.50	0.79
17.	4.36	1.37	4.42	1.19	4.39	1.26	5.78	1.03
18.	4.95	1.16	5.07	1.12	4.94	1.19	5.83	1.08
19.	3.82	1.01	3.98	0.86	3.79	0.93	5.06	1.04
20.	3.51	0.93	3.49	0.97	3.52	0.99	2.15	0.89
21.	3.97	0.95	4.12	0.99	3.98	0.91	5.01	0.94
22.	3.46	1.17	3.38	1.12	3.49	0.95	2.37	0.86
23.	5.23	0.77	5.46	0.82	5.21	0.89	5.98	0.84
24.	4.12	1.01	4.27	1.05	4.15	1.12	4.63	1.16
25.	4.58	0.89	4.61	0.91	4.58	0.83	5.47	0.79
26.	5.34	0.94	5.28	0.99	5.35	0.86	4.21	0.93
27.	5.47	0.79	5.36	0.85	5.46	0.73	4.18	0.87
28.	3.81	0.89	4.23	0.83	3.84	0.85	5.48	0.84
29.	4.02	0.95	4.16	0.89	4.01	0.79	5.17	0.93
30.	4.73	1.03	4.98	1.20	4.72	1.08	5.09	1.09
31.	3.24	1.01	3.49	0.97	3.24	0.87	3.25	0.96
32.	3.07	0.83	3.26	0.89	3.07	0.92	3.96	0.78
33.	3.48	0.79	3.59	0.84	3.46	0.83	4.21	0.86
34.	4.38	0.81	4.63	0.83	4.38	0.87	5.17	0.93
35.	3.09	0.99	3.24	0.97	3.08	1.03	3.74	1.12
36.	3.13	0.94	3.29	0.89	3.14	0.85	4.03	0.83
37.	4.82	0.82	4.76	0.95	4.82	0.97	3.15	0.96
38.	4.96	0.80	4.93	0.91	4.96	0.92	3.08	0.85
39.	3.32	1.04	3.47	1.16	3.33	1.29	4.99	1.27
40.	3.87	1.18	3.99	1.09	3.86	1.02	4.71	1.06
41.	3.41	1.02	3.52	0.92	3.40	0.96	4.15	0.91
42.	2.99	0.89	3.01	0.90	2.99	0.95	3.02	0.83
43.	4.26	0.84	4.57	0.87	4.26	0.89	4.73	0.75
44.	3.77	0.96	3.85	0.91	3.76	1.02	4.66	1.07
The maximum score for one question is 7 (Likert scale: 1 – “not true for me at all”, 7 – “very true for me”)								

As Table 2 shows, the use of creative projects in primary school lessons contributes to the growth of pupils' confidence in their knowledge, the desire to know more and to make more efforts for this. Pupils' interest in studying academic subjects has increased.

The study found that the pupils of the experimental group are better at handling information (they can independently search for it, separate the necessary information from a large volume of information, process and interpret it, formulate questions for the purpose of clarifying information), study the problematic issue comprehensively, generate ideas about ways to solve the problem tasks, clearly express one's own opinions about the issue under research, accept mistakes with dignity and correct them, have their own opinion and be able to defend it with arguments.

Table 3 presents the results of checking the academic performance of the pupils in the sample.

Table 3: Results of checking pupils' academic performance

Control group				Experimental group				
Before the experiment		After the experiment		Before the experiment		After the experiment		
	M	SD	M	SD	M	SD	M	SD
	6.9	0.49	7.0	0.65	6.9	0.78	7.6	0.61
Maximum	12		12		12		12	

As Table 3 shows, the use of creative projects in primary school contributes to the growth of academic performance of third-grade pupils by about 10% on average.

The research established through mathematical methods that the weighted sum of squared deviations of group averages from the overall average is determined by the heterogeneity of the sample, associated with conducting a pedagogical experiment in different classes, with different teachers and with different pupils/students from different educational institutions, under different learning conditions.

In turn, the root mean square deviations from the mean value for the same questionnaire question in different educational institutions of the sample was different. The intergroup variance, which describes the fluctuations of these groups, and the intragroup variance, which describes the fluctuations caused by random factors not taken into account, turned out to be unequal during the study, which indicates the invalidity of the null hypothesis.

Applying the Pearson's test to the research results, it was found that the values of χ^2_1 obtained for the experimental group are greater than χ^2_2 calculated for the control group. Therefore, it can be argued that there is a relationship between the introduction of the creative projects method in accordance with the requirements indicated above in the experimental group and the growth of primary schoolers' motivation to study, as well as a consequent growth of their academic performance (Table 4).

Table 4: Results of the Chi-Square Test

	χ^2	df	χ^2 / df
Teachers' attitude	13.8	4	3.45
Pupils' creative abilities	24.7	6	4.12
of motivation	219.32	7	31.3

Cohen's coefficient in the experimental group was also calculated. It ranged from 0.8 to 1.0. This testifies to the high effect of using the creative projects method to enhance pupils' learning motivation. In the control group, which studied according to traditional forms, Cohen's coefficient was 0.35, indicating a medium effect.

DISCUSSION

The education system must develop synchronously with the development of technology and the needs of society (Eliyasni et al., 2019). Therefore, it should change the traditional approach to the organization of the educational process to a current one. Research conducted in the USA and UK (Lamrani & Abdelwahed, 2020) showed that there is a relationship between the quality of an educational institution and the results of their students in language and mathematics. Wardani et al. (2020) established that intrinsically motivated students have better academic performance than extrinsically motivated ones. A teacher can support and enhance student motivation by allowing students to explore personally and find something new and meaningful about their work. Discipline that the teacher maintains is important, as a manifestation of care, not contempt. In order to increase the motivation of students, the teacher should value the student's opinion, praise for correct actions, respect students, promote the development of friendly relations between students in the class, develop a sense of need for classmates, protect from the feeling of fear of failure. The success of learning depends on learning styles, approaches and methods.

Aksela (2019) found a positive attitude of teachers towards the project method. The advantages of this method are the positive dynamics of success (63% of respondents), the possibility of cooperation (57%), increased motivation (55%), student-oriented learning (44%), the universality of the method (35%). This paper examines the teacher's attitude to the project method. It was established that 51% of primary school teachers use this method in their practice. Of them, 74% plan work on the project in such a way that it is carried out by pupils outside of school hours. Most often, teachers expect results in the form of posters, products from natural materials, works. Anwer (2019) experimentally confirmed that the students' success increases by approximately 30% when using an activity approach in education, where students are active participants in the acquiring new knowledge in the process of cooperation with classmates in the educational environment, compared to traditional lectures.

The relationship between students' motivation and their success was revealed. It was confirmed that the project method helps to increase academic performance in 90% of students (Indrawan & Jalinus, 2019). This method helped 78% of school graduates acquire the skills and competencies necessary for future professional activity. The introduction of the STEM-based project method enabled achieving a high level of academic literacy in 42% of students, and an average level in 28%. A small part of the students could not understand the basic concepts of the educational material, even after the teacher's explanation (Adriyawati et al., 2020). As this study showed, the success rate of primary schoolers increased by 10% in six months of using the creative projects method, which can also be attributed to the methods that implement the activity approach.

The example of 156 primary school pupils showed that the use of the project method during education contributed to the growth of literacy, regardless of gender. This method also made it possible to increase the level of social and emotional competence (which includes such components as self-awareness, self-management and motivation, social awareness), as well as empathy in girls (no such effect was observed in boys) (Llorent García et al., 2022). It was established, for example, that working on a project improves writing and communication skills in second graders. Pupils also gained self-confidence.

The research of Lamrani and Abdelwahed (2020), which involved 30 children, showed the positive impact of business games on the motivation of students, on the increase in the amount of work they completed, and the knowledge they acquired. In this way, the researchers were able to achieve an ideal understanding of the educational content by the students in a short period of time. The conducted research of Voskamp et al. (2022) showed that the tools used by girls and boys for motivation are different.

The work of Iatsyshyn et al. (2020) proved that project activities enhance students' interest in learning and motivate them. As a result, students' academic performance and future competitiveness on the labour market increases. This, in turn, increases the economic development of the country as a whole.

Aguilera and Ortiz-Revilla (2021) indicated the positive impact of STEM education and project-based learning on the development of students' creativity. This work also establishes their relationship between creativity, project-based learning and motivation of educational activities of primary schoolers. The positive influence of the combination of creativity and project-based learning on students' motivation and their academic performance was found.

One of the important consequences of using the project method is the development of students' responsibility, independence, and discipline (Bui et al., 2020). Students acquire these qualities while playing the role of researcher, problem solver, or document provider.

As the survey of Hanif (2020) showed, not all teachers have abandoned the traditional teaching style (lecture). The mentioned reasons included the lack of time to develop the necessary educational materials for the use of innovative teaching methods. There is another opinion that traditional education should not be abandoned, it will be more effective to combine it with innovative activities in educational institutions (Tangirqulov, 2022).

It was found by Engin (2020) that the motivation of primary schoolers depends on many factors. These include the attitude of the pupil's parents towards his/her education and their level of education, the teacher's motivation and self-efficacy, etc. Besides, the cooperation of parents, teachers, school administration and students is important to achieve the educational goals.

CONCLUSIONS

A rapid change in the environment in which a child grows up requires introducing innovations in the education system synchronously with these changes. Such innovations include new approaches, strategies and teaching methods. This research showed that the creative projects method has not yet gained due popularity among primary school teachers. But it is effective in the development of pupils' creative abilities. The creative projects method helps to increase the cognitive interest of primary schoolers and stimulates the motivation of their educational activities. It was found that the pupils' motivation increased as a result of the use of creative projects.

The results of this study have theoretical and practical significance. They expand the existing theoretical knowledge on the issue of innovative teaching methods in primary school. The importance of using the creative projects method in primary school is also demonstrated in practice.

Future research can be conducted on the issue of the influence of the creative projects method on the motivation of pupils in the first-second, fourth grades of primary school, secondary school, high school, and higher educational institutions, as well as on the search for new effective methods of stimulating the motivation of pupils'/students' learning.

Limitations

This research was reduced to studying the project method only in the third grades of primary school. Therefore, the impact of creative projects on stimulating the motivation of educational activities of first-second and fourth grade pupils remained unexplored.

Recommendations

The results of this study can be used by primary school teachers in their professional activities. The conclusions drawn in this work can be useful to teachers and researchers who are engaged in the search and development of effective innovative teaching methods.

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