

CZU: 378.025.043:378.126

[https://doi.org/10.59295/sum9\(176\)2024_11](https://doi.org/10.59295/sum9(176)2024_11)

**DEVELOPING STUDENTS' RESEARCH SKILLS.
GROUP WORK PERSPECTIVE:
FUTURE OPPORTUNITIES FOR IMPLEMENTATION
IN PROFESSIONAL ENVIRONMENTS**

*Irina SÎRBU, Maia ȘEVCIUC,
Moldova State University*

This study focuses on analyzing the group-based organization of educational activities and its role in developing students' research skills. In the context of modern education, where the emphasis is on competency development, the ability to work collaboratively is a key aspect of the educational process. Within research activities, students become active participants, formulating objectives, selecting methods, and evaluating results. This process helps to reduce anxiety and increase self-confidence, as the responsibility for the final outcome is shared among all group members. Furthermore, the teacher, acting as a mentor, provides essential support, assisting students in building confidence and coordinating their actions. The study also examines the stages of project-based activities, including defining objectives, selecting topics, distributing responsibilities, implementing the project, and reflecting on the process.

Keywords: group work, research skills, project-based activities, competencies, students, education.

**DEZVOLTAREA ABILITĂȚILOR DE CERCETARE ALE STUDENȚILOR.
PERSPECTIVA DE LUCRU DE GRUP:
OPORTUNITĂȚI VIITOARE DE IMPLEMENTARE ÎN MEDII PROFESIONALE**

Acest studiu se concentrează pe analiza organizării pe bază de grup a activităților educaționale și rolul acesteia în dezvoltarea abilităților de cercetare ale studenților. În contextul educației moderne, unde se pune accent pe dezvoltarea competențelor, capacitatea de a lucra în colaborare este un aspect cheie al procesului educațional. În cadrul activităților de cercetare, studenții devin participanți activi, formulând obiective, selectând metode și evaluând rezultatele. Acest proces ajută la reducerea anxietății și la creșterea încrederii în sine, deoarece responsabilitatea pentru rezultatul final este împărțită între toți membrii grupului. În plus, profesorul, acționând ca un mentor, oferă sprijin esențial, ajutând elevii să-și construiască încrederea și să-și coordoneze acțiunile. Studiul examinează, de asemenea, etapele activităților bazate pe proiecte, inclusiv definirea obiectivelor, selectarea subiectelor, distribuirea responsabilităților, implementarea proiectului și reflectarea asupra procesului.

Cuvinte cheie: lucru în grup, abilități de cercetare, activități bazate pe proiecte, competențe, studenți, educație.

Introduction

The group-based organization of work activities is a structure encountered by many professionals today. This approach encompasses numerous positive aspects, as well as some negative ones, to which we learn to adapt continuously. It is worth considering whether it would be beneficial to provide adolescents with the opportunity to develop and learn in similar conditions during their secondary education. Such an experience could better prepare them for future expectations. Additionally, can this organizational structure enhance students' interest in the subject matter and improve productivity in project-based work? One of the important skills that adolescents develop during their secondary education is communication. This skill manifests naturally during breaks and outside of formal lessons; therefore, fostering communication skills within the classroom setting warrants consideration.

Basic content

Group work serves as an effective form of organizing educational and cognitive activities within the classroom. It involves small groups engaging in both collaborative and individually-oriented tasks assigned

by the educator. This approach promotes active communication among students, instills a sense of responsibility for the outcomes of both individual and group activities, and supports principles of collaboration and mutual assistance. Learning through a group-based organization implies that students acquire knowledge and develop their skills through active engagement, analysis, and research, seeking solutions to problems rather than passively receiving information in a pre-formed manner.

Liimets notes that the group-based organization in the classroom has the following characteristics [6, 7]:

- Awareness among students of their collective responsibility for solving the task.
- Independent completion of assignments by students within groups under the guidance of the teacher.
- Mutual oversight and accountability of each student to the group.
- Consideration of the interests and abilities of each student.

Group work enables students to become active participants in the educational process, where they set goals, choose methods and means to achieve these goals, implement their plans, and evaluate the results of their efforts. An important aspect of group work is the division of a collective task into smaller, manageable assignments that students can complete sequentially and distribute among themselves to achieve optimal outcomes [5]. During group activities, essential qualities necessary for successfully addressing research tasks are developed, such as critical thinking, the ability to analyze various perspectives, and respect for diverse opinions on a single issue. Moreover, this setting creates a precedent for the direct development of research skills, including data collection, analysis, and interpretation [4, 5].

Achieving successful outcomes depends on the adherence to several factors. Based on our experience, we can propose that a series of conditions should be met when planning this type of activity:

- Division of the work process into stages that are comprehensible to students.
- Discussion of the work plan, provision of a clear schedule, and communication of the importance of adherence to this schedule to students.
- A differentiated and individualized approach to working with each group [3].
- Assistance in group formation to ensure effective collaboration.
- Support for the group, guiding students toward success based on their specific needs.
- Discussion of completed work and provision of feedback.

Theoretically, students can navigate all these stages independently; however, group-based organization offers several distinct advantages. When working in a team, adolescents who encounter difficulties often receive prompts and assistance from their peers. At this stage, children develop self-confidence and an understanding that any problem can be collectively resolved, even if it is new or atypical for their comprehension. As adults, we frequently encounter this form of organizational structure in the workplace, making it logical to prepare the younger generation for similar experiences.

Although the school curriculum does not always incorporate group work, students often enthusiastically agree to participate in such activities, recognizing that a successful outcome is achievable even if some group members face challenges at various stages.

Group work allows children the opportunity to make mistakes, as acknowledging and correcting errors within a team is generally more efficient and straightforward than doing so individually. In such situations, students can explore the nature of the mistake in greater detail, examine potential solutions, and experiment with various approaches based on the analyzed information. Again, similar frameworks are commonly encountered in the workplace and during student internships.

Group work significantly reduces students' anxiety levels, alleviating fears of failure and incompetence when undertaking research tasks. Working collaboratively, students experience greater support and confidence, which fosters their active engagement in the research process. This, in turn, leads to the development of research skills, as group dynamics enhance the efficiency of information retention, knowledge activation, and data analysis. Collaborative activities create conditions for a favorable psychological environment, allowing students to focus on research tasks with minimal stress [9, 10].

Through group work, a wide range of educational and developmental objectives can be addressed. First, students demonstrate a notable increase in the volume of material they absorb and the depth of their understanding, while also reducing the time required to form concepts, skills, and abilities compared to tra-

ditional frontal instruction [1]. Second, group activities promote greater cognitive engagement and creative independence, thereby enhancing overall motivation to learn and creating a more comfortable school environment [10].

Moreover, the nature of interpersonal interactions changes: levels of indifference and aggression decrease, leading to more friendly and humane relationships among students. This contributes to increased cohesion within the group, where children begin to understand each other and themselves better, demonstrating greater respect for both their peers and their own capabilities [2, 10].

For teachers, the group-based approach provides opportunities for implementing differentiated instruction [3], taking into account individual inclinations, abilities, and the pace of each student's work. In this context, the teacher's role in educational guidance becomes a crucial element, as it helps to address conflicts that may arise in the early stages of group interactions, creating conditions for successful learning and collaboration.

While students play the primary role in group work, its effectiveness largely depends on the professionalism and efforts of the teacher. For successful implementation of group work, it is essential to prepare students in advance for collaboration, which requires dedicating time during specific lessons. Without this preparation, group work may become ineffective. Organizing the process demands specific skills and additional efforts from the educator, as poorly constructed groups risk allowing less capable students to benefit from the efforts of their more capable classmates. Group division may also be accompanied by difficulties and conflicts, and for students who prefer individual work, separate conditions must be created, complicating the teacher's task [6, 7].

Let's discuss a model of a group project in which the educator emphasized the development of research skills and creativity throughout the process, along with its stages and the resolution of potential conflicts that may arise during the work. The project was implemented between March 15 and April 15, 2024, at IPL "Da Vinci." As part of the project, students were invited to participate in a charitable event by preparing goods for sale at a fair, with the proceeds intended to assist a low-income family in acquiring housing. During discussions, among several proposed options, the project to create a multi-page calendar with illustrations bound with a spiral was selected.

In the first phase, it was necessary to determine the product format, after which the students, together with the teacher, selected the most suitable structure. Each group then focused on choosing a theme for the illustrations, analyzing their interests and abilities. Following discussions with the teacher, the most promising thematic option was approved.

During the planning stage and the allocation of roles, groups assessed the skills of their members, which facilitated the development of self-regulation skills. Disagreements often arise at this stage, particularly if one group member has a differing opinion regarding style or technique. In such cases, the teacher facilitated conflict resolution and the search for compromises. For example, in one group where the majority preferred to work with watercolors, a suggestion was made for a member with a different working style to take on the task of graphic refinement of elements, thus balancing each participant's contribution and achieving a cohesive outcome.

Achieving an unified visual style was so important for us, prompting students to engage in collective reflection and refine their sketches. Throughout the process, students explored the stylistics of various artists who inspired them and reached an agreement on a common style for the calendar, ensuring that the final product appeared cohesive and harmonious. A critical analysis of sketches at each stage was essential. Many groups decided to appoint one or two members responsible for ensuring that the illustrations adhered to a consistent style before beginning work with color.

If the chosen theme came out to be more specific, as in the case of one group that selected the theme of national cuisine, students started additional research on national dishes characteristics of their region. They analyzed the feasibility of conveying the textures and features of these dishes artistically, which required deep creative engagement. At this stage, particular attention was given to developing research competence; students learned to collaboratively gather information, analyze it, and select relevant examples suited to their specific case, consulting the teacher as needed. After each lesson, students presented their interim

results, analyzed them, and discussed potential improvements. The teacher guided the process, supporting reflection and encouraging students to engage in self-criticism and enhance their skills.

For the final stage of the project, students, with the assistance of the teacher, scanned their illustrations and processed them graphically. They were tasked with selecting appropriate fonts, color schemes, and decorative elements for the calendar in preparation for printing. Depending on the students' age and skill level, they could engage in the process at different stages, making the project more inclusive.

The concluding phase of the project involved students participating in a charitable fair, where they presented and sold their product to visitors. This stage contributed to the development of essential communication skills and the ability to interact with an audience. Throughout this process, the teacher acted as a mentor, guiding students in their efforts, fostering their self-confidence, and facilitating the effective application of the knowledge and skills they had acquired in practice. In summary, we will outline the project plan, which simulates professional activity and enables students to develop certain skills through a group-based organizational approach.

1. Project Initiation. The project begins with an introduction of its goals and significance to the students. The teacher forms groups and familiarizes the participants with the tasks and expected outcomes.

2. Determining the Format and Theme. Each group collaborates with the teacher to select the project theme, discusses potential formats (e.g., calendars, posters), and decides on the product to be created.

3. Analysis and Distribution of Responsibilities Within Groups. Each group assesses the skills of its members to effectively distribute responsibilities.

4. Research and Concept Development. Students conduct research on the chosen topic, analyze existing examples, and develop concepts. At this stage, the emphasis is on enhancing research skills to successfully process a large volume of information and collaboratively analyze the data obtained.

5. Project Execution. During this phase, the actual execution of the project begins. Students create sketches and prototypes, discuss stylistic elements and visual design, exchange ideas, and adjust their work based on feedback.

6. Presentation of Results. Each group presents its product, shares their experiences, and discusses the challenges encountered. This stage fosters public speaking skills. In the specific case described above, students participate in a charitable fair where they sell the created product, allowing them to apply their communication skills in practice.

7. Evaluation, Reflection, and Summation. Upon completion of the project, groups analyze their work, discuss strengths and weaknesses, and identify opportunities for future improvement. The teacher and students discuss overall achievements and lessons learned from the project experience.

8. Throughout the group work process, students develop communication, collaboration, and discussion skills, enabling them to interact more effectively with one another and find compromises. They learn to take responsibility for completing tasks, which in turn enhances their self-regulation and confidence. Additionally, students acquire skills in conducting research, analyzing information, and formulating hypotheses, laying the foundation for critical thinking.

Conclusion

Group work encourages all participants to be engaged in the process, as each member contributes to achieving a common goal. Thus, this project serves as a powerful tool for the comprehensive development of students' research, communication, and teamwork skills. We can reasonably assert that the claim that group-based organizational activities can indeed facilitate success in professional environments in the future holds true.

References:

1. АСМОЛОВ, А. Г. *Формирование универсальных учебных действий в основной школе: от действия к мысли*. Москва: Просвещение, 2018. 159 с. ISBN 978-5-09-024005-5.
2. БУЛЫГИНА, Л. Н. *О формировании коммуникативной компетенции школьников. Образование и наука*. Москва: Просвещение, 2013. № 3 (102). 26-36 с. [citat: 26.09.2024] ISSN 2310-5828-1994-5639. Disponibil: https://elar.rsvpu.ru/bitstream/123456789/3593/1/edscience_213_3_102_04.pdf

3. ВЫГОТСКИЙ, Л. С. *Педагогическая психология*. Москва: Педагогика, 1991, 263-269 с. ISBN 5-7155-0358-2.
4. ДЕРЕКЛЕЕВА, Н. И. *Развитие коммуникативной культуры учащихся на уроках и во внеклассной работе*. Москва: Просвещение – 2015. 124-130 с. ISBN: 5-98923-012-5.
5. ДЬЯЧЕНКО, В. К. *Сотрудничество в обучении*. [online] Москва: Просвещение, 1991, 192 с. [citat: 26.09.2024] ISBN 5-09-001753-0. Disponibil: <https://kao.kg/wp-content/uploads/2019/11/В.-К.-Дьяченко-Сотрудничество-в-обучении.pdf>
6. ЛИЙМЕТС, Х. Й. *Групповая работа на уроке*. Москва: Просвещение, Сер. «Педагогика и психология»; № 7, 1975.
7. ЛИЙМЕТС, Х. Й. *Групповая работа в развивающем образовании: исследовательская разработка для учителя*. Рига: Педагогический центр «Эксперимент», 1997, 39 с. ISBN 9984-16-001-7.
8. СИТАРОВ, В. А. *Дидактика*. [online] Москва: Издательский центр „Академия” - 2008. [citat: 27.09.2024] ISBN 978-5-7695-4504-7. Disponibil: https://academia-moscow.ru/ftp_share/_books/fragments/fragment_20827.pdf
9. ТАНЦОРОВ, С. Т. *Место групповой работы среди других форм обучения*. Москва: Просвещение, 1987, 96 с.
10. ТУРЫГИНА, Е. Н. *Групповая работа как средство формирования УУД (Из опыта работы)*. [online] Москва: *Современная начальная школа*, 2023, № 1(44). [citat: 27.09.2024] <https://files.s-ba.ru/publ/primary-school/2023/44.pdf>.

About the authors:

Irina SÎRBU, PhD student, Doctoral School of Humanities and Education, Department of Education Sciences, State University of Moldova.

ORCID: 0000-0002-1080-2280

E-mail: irinasirbu.curs@gmail.com

Maia ȘEVCIUC, PhD, professor university, Department of Educational Sciences, Moldova State University.

ORCID: 0000-0002-3129-6057

E-mail: maia.sevciuc@usm.md

Presented on 30.09.2024