

Methods and Project Work in Integrated Education Process

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Abstract: *This article analyzes the methodologies and project work used in the integrated education process. The methodologies help to increase students' interest in the subject and deepen their knowledge. The article presents the methodologies of interdisciplinary integration, integration of skills and competencies, teaching based on real-life situations, and project-based learning. It also provides information about the stages of project work integration and their added value to the educational process.*

Keywords: *Integrated education, methodologies, interdisciplinary integration, skills, life situations, project-based learning, students, practical skills, 21st century skills, educational process.*

The methods used in the integrated learning process help to increase students' interest in science and deepen their knowledge. The main types of these methods are:

1. Interdisciplinary integration methodology

The content of several subjects is combined within the framework of a single lesson or project. For example, in mathematics and technology lessons, students practice measuring length and mass.

2. Skills and competencies integration methodology

The methodology is aimed at developing skills such as critical thinking, communication, and information analysis in students. For example, in a native language lesson, students learn to logically analyze and express opinions by working on math.

3. Life-based learning

This method involves providing knowledge based on real-life situations. For example, economic knowledge is formed through issues related to money in mathematics.

4. Project-based learning methodology

Small or large projects are developed based on knowledge gained from various subjects. For example, a project is prepared on the topic "My City" combining geography, history, technology, and native language.

Project work

Project work is a process of teaching different subjects, skills and life situations in the process of integrated education on the basis of a single project. This approach:

Different subjects are interconnected.

Develops students' multifaceted thinking.

Forms 21st century skills.

Stages of integrating project work

Problem identification: Interdisciplinary or life topics are selected.

Planning: The subjects, goals and results of the project are determined.

Assignments: Students are given individual and group assignments in each subject.

Implementation: Students conduct independent research, calculations, information collection and analysis.

Presentation of the result: Students present the project results in the form of a poster, presentation, video or practical product.

Analysis and evaluation: The project results are evaluated based on interdisciplinary criteria.

Conclusion

Integrated educational methodologies and project work not only provide students with knowledge, but also prepare them for complex thinking, finding practical solutions, and independent action in real life. These methodologies revitalize the educational process, increase student interest in the lesson, and serve to form 21st century skills.

Stages of project work integration

There are several stages in the process of project work integration, which help students gain complex knowledge and develop practical skills. Below is a detailed description of each stage:

1. Problem identification

Topic selection: Identify interdisciplinary or life-related topics with students.

Problem analysis: Collect, study, and discuss information about this problem.

Outcome prediction: Determine the expected results from solving the problem.

2. Planning

Project goal: Determine the specific goal and expected results of the project.

Subject selection: Determine the subjects that will participate in the project and their roles.

Timeline: Determine the deadlines and required stages for the project work.

3. Assignment

Individual and group assignments: Divide students into groups and assign specific tasks to each group.

Role identification: Determine the role of each student in the project, assigning their responsibilities.

Facilitation: Encourage cooperation and information exchange between groups.

4. Implementation

Independent research: Students conduct independent research, collect and analyze information.

Activity: Carry out practices within the project, develop proposals for solving problems.

Discussion: Organize active discussion and exchange of ideas among students.

5. Presentation

Preparation of the result: Students prepare a presentation, poster or video to present the results of the project.

Public presentation: Show the results of the project to parents, teachers or other students.

Feedback: Collect opinions and suggestions from participants after the presentation.

6. Analysis and evaluation

Evaluation of results: Determine the results of the project and evaluate them based on interdisciplinary criteria. To summarize, analyze the knowledge and skills learned during the project, evaluate the experience.

Suggestions: Based on the results obtained during the project process, develop suggestions for future projects.

Conclusion

The stages of project work integration help students solve complex problems, develop practical skills, and form the ability to work in a team. These stages make the learning process effective and interesting

Stages of project work integration

The following stages are included in the process of project work integration:

1. Problem identification

Topic selection: Identify interesting and relevant topics together with students.

Analysis: Collect and discuss information about the problem.

Forecasting consequences: Determine the expected results from solving the problem.

2. Planning

Project goal: Set a clear goal and expected results.

Subject selection: Subjects that will participate in the project.

Timetable: Set deadlines for each stage.

3. Assignment

Individual and group assignments: Divide students into groups and assign tasks.

Role definition: The role of each student within the project.

4. Implementation

Collect information: Students collect the necessary information.

Collaboration: Group members communicate and analyze the collected information.

Intermediate control: The teacher monitors the project process.

5. Presentation of the result

Preparation of presentation: Students prepare materials to present the project results.

Public presentation: Present the results to an audience.

6. Analysis and evaluation

Evaluation of results: Determine and evaluate the results of the project.

Self-evaluation: Students analyze their activities.

Reflection: Analysis through questions such as "What have we learned?"

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