



THE METHODOLOGY FOR IMPLEMENTING EDUCATIONAL SOFTWARE FOR TEACHING NATURAL SCIENCES IN GRADE 6 BASED ON AN INTEGRATIVE APPROACH

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Abstract

Based on an integrative approach, the aim is to demonstrate the connection between the knowledge, skills, and competencies acquired by 6th-grade students and their daily lives through lessons and extracurricular activities. This involves conducting educational research, performing experiments, fostering creativity aimed at project development, and cultivating students' interest in creating innovations.

Keywords: Natural sciences, knowledge, skills, competency, scientific competence, practical competence, researcher, integrative approach.

Overall, **interactive learning** plays an important role in teaching natural sciences to 6th-grade students with the help of pedagogical software tools, as it allows students to actively participate in the learning process, apply knowledge in practice, and develop problem-solving skills.

The importance of **practical experience** in teaching natural sciences to 6th-grade students with pedagogical software tools lies in the following aspects:

- Practical experience allows students to apply learned theoretical concepts to real-life situations.
- During practical experience, students develop skills in solving economic problems and making decisions, preparing them for success in future careers.
- Students encounter real economic situations through practical experience, which enhances their critical thinking and problem-solving abilities.
- Practical experience provides students with the opportunity to generate new ideas and apply innovative solutions, fostering creativity.



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- In the process, students can evaluate their knowledge and skills, promoting self-development and active participation in learning.
 - Practical experience often requires teamwork, which develops students' social skills, such as working together, sharing ideas, and collaborating effectively.

In general, **practical experience** in teaching natural sciences to 6th-grade students using pedagogical software tools plays a key role, as it helps them improve their ability to apply knowledge to real life and gain essential experience for future professional success.

Critical thinking: With the help of software tools, students can evaluate and analyze their knowledge, which supports self-improvement.

Teamwork skills: Through software tools, students can work in groups and learn from each other, enhancing their ability to work collaboratively.

The importance of **data analysis** in teaching natural sciences to 6th-grade students is that software tools allow students to analyze economic data, and create charts and graphs. This method helps them develop skills in studying and analyzing economic information.

By analyzing data, students learn to respond to real-life situations in real-time and make optimal decisions.

During data analysis, students gain deeper understanding of statistical concepts, indicators, and how to use them, which in turn helps them comprehend economic results. They learn how to use economic data effectively and draw useful conclusions, enabling them to apply this in future professional activities. Data analysis helps students identify economic problems and seek solutions. Presenting data visually (through graphs and diagrams) makes analysis results easier to understand and improves presentation skills. Using data analysis programs, students can independently study topics of personal interest. This method often demonstrates the significance of teaching natural sciences to 6th graders.

Entertainment in the learning process:

Interactive programs and games make the study of economics more interesting and effective. The entertainment method in pedagogical software tools is important because it:



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- Increases motivation: boosts students' interest and enthusiasm, improving their attitude towards learning.
 - Improves learning quality: makes the process more engaging and interactive, aiding effective knowledge acquisition.
 - Encourages creativity: allows students to express their ideas freely.
 - Reduces stress: by making the process playful and enjoyable, it lowers students' stress levels.
 - Overall, the entertainment method makes learning more effective and enjoyable.

Personalized learning:

Thus, personalized learning through pedagogical software tools makes the learning process more effective and engaging.

Advantages of pedagogical software tools in teaching natural sciences to 6th graders include:

- **Interactivity:** Encourages active participation, improving knowledge retention.
- **Practical experience:** Simulations and games let students explore real-life economic situations, developing practical skills.
- **High motivation:** Interesting programs and games make students more eager to learn.
- **Flexible learning:** Adapts to each student's abilities and needs.
- **Data analysis:** Develops analytical skills through statistical analysis and graph creation.
- **Critical thinking:** Encourages the application of critical thinking in solving economic problems.
- **Self-assessment:** Allows students to evaluate and improve their knowledge and skills.
- **Teamwork skills:** Group activities foster collaboration and learning from peers.



These advantages demonstrate the crucial role pedagogical software tools play in teaching natural sciences to 6th-grade students and highlight how they make the process more effective.

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