DEVELOPMENT OF LOGICAL THINKING AMONG SCHOOL STUDENTS

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Abstract: *Logical thinking is the ability to reason, analyze, and make deductions based on given information. It involves the systematic application of rules and principles to solve problems or draw conclusions. Developing logical thinking skills among high school students is essential, as it not only helps them excel academically but also prepares them for their future careers and personal lives. In this article, we will discuss the importance of logical thinking, strategies for enhancing logical thinking skills in high school students, and the role of educators and parents in fostering these abilities.*

Keywords: *logical thinking, critical thinking, developing, encouragement.*

IMPORTANCE OF LOGICAL THINKING

1. Critical Thinking: Logical thinking is an integral aspect of critical thinking. It enables students to assess and analyze information, identify patterns, and make well-informed decisions. This skill is invaluable in today's fast-paced and information-rich world.

2. Problem Solving: Logical thinking helps students to break down complex problems into simpler components, allowing them to tackle challenges methodically and effectively.

3. Academic Success: Logical thinking is crucial for understanding and excelling in subjects like mathematics, science, and programming, where logical reasoning is often required.

4. Career Preparation: Many careers demand logical thinking skills, such as engineering, law, medicine, and business. Developing these skills in high school can better prepare students for their future professions.

5. Personal Growth: Logical thinking can help individuals make better decisions in their personal lives, thereby contributing to their overall well-being.

Strategies for Enhancing Logical Thinking Skills

Classroom Activities

1. Debates and Discussions: Encourage students to participate in debates and group discussions on various topics. These activities can help them develop their logical thinking skills by analyzing different perspectives and forming well-reasoned arguments.

2. Puzzles and Brainteasers: Incorporate puzzles, riddles, and brainteasers into lessons to challenge students' logical thinking abilities. These activities can be both fun and educational, promoting engagement and problem-solving skills.

3. Case Studies: Introduce real-life case studies to demonstrate the application of logical thinking in various fields. This can help students understand the relevance of logical thinking in real-world situations.

4. Socratic Method: Employ the Socratic method to encourage students to question and critically analyze their own beliefs and assumptions. This method can help to foster a deeper understanding of concepts and improve logical thinking skills.

Extracurricular Programs

1. Chess Club: Chess is a game that demands logical thinking and strategic planning. Encourage students to join or create a chess club to hone their logical thinking skills in a fun and engaging way.

2. Math and Science Competitions: Participation in math and science competitions, such as Math Olympiads and Science Fairs, can help students apply their logical thinking skills to solve complex problems.

3. Coding and Robotics Clubs: Learning to code and participating in robotics clubs can provide students with opportunities to apply logical thinking in designing and creating innovative solutions.

The Role of Educators and Parents

1. Encouragement: Educators and parents should encourage students to embrace challenges, ask questions, and think critically. Positive reinforcement can enhance students' self-confidence and motivation to develop their logical thinking skills.

2. Resources: Provide access to resources, such as books, articles, and online materials, that promote and develop logical thinking skills.

3. Modeling: Educators and parents can model logical thinking by demonstrating how they approach problem-solving and decision-making in their own lives.

4. Collaboration: Teachers should collaborate with parents to create a supportive environment for developing logical thinking skills both in and out of the classroom.

Conclusion

Developing logical thinking among high school students is crucial for their academic success, career preparation, and personal growth. Educators and parents can play a vital role in fostering these abilities through classroom activities, extracurricular programs, encouragement, and modeling. By nurturing logical thinking skills, we are helping students to become well-rounded, critical thinkers who are prepared to navigate an increasingly complex world.

REFERENCES:

1. Гальперин П.Я. Психология мышления и учение в поэтапном формировании умственных действий. М.: Наука. 2014.

2. Yunus, Y. S. (2021). Features of logical thinking of junior schoolchildren. Middle European Scientific Bulletin, 10(1)331. https: doi.org/10.47494/mesb.2021.10.331

3. Решетникова О. А. Развитие логического мышления детей младшего школьного возраста. Выпускная квалификационная работа. Екатеринбург 2019

4. Дубровина И.В. Психология. – М. : Академия. 2016.

5. Kuhn, D. (2009). Adolescent thinking. In R. Lerner & L. Steinberg (Eds.), Handbook of adolescent psychology (3rd ed., Vol. 1, pp. 169- 184). John Wiley & Sons.

6. Tursunboyevich O. A. Pedagogical and psychological opportunities for the development of social active civil competences in students //ACADEMICIA: An International Multidisciplinary Research Journal. – 2021. – Т. 11. – №. 3. – С. 1888-1897.

7. Tursunboyevich A. O. Development of socially active citizenship competence in students and youth in continuous education. – 2022.

8. Abduganiev O. Developing Student Civil Competency //Eastern European Scientific Journal. – 2019. – №. 1.

9. Abduganiyev O. T. FACTORS AFFECTING THE DEVELOPMENT OF SOCIALLY ACTIVE CITIZENSHIP COMPETENCE IN STUDENTS //E Conference Zone. 2022. – С. 10-13.

10. Abduganiyev O. T. FACTORS AFFECTING THE DEVELOPMENT OF SOCIALLY ACTIVE CITIZENSHIP COMPETENCE IN STUDENTS //E Conference Zone. – 2022. – С. 10-1