Western European Journal of Modern Experiments and Scientific Methods
Volume 2, Issue 4, April, 2024
https://westerneuropeanstudies.com/index.php/1
ISSN (E): 2942-1896 Open Access| Peer Reviewed

"INNOVATIVE APPROACHES: CRAFTING EFFECTIVE METHODOLOGIES FOR TEACHING QUANTITIES IN ELEMENTARY MATHEMATICS"

Abdulazizova Fotima Azayumjon qizi
Graduate student of Namangan state pedagogical institute

Abstract. Students are introduced to the basic idea of quantities in elementary school, which lays the groundwork for a solid mathematics education. Creating efficient teaching strategies for quantities is essential to establishing the foundation for increasingly complex mathematical ideas. In order to provide students a better grasp and appreciation of numbers, we will look at creative ways to develop a solid technique for teaching amounts in primary mathematics classes in this article.
Key words. Activities, quantities, number, value, methods, didactic games, practical learning, elementary mathematics, methodology

In primary schools, children are introduced to a variety of quantities as part of their early math education. The focus is on building a foundational understanding of numbers, counting, and basic arithmetic. Here are the primary types of quantities taught in the early years of primary education:
Counting Numbers (1 to 10 and beyond): Children are introduced to the concept of counting and the sequence of numbers from 1 to 10 and often beyond.
They learn to count objects, fingers, and other items in their environment.
Number Recognition: Identifying and recognizing numbers is a fundamental skill. Children learn to associate numerical symbols with the quantity they represent.
Basic Addition and Subtraction: Simple addition and subtraction concepts are introduced using manipulatives and visual aids. Children start by combining and separating small quantities to understand the basic operations.
Comparing Quantities: Children learn to compare quantities using terms like more, less, greater than, and less than. They practice comparing sets of objects and identifying which set has more or fewer items.
Ordinal Numbers: Introduction to ordinal numbers (first, second, third, etc.) as a way of ordering and ranking items in a sequence.
Patterns and Sequences: Children explore and create simple patterns using colors, shapes, and numbers. They begin to recognize and predict patterns in sequences.
Measurement: Basic concepts of measurement, such as length, height, weight, and capacity, are introduced using non-standard units (e.g., cubes, paperclips).
Time: Introduction to the concept of time, including basic terms such as days, weeks, and months. Learning to read and use simple clocks to tell time to the hour.
Money: Basic understanding of the concept of money, including recognizing coins and understanding their values. Simple activities involving counting and making change.

Western European Journal of Modern Experiments and Scientific Methods
Volume 2, Issue 4, April, 2024
https://westerneuropeanstudies.com/index.php/1
ISSN (E): 2942-1896 Open Access| Peer Reviewed

Geometry: Introduction to basic geometric shapes such as circles, squares, triangles, and rectangles. Exploration of spatial relationships and basic concepts of symmetry.
Data and Graphs: Basic data collection and representation, including creating and interpreting simple graphs such as bar graphs and pictographs.
Word Problems: Application of mathematical concepts to real-life situations through simple word problems. Developing the ability to solve problems using basic addition and subtraction. The goal is to provide a well-rounded introduction to mathematical concepts that will serve as a foundation for more advanced topics in later grades. The emphasis is on hands-on, experiential learning to ensure that children develop a strong understanding of these foundational mathematical principles.
Practical Learning Exercises: Talk about the value of including practical exercises to provide pupils real-world exposure to numbers. Give examples of engaging activities, useful tools, and real-world situations that will help students learn about quantities in an enjoyable and lasting way.
Visual Aids and Representations: Examine how visual aids, such graphs, charts, and diagrams, might improve students' understanding of amounts. Talk about the advantages of bridging the gap between abstract notions and practical applications through the use of visual representations.
Integration of Technology: Emphasize the part that technology plays in today's classroom and the ways in which it can be used to successfully teach numbers. Display educational software, internet resources, and interactive apps that can improve learning and accommodate different learning preferences.
Including Typical Contexts: To give students a deeper understanding of what they are learning, stress the significance of relating mathematical ideas to real-world situations. Give teachers examples of how to make amounts relevant and approachable by incorporating real-world settings into their lessons.
Differentiated Instruction: Talk about the importance of identifying and meeting the needs of a range of learning styles and skill levels in the classroom. Examine several approaches to diversified instruction, such as tiering activities, adaptable grouping, and individualized lesson plans that are catered to the requirements of each student.
Collaborative Learning: Examine the advantages of group learning settings for instruction. Talk about the ways in which cooperative projects, peer teaching, and group activities can improve comprehension and provide a welcoming learning environment.
Strategies for Formative Assessment: Emphasize the value of continuous evaluation to determine student comprehension and modify instructional methods as necessary. Talk about the several formative assessment techniques that can be used to track development and pinpoint areas that need work. Emphasize the importance of ongoing professional development for teachers in order to keep up with the latest techniques and best practices. Give references and advice.
A child's journey with mathematics begins in elementary school, and one of the most important parts of this basic instruction is the teaching of quantities. This article aims to provide primary school pupils with an engaging and memorable experience when learning about amounts by examining creative tactics that go beyond conventional approaches.

Western European Journal of Modern Experiments and Scientific Methods
Volume 2, Issue 4, April, 2024
https://westerneuropeanstudies.com/index.php/1
ISSN (E): 2942-1896 Open Access| Peer Reviewed

Telling Tales with Numbers: Incorporate storytelling into your math classes to develop a narrative centered around numbers.Create narratives or situations that bring numbers to life to help young learners understand and enjoy abstract topics.
Mysteries in Mathematics: Make challenging mysteries out of quantity-based challenges for pupils to solve. Challenge pupils to solve mysteries involving quantity in novel ways to foster critical thinking and problem-solving abilities.
Arts and Crafts in Mathematics: Incorporate creative initiatives involving quantities to merge mathematics and art. Get kids involved in projects such as using craft supplies to construct geometric forms or making illustrations of numerical ideas.
Exploration in the outdoors: Take the classroom outside to investigate amounts in the surrounding landscape. For counting activities, compare the amounts of objects discovered outside, and incorporate outdoor play to teach mathematical principles, use nature as a backdrop.
Puzzles & Games Using Math: Introduce games and puzzles centered around numbers to bring a playful element to the study of mathematics. Learning may be made more fun and collaborative with the help of board games, card games, and interactive puzzles.
Adventures in Digital Learning: Use engaging and instructive apps to embrace technology while teaching amounts. Include computers or tablets in the classroom to give students access to dynamic digital content that will make studying amounts both enjoyable and instructive. Examine amounts, for example, within the framework of a "Space Exploration" lesson, fusing math with science and other subjects to provide a comprehensive educational experience.
Math in Motion: To engage kinesthetic learners, incorporate physical movement into mathematics lessons. To make learning dynamic and engaging, use games that involve measuring, counting, and comparing quantities together with physical activities.
Collaborating and Teaching with Peers: Encourage students to share and learn from one another in order to create a collaborative learning environment.
Activities involving quantities pair students up, encouraging collaboration and peer support in the comprehension of mathematical ideas.

Conclusion

Beyond the confines of standard approaches, innovative strategies for teaching amounts at the primary school level aim to ignite children's curiosity, creativity, and passion of mathematics. Primary school students can embark on an exciting trip into the world of amounts by means of a rich and engaging environment created by educators through the integration of storytelling, outdoor exploration, digital experiences, and collaborative learning

References

1. https://www.cspu.ru/sveden/files/Metodika_obucheniya_matematike_shkolynikov_s_ZPR(1).pdf
2. https://urait.ru/viewer/metodika-obucheniya-matematike-v-nachalnoy-shkole-512938#page/7
3. https://earlymath.erikson.edu
4. https://pd.kready.org/data/ck/sites/116/files/Teaching%20Math%20in%20the%20Primary%20Grades(1).pdf

Western European Journal of Modern Experiments and Scientific Methods
Volume 2, Issue 4, April, 2024
https://westerneuropeanstudies.com/index.php/1
ISSN (E): 2942-1896 Open Access| Peer Reviewed

5. M. Jumayev “Boshlang‘ich sinflarda matematika o‘qitish metodikasi” Bayoz nashriyoti, Toshkent 2022
6. Barbara Clarke, Doug Clarke, Jill Cheeseman “The mathematical knowledge and understanding young children bring to school. Mathematis Education research journal,18()1, 78-103” 2006