

Approaching Multi-Sensory Education Methods for Preschool Children



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ABSTRACT: Currently, Vietnam's early childhood education system is implementing a child-centered educational approach, aiming to optimize the potential and capabilities of children. To achieve this goal, preschool teachers need to employ appropriate and effective teaching methods. Therefore, researching, updating, and innovating teaching methods in preschool education is crucial. This article discusses aspects of multi-sensory education methods and provides suggestions to help preschool teachers apply these methods in the education of preschool children.

KEYWORDS: Multi-sensory, preschool teachers, multi-sensory education methods

I. INTRODUCTION

In recent years, the core perspective in Vietnam's early childhood education has been child-centered education. This approach means that education is directed towards children, for children, and by children. In addition to the goal of comprehensive development, early childhood education aims to maximize the potential and individual experiences of each child; it focuses on teaching children how to think and how to solve problems independently. Furthermore, at each age, every child develops at a different pace, so it is essential to select and utilize appropriate and correct educational methods for preschool children. Recognizing the advantages and value of the multi-sensory approach, many preschool teachers have boldly applied it; however, many others have yet to fully understand its benefits or incorporate it into classroom activities. This article provides an overview of the theory behind the multi-sensory approach and offers suggestions to help preschool teachers apply this approach in teaching preschool children.

II. RESEARCH RESULTS

2.1. Multi-Sensory Education Methods

2.1.1. Concept of Educational Methods & Multi-Sensory Education Methods:

According to the open encyclopedia Wikipedia, educational methods (also known as teaching methods) are understood as the ways and paths of joint activity between teachers and learners under certain conditions to achieve predetermined educational goals.

Educational methods are a system of techniques, tactics, and measures that educators use to influence the subjects of education (students, children, etc.) to achieve specific educational objectives. These methods include teaching, learning, assessment, and management methods that are tailored to the context, characteristics of learners, and educational goals. (Nguyen Ngoc Quang, 2005).

According to author Robert Titzer, Multi-Sensory Methods are methods that seamlessly integrate auditory, tactile, gustatory, olfactory, and visual senses to achieve the highest educational effectiveness.

Author Amanda Morin describes multi-sensory methods as teaching strategies that engage multiple senses simultaneously.

Thus, multi-sensory education methods are teaching perspectives that encourage learning through the coordinated use of senses, including vision, hearing, touch, smell, and taste.

2.1.2. Origins of Multi-Sensory Education Methods

2.1.2.1. Approach Based on Physiology

Senses are one of the vital organ systems in the human body, especially for children. They are an inseparable part closely linked with the functioning of the nervous system, with each sense corresponding to a specific region of the cerebral cortex. As

Approaching Multi-Sensory Education Methods for Preschool Children

such, senses act as a bridge connecting the individual (adult/child) with the environment, serving as the only channels through which external information is transmitted to the brain, allowing the child to sense and perceive the surrounding world. Sensation refers to the signals that a sensory organ sends to the brain when it receives external stimuli, while perception relates to the ability to interpret those signals. The level of sensation, triggered by external stimuli, is almost the same in all healthy children, but the level of perception can vary among individuals.

There are multiple types of senses in the body: vision, hearing, smell, taste, and touch. Each sense has its characteristics and functions, helping to identify the unique attributes of objects. Only by combining multiple senses can we obtain complete information about an object. When one sense is impaired and loses the ability to receive stimuli, other senses are enhanced to partially compensate for the damaged sense.

- **Sight:** helps perceive the images and colors of objects and phenomena.
- **Hearing:** helps register sounds, differentiate between them, and respond to auditory stimuli.
- **Smell:** helps recognize and distinguish different odors and vapors.
- **Taste:** helps identify flavors such as salty, sweet, sour, and bitter.
- **Touch:** helps perceive tactile sensations (surface texture, size, pressure, shape), temperature (hot, cold), and pain (thermal, chemical, mechanical).

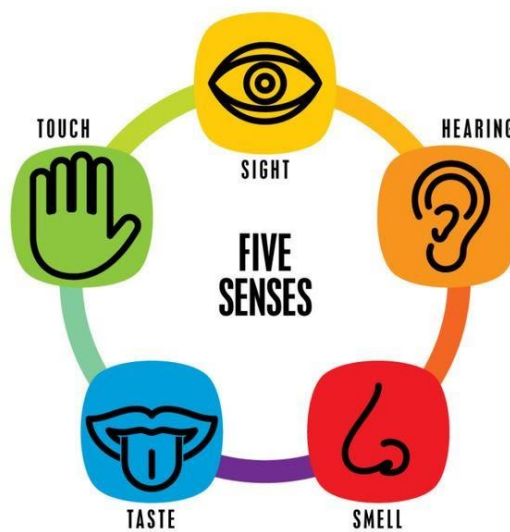


Figure: Images of the senses (from <https://terrisamuels.com/a-grounding-techniques-with-five-senses-moving-on-from-trauma/>)

The more flexibly and skillfully children use their senses, the easier it is for them to receive information from their surroundings. A child with well-developed senses can adapt to various situations, make better decisions, and learn more quickly. Recent studies have shown that children's senses continue to develop after birth.

2.1.2.2. *Origins of Multi-Sensory Education Methods*

Grace Fernald (1879-1950) was the pioneer in developing multi-sensory education methods. She was an American educator and psychologist who developed the "VAKT" (Visual-Auditory-Kinesthetic-Tactile) reading method. VAKT is a learning method through the senses (sight, hearing, movement, and touch). Her method proved particularly effective for students who had difficulty learning to read.

Samuel Orton (1879-1948) and Anna Gillingham (1878-1963). Orton was a neurologist and psychologist who, along with Anna Gillingham, an educator, developed the Orton-Gillingham method. This method is also based on the principles of multi-sensory education and was designed to help students overcome dyslexia. Orton-Gillingham is one of the most widely used methods today to help students improve their reading and writing skills.

Maria Montessori (1870-1952). She was one of the pioneers in applying multi-sensory education methods in children's education, especially in preschools. The Montessori method emphasizes the use of educational tools that children can touch, see, hear, smell, and feel.

Howard Gardner, an American psychologist and educator, is famous for his theory of multiple intelligences. Although Gardner did not directly develop multi-sensory education methods, his theories contributed to a better understanding of how learning can be enhanced through stimulating multiple senses.

Approaching Multi-Sensory Education Methods for Preschool Children

Subsequently, the multi-sensory education method continued to be researched and applied by Professor Robert C. Titzer, Ph.D., an expert in anthropology and child psychology research in California, USA. He asserted that helping children learn using multiple senses simultaneously always yields better results. The coordination of senses increases synaptic connections in the nervous system, allowing for faster information transmission and requiring continuous activation of brain function areas to process information, thereby enhancing recognition, thinking, and memory.

The core of this method is: when a child shows interest in a particular subject, help them learn that topic using as many senses as possible. This approach often generates more interest in children, leading to greater effectiveness because the neural pathways formed between different regions of the brain receive multi-sensory information.

When children learn, they often rely on sight to look at images to absorb information. Many children also rely on hearing to listen to what the teacher is saying. Multi-sensory teaching is not limited to just seeing and hearing. Instead, it encourages children to try to use all their senses. Not every lesson will engage all five senses (taste, smell, touch, sight, hearing). But in most multi-sensory lessons, children engage in activities in various ways. For example, in a classroom, a teacher may be teaching children about apples. Children may have the opportunity to visually examine, touch, smell, and taste the apple—rather than just looking at and hearing the teacher talk about the apple's shape, color, etc. Then, the teacher can hold half an apple and have the children count the seeds inside. This is a multi-sensory teaching method. It conveys information through the children's senses. As a result, the children's understanding of the "apple" will be more comprehensive, and their impression of the apple will be more deeply ingrained. Combining the five senses causes continuous activation of brain function areas, helping children improve their recognition, thinking, and memory more clearly.

2.1.3. Benefits of Multi-Sensory Education Methods

The essence of activities in preschool children involves cognitive processes and the exploration of objects through interactions with them via external physical actions (looking, touching, tasting, smelling...) and internal psychological processes (attention, memory, thinking, imagination). Through these interactions, children can learn, explore, create, absorb, and accumulate experiences for themselves, thereby refining their life skills in their unique way. Thus, the senses play a crucial role in children's cognitive processes and their exploration of the world. The coordinated use of multiple senses helps children:

- Gather more comprehensive information
- Enhance concentration, attention, and memory
- Create connections between new information and what the child already knows
- Understand and solve problems
- Use non-verbal problem-solving skills

Using multiple senses provides children with more ways to connect with what they are learning and exploring. Multi-sensory learning can be particularly beneficial for children who learn and think differently from others. For example, children with visual or auditory impairments (e.g., those who are blind or deaf) may struggle with learning if teaching is limited to sight or sound alone. (Amanda Morin)

2.2. Some Suggestions for Applying Multi-Sensory Education Methods in Preschool Education Practice

Given the benefits this method offers to children, preschool teachers can select and implement appropriate activities within the daily routines at school to apply the multi-sensory approach, with particular emphasis on purposeful activities and play.

- In purposeful activities, teachers can use the multi-sensory method in educational activities across various developmental areas such as cognitive, aesthetic, physical, and other areas for children, such as activities to familiarize and explore the surrounding environment, activities to introduce letters, or activities to introduce mathematical concepts, creative arts, etc. When introducing children to different types of fruits, animals, household items, or when asking them to create shapes with clay, or recognize letters, numbers, and shapes, teachers should organize activities in such a way that children can use more than two senses. For example, when introducing a rabbit, teachers typically prepare pictures of the rabbit and use verbal descriptions to explain its physical features, colors, habitat, food, etc., to the children. In this activity, the children can only use their eyes to see (the picture of the rabbit) and their ears to hear (the teacher's words). As a result, the information gathered about this animal may not be deeply ingrained and may quickly be forgotten or confused with another animal. On the other hand, if the teacher allows the children to interact directly with a real rabbit, the children can not only see the rabbit (using their sight), but they can also hear the rabbit's sounds (using their hearing), touch its soft fur (using their touch), observe it hopping around, and even feed the rabbit. These impressions and exciting emotions will help the children remember the characteristics of the rabbit more effectively. Through such experiences, the children's understanding of objects and phenomena in their environment expands, and their psychological processes, such as language, memory, imagination, creativity, thinking, motor skills, social communication, and emotions, also develop further.

Approaching Multi-Sensory Education Methods for Preschool Children

- According to Maria Montessori, the Italian educator known for her pioneering educational approach named after her, play is one of the "daily tasks" for children, and sensory play is "a form of nutritious food for the brain," especially during the preschool years. Sensory play helps to connect brain cells, enhances learning and creativity, strengthens language intelligence, and supports thinking, gross and fine motor skills, problem-solving abilities, and social interaction.

Therefore, in play activities, teachers can enhance sensory play through the following methods:

- **Sight:** Engage children in games related to size and color. Teachers can hang colorful toys in front of young children for them to observe. Play recognition games, identify different objects, and gather items that share one or two similar points. For example, sorting flowers of the same color into one box, or categorizing objects and animals based on distinctive features.
- **Hearing:** Provide children with toys that produce sounds, encourage them to mimic animal sounds, and help them recognize and identify sounds, even when they cannot see the source. Play whispering games (telephone game), engage in role-playing (mimicking character voices), and encourage movement to music. Play sound games involving loudness, pitch, tone, and let children tap on glasses to perceive changes in sound.
- **Smell:** Organize games to identify and distinguish different scents, such as the smell of flowers, food, the fragrance of clothes, pillows, and towels, or the unpleasant odors of dirty clothes and spoiled food.
- **Taste:** Create games that help children recognize and differentiate the tastes of food, fruits, and drinks, such as sweet, salty, sour, and bitter.
- **Touch:** Engage children in games involving different textures, temperatures, and weights. Allow them to feel different fabrics: soft, rough, coarse, smooth... Play the "mystery bag" game, where children put their hands in a bag, touch an object, and guess its name. Play with water at different temperatures or draw on each other's backs and guess the shape.

III. RESULTS AND DISCUSSION

In summary, the multi-sensory education method is a teaching approach that organizes learning through the use of multiple senses in children. It is a way for teachers to arrange activities that allow children to interact with objects using as many senses as possible, particularly emphasizing the role of the senses in the development of the "mind." This method helps children explore new and exciting aspects of life through their senses early on. The approach not only aligns with the cognitive characteristics of young children but also fits well with the child-centered teaching philosophy in preschool education. The research findings of this article will serve as a foundation for further studies on the relationship between multi-sensory education methods and advanced educational models such as Montessori, STEAM, and Reggio Emilia, which are currently being implemented in preschools in Vietnam and around the world. This will help preschool teachers better understand the significance and interconnection of these educational methods, enabling them to apply them more effectively in teaching, thereby contributing to improving and enhancing the quality of preschool education.

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Approaching Multi-Sensory Education Methods for Preschool Children

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