



Pedagogical Foundations of Using the Multi-Sensory Approach for Teaching English To Students with Learning Disabilities

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Abstract: This article examines the role of multisensory teaching methods in enhancing learning, especially for children with learning difficulties. It focuses on the practical use of visual, auditory, kinesthetic, and tactile approaches in methods developed by Grace Fernald, Orton-Gillingham, and Maria Montessori, showing how engaging multiple senses can make education more effective and inclusive.

Keywords: Multisensory learning, Visual-Auditory-Kinesthetic-Tactile (VAKT) method, dyslexia, Montessori method, multiple intelligences, special education, inclusive teaching.

Introduction: Pedagogical theory has long recognized that multi-sensory learning—engaging multiple senses simultaneously—enhances memory retention and motivation. In the field of modern education, addressing the diverse needs of learners has become a priority. Among the most effective approaches is the use of multisensory teaching methods, which involve engaging more than one sense—such as sight, hearing, touch, and movement—during the learning process. Scientific studies show that when one sense is impaired, the brain often compensates by enhancing the functioning of the remaining senses. This natural adaptation can be used in education to improve learning outcomes, especially for children with learning difficulties such as dyslexia or attention disorders.

Historically, educators like Grace Fernald, Samuel Orton, Anna Gillingham, and Maria Montessori have developed

successful multisensory approaches to enhance reading, writing, and overall cognitive development in children. These methods are still widely used today and have proven to support inclusive and individualized learning. By combining sensory input, students are more likely to retain information, stay motivated, and develop stronger neural connections. The principles of multisensory learning methods, emphasizing their role in supporting students with special educational needs and promoting more inclusive and effective teaching practices. Realizing the advantages and value of the multi-sensory approach, many teachers are boldly applying this method. However, there are still teachers who do not fully understand the advantages of this method and have not yet integrated it into the teaching process. In the open encyclopedia Wikipedia, educational methods (or teaching methods) are defined as ways and means of collaborative activity between a teacher and a student (or child) to achieve specified educational goals in specific conditions. Educational methods are a system of methods, tactics and measures that teachers use to influence the subjects of the educational process (students, children, etc.) to achieve certain educational goals. These methods include teaching, learning, assessment and management processes and are implemented in a way that is appropriate to the characteristics of the learners, the educational situation and the goals.

METHODS

According to the author Robert Titzer, multisensory methods are methods that harmoniously combine the senses of hearing, touch, taste, smell and sight to maximize the effectiveness of education. Author Amanda Morin describes multisensory methods as teaching strategies that engage multiple senses simultaneously. Therefore, multisensory teaching methods are a teaching approach that is based on the combined use of the senses of sight, hearing, touch, smell, and taste in the teaching process. Teaching methods are a system of methods, tactics, and measures that teachers use with participants in the learning process (students, children, etc.) to achieve specific educational goals. These methods include teaching, learning, assessment, and management methods that are tailored to the characteristics of learners, the situation, and the educational goals (Nguyen Ngoc Quang, 2005). To maximize educational effectiveness, Robert Titzer recommends using multisensory methods in a coordinated manner using the senses of hearing, touch, taste, smell, and sight. Amanda Morin defines a multisensory approach as a teaching method that simultaneously affects several senses. Therefore, an approach that encourages learning by using the senses of sight, hearing, touch,

smell and taste together in the teaching process is a multisensory teaching method. One of the most important systems of the body is the sensory system, which is especially important for young children. Emotions are closely related to the functioning of the nervous system, and each type of emotion corresponds to a separate area in the cerebral cortex. Therefore, emotions act as a bridge between a person (adult or child) and the environment, serving as the only channel for external information to reach the brain and the child's perception of the environment. Sensation is a signal sent to the brain by a sensory organ as a result of an external stimulus, and perception is the process of interpreting and understanding the meaning of this signal. Although the level of sensation produced by external stimuli is almost the same in healthy children, the level of perception may vary from child to child. There are many types of sensations in the human body: vision, hearing, smell, taste, and touch. Each sensation has its own characteristics and functions, helping to determine the specific features of the surrounding objects. Only by combining and using several sensations can we obtain complete and perfect information about an object. If one of the senses is damaged or loses its ability to perceive external influences, other senses are strengthened to partially replace it and compensate.

- Vision: helps to see and perceive the colors and images of surrounding objects and events.
- Hearing: allows you to perceive sounds, distinguish them, and respond to auditory signals.
- Smell: serves to perceive and distinguish various odors and vapors.
- Taste: helps to distinguish tastes such as salty, sweet, sour, and bitter.
- Touch: provides a response to sensations such as smoothness, hardness, size, shape, and pressure of objects, as well as temperature (hot, cold) and pain (hot, chemical, mechanical).

The first specialist to develop multi-sensory teaching methods is Grace Fernald (1879–1950). She was an American educator and psychologist who developed a teaching methodology called "VAKT" (Visual-Auditory-Kinesthetic-Tactile). This method allows a child to learn through the senses of sight, hearing, movement, and touch. Fernald's method was especially effective for children who had difficulty learning to read. Another popular method is the Orton-Gillingham method, which was jointly developed by Samuel Orton (1879–1948) and Anna Gillingham (1878–1963). Orton was a neurologist and psychologist, and Gillingham was an educational specialist. Their method is also based on multiple senses and has been very effective in teaching children with dyslexia to read and write. This method is

still one of the most widely used methods today. Maria Montessori (1870–1952) was one of the first educators to apply multisensory teaching methods in children's education, especially in the upbringing of preschool children. In the Montessori method, children learn through special tools, using sight, hearing, smell, touch, and even taste. Howard Gardner is an American psychologist and educator, famous for his theory of multiple intelligences. Although he did not directly develop multisensory methods, Gardner's theories have contributed significantly to a better understanding of how activating multiple senses in the human learning process produces results. Later, research in this area was continued by Professor Robert C. Titzer, Ph.D. (California, USA). He emphasized that teaching through multiple senses always gives better results in children. According to him, by combining the senses, the number of synapses in the nervous system increases, which increases the speed of information exchange and continuously activates brain activity. This approach arouses greater interest in children and, as a result, increases the effectiveness of education. Because multisensory information exchange between different areas of the brain increases.

RESULT

Vision, hearing, smell, taste, and touch all contribute to the perception of the world. When one sense is damaged, the others compensate to maintain a balanced sensory experience.

Grace Fernald's VAKT method integrated visual, auditory, kinesthetic, and tactile learning to support children struggling with reading.

The Orton-Gillingham approach has proven effective for children with dyslexia by involving multiple senses in the learning process.

Montessori education utilizes hands-on, sensory-rich tools to stimulate learning through all five senses.

Gardner's theory of multiple intelligences supports the idea that individuals learn in different ways, many of which are rooted in sensory experiences.

Robert Titzer's research showed that multisensory education improves synaptic growth and brain activity, which leads to more effective and engaging learning for children.

DISCUSSION

Multisensory teaching methods not only benefit children with learning disabilities but also enhance the educational experiences of all students by engaging multiple areas of the brain. The foundational work of Fernald, Orton-Gillingham, and Montessori laid the groundwork for current inclusive teaching strategies.

Their methods recognize that students absorb information differently—some by seeing, others by hearing, and some by moving or touching. Gardner's theory of multiple intelligences aligns with this by proposing that intelligence is multifaceted and should be developed through diverse sensory experiences. Titzer's neurological perspective reinforces these pedagogical insights with evidence from brain development studies, showing that multisensory stimulation boosts learning efficiency and motivation.

CONCLUSION

Multisensory education is a vital strategy in both general and special education. It promotes inclusivity, increases student engagement, and facilitates brain development by leveraging the strengths of all sensory pathways. Historical and contemporary evidence supports the effectiveness of these methods. Educators should be encouraged to implement multisensory strategies to support diverse learning needs and optimize student outcomes.

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