

The theory of multiple intelligences facilitating the diversified development of students' education

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Abstract: Against the backdrop of continuous educational reform, the traditional single educational evaluation system has struggled to meet the needs of students' personalized development. The theory of multiple intelligences (TMI), with its new understanding of human intelligence diversity, brings a revolutionary perspective to the field of education. This paper deeply explores the core connotation of TMI, analyzes its application value in the diversified development of student education, and proposes reform strategies based on TMI for the current educational status. The aim is to provide theoretical and practical references for promoting educational diversification and facilitating students' comprehensive and personalized development.

Keywords: theory of multiple intelligences; student education; diversified development; educational evaluation; personalized cultivation

1 Introduction

Proposed by American psychologist Howard Gardner in the 1980s, TMI breaks through the limitations of traditional intelligence theories that focus solely on linguistic and logical-mathematical abilities. It posits that humans possess at least eight relatively independent intelligence types: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalistic intelligence. With deeper research, Gardner further proposed a ninth intelligence—existential intelligence. Each intelligence has its unique neurophysiological basis and manifestation, and their combinations and development patterns vary among individuals, creating distinct intellectual profiles for each person [1].

2 The development and extension of TMI

As brain and cognitive sciences progress, TMI is validated and expanded. Lian Laoshi's BGDE at the Global Center divides human intelligence into ten types by studying prefrontal, parietal, temporal, and occipital lobes. It finds links between brain regions and intelligence: the prefrontal lobe relates to innovation and management, the temporal lobe to language, and the occipital and parietal lobes to spatial skills [2].

3 The application value of TMI in the diversified development of student education

3.1 Respecting individual differences to achieve personalized education

The core value of TMI lies in acknowledging and respecting individual differences in intelligence. Each student has a unique combination of intelligences and dominant areas. The mission of education is not to mold students into "standardized" talents but to discover and stimulate their potential, enabling them to develop fully in their respective dominant areas. For instance, an assessment of a first-grade child revealed that she has extremely high creativity but with relatively low management and manipulation abilities. In daily life, this manifested as difficulties when facing challenges, such as assembling Lego blocks. While most children find this activity enjoyable, this child would burst into tears within five minutes. The root cause was related to her intelligence profile. Her high creativity led to strong goal orientation and a desire for positive feedback, but her limited manipulation ability restricted her fine motor skills, preventing her from achieving her goals. Moreover, her low management ability hindered her emotional regulation when dealing with challenges, resulting in emotional breakdowns. Understanding the brain's operation mechanism through TMI helps parents and educators accept and accommodate such behaviors, and guide the child's development by addressing weaknesses and enhancing strengths gradually during early childhood.

3.2 Enriching educational content and forms to stimulate learning interest

TMI advocates diverse educational content and teaching methods to meet the learning needs of students with different intelligence types. In traditional education, teaching content often focuses on linguistic and logical-mathematical knowledge, with lecture-based teaching as the main method. This single model struggles to stimulate learning interest in all students. In contrast, educational practices based on TMI require educators to design diverse teaching activities according to different intelligence types, integrating knowledge learning with students' intelligence strengths to make the learning process more vivid, interesting, and engaging [3].

4 The current status and challenges of educational diversification in China

Currently, in China's education sector, understanding and awareness of TMI remain insufficiently widespread. Many parents and teachers still hold traditional concepts of intelligence, using exam scores as the primary criterion for measuring students' strengths and weaknesses while neglecting their performance and potential in other intelligence domains [4]. Let's take a student whose innovation and management intelligences ranked first and second, while linguistic and logical intelligences were at the bottom as an example. During his study abroad planning, English learning became a significant challenge. Despite taking the TOEFL exam over six times and spending about one and a half years to improve his score from the 40s to 108, the educational environment failed to recognize and address his unique intelligence profile. Instead of providing personalized support based on his strengths and weaknesses, the system focused solely on the end result of his exam scores. This case reflects the prevalent problem that most parents and educators have little understanding of the basic concepts and connotations of TMI, with over 60% regarding their children's academic performance as the most important factor, while paying insufficient attention to their development in art, sports, social skills, and other areas. This cognitive limitation makes it difficult to truly implement diversified educational concepts in practice, restricting students' personalized development.

5 Educational reform strategies based on TMI

5.1 Building a diversified educational curriculum system

Based on TMI, schools should construct a diversified curriculum system covering multiple intelligence domains. On the basis of fully implementing national curriculum requirements, schools should add courses and activities in art, sports, science and technology, and social practice to provide students with broad development space. For example, schools can offer courses such as music appreciation, painting creation, dance performance, robot programming, and outdoor adventure to meet the learning needs of students with different intelligence types. At the same time, in subject teaching, attention

should be paid to infiltrating the concept of multiple intelligences cultivation, adopting diverse teaching methods and means to stimulate students' learning interest and potential.

5.2 Establishing a diversified educational evaluation mechanism

The traditional single evaluation system should be reformed to establish a diversified educational evaluation mechanism based on TMI. Evaluation content should cover students' performance in various intelligence domains, including knowledge and skills, processes and methods, emotional attitudes, and values. Evaluation methods should adopt diverse forms such as classroom observation, project evaluation, practical operation, and growth portfolios to comprehensively and objectively evaluate students' learning outcomes and development potential. At the same time, students' specialties and performances in art, sports, science and technology, and other fields should be incorporated into the evaluation system to provide incentives and support for their diversified development.

5.3 Strengthening home-school cooperation to form an educational synergy

The family is the first school for a child's growth, and parents are the child's first teachers. The practice of TMI requires close home-school cooperation to form an educational synergy. Schools should strengthen communication and exchange with parents, regularly feedback students' learning and development at school, and guide parents on how to carry out family education according to their children's intelligence characteristics. Parents should actively participate in their children's education process, understand their interests and strengths, and provide suitable learning and development environments for them. Through home-school cooperation, they can jointly create conditions for children's diversified development.

In the critical period of China's education reform, TMI has profound significance for alleviating educational anxiety, promoting educational equity, and optimizing the talent structure. It challenges the traditional concept of "score-only", reconstructs an educational ecology where "everyone can become a talent" and provides possibilities for each student's diversified development. Promoting the widespread application of TMI requires a dual innovation in educational policies and social concepts. Only when educational evaluation, the job market, and social recognition form a joint force can TMI truly take root and push education from "standardized production" to "personalized growth".

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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