



Gardner's Multiple Intelligences Approach in Contemporary Educational Practice

El enfoque de las inteligencias múltiples de Gardner en la práctica educativa contemporánea

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ABSTRACT

The theory of Multiple Intelligences, proposed by Howard Gardner, has significantly influenced the understanding of learning and the organization of more inclusive educational practices. The objective of this article was to analyze the multiple intelligences approach and its application in contemporary educational practice, considering its contributions to curriculum design, pedagogical strategies, inclusive education, and teacher training. The research was developed through a systematic documentary review of academic literature published between 2000 and 2024, located in Redalyc, Dialnet, Google Scholar, ERIC, Frontiers in Psychology and ResearchGate. 35 sources were identified, of which 19 were included in the final analysis due to their thematic relevance and direct relationship with Gardner's theory. The results show that this theory favors curricular diversification, attention to different learning profiles, and the planning of pedagogical strategies focused on the student's strengths. It is concluded that, although it has empirical limitations, it maintains pedagogical value when applied critically, contextualized and articulated with other contemporary educational approaches.

Keywords: multiple intelligences, Gardner, educational practice, curriculum design, inclusive education.

RESUMEN

La teoría de las Inteligencias Múltiples, propuesta por Howard Gardner, ha influido de manera significativa en la comprensión del aprendizaje y en la organización de prácticas educativas más inclusivas. El objetivo de este artículo fue analizar el enfoque de las inteligencias múltiples y su aplicación en la práctica educativa contemporánea, considerando sus aportes al diseño curricular, las estrategias pedagógicas, la educación inclusiva y la formación docente. La investigación se desarrolló mediante una revisión documental sistemática de literatura académica publicada entre 2000 y 2024, localizada en Redalyc, Dialnet, Google Scholar, ERIC, Frontiers in Psychology y ResearchGate. Se identificaron 35 fuentes, de las cuales 19 fueron incluidas en el análisis final por su pertinencia temática y relación directa con la teoría de Gardner. Los resultados muestran que esta teoría favorece la diversificación curricular, la atención a distintos perfiles de aprendizaje y la planificación de estrategias pedagógicas centradas en las fortalezas del estudiante. Se concluye que, aunque presenta limitaciones empíricas, mantiene valor pedagógico cuando se aplica de forma crítica, contextualizada y articulada con otros enfoques educativos contemporáneos.

Palabras clave: inteligencias múltiples, Gardner, práctica educativa, diseño curricular, educación inclusiva.

Introduction

The traditional conception of intelligence, which relies on the intelligence quotient (IQ) as a universal measure of human cognitive abilities, has been widely questioned since the late twentieth century. In this context, Howard Gardner, a psychologist and researcher at Harvard University, proposed the Theory of Multiple Intelligences (MI) in 1983 in his foundational work *Frames of Mind: The Theory of Multiple Intelligences*. He argued that intelligence is not a single, homogeneous capacity, but rather a set of relatively independent abilities that individuals possess to varying degrees (Meza et al., 2024a).

This theoretical proposal not only generated significant debate in the field of cognitive psychology, but also transformed prevailing pedagogical conceptions, paving the way for more inclusive, personalized, and development-oriented educational approaches. The theory postulates the existence of eight intelligences: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic, to which Gardner later suggested adding existential intelligence (Angulo Quiñónez et al., 2024).

In contemporary education, characterized by student diversity, the emergence of digital technologies, and the demand for meaningful learning, MI Theory has gained renewed relevance. Numerous studies have examined its implementation in curriculum design, teaching methodologies, and assessment systems, with results demonstrating both its potential and its limitations (Meza, 2025).

The aim of this article is to analyze, from a documentary perspective, Gardner's multiple intelligences approach and its implications for contemporary educational practice. To this end, a bibliographic review of specialized academic sources, empirical studies, and recent research is conducted to identify its main contributions, criticisms, and perspectives for application in current educational contexts.

THEORETICAL FRAMEWORK

Foundations of the Theory of Multiple Intelligences

The Theory of Multiple Intelligences emerged as a critical response to the psychometric conception of intelligence, which was primarily represented by IQ tests developed following the work of Binet and Terman in the early twentieth century. Gardner (1983) argued that these tests measured only linguistic and logical-mathematical abilities, thereby neglecting a broad spectrum of equally valid and relevant human skills.

For a capacity to be recognized as an intelligence, Gardner established eight criteria for neurobiological and evolutionary validation: (1) the possibility of isolation due to brain damage; (2) the existence of prodigies or savants; (3) identifiable operations or mechanisms; (4) evolutionary history; (5) support from psychometric studies; (6) support from experimental psychological studies; (7) sensitivity to symbolic encoding; and (8) the possibility of expression in symbol systems.

This conceptual rigor distinguishes MI Theory from other popular proposals, such as "learning styles," with which it is frequently confused in educational contexts, as noted by Attwood (2022) in his analysis published in *Frontiers in Psychology*.

The Eight Intelligences and Their Descriptions

- Linguistic-verbal intelligence: The ability to use language effectively, both orally and in writing. This intelligence is observed in writers, poets, speakers, and communicators (Meza Arguello & Meza Arguello, 2025).
- Logical-mathematical intelligence: The capacity for abstract reasoning, logical thinking, and solving numerical problems. This intelligence is characteristic of mathematicians, scientists, and engineers.
- Spatial intelligence: The ability to perceive, transform, and recreate various aspects of the visual-spatial environment. This intelligence is present in artists, architects, navigators, and designers.
- Musical intelligence: Sensitivity to rhythm, melody, tone, and musical structure. This intelligence is manifested in musicians, singers, and composers.
- Bodily-kinesthetic intelligence: The ability to use one's body skillfully and coordinate movements. This intelligence is predominant in dancers, athletes, and surgeons.

- Interpersonal intelligence: The capacity to understand, relate to, and communicate with others. This intelligence is characteristic of leaders, teachers, therapists, and negotiators.
- Intrapersonal intelligence: The ability to understand oneself, identify one's own emotional states, and regulate behavior. This intelligence is manifested in philosophers, psychologists, and individuals with high self-awareness.
- Naturalistic intelligence: The capacity to recognize, classify, and relate to the natural environment. This intelligence is present in biologists, ecologists, and farmers. Gardner incorporated this intelligence in 1995.

Existential Intelligence as a Potential Ninth Dimension

Gardner (1999) proposed the possibility of a ninth intelligence: existential intelligence, associated with reflection on fundamental questions of human existence (life, death, the meaning of the universe). However, this proposal did not achieve the same level of formalization as the previous eight, and Gardner himself acknowledged the need for further empirical research to validate it.

METHODS

This study employed a documentary research design with a qualitative approach, based on the review, analysis, and critical interpretation of scientific literature related to Gardner's theory of multiple intelligences and its application in contemporary educational contexts. The literature search was conducted in databases and academic repositories such as Redalyc, Dialnet, Google Scholar, ERIC, Frontiers in Psychology, and ResearchGate.

The inclusion criteria were as follows: scientific articles, academic books, book chapters, and documentary reviews published between 2000 and 2024; documents explicitly related to the theory of multiple intelligences and its educational application; publications in Spanish, English, or Portuguese; and works with full-text access. Exclusion criteria included duplicate documents, publications not directly related to the topic, outreach texts lacking academic support, and studies that did not address Gardner's theory within the educational field.

The document selection process followed a screening logic similar to the PRISMA model. In the initial phase, 35 potentially relevant documents were identified. Subsequently, 6 duplicate records and 5 documents that did not directly fit the object of study were eliminated. Then, 24 full-text documents were reviewed, of which 5 were excluded for providing low theoretical contribution or limited relevance to the educational application of multiple intelligences. Ultimately, 19 sources were included in the documentary analysis and the final reference list.

The information obtained was organized using analytical categories derived from the study objective: curriculum design, pedagogical strategies, inclusive education, teacher training, and criticisms and limitations of the theory. This procedure enabled comparison of the contributions of the reviewed sources, identification of theoretical convergences, and recognition of the main limitations in the educational application of Gardner's approach.

RESULTS AND DISCUSSION

The documentary review enabled the identification of relevant contributions regarding the educational application of Gardner's theory of multiple intelligences. To organize the findings, the included sources were systematized according to their type of study, objective, main contribution, and relation to the theory. This organization allowed the results to be grouped into five analytical categories: curriculum design, pedagogical strategies, inclusive education, teacher training, and criticisms and limitations.

Impact on Curriculum Design

One of the most significant contributions of the theory of multiple intelligences to the educational field concerns curriculum diversification. From this perspective, the curriculum should not be limited to privileging linguistic and logical-mathematical abilities, but should incorporate learning experiences that activate different forms of understanding, expression, and problem-solving.

Table 1. Documentary Systematization Matrix

Author/Year	Type of Study	Objective	Main Contribution	Relation to Multiple Intelligences Theory
Gardner (1983)	Theoretical book	To propose a new conception of intelligence.	Proposes the existence of relatively independent intelligences.	Foundational basis of the theory.
Gardner (1993)	Academic book	Describes practical applications of the theory	Relates the theory to educational contexts	Provides support for pedagogical application
Gardner (1999)	Theoretical book	Rethinking Intelligence for the XXI Century	Introduce the discussion on existential intelligence.	Expands the conceptual framework.
Ernst-Slavit (2001)	Academic article	Analyzes education from the perspective of Gardner's theory	Relates the theory to inclusive education	Contributes to the inclusive education approach
Lizano Paniagua and Umaña Vega (2008)	Academic article	Reviews the application of the theory in preschool education	Evidence of application at introductory levels	Supports differentiated instructional strategies
Attwood (2022)	Conceptual analysis	Examines the semantic application of the theory	Differentiates multiple intelligences from learning styles	Provides a critical perspective
Safitri et al. (2023)	Literature review	Reviews applications of the theory in science	Identifies pedagogical applications in science education	Provides evidence of didactic applications
Shuyin et al. (2023)	Applied study	Develops an instructional model based on Gardner's theory	Reports improvements in mathematical performance	Connects the theory to educational outcomes
Angulo Quiñónez et al. (2024)	Academic article	Analyzes formative strategies in early childhood education	Contributes to methodological diversity	Links the theory to expression and creativity
Silva Herrera et al. (2025)	Academic document	Reviews educational implications of the theory	Highlights pedagogical applications and limitations	Reinforces critical application
Meza Arguello et al. (2024a)	Academic article	Analyzes active educational strategies	Establishes a relationship with pedagogical practices	Supports the didactic component
Meza Arguello et al. (2024b)	Academic article	Compares traditional and innovative educational approaches	Relates pedagogical innovation to learning outcomes	Supports curricular discussions
Walela (2024)	Educational study	Analyzes the pedagogical application of the theory	Identifies challenges in implementation	Contributes to teacher training
Angulo De León et al. (2025)	Academic article	Analyzes literacy challenges	Contributes to teacher training	Relates linguistic intelligence to educational practice
Domínguez Pizarro et al. (2025)	Critical review article	Critically analyzes the theory and its contemporary applications	Examines the scope, limitations, and current uses of Gardner's approach	Reinforces the critical analysis of the theory
Meza Arguello (2025)	Academic article	Analyzes theater as a didactic strategy	Highlights expressive and active learning	Relates bodily-kinesthetic and linguistic intelligences
Meza Arguello and Meza Arguello (2025)	Academic article	Reviews the contributions of critical pedagogy	Connects education with social transformation	Complements the humanistic approach
Meza Arguello et al. (2025)	Academic article	Analyzes school coexistence and mood	Contributes to the socioemotional component	Relates interpersonal and intrapersonal intelligences
Smowltech (2025)	Academic-outreach resource	Explains Gardner's theory	Synthesizes general characteristics	Provides complementary contextual support

Note. Relevant studies from the review. Own elaboration.

Attwood (2022) argues that Gardner's theory has influenced curriculum design and implementation by promoting educational practices that are more responsive to the cognitive diversity of students. In this regard, a curriculum inspired by multiple intelligences supports the planning of varied activities, the use of differentiated didactic resources, and the opportunity for students to demonstrate their learning through diverse forms of academic, artistic, physical, interpersonal, or reflective production.

The reviewed studies indicate that this curricular orientation can enhance student participation and expand learning opportunities. For example, Shuyin et al. (2023) developed an instructional model based on Gardner's theory to improve mathematical performance, demonstrating that methodological diversification can contribute to learning when applied with planning and clear objectives. Therefore, the theory remains relevant as a reference for designing flexible curricula, although its application requires avoiding oversimplified interpretations.

Pedagogical Applications in the Classroom

The pedagogical application of the theory of multiple intelligences is reflected in active methodologies, collaborative activities, artistic resources, use of movement, environmental observation experiences, personal reflection, and project-based work. These strategies enable students to participate based on their individual strengths, rather than solely through traditional academic skills.

The reviewed literature demonstrates that the theory has served as a basis for organizing activities that integrate linguistic, logical-mathematical, spatial, musical, bodily, interpersonal, intrapersonal, and naturalistic dimensions. Lizano Paniagua and Umaña Vega (2008) indicate that its application in preschool education promotes more dynamic practices adapted to students' characteristics. Additionally, Meza Arguello (2025) shows that expressive strategies such as theater can enhance participation, communication, and active learning.

However, the findings also suggest that merely associating an activity with a specific intelligence is insufficient. Pedagogical planning must address concrete learning objectives, clear evaluation criteria, and teacher support. Otherwise, the theory may be reduced to a superficial classification of activities without real impact on educational quality.

MI Theory and Inclusive Education

Gardner's theory contributes to inclusive education by challenging the notion of a single intelligence and recognizing that students possess diverse ways of learning, expressing knowledge, and solving problems. This perspective enables the recognition of abilities that often remain unacknowledged in educational models focused solely on standardized tests or linguistic-mathematical performance.

Ernst-Slavit (2001) relates the theory of multiple intelligences to education for all by emphasizing the importance of recognizing students' diverse talents. This concept aligns with contemporary approaches such as Universal Design for Learning, which advocates providing multiple means of representation, action, expression, and participation.

The reviewed documents concur that the theory can contribute to a more inclusive school environment when used to diversify strategies, make assessment more flexible, and strengthen students' academic self-esteem. However, its application must be approached with caution, avoiding the labeling of students as possessing only a single dominant intelligence. Inclusion should not involve rigid classification, but rather the expansion of opportunities to learn through various approaches.

Teacher Training and the Theory of Multiple Intelligences

Teacher training is a key factor for the effective implementation of the theory of multiple intelligences. Although Gardner's approach is widely recognized in educational discourse, its classroom application often faces limitations when teachers lack adequate preparation to integrate it into planning, activities, and assessment.

Walela (2024) notes that while the theory is acknowledged by teachers, its practical application continues to face challenges related to insufficient methodological training, limited resources, and institutional constraints. This indicates that the theory's implementation cannot rely solely on individual teacher motivation, but requires systematic training processes and pedagogical support.

The review also identifies that teacher training should address both the theoretical foundations and the limitations of the approach. Teachers need not only to be familiar with the eight intelligences, but also to understand how to design relevant activities, assess diverse learning, and avoid conflating multiple intelligences with learning styles.

Criticisms and Limitations of the Theory

Despite its influence on contemporary education, the theory of multiple intelligences has received significant criticism from cognitive psychology, neuroscience, and educational research.

The main concerns relate to the lack of sufficient empirical evidence to validate each intelligence as an independent capacity, the difficulty of measuring them with reliable instruments, and the tendency to apply the theory in an overly simplified manner.

Attwood (2022) cautions that one of the most common misconceptions is equating multiple intelligences with learning styles, which can result in less rigorous pedagogical practices. Similarly, Domínguez Pizarro et al. (2025) emphasize that while the theory retains pedagogical value, it should be interpreted critically and not as a definitive explanation of human learning.

From this perspective, Gardner's theory should be regarded as a guiding framework for diversifying teaching, rather than as a rigid classification of students. Its main contribution lies in promoting a broader understanding of human potential, but its educational application should be complemented by approaches with stronger empirical support, formative assessment, Universal Design for Learning, and contextual evidence regarding the actual needs of the classroom.

CONCLUSIONS

The documentary review supports the assertion that Howard Gardner's theory of multiple intelligences remains relevant to current educational practice, as it challenges the limited concept of a single intelligence and offers a broader perspective on students' cognitive potential. The primary contribution of the theory is the possibility of creating more heterogeneous and flexible learning experiences tailored to student differences.

The results indicate that the theory has been decisively employed in curriculum design and the planning of active pedagogical strategies. Its application facilitates the diversification of activities, the use of varied resources, the integration of artistic, bodily, linguistic, logical-mathematical, and interpersonal expressions, as well as the creation of more participatory learning environments. However, it should be noted that the benefits depend on explicit teacher planning, rather than on the mechanical adaptation of the theory to define intelligences as individual categories.

Howard Gardner's theory of multiple intelligences, forty years after its formulation, remains a pedagogical reference of significant importance in contemporary education. Its principal contribution is in challenging the reductionist model of single intelligence and paving the way for a broader, more inclusive, and more humanizing perspective on individuals' cognitive potential.

The research presented in this work, based on documentary references, allows us to conclude that: (1) MI Theory has influenced curriculum design by promoting more diversified and student-centered teaching methods; (2) its application in the classroom fosters active learning, socioemotional engagement and development, as well as intrinsic motivation for learning; (3) its contribution to the principles of inclusive education is significant, but effective implementation requires specific and systematic teacher training; (4) its empirical limitations necessitate a critical and reflective use of music, avoiding mechanical or decontextualized applications.

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