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THEORY OF MULTIPLE INTELLIGENCES - EDUCATIONAL VALENCES.

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ABSTRACT

Intelligence aroused interest both psychologists and educators through the influence attributed on learning performance. The theory of multiple intelligences, developed by Howard Gardner, highlights several dimensions of intelligence (linguistic intelligence, logical-mathematical intelligence, spatial-visual intelligence, musical intelligence, body-kinesthetic intelligence, interpersonal intelligence, intrapersonal intelligence, naturalistic intelligence). This led to the overcoming of the traditional conception of intelligence, respectively the overestimation of verbal and logical-mathematical performances.

Each type of intelligence influences the way we perceive the world, assimilate information and behave. The theory of multiple intelligences facilitates the differentiated approach in education, it can be a modern interactive training strategy that will lead to the improvement of school performance. Teachers can identify, develop and capitalize on these intelligences in educational context in order to streamline teaching-learning-assessment. Starting from the dominant type of intelligence and following the way of thinking, needs and preferences, Thomas Armstrong identifies several learning styles that can be capitalized by teachers.

Subsequently, Yuhyun Park completes Grander's typology with another type of intelligence, the digital one. Park (2016) defines digital intelligence (QD) as a set of social, emotional, and cognitive skills that enable individuals to meet challenges and adapt to the demands of digital life. Digital intelligence appears structured on 8 interconnected dimensions (digital identity; digital use; digital security; digital security; digital emotional intelligence; digital communication; digital literacy and digital rights).

Given the expansion of digitalization, especially in the current pandemic context, with digital courses becoming inherent, we need to be concerned about how to conduct them so as to obtain maintain optimal performance. Creating an interactive digital material that arouses curiosity, involves the learner, challenges him to discover the information, thus activating the other types of intelligence, becomes essential for streamlining the activity and achieving the expected performance.

KEYWORDS: multiple intelligences, learning styles, differentiated approach, digitization, digital intelligence.

Although the concept of intelligence has prezented changes in approach over time, intelligence theories can be grouped into two categories:

- those that relate to a single general skill or to a set of abilities subordinate to a core skill;

- those that relate to a set, more or less independent, of capabilities that influence success in adaptation.

Most theorists have refferend to intelligence as the ability to solve problems and adapt to the environment, although there are a multitude of theories about intelligence.

Howard Gardner and R. Sternberg stand out as important representatives of cognitive-contextual theories.

Among the bestknown theories of intelligence is Standberg's triarchic theory.

In his theory, Stenberg (1985) focuses on three types of intelligence:

- analytical, represented by the ability to capture, store, modify and work with information;
- practice or contextual, represented by the ability to make changes in the environment, and
- creative or experiential, which integrates the influences of previous experience in the environment.

Another important theoretical approach is that of Howard Gardner (1983), who talks about multiple intelligences, the theory of multiple intelligences being among the most studied and used in the field of education.

Howard Gardner (Gardner, 1983), defined and described seven basic types of intelligence: linguistic-verbal, logical-mathematical, musical-rhythmic, corporal-kinesthetic, visual-spatial, intrapersonal (internal) and interpersonal (social).

Later, (Gardner, 1995) he integrated the naturalistic intelligences into the multiple intelligences.

For these eight types of intelligence, he identified the area on the cerebral cortex responsible for each.

After another review, he only suggested, the existence of a new type of intelligence, the existential (spiritual) one (Gardner, 1999), because he failed to determine the area of the cerebral cortex that is responsible for the activity of this type of intelligence as he did in the case of the other types.

Gardner's theory nuances the difference between individuals in terms of learning, the fact that not everyone learns the same, that the attitude towards learning and learning styles differ, inducing the need for a differentiated and individualized approach in the instructional-educational process. Types of intelligence determine how we perceive reality, assimilate and process information, as well as how we behave.

Armstrong summarized the educational implications of the theory of multiple intelligences on 4 coordinates that can be exploited by teachers (Armstrong, 1994):

- the 8 intelligences appear in each person and work together at different levels, most being somewhere in the middle, with some well-developed intelligences, most of modestly developed and one or two undeveloped, but there are also people who have high levels of functioning in all eight intelligence;
- intelligences can be developed, so that each person can develop all eight intelligences to a high, reasonable, level of performance, if he is encouraged and carries out appropriate learning activities;
- intelligences always interact with each other, each activity involving complex modes of action of their;
- there are different ways to be smart, so that in the case of 2 activities that require the same type of intelligence, a person can perform exceptionally one of them but not the other.

These aspects have paved the way for the use of theory in education at all levels and at all ages, educators and teachers acting towards in the directiondevelopment of intelligences, teachers using these intelligences in acquiring superior skills to optimize learning, and school counselors in school guidance and professional. Teachers, can identify, develop and exploit these intelligences in formal, non-formal or informal educational contexts in order to streamline the teaching-learning-assessment process. So the theory of multiple intelligences is an alternative to the differentiated approach, a modern interactive training strategy that can contribute to improving school performance.

In the context of modern education which takes into account the fact that:

• each student is unique and has his own individuality;

• each student wants to feel respected;

• attitudes and behaviors are not similar on the part of all students;

the theory of multiple intelligences is an alternative or a support for the individualization of learning as the action of adapting the didactic process to the individual particularities of the students.

The differential and individualized approach of evaluation, verification, feedback must not be omitted; the competencies assessed must correspond to the competencies formed and the procedures used.

One of the recent paradigms of intelligence is that of emotional intelligence. Although the concept of emotional intelligence was first used by American psychologists Peter Salovey

and John Mayer in 1990 (Salovey, P. & Mayer, J. D., 1990), it was Goleman who popularized it (Goleman, 1995).

This theory considers the ability to identify, manage, modify, and manipulate one's own and others' emotions to be a form of intelligence (Salovey, P. & Mayer, J. D., 1990).

Emotional intelligence includes or is included in Gardner's interpersonal and intrapersonal intelligences.

Salovey and Mayer emphasize 5 dimensions of emotional intelligence: knowing personal emotions; emotion management; self-motivation; recognition of emotions in others - empathy and relationship management (Salovey, P. & Mayer, J. D., 1990; Goleman, 1995).

Yuhyun Park (2016) proposes to complete Gardner's typology with a new type that he described and called digital intelligence.

Yuhyun Park itself defines digital intelligence (QD) as a set of social, emotional, and cognitive skills that enable individuals to meet challenges and adapt to the demands of digital life, which they structure into eight interconnected areas of interest, respectively (Park, 2016):

• digital identity: the ability to create and manage one's own online identity and reputation (the person's online self), including awareness of online identity and control of the short and long term impact of online identity;

• digital use: the ability to use digital devices and media, including maintaining a healthy balance between online and offline life;

• digital safety: the ability to manage, limit or avoid risks online (eg cyberbullying) and problematic content (eg violence and obscenity);

• digital security: the ability to detect cyber threats (eg hacking, scams, malware), knowledge and use of appropriate data protection tools;

• digital emotional intelligence: the ability to be empathetic and build appropriate relationships online;

• digital communication: the ability to communicate and collaborate with others using digital and media technologies;

• digital literacy: the ability to find, evaluate, use, share and create content, as well as competence in computer thinking;

• digital rights: the ability to understand and uphold personal and legal rights, including the rights to privacy, intellectual property, freedom of expression and protection against xenophobic discourses.

Against the background of the rise of digitalization and the current pandemic situation, when the teaching activity has moved online, the need to exploit this structure of digital intelligence and its inclusion in school curricula is highlighted. It is necessary to overcome the tendency to include only operating skills in school curricula and to include all the dimensions of digital intelligence needed both now and in the future.

The complexity of the approaches offers the educational field the possibility to exploit the appropriate approaches booth in teaching, skills training as well as in feedback and evaluation, to maximize the potential of multiple intelligences and the benefits of emotional intelligence by reducing stress and increasing efficiency and optimizing digital activity as a support. educational or online education.

The creation of interactive digital learning material that cause curiosity, involves and activates students, and which, in addition to digital intelligence, also activates other types of intelligence, must be encouraged and supported.

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