



Evaluation Process of Multiple Intelligences in Collegiate



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Abstract

The research focused on the evaluation process of the multiple intelligences of the schoolchildren, for which an Educational institution of the Urban sector of the Manabí province of the Portoviejo canton was chosen, determining the influence of these intelligences in the teaching-learning processes, for which a survey was applied with a sample of 22 teachers. The results obtained indicated, that teachers have little knowledge of multiple intelligences, do not consider them for their classes. Handle the theory and although they consider it important, they do not use it in their strategies, nor do they model them in their classes, they always use the same strategy and the same means according to the content regardless of the characteristics of the student. This article defines that with a diagnosis a new proposal of optional courses, workshops and creditable extension activities related to the Multiple Intelligence Theory can be generated; strategies for their identification and use within the classroom, how to organize learning environments enriched with tactics, and means to promote their motivation and interest in training.

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1 Introduction

The research has based on demonstrating that the evaluation process that teachers currently apply within the country does not apply to students. Without taking in his ability counts on something else, the educational sector student performance is very low and manifests itself with low academic performance. Therefore, it is about finding the explanation for such a serious problem that, in front of other countries, it is below the competition, here it is based on informing that the multiple intelligences of each student is important to know to apply an evaluation according to the development of Your most advanced intelligence.

The low performance, therefore the low performance of the students, has a palpable problem that helps to develop research worldwide as stated (Aliaga, 2012). Where it says that the theory of multiple intelligences represents an innovative vision in the field of educational psychology, as it provides a different framework for the best framing of the teaching-learning process (Kırkgöz, 2010; Akbari & Hosseini, 2008; Kuo *et al.*, 2010). Making it possible for the student had better identify their strong and weak intellectual points; and that, with this information. The teacher selects the resources and didactic strategies so that in joint work that one develops even the strongest and improves the weak ones. always looking for the achievement of his satisfaction and professional success, this is where the teacher does not know the evaluation process applying multiple intelligences, although the author is based on applying them in mathematics for their progress, in reality, it could be applied in all subjects and leaving the traditional evaluating in a linear way for all students, assuming that all of them They learn the same way.

Current education according to the new visions that have made known over time, state that. They must involve the student so that can develop both physical, emotional, and mental skills and strengths. Leaving aside logical and analytical traditionalism and focus on the competencies that students have, be they of any kind since each student distinguishes himself from another. According to the skill he develops in the teaching-learning process in the classroom, in many cases that skill of the students, which implies that they feel demotivated and with low academic performance and in many cases become deserters in education (Macías *et al.*, 2018; Guasch *et al.*, 2010; Kraker, 2000; Chamoso *et al.*, 2012). According to Garder (2000), which establishes the theory of multiple intelligences; it states that it is not only reduced to the academic sphere but that it is a combination of all people's intelligences. Being skilled in sports or human relationships implies capabilities that, unfortunately, have not seriously contemplated in the programs of traditional academic training, this implies a redefinition of intelligence making it a psychobiological potential, where the influence of the environment in which the individual develops, their cognitive styles, the willingness to solve problems and create products. Fundamentally, he proposes eight different ways of being intelligent.

One of the most important theories, on which large successful educational systems have based, is the theory of multiple intelligences of "Gardner". Which has generated great influence, because it emphasizes the unique abilities that each person possesses, also emphasizes those different forms of intelligence that each person frequently receives a different value in different cultures (Morris & Maisto, 2009). In a degree, work that was carried out at the Central University of Ecuador, on the study of multiple intelligences in the province of Cotopaxi in the 2018-2019 school year in the Baccalaureate Education Unit. Where they looked for capacities involved in each intelligence and evaluating more women than men, the most prevalent intelligence is interpersonal, here it shows that students who have this type of Intelligence have a great ability to interact, interact and maintain good social relationships, (Chilin & Herrera, 2018-2019). Wherewith this information we can begin to look for the type of evaluating students involving this intelligence.

In several Latin American countries, this theory has implemented, unlike other countries where traditional education has still maintained. Similarly, this problem occurs in our country, where the different intellectual abilities that each student has gone to the background and little interest has shown in the measures to take to transform them. Evaluation is the act that consists in issuing a value judgment, based on a set of information about the evolution of results of a student, to make a decision" (Maccario, 1989). States that within everything Teaching and learning process should be evaluated the achievements obtained goals met the abilities of each student their strengths and weaknesses, the aspects that need to be improved that is why the evaluation should be performed throughout the process of knowledge acquisition and thus Keep track of what has been done.

(Amstrong, 1994), states that we all have seven modular bits of intelligence, that is, each intelligence is an autonomous competence independent of the others; It combines adaptively for the individual and culture, but they do not influence each other. The intelligence is musical, mathematical, spatial, linguistic, kinesthetic-bodily, intrapersonal and interpersonal.

- 1) Linguistic intelligence. Ability to use words effectively, either orally (for example, as a narrator, speaker or politician) or in writing (poets, playwrights, editors, journalists). This intelligence includes the ability to handle the syntax or structure of language, the phonology or sounds of language, the semantics or meanings of words, and the pragmatic dimensions or practical uses of language. Some of these uses are rhetoric (use of language to convince others to perform a specific action), mnemonics (use of language to remember information), explanation (use of language to inform) and metalanguage (use of language to talk about the language itself).
- 2) Mathematical logical intelligence. Ability to use numbers effectively (mathematicians, accountants, statisticians) and to reason well (scientists, computer programmers, logic specialists). According to Amstrong (1994), this intelligence includes sensitivity to patterns and logical relationships, statements and propositions (if ... then, it causes effect), functions and other related abstractions. The processes used in mathematical logical intelligence include categorization, classification, deduction, generalization, calculation, and hypothesis testing.
- 3) Space intelligence. For (Gardner, 2016); it is the ability to perceive the visual space world precisely (for example, as a hunter, an escort or a guide) and to carry out transformations based on those perceptions (interior designers, architects, artists, inventors). This intelligence implies sensitivity to color, lines, shape, space, and relationships between these elements. It includes the ability to visualize, graphically represent visual or spatial ideas, and to orient correctly in a spatial matrix.
- 4) Kinetic intelligence body. Mastery of the body to express ideas and feelings (actors, pampering, athletes or dancers), and ease to use the hands in the creation or transformation of objects (craftsmen, sculptors, mechanics, surgeons). This intelligence includes specific physical abilities, such as coordination, balance, dexterity, strength, flexibility, and speed, as well as proprioceptive, tactile and haptic abilities.
- 5) Musical intelligence. Ability to perceive (as a music fan), discriminate (music critics), transform (composers) and express (performers) musical forms. This intelligence includes sensitivity to rhythm, tone or melody, and the timbre or color of a musical piece. Music can be understood from a figural or "top-down" perspective (global, intuitive), formal or "bottom-up" (analytical, technical), or both.
- 6) Interpersonal intelligence. Ability to perceive and distinguish moods, intentions, motivations, and feelings of other people. It can include sensitivity to facial expressions, voices and gestures; the ability to distinguish between numerous types of interpersonal signals, and that of responding effectively and pragmatically to those signals (for example, influencing a group of people to perform a certain action).
- 7) Intrapersonal intelligence. Self-knowledge and ability to act according to that knowledge. This intelligence includes an accurate image of oneself (strengths and limitations), awareness of moods, intentions, motivations, temperaments and inner desires, and the ability to self-discipline, self-understanding, and self-esteem.
- 8) Naturalist intelligence. Faculty to recognize and classify the numerous species of flora and fauna of the environment. It also includes sensitivity to other natural phenomena (cloud and mountain formations) and, in the case of individuals raised in an urban environment, the ability to distinguish inanimate forms such as sneakers or compact disc covers.

Teaching during the school year and its evaluation taking into account multiple intelligences require a lot of observation of each student's skills and knowledge on the part of the teacher. It is possible, he says (Gardner, 2016), "to teach each boy according to his intelligence, respecting his way of learning and giving him the possibility of demonstrating what he understands".

Each individual has different learning skills depending on how their intelligence is developed; therefore, it is necessary to use different and personalized educational strategies to teach, according to the type of intelligence that predominates in the student or according to which one wants to work verbal, visual -space, body-kinetic, logical-mathematical, musical, intrapersonal, interpersonal and naturalistic. However, (Gutiérrez, 2018) we cannot ignore the importance of students facing new challenges where they can test other learning styles different from their own so that this helps them to face the subjects differently.

All students learn differently depending on the skills and abilities that they possess. Teachers must have the correct tool strategies to correctly measure. Their knowledge; for this reason, the learning style that students must adapt as pedagogical help for effective academic performance (Conard, 2006; Chamorro-Premuzic & Furnham, 2008; Duff *et al.*, 2004; Petrides *et al.*, 2004).

Gardner could say that Einstein does not have greater intelligence than Michael Jordan, but that each of them has developed a different kind of intelligence. "Every human being has a unique combination of intelligence. This is the fundamental educational challenge". Gardner (2016), in his commentary, he states that each human being has different bits of intelligence; there aren't single intelligence, but a diversity of intelligence that marks the potential and significant accents of each individual, marked by the strengths and weaknesses in a whole series of intelligence expansion scenarios

Each student has their way of learning because all students have different multiple intelligences developed and at the same time we as teachers must have the necessary resources to be able to measure and know their intelligences and that Once they generate confidence and tranquility in the students in the process of education

Romero, S cited by (Fernandez & Mihura de Rosa, 2015), through an interview:

"If every one of the multiple intelligences were worked, being a common goal in schools, the training of schoolchildren would undoubtedly be much more Integral, resulting from a more heterogeneous society, formed and trained."

To do this, it is necessary to explore using evaluative and differentiated tests to analyze the type of intelligence that each student possesses and if they determine what their strengths in knowledge and skills are, creating competitive and fear-free students. Multiple intelligences are part of our as a teacher, we must discover each of our students' intelligence so that they can take full advantage of them and be a productive part of the teaching-learning process

Gardner (2016), who states that:

"every human being has at least eight different bits of intelligence and that we human beings differentiate each other by the level of development, the biological endowment of each one, the interaction with the environment and the culture, combining them and using them in different degrees in a unique way and people".

The intelligence is the abilities and virtues that we have developed in a different way each of the students and that that is given by hereditary conditions, the environment where we develop. Forteza (1975), Defines academic performance as the "productivity of the subject, the final product of the application of their effort, nuanced by their activities, traits and the more or less correct perception of the assigned tasks."

The academic performance of a student has framed how learning takes place, which is why teachers depend on giving a quality education that aims to improve student performance. Government of the Canary Islands (2015), in its definition, as an evaluation concept contributed by B. Maccario, comments: "Evaluation is the act that consists in issuing a value judgment, based on a set of information on the evolution of results of a student, to make a decision".

Within every teaching and learning process, the achievements obtained, the goals achieved, the abilities of each student, their strengths and weaknesses have been evaluated, and the aspects that need to be improved, that is why the evaluation must be carried out throughout the process of acquiring knowledge and thus keep track of what has been done. As noted (Brown, 2015), "authentic evaluation and teaching are intended to ensure that the knowledge and skills acquired by students can be applied in contexts outside the classroom, which means that students they have made learning their own".

All when a student puts into practice everything learned in classes or within their context of studies and takes it to their daily life means that if there was learning that he acquired knowledge and assimilated what he learned and put into practice there is a satisfaction of what has been done and learned. It has thought that everything that has done with enthusiasm, love is why there is that desire to do it and that is why we as teachers must educate with love with examples being guides of our students, we must strive and do our daily work with love and dedication being a transmitter of good energies to our students.

It must be the protagonist in discovering and directing students to discover. Their abilities, qualities, skills that they are interested in knowing their strengths that with a good teaching practice can discover their true vocation taking as main axis the respect, order, and responsibility. Lens *et al.* (2008), in his article: The teacher

as a source of motivation for students: Speaking of what and why of student learning after their investigation concludes:

“It does not only matter the strength or intensity of the motivation of the students. Educational institutions and teachers should create learning environments that promote optimal motivation. It has been achieved by helping students adopt immediate or long-term learning goals or intrinsic goals, supporting the perception of an internal locus of control and autonomous motivation.”

“The world of students, deprived of institutional support and social frameworks, increasingly distant from the outdated models of student life, is today perhaps less integrated than ever” (Bourdieu & Passeron, 2003). Each student has own skills, abilities, and what they should develop, but this should be with the help of educational institutions providing that space so that the student can develop their ideas their creativity, set goals and create proposals that unite and execute them.

Students are more motivated to carry out research work that is meaningful, practical and very dynamic that is worth the benefit of their personal and academic training and that research work can sustain it in a pleasant way that would be a way to evaluate student knowledge. Zaragoza *et al.* (2009), states that the evaluation cannot simply be limited to objective exam tests, but that they require varied and complex instruments. The evaluation of students' knowledge must be open that is open questions of a reflexive nature, with critical analysis and encourage students to think about reflection and the ability to solve specific problems.

The evaluation understood in this way must comply, as stated (Covarrubias & Piña, 2004), with the pedagogical function of accompanying, guiding, proposing and offering participation, understanding, and improvement to decide and act on the teaching processes and learning. What do Covarrubias say and Piña has shared; the objective of the evaluation is nothing more than walking, inducing, and guiding and encourage students, to participate in each the activities. Within the teaching-learning process that the student is involved and that is dynamic and active. Of building new knowledge.

2 Materials and Methods

The study that has conducted is an exploratory type with a qualitative approach; the scientific, analytical and synthetic method has used in the fieldwork in the Pedro Zambrano Barcia Educational Unit, which was applied to the teachers' survey. To substantiate the research, accredited sources have used to scientific deepen the categories of analysis to understand the issue with the accuracy and specificity required, (Hernández *et al.*, 2010).

3 Results and Discussions

The results obtained from a survey of 22 teachers from an educational Unit in the province of Manabí-Ecuador, where the answers were yes, no, perhaps, favor the investigation of the subject, giving the following results. Related to the Knowledge about the theory of multiple intelligences, the following could have verified. Figure 1 shows the graphic behavior of the teachers' knowledge about the theory of multiple intelligences.

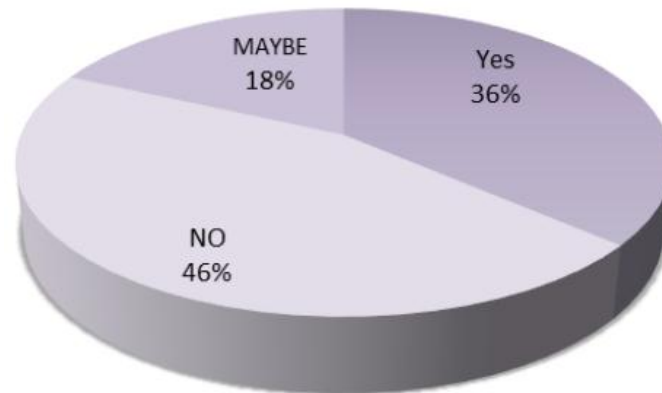


Figure 1. Knowledge about the theory of multiple intelligences

46% of the teachers surveyed suggest that they may know the theory of multiple intelligences; 36% think that if they know it; while 18% do not know the subject. It has found that just over a third of the teachers surveyed dominate the issues related to multiple intelligences and most do not have a clear notion on the subject, being a negative element for the development and use of student learning. In the development of student intelligence, I can check the following. Figure 2 shows the results where the educational process takes into account the development of intelligence in students.

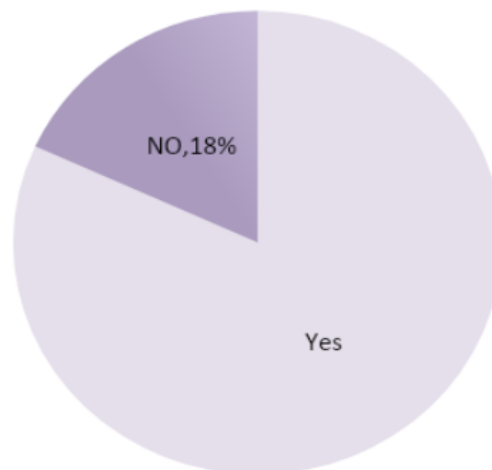


Figure 2. In the educational process, the development of intelligence has taken into account

82 % of the teachers surveyed said that in the educational process if they take into account the development of student intelligence; while 18% do not consider it in the educational process. It has found that the vast majority of teachers surveyed take into account the development of student intelligence, in educational processes, which favors learning in the classroom, both for teachers and students.

Figure 3 shows the graphic behavior of the teachers surveyed, applying strategies that enhance the development of intelligence in the classroom.

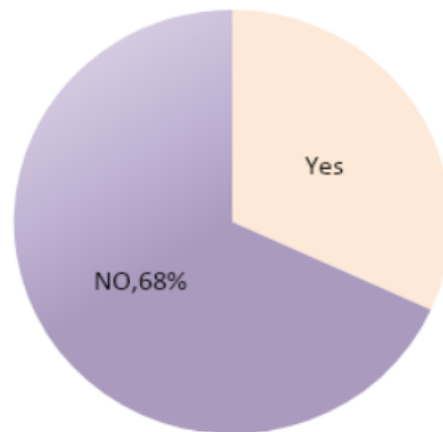


Figure 3. Apply strategies that enhance the development of intelligence in the classroom

With 68% of teachers surveyed say, they do not apply strategies that enhance the development of intelligence in the classroom; while 32% do apply strategies that allow the development of student intelligence. Based on the results, it has observed that teachers lack knowledge about appropriate strategies that favor student learning, for this reason, they do not apply strategies that favor the development of student intelligence.

Related to multiple intelligences improve students' abilities, you can check the following. Figure 4 shows the results obtained from the 22 teachers surveyed.

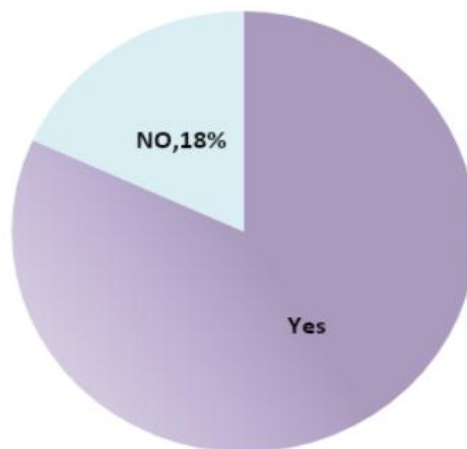


Figure 4. Multiple intelligences improve students' abilities

82% of teachers surveyed believe that multiple intelligences do improve students' abilities; while 18% think not. It is observed that a large percentage of teachers surveyed agree that multiple intelligences do improve students' abilities, which is positive for the evaluation process of students. The results show that the teachers involved have very little knowledge about multiple intelligences, so it is necessary to implement curricular workshops in the educational institution, as spaces for demonstrating intelligences that students have for their empowerment by teachers. The development of multiple intelligences must take into account in the evaluation process since each person learns differently, so it is necessary to perform tests that define the intelligence of each student. The identification of the intelligence that each student possesses allows doing a job individually since the types of intelligence have different determinations and ways of treating them. Its detection in time allows its empowerment of skills.

4 Conclusion

The planning and execution of strategies related to multiple intelligences in the learning sessions; generate a more dynamic work in the classroom, and with it, the achievement of skills in students.

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