The Relationship between Multiple Intelligences and the Learning Process of English Language Grammar in Dominican Students.

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Abstract

This research work consisted in the implementation of a plan in which, by way of treatment, it was possible to improve the way EFL teachers teach grammar applying activities that involve the different intelligences that students posses to learn a determined subject in Universidad Autonoma de Santo Domingo, campus San Francisco de Macoris , Dominican Republic. The reason for this procedure was to help teachers to improve their English grammar teaching techniques by taking into account the relationship between multiple intelligences and the learning process of English grammar.

To carry out this procedure, the teachers and teachers to be, were subjected to a previous survey to verify the way in which they taught the English grammar to their students. It means, to see their capacity to understand the different abilities that their students might have in order to facilitate them the learning process of the English grammar. Moreover, students were also submitted to a survey to see the way in which they were taught by their teachers. After that, the teachers received a training based on the teaching of English grammar considering the multiple intelligences of the students in the classrooms. The training lasted 3 days, 9 hours in total.

At the end of the process, teachers were submitted again to a post survey or test which showed an increase in the ability of teachers to implement activities that involve the multiple intelligences of their students, helping this to favor the learning of the English grammar of the students.

Keywords: Multiple Intelligences: Is a theory that was developed in 1983 by Dr. Howard Gardner, professor of education at Harvard University. It suggests that the traditional notion of intelligence, based on I.Q. testing, is far too limited.

Introduction

Taking into account that the learning process of a second language is an arduous task that involves dedication, effort and mental and cognitive preparation for both of the student and teachers or college professors who teaches either EFL or ESL in this country, mostly in the public education system, they rarely include a variety of activities that consider the different intelligence modes of their students.

Although many teachers, including those in the language area, have been using the same teaching methods that were used years ago, are now have giving themselves the opportunity to implement new techniques for the teaching of a language., mostly because of their involvement with new teaching technologies, as well as, with new opportunities provided through scholarship programs, in and outside this country, the Dominican Republic.

Chapter I of this work presents an introduction of this research work, through the theoretical framework, where any reader could be directed or motivated on the topic developed by us.

Chapter II offers an ample literature review, on the lights of the new theories on this matter.

Chapter III explains in details the methodology that was used

And Chapter IV, contains a discussion of the research questions developed through the entire work, and that led us together with the objectives to fully and successfully conduct this research project.

Chapter 1: Theoretical Framework

Statement of the problem

It has been shown that all individuals are different; that everyone has a way of doing things, and that they learn differently. As a result of that, it is important that the people involved in the teaching learning process, and in this case a new language, become aware of the importance of working with individuals who think and act in a totally different way. Many times the people assigned to be English teachers have the appropriate level of English, but not enough academic preparation in which they learn the appropriate methods for teaching the language. Moreover, they do not have the required level of psychology knowledge that makes it easier to identify the way in which students learn the contents.

As students are different, they develop different ways of learning content. That is why it is important that English language educators know the different intelligences that their students possess. Many times teachers who teach EFL in the Dominican Republic universities, specifically in San Francisco de Macoris Universidad Autonoma de Santo Domingo campus, are not aware of the relationship that multiple intelligence has with the learning process of English grammar. Other times, teachers just ignore that knowledge and teach all their students in the same way.

Purpose of the Research

The problem which this research intended to resolve is that beside many differences between individuals' characteristics that might impact their language learning process, there's often a different neglected component which is " Intelligence ". Although there are several researches about the relationship between students' multiple intelligence profile and their language learning ability, there is no coordination between the findings of these researches. In terms of writing skill; for example, some shows a significant relationship, some partial relationship and some a significant negative relationship between the two variables. To fill this gap, this research aims to explore the potential relationship between multiple intelligences and the learning process of English grammar.

General Objective

Verify if English professors know and take into consideration the multiple intelligences of their students at the moment of imparting the grammar of the English language in order to observe the relationship between Multiple Intelligences and the learning process of EFL.

Specific Objectives

1- Mention and describe the different types of intelligence that an individual can develop.

2- Detail the relationship that may exist between the different types of intelligences and the learning process of the English language in its different skills: Listening, Speaking, Reading and Writing.

Research Questions

1-What is Multiple Intelligences?

2-How many types of intelligences exist according to psychology?

3-How to consider the types of intelligence benefits the learning process of an individual?

4-How to develop activities that involve the different types of intelligence of students?

5-How to identify the types of intelligences of the students?

6-How can the Multiple Intelligences be implemented in the classroom?

7-Why is a Multiple Intelligences model successful?

Definition of Terms

Human intelligence, mental quality that consists of the abilities to learn from experience, adapt to new situations, understand and handle abstract concepts, and use knowledge to manipulate one's environment.www.merriam-webster.com/dictionary/environment.

Backgrounds and Importance

San Francisco de Macoris is a municipally of the Dominican Republic that is situated in Duarte province in the north part of the country. It also includes four municipal districts: La Peña, Cenovi, jaya and Presidente Antonio Guzman Fernandez. San Francisco is a municipality noted for its large production of cocoa and rice.

"According to the 2010 Census, the municipality had a population of 188,118 inhabitants. According to the 2002 census, it is the Dominican municipality with the highest percentage of people within the middle class, as well as the upper class. 69% of the population belonged to the middle class, 8% to the upper class, 21% were in poverty and 2% in extreme poverty.2 However, despite the vast historical production of cocoa and rice in the region, and being the main center of commerce and services in the Northeast, the factor that determined the sudden economic boost of the city was the constant sending of remittances, often substantial, from the thousands of Francomacorisanos who emigrated to the United States during the eighties and early nineties ". (National office of Statistics. «Provincial profile: Duarte». 2002 Census, Santo Domingo).

In the educational field, San Francisco counts with prestigious schools such as La Altagracia School, San Vicente de Paul, IADIS Bilingual School, Renacimiento School, known for its popular student music band, Santa Rosa De Lima School, Continental School, Arco Iris School and the Pedro Francisco Bono School, owned by the Catholic University Nordestana, Evangelical College Rev. Jose Francisco De Jesus, Episcopal College Jesus of Nazarene. Also the Blue Sky College currently Colegio Cielo Azul.

The Father Brea School, Manuel María Castillo High School, Eugenio Cruz Almanzar, Ercilia Pepín and Vicente Aquilino Santos politechnic are counted as the main public education centers that exist in the urban area of the city, in addition to the Liceo Pedro Mir de Jaya (Gran Junior) one of the most outstanding public secondary educational institutions of that city located in the Municipal District of Jaya.

In San Francisco de Macorís operate two universities, the UASD San Francisco de Macoris campus of the Autonomous University of Santo Domingo that has more than 20,000 students, being the most populated after the central. Its director is Lic. Miguel Medina. Also account with the Nordestana Catholic University that is categorized as one of the best in the whole country. Mons. Fausto Mejía is the Grand Chancellor.

Universidad Autónoma de Santo Domingo

"The University of Santo Domingo was created by the Bula In Apostolatus Culmine, issued on October 28, 1538 by Pope Paul III, which raised to that category the General Study that the Dominicans ruled from 1518, in Santo Domingo, vice regal see of colonization and the oldest colonial settlement of the New World. The University of Alcalá de Henares was its model and as such it was the standard-bearer of the Renaissance ideas that emerged from the medieval world, from which Spain emerged from the days of the conquest.

The nascent University began its teachings organized in four Faculties: Medicine, Law, Theology and Arts, according to the norms established at the time for the similar institutions of the metropolis. The studies of Arts included two modalities, namely: the

"trivium" that comprised the Grammar, the Rhetoric and the Logic and the "quadrivium", that included the Arithmetic, Geometry, Astronomy and Music ".

Vicissitudes

In 1801, as a result of the Haitian occupation of the country, the University interrupted its operation, because the Dominicans, who ran it, left the colony. It was reopened in the year 1815, when the colony returned to Spanish sovereignty, but from then on it adopted the secular character.

Between 1815 and 1821 it worked under the rectorship of Dr. José Núñez de Cáceres. The University closed its doors in 1822 because a large number of its students were recruited for military service by order of the Haitian regime that governed the nation. With the consummation of the Independence of the Republic in 1844, the Dominicans are reborn in their desire to reestablish the University, a symbol of cultural tradition and the character of the newly acquired nationality.

Responding to this claim, on June 16, 1859, President Pedro Santana promulgated a law that restored the old University of Santo Domingo, with an academic composition similar to that of medieval universities (four faculties: Philosophy, Jurisprudence, Medical Sciences and Sacred Letters) and as a dependency of the central government through the Directorate General of Public Instruction and the corresponding State Secretariat. But for reasons of political contingencies, the aforementioned provision was not enforced and the University was not reopened.

On December 31, 1866, the Professional Institute was created by decree, which functioned in place and in replacement of the old University of Santo Domingo.

On May 10, 1891, the Professional Institute closed its doors until August 16, 1895, which reappeared under the rectorship of Archbishop Fernando Arturo de Merino. On November 16, 1914, the President of the Republic, Dr. Ramón Báez, who was also Rector of the Professional Institute, transforms by decree the Professional Institute at the University of Santo Domingo.

From 1916 to 1924, the University had to interrupt its operation as a result of the North American intervention. During the 31 years of the tyranny of the dictator Rafael Leonidas Trujillo, the University of Santo Domingo, like the other institutions of the country, was deprived of the most elementary freedoms for the fulfillment of its high mission, becoming an instrument of control political and propagation of totalitarian slogans, before whose detriment nothing was worth the little material progress that reached the Institution in those years of despotic government, as was the acquisition of land and the construction of the University City.

University autonomy and jurisdiction

Law No. 5778 of December 31, 1961 endowed the University with autonomy. From that moment began to struggle to achieve institutional balance and a climate of coexistence that allowed it to develop all his creative faculties. But after three decades subjected to the iron will of a regime opposed to any form of human communication that did not serve their interests the institution was not easy, initially using the newly acquired freedom and selfgovernment to fulfill its mission of service and contribute for the cultural and economic improvement of our people. On February 17, 1962, the first authorities are elected under the autonomy regime. The Law 5778 on the autonomy, consecrated also the law for the

university enclosure, but this one was suppressed by the de facto government of the Triumvirate, by means of the Law # 292, of the 12 of June of 1964." uasd webpage: (www.uasd.edu.do)

Multiple Intelligence History

Much of the excitement among investigators in the field of intelligence derives from their attempts to determine exactly what intelligence is. Different investigators have emphasized different aspects of intelligence in their definitions. For example, in a 1921 symposium the American psychologists Lewis M. Terman and Edward L. Thorndike differed over the definition of intelligence, Terman stressing the ability to think abstractly and Thorndike emphasizing learning and the ability to give good responses to questions. More recently, however, psychologists have generally agreed that adaptation to the environment is the key to understanding both what intelligence is and what it does. Such adaptation may occur in a variety of settings: a student in school learns the material he needs to know in order to do well in a course; a physician treating a patient with unfamiliar symptoms learns about the underlying disease; or an artist reworks a painting to convey a more coherent impression. For the most part, adaptation involves making a change in oneself in order to cope more effectively with the environment, but it can also mean changing the environment or finding an entirely new one. www.britanica.com/scienceandpsychology

Effective adaptation draws upon a number of cognitive processes, such as perception, learning, memory, reasoning, and problem solving. The main emphasis in a definition of intelligence, then, is that it is not a cognitive or mental process per se but

rather a selective combination of these processes that is purposively directed toward effective adaptation.

Theories of Intelligence

Theories of intelligence, as is the case with most scientific theories, have evolved through a succession of models. Four of the most influential paradigms have been psychological measurement, also known as psychometrics; cognitive psychology, which concerns itself with the processes by which the mind functions; cognitivism and Contextualism, a combined approach that studies the interaction between the environment and mental processes; and biological science, which considers the neural bases of intelligence. What follows is a discussion of developments within these four areas. www.merriam-webster.com/dictionary/paradigms

Psychometric theories have generally sought to understand the structure of intelligence: What form does it take, and what are its parts, if any? Such theories have generally been based on and established by data obtained from tests of mental abilities, including analogies (e.g., *lawyer* is to *client* as *doctor* is to __), classifications (e.g., Which word does not belong with the others? *robin, sparrow, chicken, blue jay*), and series completions (e.g., What number comes next in the following series? *3, 6, 10, 15, 21*,_).

Psychometric theories are based on a model that portrays intelligence as a composite of abilities measured by mental tests. This model can be quantified. For example, performance on a number-series test might represent a weighted composite of number, reasoning, and memory abilities for a complex series. Mathematical models allow for weakness in one area

to be offset by strong ability in another area of test performance. In this way, superior ability in reasoning can compensate for a deficiency in number ability.

One of the earliest of the psychometric theories came from the British psychologist Charles E. Spearman (1863–1945), who published his first major article on intelligence in 1904. He noticed what may seem obvious now—that people who did well on one mental-ability test tended to do well on others, while people who performed poorly on one of them also tended to perform poorly on others. To identify the underlying sources of these performance differences, Spearman devised factor analysis, a statistical technique that examines patterns of individual differences in test scores. He concluded that just two kinds of factors underlie all individual differences in test scores. The first and more important factor, which he labeled the "general factor," or *g*, pervades performance on all tasks requiring intelligence. In other words, regardless of the task, if it requires intelligence, it requires *g*. The second factor is specifically related to each particular test. For example, when someone takes a test of arithmetical reasoning, his performance on the test requires a general factor that is common to all tests (*g*) and a specific factor that is related to whatever mental operations are required for mathematical reasoning as distinct from other kinds of thinking. But what, exactly, is *g*? After all, giving something a name is not the same as understanding what it is. Spearman did not know exactly what the general factor was, but he proposed in 1927 that it might be something like "mental energy." www.psychological-testing/test-norms

The American psychologist L.L. Thurstone disagreed with Spearman's theory, arguing instead that there were seven factors, which he identified as the "primary mental abilities." These seven abilities, according to Thurstone, were verbal comprehension (as involved in

the knowledge of vocabulary and in reading), verbal fluency (as involved in writing and in producing words), number (as involved in solving fairly simple numerical computation and arithmetical reasoning problems), spatial visualization (as involved in visualizing and manipulating objects, such as fitting a set of suitcases into an automobile trunk), inductive reasoning (as involved in completing a number series or in predicting the future on the basis of past experience), memory (as involved in recalling people's names or faces, and perceptual speed (as involved in rapid proofreading to discover typographical errors in a text).

Although the debate between Spearman and Thurstone has remained unresolved, other psychologists—such as Canadian Philip E. Vernon and American Raymond B. Cattell—have suggested that both were right in some respects. Vernon and Cattell viewed intellectual abilities as hierarchical, with *g*, or general ability, located at the top of the hierarchy. But below *g*are levels of gradually narrowing abilities, ending with the specific abilities identified by Spearman. Cattell, for example, suggested in *Abilities: Their Structure, Growth, and Action*(1971) that general ability can be subdivided into two further kinds, "fluid" and "crystallized." Fluid abilities are the reasoning and problem-solving abilities measured by tests such as analogies, classifications, and series completions. Crystallized abilities, which are thought to derive from fluid abilities, include vocabulary, general information, and knowledge about specific fields. The American psychologist John L. Horn suggested that crystallized abilities more or less increase over a person's life span, whereas fluid abilities increase in earlier years and decrease in later ones.

Most psychologists agreed that Spearman's subdivision of abilities was too narrow, but not all agreed that the subdivision should be hierarchical. The American psychologist Joy

Paul Guilford proposed a structure-of-intellect theory, which in its earlier versions postulated 120 abilities. In *The Nature of Human Intelligence* (1967), Guilford argued that abilities can be divided into five kinds of operation, four kinds of content, and six kinds of product. These facets can be variously combined to form 120 separate abilities. An example of such an ability would be cognition (operation) of semantic (content) relations (product), which would be involved in recognizing the relation between *lawyer* and *client* in the analogy problem above (*lawyer* is to *client* as *doctor* is to __). Guilford later increased the number of abilities proposed by his theory to 150.

Eventually it became apparent that there were serious problems with the basic approach to psychometric theory. A movement that had started by postulating one important ability had come, in one of its major manifestations, to recognize 150. Moreover, the psychometricians (as practitioners of factor analysis were called) lacked a scientific means of resolving their differences. Any method that could support so many theories seemed somewhat suspect. Most important, however, the psychometric theories failed to say anything substantive about the processes underlying intelligence. It is one thing to discuss "general ability" or "fluid ability" but quite another to describe just what is happening in people's minds when they are exercising the ability in question. The solution to these problems, as proposed by cognitive psychologists, was to study directly the mental processes underlying intelligence and, perhaps, to relate them to the facets of intelligence posited by psychometricians. Harari essay on nonconscious future (In our Nonconscious Future)

Multiple intelligences

Multiple Intelligences, theory of human intelligence first proposed by the psychologist Howard Gardner in his book *Frames of Mind* (1983). At its core, it is the proposition that individuals have the potential to develop a combination of eight separate intelligences, or spheres of intelligence; that proposition is grounded on Gardner's assertion that an individual's cognitive capacity cannot be represented adequately in a single measurement, such as an IQ score. Rather, because each person manifests varying levels of separate intelligences, a unique cognitive profile would be a better representation of individual strengths and weaknesses, according to this theory. It is important to note that, within this theory, every person possesses all intelligences to some degree.

Gardner posited that in order for a cognitive capacity to qualify as an independent "intelligence" (rather than as a subskill or a combination of other kinds of intelligence), it must meet eight specific criteria. First, it must be possible to thoroughly symbolize that capacity by using a specific notation that conveys its essential meaning. Second, neurological evidence must exist that some area of the brain is specialized to control that particular capacity. Third, case studies must exist that show that some subgroups of people (such as child prodigies) exhibit an elevated mastery of a given intelligence. Fourth, the intelligence must have some evolutionary relevance through history and across cultures. Fifth, the capacity must have a unique developmental history for each individual, reflecting each person's different level of mastery of it. Sixth, the intelligence must be measurable in psychometric studies that are reflective of differing levels of mastery across intelligences. Seventh, the intelligence must have some definite set of core operations that are indicative of its use. Last, the proposed intelligence must be already plausible on the basis of existing means of measuring intelligence.

Gardner's original theoretical model included seven separate intelligences, with an eighth added in 1999: Gardner, Howard (1983): *Multiple intelligences*.

1. linguistic
2. musical
3. logical-mathematical
4. spatial
5. bodily-kinesthetic
6. interpersonal
7. intrapersonal
8. naturalistic

These eight intelligences can be grouped into the language-related, person-related, or object-related. The linguistic and musical intelligences are said to be language-related, since they engage both auditory and oral functions, which Gardner argued were central to the development of verbal and rhythmic skill. Linguistic (or verbal-linguistic) intelligence manifested both orally and in writing, is the ability to use words and language effectively. Those who possess a high degree of verbal-linguistic intelligence have an ability to manipulate sentential syntax and structure, easily acquire foreign languages, and typically make use of a large vocabulary. Musical intelligence includes the ability to perceive and express variations in rhythm, pitch, and melody; the ability to compose and perform music; and the capacity to appreciate music and to distinguish subtleties in its

form. It is similar to linguistic intelligence in its structure and origin, and it employs many of the same auditory and oral resources. Musical intelligence has ties to areas of the brain that control other intelligences as well, such as is found in the performer who has a keen bodily-kinesthetic intelligence or the composer who is adept at applying logical-mathematical intelligence toward the manipulation of ratios, patterns, and scales of music.

Person-related intelligences include both interpersonal and intrapersonal cognitive capacities. Intrapersonal intelligence is identified with self-knowledge, self-understanding, and the ability to discern one's strengths and weaknesses as a means of guiding one's actions. Interpersonal intelligence is manifested in the ability to understand, perceive, and appreciate the feelings and moods of others. Those with high interpersonal intelligence are able to get along well with others, work cooperatively, communicate effectively, empathize with others, and motivate others.

The four object-related intelligences—logical-mathematical, bodily-kinesthetic, naturalistic, and spatial—are stimulated and engaged by the concrete objects one encounters and the experiences one has. Those objects include physical features of the environment such as plants and animals, concrete things, and abstractions or numbers that are used to organize the environment. Those who exhibit high degrees of logical-mathematical intelligence are able to easily perceive patterns, follow series of commands, solve mathematical calculations, generate categories and classifications, and apply those skills to everyday use. Bodily-kinesthetic intelligence is manifested in physical development, athletic ability, manual dexterity, and understanding of physical wellness. It includes the ability to perform certain valuable functions, such as those of the surgeon or mechanic, as well as the ability to express ideas and feelings as artisans and performers.

Spatial intelligence, according to Gardner, is manifested in at least three ways: the ability to perceive an object in the spatial realm accurately, the ability to represent one's ideas in a two- or three-dimensional form, and the ability to maneuver an object through space by imagining it rotated or by seeing it from various perspectives. Though spatial intelligence may be highly visual, its visual component refers more directly to one's ability to create mental representations of reality. Naturalistic intelligence is a later addition to Gardner's theoretical model and is not as widely accepted as the other seven. It includes the ability to recognize plants, animals, and other parts of the natural environment as well as to see patterns and organizational structures found in nature. Most notably, research remains inconclusive as to whether the naturalistic intelligence fulfills the criterion of being able to be isolated in neurophysiology. In 1999 Gardner also considered whether a ninth intelligence, existential, exists.

The IQ test

Visser, Beth A.; Ashton, Michael C.; Vernon, Philip A. (2006).The more influential tradition of mental testing was developed by Binet and his collaborator, Theodore Simon, in France. In 1904 the minister of public instruction in Paris named a commission to study or create tests that would ensure that mentally retarded children received an adequate education. The minister was also concerned that children of normal intelligence were being placed in classes for mentally retarded children because of behaviour problems. Even before Wissler's research, Binet, who was charged with developing the new test, had flatly rejected the Galtonian tradition, believing that Galton's tests measured trivial abilities. He proposed instead that tests of intelligence should measure skills such as

judgment, comprehension, and reasoning—the same kinds of skills measured by most intelligence tests today. Binet's early test was taken to Stanford University by Lewis Terman, whose version came to be called the Stanford-Binet test. This test has been revised frequently and continues to be used in countries all over the world.

The Stanford-Binet test, and others like it, has yielded at the very least an overall score referred to as an intelligence quotient, or IQ. Some tests, such as the Wechsler Adult Intelligence Scale (Revised) and the Wechsler Intelligence Scale for Children (Revised), yield an overall IQ as well as separate IQs for verbal and performance subtests. An example of a verbal subtest would be vocabulary, whereas an example of a performance subtest would be picture arrangement, the latter requiring an examinee to arrange a set of pictures into a sequence so that they tell a comprehensible story.

Later developments in intelligence testing expanded the range of abilities tested. For example, in 1997 the psychologists J.P. Das and Jack A. Naglieri published the Cognitive Assessment System, a test based on a theory of intelligence first proposed by the Russian psychologist Alexander Luria. The test measured planning abilities, attentional abilities, and simultaneous and successive processing abilities. Simultaneous processing abilities are used to solve tasks such as figural matrix problems, in which the test taker must fill in a matrix with a missing geometric form. Successive processing abilities are used in tests such as digit span, in which one must repeat back a string of memorized digits.

The distribution of IQ scores

Intelligence test scores follow an approximately normal distribution, meaning that most people score near the middle of the distribution of scores and that scores drop off fairly

rapidly in frequency as one moves in either direction from the centre. For example, on the IQ scale, about 2 out of 3 scores fall between 85 and 115, and about 19 out of 20 scores fall between 70 and 130. Put another way, only 1 out of 20 scores differs from the average IQ (100) by more than 30 points.

In Gardner's famous book "Frames of Mind", the main concept of his theory was the belief that all individuals are intelligent in more than one aspect. Gardner's belief was that individuals were born with diverse talents for each of the intelligences, which some of these intelligences are naturally stronger than the other intelligences. Based on Gardner's Multiple Intelligences Theory (MIT) there are eight different Intelligences including: 1) Bodily/ Kinesthetic, 2) Musical, 3) Interpersonal, 4) Intrapersonal, 5) Logical/ Mathematical, 6) Naturalist, 7) Verbal/Linguistic, and 8) Visual/Spatial [8]. Gardner recommends the requirement for the wider sight of the human mind and of individual learning than what now exists. Gardner believes that instructors should attempt to reach all learners and improve student's different intelligences. Furthermore, instructors have to use diversity of techniques in their teaching that supply diverse learning practices for learners. Consequently Gardner founded the MIT on base guidelines: (a) people are not really the same-individuals differences exist; (b) not all individuals possess the same types of minds; and (c) By considering these individual differences, education becomes more effective.

Gardner's theory of multiple intelligences informs us that there are many kinds of intelligences in humans, so the comparison of intelligences between any two people is one-sided. We can only say that each person's intelligence is reflected in different aspects, that is, each person's intelligence combination is different, so the existence of

idiot genius can be easily explained. As Gardner pointed out that there are no two people with the identical intelligence combination in the world, and every child is a potential genius. So, everyone has their own superior intelligence, and the key is how to find, guide, cultivate, and strengthen it. If the secondary education is based on this theory, then the best time to guide and develop the superior intelligence is in college.

Colleges and universities should often make more efforts to help students to form a sense of accomplishment and self-confidence. Gardiner's theory of multiple intelligences pointed out that although not all students have a gift for verbal expression or mathematics, they may be excellent in music, spatial relationships, or interpersonal knowledge. The establishment of guiding method and the efforts of evaluating students' learning will encourage many college students to actively participate in learning activities, establish good relationships with teachers, and show their own talents, which should be the fundamental objective of the development of higher education.

An enormous development in prior approaches regarding learning and teaching procedure was made by Gardner's MIT. Consequently, teachers must be able to easily and accurately detect students' intelligence level in order to understand how to apply different teaching methods which incorporate MI. In addition, students also must be able to easily recognize their own strengths in order to understand their own learning preferences specified by their intelligences. To this end, educators have examined the MIT as a potential method to modify futile teaching strategies.

Alternatively, several instructors like began to apply MI-Based instructions as approaches to triumph over the difficulties that they meet with their students as a result of

the individual distinctions along with their learning styles. Among various fields as the subjects of learning, language learning seems to be more significant, because except being a subject of learning, it is also a medium for further learning of any other subject and ranks language on the top of learning priorities to be focused on. In a better word, improving language learning is significant as it helps learners to be more successful in learning other subjects which are presented through a foreign language. In fact, through MIT, English as Foreign Language (EFL) teachers can establish a variety of settings that suggest learners a variety of ways to involve meaning and reinforce memory. It is also a teacher-friendly tool for lesson planning that cause language learning tasks to be more attractive and consequently, make satisfactory motivational conditions.

Chapter II: Literary Review

Multiple Intelligence can also influence on the academic achievements of students in an overall sense. From the study of Nursat (2017),it was determined that student centered learning methods have an overall positive and high level effect on the academic success of students. Also, a study conducted by Hamze (2013), Gulap (2014), Seyap (2015)the results showed that students who were instructed through Teaching Strategy based on Multiple Intelligences were achieved higher score than the ones which were instructed through the traditional instruction.

Zainali (2016)Multiple intelligences such as logical-mathematical, visual-spatial, verbal-linguistic, intrapersonal, bodily-kinesthetic,interpersonal and naturalistic have a significant positive relationship with academic performance achievement of students ($p<05$), whereas musical intelligence was a tunablenegative predicator for academic

performance achievement of students.Kassim's (2015)study reveals that educators now recognize that there are many paths to understanding, and students learn best when they are able to engage in activities that involve their strengths. In Malaysia, the Multiple Intelligence elements and approaches has become compulsory in the teachers daily lesson planning ill school. Naeini (2015),theresult revealed that the integration of MIT can significantly contribute to the enhancement of

EFL learners' listening comprehension and the effect is even more significant if teachers

practice an integration of all intelligences rather than the most developed ones, only.Finall y,(Beyhan, 2010) revealed that the students who are educated by multipleintelligences supported project-based learning method are more successful and have a higher motivation level than the students who are educated by the traditional instructional methods.Thus, sixteen (16) studies from Beyhan (2010), Abdulkarim (2012), Modirkhamene(2012), Safein, (2012), Abdi (2013), Ermis (2013), Oteiza (2013), Hamze (2013), Gulap(2014), Seyap (2015), (Kassim 2015), Naeini (2015), Zainali (2016), (Bas, 2016), Akyol,(2016), Nursat (2017):have positive claims that the relation on multiple intelligence to students' learning is active and vital considering the different learning styles of each students.

What makes the Multiple Intelligences Theory strong and useful in a classroom is the fact that it can be used for any subject and at any level. Each student comes to a classroom as an individual who has developed a different type of intelligence. This means that each student has their own intelligence superiorities and weaknesses. Called a learning style, these intelligence domains determine how easily or difficultly a student can learn through a specific teaching method.

There can be more than one learning style present in a classroom. To balance learning styles and subject matter, a teacher should show students how to understand a subject which addresses one of their weak intelligence domains by applying their most developed intelligence domain. For instance, a student who has highly-developed musical intelligence can be asked to learn about a war and what happened during that war by making up a song about it (Temur, 2007).

Moreover, students who apply their strong fields of intelligences in learning activities can learn a subject that they used to hate with joy and without pressure. As another example, mathematics is considered to be a tough subject for many students due to the abstract concepts they have to learn. However, when such concepts are explained through a learning activity that implements students' intelligences, students will find it more interesting and more fun because it is given as something they love to do. Students can learn mathematics by drawing, dancing, blogging, and much more. A whole curriculum can be created with activities based on multiple intelligences in a way that develops different fields of intelligences for each student; such curriculum will be more student-centered. Students will then discover the best ways by which they're able to receive information.

Challenges of Multiple Intelligences Theory

However, not all the intelligences included in the theory can be targeted easily when preparing a learning activity. Our challenge is to target the maximum number of intelligences in one session to ensure the engagement of all students in a classroom especially in classrooms in which the number of students is considerably large. Teachers should also be careful that addressing a specific type of intelligence doesn't mean ignoring

other types because our aim is to reach students' minds as well as developing all their skills.

2. Diversify your lessons

Baş, G. (2016).When lesson planning, teachers can start with the objective and then identify an intelligence or two in how it is taught. For example, to teach fractions, each day of the week, a different intelligence can be emphasized. (These can be combined also).

Monday: Logical Mathematical: use number lines, graphs, puzzles and brain games

Tuesday: Bodily Kinesthetic: manipulatives, body formations, movement in the classroom

Wednesday: Linguistic: picture books, journaling, poems

Thursday: Spatial: dominoes, cards, manipulatives, flash cards with drawings

Friday: Naturalistic: nature walk with observation journals

Monday: Interpersonal: cooperative groups and games

Tuesday: Intrapersonal: journaling, individual rubrics to check work

Wednesday: Musical**:** sing math facts, musical instruments to play patterns

Homework can also be completed with a particular intelligence in mind. That way students can grow in a weak area some weeks and be in their sweet spot on other weeks.

The Difference Between Multiple Intelligences and Learning Styles

One common misconception about multiple intelligences is that it means the same thing as learning styles. Instead, multiple intelligences represent different intellectual abilities.

Learning styles, according to Howard Gardner, are the ways in which an individual approaches a range of tasks. They have been categorized in a number of different ways -- visual, auditory, and kinesthetic, impulsive and reflective, right brain and left brain, etc. Gardner argues that the idea of learning styles does not contain clear criteria for how one would define a learning style, where the style comes, and how it can be recognized and assessed. He phrases the idea of learning styles as "a hypothesis of how an individual approaches a range of materials." Carroll, J. B. (1993).

Everyone has all eight types of the intelligences listed above at varying levels of aptitude -- perhaps even more that are still undiscovered -- and all learning experiences do not have to relate to a person's strongest area of intelligence. For example, if someone is skilled at learning new languages, it doesn't necessarily mean that they prefer to learn through lectures. Someone with high visual-spatial intelligence, such as a skilled painter, may still benefit from using rhymes to remember information. Learning is fluid and complex, and it's important to avoid labeling students as one type of learner. As Gardner states, "When one has a thorough understanding of a topic, one can typically think of it in several ways."

(www.edutopia.org-multiple-intelligences-research)

Practices Supported by Research

Demetriou, A., Christou, C.; Spanoudis, G.; Platsidou, M. (2002). Having an understanding of different teaching approaches from which we all can learn, as well as a toolbox with a variety of ways to present content to students, is valuable for increasing the accessibility of learning experiences for all students. To develop this toolbox, it is

especially important to gather ongoing information about student strengths and challenges as well as their developing interests and activities they dislike. Providing different contexts for students and engaging a variety of their senses -- for example, learning about fractions through musical notes, flower petals, and poetic meter -- *is* supported by research. Specifically:

Providing students with multiple ways to access content improves learning (Hattie, 2011).

Providing students with multiple ways to demonstrate knowledge and skills increases engagement and learning, and provides teachers with more accurate understanding of students' knowledge and skills (Darling-Hammond, 2010).

Instruction should be informed as much as possible by detailed knowledge about students' specific strengths, needs, and areas for growth (Tomlinson, 2014).

Gardner goes on to say that, "Indeed, as currently constituted, our educational system is heavily biased toward linguistic modes of instruction and assessment and, to a somewhat lesser degree, toward logical-quantitative modes as well."

Gardner (1999) argues that "a contrasting set of assumptions is more likely to be educationally effective. Students learn in ways that are identifiably distinctive. The broad spectrum of students—and perhaps the society as a whole—would be better served if disciplines could be presented in a number of ways and learning could be accessed through a variety of means." In 2010, Bas and Beyhan presented findings based on their study of using Multiple Intelligences theory in learning English. They determined that MI-based learning is more effective in terms of student achievement levels and their attitudes toward

learning. Their research supports Gardner's assertion that MI-based learning will serve students well.

HOW DO WE BENEFIT FROM UNDERSTANDING MULTIPLE INTELLIGENCES?

When educators are given the freedom to move away from the traditional, visually-based methods of teaching, they will have the opportunity to reach more students, more effectively. By teaching to the dominant learning intelligences, teachers will find students to be more productive, more receptive and more willing to engage in the learning process.

As so many educators have already embraced this theory, it is time for educational administrators to take notice of new techniques that can be successful based on the research of Howard Gardner and the other researchers who have followed.

www.cornerstone.edu/blogs/lifelong-learning

Chapter 3: Methodology

Research Design

In This paper defines the methodology to meet effectively the purpose of the research topic, with different stages to follow to reach the scientific knowledge of the research, in order to improve the problems arising during the same.

Method

The method we used in this field research was observation and it is a method of data collection whose objective is to represent as accurately as possible what happens in reality Pierson (1986).

Research Design

The term research design refers to the plan or strategy designed to obtain the information that is desired. The present investigation has a non-experimental design, since what is done is to observe the phenomena that affect as they occur in their natural context, and then update them.

Research Instruments and Technique

All these data have been obtained through the application of the questionnaire that is included in the final appendix. As can be seen, it has been structured in 12 items that provide us with data on the following aspects:

The types of intelligences of students

Teacher activities in the classrooms

Teacher awareness about the types of intelligences

Students' perception about their learning process

Population

The populations studying this research are the students of the Universidad Autonoma of Santo Domingo, campus San Francisco de Macoris, Elementary English level, sections 1 and 2 with a total of 60 students interview and 2 teachers.

Research Questions Discussion

1.-Research Question #1-What is Multiple Intelligences?
-A vast number of the selected students (72%) perfectly understood, the meaning and significance in terms of the academic life how Gardner pioneered this field for the benefit of the whole world.

2-Research Question #2-How many types of intelligences exist according to psychology?
-It was not surprising to learn how those interviewed students expressed if not a fully cognizance on the matter (Multiple Intelligences) a rather average knowledge, so (68%)was the number who did it.

3-Research Question #3.-How to consider the types of intelligence benefits the learning process of an individual?
-Although they are teachers to be, nearly a (80%) could sense the benefits of Multiple Intelligence as a venue for facilitating the learning process in any field.

4-Research Question #4.-How to develop activities that involve the different types of intelligence of students?

-A high percentage (88%)revealed that they did not have the tools for developing those activities, and thought of a kind of tech Application for fully develop that, in a near future.

5-Research Question #5.-How to identify the types of intelligences of the students?
-A nearly hundred percentages of them (100%), answered that though a battery of psychological tests.

6-Research Question #6.-How can the Multiple Intelligences be implemented in the classroom?

-When asked that questions many of the students selected for the interview, answered that, for that it takes, being a very creative teacher equipped with a full cognizance of that theory and the having also the experience that brings practice.

7-Research Question #7.-Why is a Multiple Intelligences model successful?
-They clearly and totally replied (100%) that this model has not been fully applied in most of the schools in our country, especially in the public system, and they maintain the belief that it has been scarcely applied in a few privileges private schools of the big cities.

Conclusion

This research proposal states that students are different and that each one has their own way of learning content. This conclusion is based on the approaches of Howard Gardner,

who proposed eight types of intelligence. According to Gardner, an individual can develop more than one type of intelligence, that is, people have the ability to be outstanding using a combination of intelligence. In addition, according to previous research, it is perceived that the teaching learning process has a certain relationship with the types of students' intelligence.

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Appendix

UNIVERSIDAD AUTONOMA DE SANTO DOMINGO

FACULTY OF HUMANITIES

THE SCHOOL OF FOREIGN LANGUAGES

SURVEY ON STUDENTS MULTIPLE INTELLIGENCES TYPE

Gender: Male---------- Female----------

Mark with a check

-------I enjoy categorizing things by common traits.

------I learn better by watching.

------Classification helps me make sense of new data.

------I enjoy working in garden.

------I love to listening to music.

-----Putting things in hierarchies makes sense to me.

-----I can memorize a lot of information.

-----My room is full of colors and figures.

-----I enjoy studying in group.

-----I am good at making presentations.

UNIVERSIDAD AUTONOMA DE SANTO DOMINGO

FACULTY OF HUMANITIES

THE SCHOOL OF FOREIGN LANGUAGES

SURVEY ON PROFESSORS TEACHING ACTIVITIES IN THE CLASSROOM

Gender: Male---------- Female---------- Age----------

Answer yes or no

I like telling story to my students----------

I put my students in circles to make debates----------

I put my students to organize dialog by logic----------

I assign my students to write compositions and add visual decoration----------

I assign my students to listen to songs according to the grammar in use----------

I assign my students to act in role plays----------

I enjoy beginning the class with dramatization----------

I use different activities to teach the same grammar----------

I recognize the different skills of my students----------

I give my students the opportunity to express their feelings about the previous class----------