

Analytical-assertive learning styles in university students

Estilos de aprendizaje analítico-assertivo en los estudiantes universitarios

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Abstract

The objective of this article was to identify the variables that make up the Learning Styles of Higher Education students from different States of Mexico. The methodology used was quantitative, synchronous, and cross-sectional exploratory and descriptive. The collection of information was carried out by means of a standardized instrument from Spain, it was applied to 1412 people. The instrument consists of two sections, in the first are the general data, the second section mentions the technique of natural semantic networks and the third section corresponds to the dimensions of Learning Styles. The importance of the present project lies in the need to know the way in which students acquire and process the acquired learning, in order to provide them with the appropriate tools for a greater understanding and construction of their own knowledge. In the students aspects of deep processing are observed, which make this one an analytical and assertive thinker in the methods of study that he carries out to obtain knowledge and give rise to self-affirmation. Students through the implementation of strategies must develop their skills, abilities and competencies.

Learning style, Skills, Knowledge

Resumen

El objetivo de este artículo fue identificar las variables que integran los Estilos de Aprendizaje de los estudiantes de Educación Superior de diferentes Estados de México. La metodología que se utilizó fue cuantitativa, sincrónica, y transversal de tipo exploratorio y descriptivo. La recopilación de la información se realizó por medio de un instrumento estandarizado de España, se aplicó a 1412 personas. El instrumento consta de dos apartados, en el primero se encuentran los datos generales, el segundo apartado menciona la técnica de redes semánticas naturales y el tercer apartado corresponde a las dimensiones de Estilos de Aprendizaje. La importancia del presente proyecto, radica en la necesidad de conocer la forma en que los estudiantes adquieren y procesan los aprendizajes adquiridos, con la finalidad de proporcionarles las herramientas adecuadas para una mayor comprensión y construcción de sus propios conocimientos. En los estudiantes se observan aspectos de procesamiento profundo, los cuales hacen que este sea un pensador analítico y assertivo en los métodos de estudio que lleva a cabo para obtener conocimientos y dar lugar la auto afirmación. Los estudiantes por medio de la puesta en práctica de estrategias deben lograr desarrollar sus habilidades, destrezas y competencias.

Estilo de aprendizaje, Habilidades, Conocimientos

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Introduction

Over the years, education has become a very important agent in terms of knowledge transmission, since since ancient times the first training that a person had was within the family nucleus, parents were the first to provide education to their own children; developing in them the sense of morality and ethics mainly. However, education has been constantly evolving and has provided society with the opportunity for full growth and development of their skills and abilities, which generate an important impact on the academic performance of a student, this through learning styles; that is, the way in which they acquire knowledge.

Learning styles play a very important role in gaining knowledge, Keffe (1988) mentions that:

"Learning styles are the cognitive, affective and physiological traits that serve as relatively stable indicators of how students perceive interactions and respond to their learning environments" (Ruiz, 2010).

It is because of this situation that teachers must put into practice within a school classroom various strategies and methodologies that help students to go. Currently several research studies have been carried out, however, neither has taken for granted that the two axes mentioned in this research play an important role within the teaching-learning process. The research axes are: study method and academic performance, which were measured by means of the ILP-R Questionnaire (SCHMECK) and ten signalitic variables (general data).

Justification

The importance of the present project lies in the need to know the way in which students acquire and process the acquired learning, in order to provide them with the appropriate tools for a greater understanding and construction of their own knowledge.

It is expected that students know the method of study that best suits their way of learning, to reach that situation requires the implementation of a set of various strategies that effectively help the acquisition of new knowledge, which will be of benefit to develop their skills and abilities; likewise, it is expected that the results will be reflected in a positive way in their academic performance.

The beneficiaries of the results of this research will not only be the students, who will find it useful to know in depth the way in which they are easily acquiring knowledge and how they can put it into practice in their academic life; but also for teachers who, through the results, will be able to carry out a complete restructuring in terms of planning, the main objective being to provide activities according to the way students learn.

The methodological value of this research lies in the development of an instrument that shows the dynamics, in how the contrast of the research is presented.

While the methodological value of this research lies in the integration of bibliography on Learning Styles.

General question

What variables make up the learning styles of higher education students from various states of Mexico?

General objective

Identify the variables that make up the learning styles of Higher Education students from various States of Mexico.

Specific objectives

- Show the percentage of students who study in the City of Saltillo Coahuila
- Frequency the percentage of students who study at the Autonomous University of Coahuila
- Contrast the differences of opinion that exist between the age of 18 years and 23 years regarding the method of study.

- Compare the differences of opinion that exist between the Engineer in Business Management and the Lic. in Business Administration, with respect to conventional attitudes.
- Define the factor that integrates the study method, with respect to agentic processing and conventional attitudes of university students.

Research questions

- What is the percentage of students who study in the City of Saltillo?
- What is the percentage of students who study at the Autonomous University of Coahuila?
- What differences of opinion exist between the age of 18 and 23, regarding the method of study?
- What difference of opinion exists between the Engineer in Business Management and the Lic. in Business Administration, with respect to conventional attitudes?
- What factor integrates the study method, with respect to "agentic" processing and the conventional attitudes of university students?

Hypothesis

- The largest student population is concentrated in the City of Saltillo Coahuila.
- The largest student population belongs to the Autonomous University of Coahuila.
- There are differences of opinion between the age of 18 years and 23 years, regarding the study method.
- There is a difference of opinion between the Engineer in Business Management and the Lic. in Business Administration, with respect to conventional attitudes.

- The factors that are present in the term learning styles, correspond to factors focused on the method of study, agentic processing and the conventional attitudes of university students.

Theoretical Framework

Since very ancient times, learning has been conceived as the opportunity that every human being has naturally, to survive and adapt to the material and social world to which it belongs, "learning is a by-product of thought ... We learn, we think, and the quality of the learning outcome is determined by the quality of our thinking" (Zapata, 2015, p. 73).

Learning is an innate action, it is a process that begins from the birth of a person, and culminates in the death of the person. People learn differently, both children and adults, people from one country or another, from one culture or another. Some need some specific environments, others of different methods, structures, in short, different Learning Styles to be able to acquire and generate knowledge at the same time.

That is why, it has been given the task of exploring and trying to define the ways in which students interact, develop and obtain knowledge in the academic process, in order to enrich and potentiate their skills to bring them properly into practice, based on this some authors came to the following conclusion:

"Cognitive research has shown that people think differently; thus, they capture information, process it, store it and retrieve it differently, so there are numerous differentiating characteristics between individuals that significantly influence teaching-learning processes. In addition, the theory of learning styles represents a very important contribution in different areas of knowledge, such as didactics, pedagogy and psychology" (Guenauoui, 2019).

The way in which students acquire information is a very important point, it is not only about acquiring new information, but, by the way to the association of this with the existing one, giving rise to more useful concepts and easy to be retained and processed more quickly, when remembering them or putting them into practice in some situation.

It is also essential that the learning style or styles that a student carries out in the learning process are known, what are the strategies that consciously and unconsciously help him in terms of the acquisition of knowledge, as Gutiérrez (2018) proposes:

"Learning Styles have become elements of great importance to promote quality teaching. We consider that the fact of knowing the predominance of the Learning Styles that the students with whom we work have is fundamental to adapt the teaching methodologies to the characteristics that they present, and thus contribute to raising their levels of educational performance. Nor can we forget that they contribute to developing both the "learning to learn" and the emotional aspect of the students". (p, 98)

However, the definition of what learning styles are has been formulated since the 50s by numerous experts and connoisseurs, to this we must add that it is currently one of the most important and popular topics in education, since it seeks to understand the way in which students approach to obtain knowledge more effectively. Without neglecting how important motivation, age, culture, socioeconomic status, among others, are. Schmeck (1988), quoted in Morales (n/a) states on this subject that:

"A learning style is simply the cognitive style that an individual manifests when faced with a learning task, and reflects the preferred, habitual and natural strategies of the student to learn, hence it can be placed somewhere between personality and learning strategies, for not being as specific as the latter, nor as general as the first." (Loc. Cit. , p. 2)

That is, each student has a different way of obtaining and safeguarding knowledge in a more feasible way, carrying out various strategies and methodologies that allow them to understand the topics seen in the school classroom. And, above all, helping with the activities that teachers adapt for each learning style, through good planning, design and execution of the teaching process. As Stated by Loc. Cit. (1988), in the result of his research:

"Students can become academically empowered as long as they develop appropriate learning styles and strategies. Therefore, he defined three different learning styles, which are characterized by using a particular learning strategy and by reaching different levels of learning:

- Depth style: Typical of that student who uses the conceptualization strategy, which means that when studying he abstracts, analyzes, relates and organizes abstractions (facilitating strategy of high-level learning).
- Style of elaboration: Which implies the use, by the student, of a personalized strategy. For this student, the study content must be directly related to himself, to his experiences, to what he has happened or thinks will happen (strategy that facilitates a medium level learning).
- Superficial style: Which involves the use of a strategy focused on memorization; the student only remembers the content he reviewed when studying (strategy that facilitates low-level learning)". (Santos & Santos, 2014).

In this way, what the author seeks to imply through the aforementioned learning styles is that, in the first place, the student is the center and he is in charge of his own construction of learning, by obtaining information, observation and relating information. On the other hand, the elaboration, indicates that the student creates throughout his student life his own strategies to facilitate his correct learning and finally the superficial, where the students use as the best resource to increase their learning, memorization. Since these do not learn the information by heart, they do not feel safe when it comes to putting it into practice.

Also, it can be mentioned that not all people can learn in the same way, since each of them manifests a different profile according to their personality, experience, type of life, intellectual capacity, habits and more factors. Schmeck (1988), quoted in (Mazías, 2017a) expresses that "the acquisition of strategies is part of the process of personal development of the student until they create a learning style". (Loc.Cit. 2017, p. 632)

The recommendations of this author help teachers and institutions to develop students both personally and to create the best type of learning that fits their needs, in order to safeguard the knowledge acquired. Therefore, it can be mentioned that the learning styles handled by the author are mainly focused on the student, who must exploit and conceive their knowledge autonomously and relate them to those who already know, to make learning more effective.

However, Schmeck, Rojas & Quesada (1992), cited in (Macías, 2017b) propose: The school must effectively be concerned with learning and thinking strategies, that is, orient itself to what and how students learn, and also replace the use of the traditional approach with a qualitative one, which allows the student to enrich their cognitive structures, develop strategies and a high-level learning style. (Loc. Cit. , 2017, p. 632)

For this reason, the teacher plays a very important role when carrying out the teaching process within the school classroom, in order to apply the methods and strategies necessary so that they can increase and retain the necessary knowledge that over time will help them both to increase, as to experience them inside and outside a realization or develop some academic content, they put into practice some style of learning mentioned above Schmeck in the year of 1977, cited in (Lana Perez, n.d.) first developed in the United States, a questionnaire which described it as:

The I.L.P. (Inventory of Learning Processes) primitive Inventory conceives learning styles "as the predisposition of the subject to adopt a particular learning strategy regardless of the specific demands of the task." It evaluates the conceptual and behavioral process of students through four subscales:

1. Academic self-concept: evaluates the student's capacity for synthesis and analysis, diagnoses the amplitude with which the student critically evaluates, conceptually organizes, compares and contrasts the information he has studied.
2. Reflective processing: evaluates to what extent you use the elaborated processing.

3. Agent processing: evaluates the retention of facts

4. Study methods: evaluate study techniques

These factors in turn contain subfactors, such as:

5. Self-efficacy
6. Intrinsic motivation
7. Self-esteem,
8. Non-repetitive processing

From the factors that the IPL questionnaire has, it can be added that the self-concept has to do with the way in which people perceive themselves and therefore give meaning to certain topics, as well as the experiences they live in the day to day, which they acquire from the environment that surrounds them, they serve to obtain various knowledge and methods, which helps them when learning.

On the other hand, reflective thinking helps students after having read or received information on a specific topic, they can through meditation socialize properly with the topics, managing to find a connection that facilitates them to remember what they have learned at the right time. When talking about study method, it refers to all the strategies and procedures that are carried out for the acquisition of learning, always remembering that each person learns differently and at their own pace.

It is also important to describe self-efficacy, which is the confidence that students have when solving problems or situations that are presented to them, since they have the knowledge and skills necessary to carry out their objectives. On the other hand, the intrinsic motivation is the one that is generated from within the student to achieve the goals that have been set at a certain time, thus perfecting their personal development, giving way to self-esteem through which the student will have a better appreciation and valuation of his person, managing to carry out everything he undertakes.

It is necessary that the aforementioned aspects are put into practice and that they are observed in the students, in order to offer them better strategies and educational changes that help them in the acquisition of new skills, to grow professionally and socially.

This questionnaire, as mentioned in some publications has almost more than 30 years since its completion, has been carried out in various investigations to know the way in which students are facilitated the retention of knowledge and how they seek to create strategies for the better understanding and adaptation of the topics that are provided within a classroom. Today it is also an interesting resource to help teachers and institutions to innovate the study methods that are carried out continuously. That is why Schmeck et al., (1977) cited in (Lizcano, 2017), set out to adapt the questionnaire and validate it in the Spanish population:

The questionnaire is composed of affiliation data, plus 141 items organized into nine scales (academic self-efficacy, self-esteem, self-affirmation, motivation, conventional attitudes, reflective processing, agentic processing, study method), some of which contain subscales. They selected a sample of 500 students from the Region of Murcia, belonging to the second cycle of secondary and first year of university.

The study validated the questionnaire and demonstrated the reliability of the scales and subscales through statistical data and analysis. The methods of study determine the learning styles, so there are students who are more inclined to one or the other depending on the subject they are studying, the teacher's demand to ask for results or in the monitoring of the processes that qualify learning.

Therefore, it is key that the teacher inquires about the way students learn more and better, recognizing individuality, interests, opportunities and thus offer meaningful pedagogical practices, innovate strategies and have a perspective of the multiple learning possibilities of people (Loc.cit. 2017, p. 5).

Regarding the operationalization of the ILP-R instrument, Esteban et al., (1996) argue that:

The ILP was constructed from factor analysis applied to a survey of a sample of students on academic studies, with questions that sought to describe activities and assumptions based on cognitive psychology, such as memory and information processing. The factor analysis uncovered four factors called: deep processing, elaborative processing, data retention and study method.

Both deep and elaborative processing refer to learning strategies that require reflection. Although they differ in the personal way of facing the task of learning: Deep processing is more abstract, logical and theoretical, it is what we might call "academic style", while elaborative processing is more experimental and self-expressive. Data Retention is geared toward retaining the units of information needed to successfully perform multiple-choice testing.

The Study Method is composed of those skills that are usually applied when studying a topic, such as the use of a library or dictionary, underlining, collection of notes, ordering of notes, etc. (Esteban, Ruíz, & Cerezo, 1996, p. 136).

From what has been described above, it can be said that it must give way to knowing the preferred ways or ways that students have when conceiving and processing knowledge. Giving way to a significant connection between the teacher and the student, through different strategies, tools and methodologies that when used test the learning that has been obtained by the students, during their school career thus achieving a quality education. As expressed by Espinoza and Sánchez (2017), quoted in (IDEM 2019) "in these modern times innovation is needed in the classroom and that they are according to the needs and interests of the students since learning must be integrated so that achievements can be established in the processes". (Loc.cit. 2019).

Following the same order of ideas, Honey and Mumford (1986), cited in (Montaluja et al., 2018), create a questionnaire similar to the one already mentioned, on Learning Styles:

The questionnaire was called LSQ and with it, they wanted to find out why in a situation in which two people who share text and context one learns and the other does not. It focuses on four learning styles: active, theoretical, pragmatic and reflective. The LSQ is a questionnaire of 80 items that correspond to the four Learning Styles.

The active characterizes the people who learn by "doing", while the theorist needs to analyze and systematize the theory; the pragmatist is interested in knowing how to put into practice in real life what he has learned and finally, the reflective observes the experiences from different perspectives (Loc. Cit., 2019, p. 4).

Like the IPL-R questionnaire, this is mainly based on the fact that learning must be sought by the student autonomously, generating responsibility and relevance when carrying out school activities. In the same way, the academic community must be encouraged to carry out actions of change, which are coupled to the way of learning of each student, giving way to constant academic achievements and that generate quality both in the institutions and in the academic contents.

For their part, Richard Bandler and John Grinder (1988), cited in (Marambio et al., 2019) proposed the learning model called neurolinguistic programming or VAK, which states that:

People have three major sensory systems of mental representation of perceived information:

1. Visual system: Used when remembering concrete and abstract images (numbers and letters); visual subjects plan much better than other styles, since with this style a lot of information is captured quickly.
2. Auditory system: Sounds, music, and voices are recognized in the mind (such as remembering someone's voice). These subjects learn best when they receive oral explanations and when they can speak and explain the information to others.

3. Kinesthetic system: This system is used when remembering a taste of a food, or when listening to a song or performing a physical maneuver, and what is learned through sensations and movements. With this system information is processed in a slower way, but much deeper, making it difficult to forget, and, being in this way, these subjects need more time than others to achieve their learning. (Marambio, Beserra, & Carrasco, 2019, pp. 405-406)

The VAK model implies that students in an educational institution tend to remember and retain knowledge through images, take notes when exposing a topic, PP presentations, etc. This is also more useful when it comes to the teaching-learning process the use of sounds, such as music, oral presentation, among other activities of this type. Finally, for many students the realization of movements or playful activities, in the exhibition of a topic makes them consolidate the learning received.

Finally, with the models of Learning Styles, promoted by various authors, but, which in turn coincide with the questionnaire prepared by Schmeck (1977), when it comes to knowing how a student receives, processes and gives way to the generation of knowledge, what was done by Felder and Silverman (1996), cited in (Mejía & Garsusi, 2015) defined a model to classify Learning Styles:

Depending on the type of information that the student selects and the way in which he processes it, they defined the following types:

Sensitive or intuitive: way in which the senses and the mind perceive the world. Sensitive perceive information through the senses, they tend to be concrete and methodical. Intuitives involve observation, indirect perception of the subconscious, access to memory, speculation and imagination, tend to be abstract.

Auditory or Visual: how people receive information through the senses.

Sequential or global: how individuals understand and process information. A student with sequential style is one who initially has a partial understanding of the topics and as he processes the information he understands the whole. While students with a global style are able to solve problems quickly after grasping the big picture, but have difficulty explaining how they did it.

Active or reflective: form of mental processing of information, by which it is converted into knowledge. A student with an active style has a natural tendency to experiment and learns best in situations where they can perform physical activities; while a reflective one prefers the analysis and management of information in an introspective way. (Loc. Cit. 2015, p. 73)

Therefore, it can be mentioned about this method of learning that students perceive the information of the environment that surrounds them, that is, through the senses. Subsequently, the process of reflection and assimilation of learning is given, this can only occur within the student, that is, he does not express it, but works and describes it from his person, while others can assimilate it through playful activities for better understanding.

As described above, it can be concluded that Learning Styles play an important role in the time students acquire knowledge. Since it opens the way to know and put into practice the strengths and weaknesses they have and how they will be helped through various strategies to create their own self-learning, without constantly needing a teacher to guide them. So, both the teacher and the student must realize what type of learning style is the most appropriate for their way of learning, since this will depend on the increase in their academic performance, the potentiation of their skills, abilities, knowledge and the attitudes that are needed to carry them out in a successful way and above all of quality.

Academic performance

According to Tonconi (2010), cited in (Albán & Calero, 2017), it defines academic performance as the level of knowledge demonstrated in an area or subject, evidenced through quantitative indicators, usually expressed by weighted qualification in the vigesimal system and, under the assumption that it is a "qualified social group" sets the approval ranges, for areas, specific contents or for specific subjects (Loc.cit. 2017). That is, academic performance is the one that measures the abilities that a student has, to express what he is learning or has learned during the training process.

Academic performance plays a very important role in the educational life of a student, as it is the one that sets the tone to really know if they acquire the expected learning; in order for this to be carried out in the best way, several factors must be involved, such as: personality, level of knowledge, motivation, student skills, interests, study habits, self-esteem, skills, among others. All these factors must influence the student to carry out a correct development of their academic performance, which will generate a better quality in terms of education.

The purpose of academic performance is to achieve an educational goal, a learning. They are learning processes promoted by the school and involve the transformation of a given state into a new state; it is achieved with the integrity of a different unit, with cognitive and structural elements. Performance varies according to the circumstances, organic and environmental conditions that determine skills and experiences (Lamas, 2015).

It is because of this situation that an academic institution must provide its students with the strategies and programs appropriate to the way each student learns, in order for them to increase their academic level. However, the participation of the student is of the utmost importance for this process to be carried out, since students can also participate in finding and improving school activities that help them in the academic process, such as: looking for adequate study schedules, comfortable, good environmental conditions, etc., all this in order for the student to find the best way to increase their academic performance.

Methodology to develop

Once the main question of the research was established, we proceeded to inquire about the bibliography that supports the main proposal of this work, both general and specific objectives, research questions and research hypotheses were developed, which coincide with the simple and complex variables of the instrument to be used. It is worth mentioning that a standardized instrument was taken from Spain and certain expressions that could cause confusion in the subjects to whom the survey was applied were adapted, this in order to avoid bias.

The sample size was determined based on pre-established criteria that indicated the need to apply the instrument to 1412 people, which proceeded to adapt the instrument to a digital version given the social conditions in which this work was developed. In such a way that the application was made using a Google form, which allowed to omit the data capture to go directly to its treatment.

The instrument consists of three sections: in the first are the general data where the variables Age, Gender, City where they study, Modality of studies, Currently works, Average, Has worked, University where they carry out their studies are observed. The second section was carried out using the semantic networking technique, where the respondent wrote the first 5 words that come to mind when he hears the phrase "Learning Styles in Times of Pandemic". The third section corresponds to the dimensions of Learning Styles some of them with subdimensions that are constituted by 150 items that are measured with a scale from 1 to 6.

Once organized in a concentration matrix, the data obtained are given statistical treatment to explore the results where a cronbach's alpha of 0.91 is obtained. In addition, the information is processed through statistical analysis a: descriptive (frequencies and percentages), comparative (Student's T test for independent groups) and integrational (with exploratory factor analysis); is a quantitative, synchronous and cross-sectional investigation of an exploratory and descriptive type.

Results

To analyze the values of the signalitic variables that represent the sample studied, an analysis of frequencies and percentages applied to the subjects under study is carried out, whose total corresponds to a value n of 1412.

After the results obtained from the sample, it is observed that 64.38% are women (n = 909), while 35.05% are men (n = 495) and that their age range ranges from 14 to 52 years, being their average 21 years, whose value is 17.4% (n = 246).

In addition to this, 78.61% (n=1110) of the surveyed population, most of whom study in the City of Saltillo, as well as in the City of Acuña with 5.7% (n=80), while the smallest population studies in Mexico City with 1.0% (n=14). On the other hand, the state with the largest population where students carry out their studies is in Coahuila de Zaragoza with 92.4% (n= 1304), as well as in the state of Nuevo León with 2.1% (n=29); while one of the states with the lowest population is Veracruz with 1.4% (n=5) and Yucatán 0.1% (n=0.1).

Of the total number of subjects attending an educational institution, 46.31% attend the Autonomous University of Coahuila (n=654) and 8.6% the Technological Institute of Coahuila (n=121), these being the highest values; among the institutions with the lowest population is the Autonomous University of Durango 1.3% (n = 19) and the Benemérita Normal School of Coahuila 0.4% (n = 6). Of these students it can be mentioned that 11.98% study the career of Lic. in Psychology (n = 165), 8.0% the career of Lic. in Education Sciences (n = 113); while the smallest population studies the careers of Mechanical Engineering with 0.6% (n = 9) and Engineering in Materials with 0.8% (n = 12).

On the other hand, 77.8% of students state that the modality of the institution they attend is semester (n = 1098), while the minority 0.8% have an annual plan (n = 12). Likewise, 15.79% of students have an average of 90 (n=223), 8.2% have an average of 80 (n=116), while the lowest values are concentrated in the average 70 with 0.7% (n=11) and 60 with a total of 0.7% (n=1).

Finally, most of the respondents stated that they have not currently worked (n=719), while 80.24% state that they have worked previously (n=1113).

Student T-Test

Descriptive

Among the main results of the analysis of frequencies and percentages, it was observed that 64.4% correspond to the female gender (n = 909) while 35.1% are of the male gender (n = 495).

In addition to this, 78.61% (n=1110) of the surveyed population, most of whom study in the City of Saltillo, as well as in the City of Acuña with 5.7% (n=80), while the smallest population studies in Mexico City with 1.0% (n=14).

On the other hand, of the total number of subjects attending an educational institution, 46.31% attend the Autonomous University of Coahuila (n=654), among the institutions with the lowest population is the Autonomous University of Durango 1.3% (n=19).

Comparison

In the comparative analysis of the age variables between the "agentic" processing, five variables of utility for the research were found. The 18-year-old students mention that they work and solve part by part the problems only once, seeing them rationally and logically, do things in an orderly way, however, they show difficulty concentrating on a single activity, unlike the 23-year-old students.

The analysis of comparison of the career variables to which the students belong between the study method, five important variables for the study phenomenon were found. The students of the Degree in Philosophy use schemes and graphics to remember a subject, defining the unknown words and setting a study schedule to review the school material in order to increase their vocabulary with new terms, unlike the students of the Industrial Engineer.

In the comparison of the general average variables between conventional attitudes, four useful variables are shown. Students with a general average of 93 said that going against gifts is bad, especially going against the laws of society, because it is important to have a sense of morality and well-founded principles in order to please parents and teachers, unlike students with a general average of 80.

Integration

The third Perfectionist-Pretentious factor, shows aspects where students refer to the fact that the teacher's job is to provide them with all the answers, since being successful in life is more a matter of good luck than their own aptitudes, to which they allude that their life is determined mainly by other people. On the other hand, they state that they maintain a daily schedule of time to study and memorize everything they have to learn word for word, however they maintain that they learn more when teachers limit themselves to the facts and do not give their own ideas; this helps them never forget the data they have learned before, they never get bored when they have to expose some class, since their work is always perfect, thanks to the perfect memory that characterizes them; they never fail in anything they try to do, much less when it comes to presenting an exam, this is due to the continuous preparation in terms of reading all their textbooks from top to bottom, in order to never do wrong a mathematical problem when it comes to this subject.

The fifth Moral-Virtue of Sovereignty factor, it is appreciated that students are very interested in family values, however, they do not like people to go against the rules since they believe that going against the laws of society is bad; for this reason they do not want to be in any protest march because their sense of morality and especially their principles are quite conventional since they care a lot about pleasing their parents and teachers.

Conclusions

Students must use logical reasoning, to solve various situations that are presented to them in the best possible way, that through the knowledge obtained previously they are able to provide conclusions and connections according to the knowledge they acquire.

ESPERICUETA-MEDINA, Marta Nieves, SÁNCHEZ-RIVERA, Lilia, VILLARREAL-SOTO, Blanca Margarita and AGUILAR-AGUILAR, Alejandra. Analytical-assertive learning styles in university students. *Journal Education Sciences*. 2022

Students must be trained in an integral way, that is, in each and every one of the dimensions of the human being, to provide society with individuals capable of respecting the norms and rules imposed by the Law, who know how they should conduct themselves in the face of the problems of society, but always providing the most convenient solutions.

The student must be a self-critical thinker, who questions what he does not understand or simply proceeds to inquire about the aspects that are difficult for him to understand, thus managing to expand his knowledge, which will be theoretically based.

Discussion

According to Schmeck (1988), cited in Santos & Santos (2014) mentions that students can become academically empowered, as long as they develop a learning style based on depth, conceptualization and a superficial style; According to the results of this research, it is in agreement with what was established by this author, since the students stated that they make schemes, memorize the information and inquire about the definition of concepts, with the aim of being prepared for an exam and obtaining new knowledge.

Jung (1923) quoted in Pantoja et al., (2013a), points out that a learning model involves personality and two bipolar functions: sensitive and intuitive and relationships; so, it is agreed with this statement since students manifest according to the results that they are perfectionists and pretensions, because they believe that they generate learning through their qualities, their personality, logical reasoning and to please others.

Schmeck (1988), quoted in Chillogallo (2015) expresses that, if when studying a subject, it is memorized and synthesized, the training of the student in learning strategies helps him to be analytical, critical, creative and thinking beings; therefore, according to the results of the research, we agree with the author since the student constantly makes strategic plans.

For their part, Alonso and Gallego (1994) cited in (Varela, 2014), emphasize that there are three psychological elements that make up the style: Affective, Cognitive and Behavior, that is, the styles are linked to the learning environments and the socio-cultural context in which the subject develops; therefore it is agreed with this statement since students according to the results of the research adhere to morality and the sense of sovereignty in order to establish good interpersonal relationships.

Willis and Hodson (1999) cited in (García et al., 2012), states that in most students there are no learning difficulties in any thematic content if they are taught according to their own learning styles. Success in learning is based on the ability to adjust to each of the students their own way of learning; however, it can be said that the stipulations of these authors are not in favor, since the results of the research indicate that each student builds their own learning methods and strategies; so that in this way you can reach the creation of your own knowledge. Since the teacher is only limited to providing information in one direction, hoping that they can understand it in the best possible way.

Proposal

Formulation of relevant educational programs, which meet the needs of the educational society.

Constantly train both students and teachers on the newest strategies to apply in the classroom and obtain knowledge more effectively and concretely.

Develop school environments that encourage students to recognize their learning style and adopt appropriate techniques for their cognitive development.

That teachers can strengthen logical reasoning in students, for better decision making.

Put problem-based learning into constant practice where the most appropriate method is adopted, developed and established to give relevant solutions and develop reasoning.

Promote the integral education of students, managing to create a person who serves and helps society.

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