MEDIATION AND METACOGNITION AN ESSENTIAL WAY TO STIMULATE COGNITIVE INDEPENDENCE IN UNIVERSITY STUDENTS

JARVIS DURAN CANTILLO. (CORRESPONDENCE AUTHOR)
Universidad de Guantánamo. Cuba.
email: jarvis@ucp.gu.rimed.cu
https://orcid.org/0000-0001-7977-9392

DAYANI FRÓMETA ELÍAS.
Universidad de Guantánamo. Cuba.
https://orcid.org/0000-0001-6272-8118

KAREL LLOPIZ GUERRA.
Universidad Central "Marta Abreu" delas Villas. Cuba.
https://orcid.org/0000-0002-1500-8000

RONALD M. HERNÁNDEZ
Universidad de VirtualizaciónAcadémica, Universidad de San Martin de Porres, Perú
https://orcid.org/0000-0003-1263-2454

ABSTRACT
The scientific technical development requires form the university students with a high development of the cognitive independence, in which the metacognition to obtain thereforecough the professor in his productive occupation in the process of teaching learning that does not become the student in a simple receives of knowledge. The work has as on objective to offer from the theory an approximation to the treatment to the relation mediation metacognition as on essential way in order to stimulate the cognitive independence in students in the Career in Speech Education, for that there ever used different theoretical methods: analysis-synthesis, inductive deductive and historical logical and empirical, and empiric: documental analysis, observation and interviews to the professor in or dayto corroborate the insufficiencies that ore offered from the theory to this problematical from the context, which avid revealed as a result that still are chowed insufficiencies from the theory in professors that from different ways stimulate the cognitive independence in their students starting from the relation mediation metacognition in the classes, as a result of the diagnosis obtained it could be verified appearances of proceeding at the classes of the professors in ordersto stimulate the cognitive independence in the students, through the metacognition mediation relation, getting round to the conclusions that the professors reveled more knowledge of from the theory in order to face a process teaching learning with a greater autonomy in their students, which it was a expressed in better academic results from the students with a metacognitive process superior that allow neto act with a greats cognitive independence in the context of acting.

Keywords: metacognition mediation cognitive independence.

INTRODUCTION
Cuban education must respond to the current demands of scientific-technical development and adapt itself to the new Latin American reality, to the national context and to the problems proper to territories, schools, families, and to all those who in one way or another participate in the educational process specifically, with the purpose of achieving creative persons on the basis of a solid cognitive independence that increasingly enables metacognition in all the processes and activities they carry out, considering that man, in the highest level of development of his personality, is a conscious bearer of a position before life (F. González, 2002).
The metacognition suppose the ability of transferring our capacity of learning to other fields and other situations, so it supposed to be able to realize another learning’s in an autonomy way, helps the students being autonemics in their learning and keep a critical attitude about the information, about the knowledge and about its own learning strategies foments a significative learning, a learning in what, why, how and what for have a sense for the students. It is about being consent of what you want to learn, why, what for, how, what is the cost, what strategy we must following order to obtain it and, when you have learned, to be able to evaluate and get better for future learning’s (Mosquera: 2019).

For that the Educational System of each country have the need of preparing the students for the new times where learning to know, learning to do learning to live together and learning to be must constitute the basic supports in the development of people.

It is evident that in the conditions of nowadays development, one of the most urgent and important pedagogical needs is constituted by the searching of ways, that contribute to the increase of the potentialities of the students, that allow Themselves with cognitive independence in any contest when it is found and can solve tasks in more independent way, in which the metacognition tries to gives the student of strategies and resources in order to know himself, his characteristics as a learner and his possibilities of autonomic development.

Cruz (2019), says that: the autonomy learning that show the executive of the previous containing demands formative processes where it is warranted the cognitive independence as an expression of the creative and reflexive capacity of the student.

Therefore the process must be procured through orientations, and evaluations that satisfice the imputes of a process principally productive Martínez, Buçaram, Merizal de Paredes, Padilla: 2019 in which the mediation of the professor plays a principal roll.

As Tebas said in 2009 the mediation has as an objective to contract skills at the middle of in order to obtain its complete autonomy. The interaction of the people in their natural environment, is principal in the construction of learning, Vigotsky (1987) has rebounded the importance of the social interaction in learning; in his postulated gives special value to the way how people developed their mental processes, and how these are mediated around through the signs, the tools or different concepts; elements that combined orient the human psychological activity and make easily the development of the superior psychical processes.

In Cuba, there are formal diagnostic modalities from which information is obtained from instruments that have been previously standardized, normalized, and validated for certain populations. Nonformal methods are other alternatives for diagnosis based on local procedures, developed by individuals and institutions in accordance with particular purposes. (Hernández, Llopiz, Álvarez, Fuster, Isla, 2020)

The mediator professor keeps the objectives and goals of learning and orients its consequent organizes and leads the rhythm of the course which it generates responsibility and discipline. It designs the formative process oriented to propose strategies based on the interaction and interactivity in order to obtain that all students can participate in the formative process. The mediator professor becomes an intermediate between the content and the student, offering help in order to the student can discover the meanings share through these contents.

These studies of metacognition and mediation of the professor converge with the definition of cognitive independence gave by the Pedagogical Sciences Institute of Cuba PSI that defines the cognitive independence: in the possibility of following a proper line of thinking and autonomy ways of proceedings. They would be related with the different levels of helping and with the kind of orientation that each person needs. It is considered besides that they are linked with the production of peat numbers of ideas and reaching of details in order to take until the last consequences the elaboration of an idea or prayed.

These elements studied lead to the formulation of the following problem of investigation: How is it that the metacognition and the mediation, can give essential way in order to stimulate the cognitive independence in the students of the career in Speech Education it was planned as an objective of the investigation to elaborate a methodological alternative for the stimulation of the cognitive independence from the students of the second year of the career in Speech Education, though the interaction, metacognition, mediation.
METHODOLOGY

Respectively to the investigative focus is qualitative , its overtaking and design is of descriptive kind , it was worked with a population of ninety students in the career Speech Education, eight professors from the speech discipline, it was selected a stratified sample if a group of that career with 17 students from the sample was obtained from a probabilistic way by characteristics in common that have these groups from this career beside the experience and scientific production of their professors during the years 2015, 2016 and 2017.

MATERIAL AND METHODS

The logical historical: For the study of the historical antecedents and the systematization of the theoretical referents for the treatment of the cognitive independence in the Superior Education Analytic-synthetic: In order to determine the constituent of the problem through the critical reflection about the specialize bibliography and reference for the work, its potentialities and limitation, besides it allowed synthesize the theorized referents about the study of the cognitive independence in the process of teaching learning and the influence of the relation metacognition and mediation en the process of teaching learning in the career of Speech Education as soon as for interpreting the results of the diagnosis and the experiences obtained in the application of the work.

Inquiry to students and professor that interact in the year: in order to obtain criterions and purposes for the elaboration and valuation of the theoretical systematization of the work for the stimulation of the cognitive independence as a result of the relation metacognitive.

Income analysis of the activity: It allowed evaluating the level caught up with by professors and students, from the process analysis and of the results, in the evaluations and the activity's products

The study of the cognitive independence like phenomenon has like base for its foundation the dialectic materialistic theory of knowledge, this theory break with the metaphysical, contemplative postulates and idealists of the pre-Marxist philosophers between your beginnings, we found: Materialism, the reflection, development and practice, constituting ruling ideas that point the man's activity in society.

What you constitute the dialectic materialistic theory of knowledge for one referent fundamental for another scientific theories; such is the case of the theory of the activity, the communication and the learning.


These works on cognitive independence, you identify like regularity that these assume the capability developed by the individuals from the activity, however, his study from the problematical character of the learning tasks is insufficient, that you generate so much the intellectual effort like the integral development of the students in the process of teaching learning, what it indicates that it is necessary to continue deepening this study from the various levels of education. The fact that you have like typical elements in his structure the following presents itself of these studies on cognitive independence:

- Separating the objective from the activity: The determination and the supposition of objectives.
- Determining the activity's object.
- Selecting the activity's means.

And like essential features for the process of teaching learning the following
- The understanding of the objectives of the tasks for learning.
- The analysis of the appraising and cognitive requirements of the tasks for learning.
- The identification of the appraising resources, instruments and cognitive with that the student to confront the learning tasks counts.

- The analysis of the elements sociocultural of the learning tasks.

- The command of the specific contented, of strategies and the procedures for the application of the actions in the solution of the tasks for learning.

- The checking of the effectiveness of the actions in the solution of the learning tasks.

- The communication like element mediator of the process.

This analysis leads us to assuming to a definition Álvarez (1999), to regard the cognitive independence with a problematical and relevant character for the solution of the learning tasks considering the cognitive independence as, the capability to see and to imagine the problem, the cognitive task with a theoretic character or pilot in the determination of the plan, the methods for his solution, utilizing the safest procedures and cashes in the mental active process, in the creative quest of adequate solutions and in the checking of the adopted solutions.

You become of standing out than it becomes evident when applying the instruments than mediation you play an essential role for the stimulation of the cognitive independence that possesses each individual for his cognitive performance in any situation of learning answering to the vertiginous advances of science and the technique, for it has to have in account the structure of intelligence, the action to determine the illegali ties of the case, the procedural quality, the system of intellectual abilities, the bodies of knowledge and meta-cognition.

To Roque's judgment, Valdivia, Alonso, Zagalaz: (2018), the interpretation of the term, its etymological origin in the conjunction of the Latin words has meta-cognition introduce and cognoscere. This capability was established in the century XX for Flavell, the one that departed from the reflexive study of the original conscientious concepts presented by Piaget and Vigotsky, to define her as the knowledge of oneself relating to the very processes and cognitive products, including the individual sensibility for the need to utilize her to organize the thought.

Undoubtedly one must have in account to follow an own line of thought and autonomous modes of processing in people the social situation of development attained in the different stages of life influencing these the how-to levels that socializers in other ones paper for the transformation of the midway attending to the inheritance establish agents sociocultural acquired, of a present-day Development Zone to one potential, recognizing besides that the personality develops

In the process of socialization playing in her an important role the activity and the communication like necessary tools in the mediation than from his exact conceptualization taken of the book VigoskyThe development of the psychological superior processes where you present regarding mediation " Neither the unarmed hand, neither the intellect left to themselves are of a lot of value. Things are done with instruments and means”

This means that the man does not come to grips with to the world his very biological nature, rather his conduct is mediated for material tools or techniques and for psychological tools or signs (one of the more important systems of signs is constituted for the language)

Of there than mediation, play an important role to stimulate the cognitive independence once the professor's system of influences to promote the independent acting of the student like signs and was seen like tool the utilization of resourcesDidactic methodologies, and not materials that make possible this acting like they can be: The oral language and gestural, the body language, the use of memory, the imagination and on all the things the thought.

It must break of than category meta-cognition is not new, it has been studied for various authors and theories of different learning currents, the cognitivists like an explanatory supra-mechanism or index of intelligence among themselves: Stenberg, 1982; Feursteins, given an appointment for Stenberg, Siegler, 1986; Campiones and
Brouw, 1986; On the other hand, the school's followers cultural socio-historic in the present day investigations, from two fundamental focuses: As capability of the subject to appraise his cognition objectively, strategies and intellectual possibilities and the one belonging to other ones and like development of a set of actions and abilities that enable the cognitive performance, that is, in the self-regulation of the intellectual activity and of the conscious character of the cognition in this edge, register Talizina's works, 1975 themselves; Galperin 1981; Davidov, 1981 and more recently in Cuba, Labarrere 1996, assumed at a later time for CórdovaLlorcand Castellanos (1996 - 2000 ), definitively a referent theoretician is controversial, but we Cubans given an appointment, like a process and intellectual structure, the fact that his base in the proposal of intellectual structures of Rubinstein like follower of the school has cultural Vigostki's socio-historical assumed it, as from the authors.

The Cultural historical school in the study of the formation of the individual has a foundation in two fundamental springs: The psychic development and assimilation of the cultural inheritance.

The individual to assimilate the cultural inheritance that has preceded him has like condition of departure the psychic development attained by this in the process of internationalization and socialization that it enable in turn his cognitive performance in mail with his time.

The proposal of structure of (scheme 1) Castellans’ intellectual development and Córdova that split of Rubinstein's proposal whose base assumed from this perspective the Psychic development constitutes it and the following comes into question:

We considered the meta-cognition as much as the capability of the subject to appraise objective and critically his own cognition, of strategies and intellectual possibilities, eat also the development of abilities that they enable controlling the cognitive performance in the realization of the learning tasks, that gets constituted in the higher level of intellectual performance for the students in Education speech race.

You are not enough with that the student be motivated, be intelligent, his level of auto-knowledge and self-regulation, be good, because your present-day development zone is that one, rather it must take shape like a Speech Therapy Professional, that implies the formation of specialized knowledge, modes of acting, abilities and professional capacities that guarantee a professional performance successful, in mail with his profile, of way than that individual, you present the need that this acquire an independence and a meta-cognitive convergent performance with the profile The one it takes shape in, that is, to get its bearings and conducting the teaching and the formation in the next development zone by means of the how-to levels made suitable with the teacher's mediation.,

In concordance with L. Lime (2001), the students' cognitive independence and his relation with meta-cognition become manifest from different edges:

In the capability to see and to imagine the cognitive task of theoretic character and I practice. In the determination of the plan and of the methods of his solution utilizing the safest procedures and possible cashes. In the independence of the activities addressed to give fulfillment to the drawn task.

In the understanding of the indispensable and the checking of drawn solutions.

Each subject matches doing the culture of hissy, as from learning processes that they enable his progressive command of the objects and his uses, that way I eat of the behaviors, of thinking and to feel, and enclosure, of the forms to learn in use in each historic context; In this way, the learning’s that you accomplish constitute the indispensable base in order that they produce a process of intellectual development. Simultaneously, the levels of development attained open safe roads with intellectual superior levels and to the new learning’s. The above is in tune with the objectives of the students of the race in speech therapy education, that must utilize the knowledge in terms of the information processing of the scientific activity with the utilization of audiovisual aids bibliographic, documentary, and of computation, that they be useful for base to identify and solving typical problems of Speech Therapy at the not too bad not too good institutions, specials and not institutionalized, that that knowledge be shared in the design with helps of Speech Therapy Care in the orientation to the family so that they are the mediation in the professors that come to a point in the bus of year very important stops Achieving this purpose.
RESULTS AND DISCUSSION

It enabled the results once the different instruments were gotten from with application throwing the following elements for his discussion and analysis.

The appropriation of knowledge must be produced in a unit with give it procedures and strategies to learn.

It is essential to achieve the linkage of the theory with practice and the application to the life of what schoolgirls and pupils go into in all the subjects of study, on the base of the realization of practical activities, high-class experiments and of the development of labor activities that they contribute to solving close problems to them and to the community they live in, as from the very contents of teaching.

The need of communication must be conceived conveniently in the teaching activity, acting with flexibility and avoiding the formalism at the classrooms, looking for the pupil's commitment and his collaboration in the activities, as from that you feel the motivation to do it.

The joint activities, like for example workshops, seminaries, practical lessons, excursions, cinema debates, spaces of reflection, participation in productive and socially useful activities, between others, in the ones that offer equal opportunities in order that they all expose their points of view and they be listened to with respect, as from the cooperation between all to attain common goals, a favorable climate favors learning, the development of the conscientious levels, than the knowledge that the school sets itself that he adapt himself and abilities themselves, acquire a personal sense for him, besides of than Understand your significance or social importance.

The group activities between the pupils, of the teacher, that way I eat give it the family and the community, media outlets, the help of the other one constitute elements, that essentially he must be had in account stops than teaching, learning permit the transit in the pupil's development which you can accomplish the activities with help, toward superior levels in in that you will be able to accomplish it of independent way.

Taking into account the relation between independence and the student's capability of assimilation or intellectual conceives two dimensions in meta-cognition itself: Meta-knowledge and managerial control meta-knowledge is understood like the knowledge and conscience about the strategies utilized, of the strong and weak sides of his execution, the preference or tendency toward a determined style or mode of processing, and of his intellectual possibilities, as well as the level of conscience that realizes about the task, his conditions, prerequisites, requirements and implicated obstacles.

In this sense, many doubts to become clear are left as the issue of the existence in some cases of an exhaustive knowledge of these aspects still, for example, for Split of the subject, incompatible with the grade of automatization of the actions and strategies, that makes impossible or you make difficult his takeover of conscience and therefore his study.

Managerial control: Just as it is processed frequently, you are given in terms of command and effective use in the course of solution of tasks of planning, supervision, correction, checking, evaluation and other processes of their own of control and self-regulation of the activity that it comes true.

The marked dimensions (cognitive processes, procedural quality, system of intellectual, host actions of knowledge and meta-cognition) express, in his reciprocal linkages, the functional interaction between the components of the structure of the intelligence like clerk to a large extent, next to another factors, of the level of efficiency that one be enough and as a consequence, of the possibilities of expression of a performance Intelligent for the achievement of the cognitive independence. As it can be observed, the dimensions characterize one of the poles (Procedural, regulating or operational and resolutory) of intelligence predominantly.

In this way it becomes evident that to for to stimulate the cognitive independence, they must have themselves very in account the responsible factors to measure the intellectual development of the students toward a character developer of the process of teaching learning in Speech Education race for his formation from what's inter-psychological in the meantime this must know about in the formation the little boy's language how structures him internally the language, his formation from the social contexts that intervene in the aforementioned process and his narrow relation with the thought, the maturation of the organs, stops It is important to consider than: " the
individual learns how to be manly, what nature has given him to be born is not enough to live in society. What's in need in the course of the historic development of the society must acquire besides "(A. N. Leontiev, 1981: 43). The individual learns things taking possession of your experience member historic of humanity, by means of the intercommunication with the rest of the human beings. This progressive appropriation has place through the inter-individual activity.

The human development is based on two several processes and related among themselves: Maturation and learning. The first prepares and prepares the second one, but the Learning stimulates and increases the power of the maturation.

Students of the Speech Therapy career must not resign oneself to being spoken to well: You must look for all of the roads to talk excellently and to correct in them the upsets of the language or the communication that may present itself in his social environment besides.

In the concept of Next Development Zone (ZDP) offered by L. S. Vigotsky (1988) the relation of meta-cognition synthesizes mediation and cognitive independence itself, when the fact that this is the distance between the level of present-day development that decides to itself with help of tasks to get solved of independent way and the level of possible development, the fact that you get with help of learning tasks with a low solution the address and the professor's mediation presents and also in association with the other ones.

You allow the professor, as from the identification of the present-day development zone of the student, the offering of opportune helps that the very fulfillment of the learning tasks in order that these be applied to with cognitive independence any situation or problems in the social context transcend the Next Development Zone.

**FINDINGS**

Speech therapy has to have in account the integration of meta-cognition and the professor's mediation following the algorithm established in intellectual structure in order to achieve an efficient stimulation of the cognitive independence of the students of the race, where communication and the activity are essential processes to this end within the process of teaching learning, in whose base must integrate him the beginnings for a teaching developer contextualized to the needs of his social context.

The address of the process of teaching learning constitutes the suitable frame to organize of scientific way, the stimulation of the cognitive independence as from significant conceptions, and developers of learning tasks that make possible the intellectual acting to his tall level, get along well this like grade attained of meta-cognition of the student, in show of obtaining professionals with profile ample speech therapist in his professional and social context.

The professor cannot resign oneself to only the provision of content of his subject of study of traditional and formal way, a most active and continuous participation from his work like mediator of the process of teaching rather must have learning that divide into articles with the student's meta-cognition and achieve in it the cognitive independence that is desired.

**REFERENCES**