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RESEARCH ARTICLE

PRESENCE OF INDEPENDENT WORK IN THE PEDAGOGIC FORMATION PROCESS OF THE PEDAGOGY DISCIPLINE.

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Abstract

Independent work as a contributing factor to the learners' cognitive independence should be present in the pedagogic formation process of educators-to-be to prepare them for the application of didactic and methodological strategies so that they are able to develop comprehensive personalities in their pupils in the future. The present study aimed at diagnosing the presence of independent work in the Pedagogy Discipline in Basic Education, Education in Informatics, Psycho-pedagogy and Initial and Kindergarten Education courses at Machala Technical University. The methodological strategy was systematized by means of scientific observation, hermeneutic, bibliographic revision and statistic methods. The data collected were obtained by means of direct observation of 15 lessons and surveys to 50 learners. It was concluded that there are teacher limitations in the orientation and control of task assignments; as well as deficiencies in the formation process of the necessary pedagogic skills that should be developed in the teachers-to-be to contribute to the achievement of cognitive independence in their pupils by means of independent work.

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Introduction:-

The main goal of educative systems is the formation of comprehensive personalities, capable of performing properly in a constantly changing world where Science and Technology has reached an unprecedented momentum (Hernández, 2011; Nérici, 2012); modern society demands competent, creative and independent individuals, able not only to master them but also to create new knowledge and keep it permanently updated.

In order to achieve this endeavor it is necessary to develop cognitive capacities in the learners that allow their autonomous learning (Cáceres & García, 2000); in this sense Coll (2001), has stated: "the ultimate aim of a pedagogic intervention is to contribute to the development of learners' capacities so that their learning is significant on its own accord, and that they learn to learn" (p. 23).

According to Franco (2012) transcendence in the formation of professionals in the different study courses depends on their professional autonomy and independence, which demands autonomous activities that make possible reflection, questioning and argumentation, through the construction of scientific knowledge and the development of scientific thinking that is favored by independent work, in which the learners exhibit their potentialities.

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That is why many pedagogues, psychologists and sociologists, among other specialists, have researched into ways of developing learner capacities for cognitive independence as a desired contributing factor for the comprehensive development of the new generations, which is the ultimate aim of education; among them are Álvarez de Zayas (1999), Durán and Hernández (2010, 2014), Díaz (2011), Enríquez, Mendoza and Carbó (2013), Guerra, et al. (2014), Rodríguez, Valle and Núñez (2014), Vergara (2014), Álvarez and Fernández (2015), Cruz (2015), Ramos, Herrera and Vidal (2015), Rodríguez and Trujillo (2015), Soca (2015), Mejía-Gallegos, Michalón-Acosta and Michalón-Dueñas (2017), Soto et al. (2017), Toledo, De Aparicio and Florez (2017) and Ibáñez, Muñoz, Restrepo and Trujillo (2018), who have approximated to the reasons that interfere with its full development and they suggest actions for its achievement; among the reasons stated by them are of special interest the ones related to the development of skills of independent work, as well as those involved in the pedagogic formation processes, which are paramount to meet the learning needs of the teachers-to-be so that they are able to implement methodological and didactic strategies that favor the learners' cognitive independence.

Taking the above mentioned authors' theoretical contributions as referents, a diagnosis about independent work skills was done in the pedagogic formation process of the Pedagogy Discipline at Machala Technical University. The results of the diagnosis are presented later on in this paper.

Methodological Strategy:-

The methodological strategy was systematized by means of scientific observation and hermeneutic, bibliographic review and statistic methods. Scientific observation permitted to see the regularities of the object of study in the context of the Pedagogy Discipline in the study courses of Basic Education, Education in Experimental Technologies, Psycho-pedagogy and Initial and Kindergarten Education at Machala Technical University; the hermeneutic method made possible the critical interpretation and analysis of the lesson plans, curricula and syllabi; and the bibliographic review allowed the study and organization of a large number of specialized literature sources on the topic; the statistic method permitted the planning, collection, processing and analysis of the data obtained with the application of a direct observation guide to 15 lessons and a survey given to 50 students chosen by the stratification method, where each layer included a representation of the student body from the different study courses; the data obtained were represented in descriptive tables and graphs.

The student survey was validated by Enríquez (2009) in his doctoral dissertation "Independent work in Physical Culture students in the Higher Education Universalization model" with the aim of identifying the teachers-to-be level of knowledge about independent work and, according to the information they have, determine how this process takes place in the context of the Pedagogy Discipline; the instrument used was the following:

Table 1:-Student survey about the phases of independent work.

I Phases of independent work				
In the orientation phase, the teacher:				
	Indicator	Usually	Sometimes	Seldom
1	Orients independent work during the lesson			
2	Orients the task activities clearly enough			
3	Uses examples in the orientation of the task			
4	Makes sure all the learners have understood the tasks correctly			
5	Orients accurately the bibliography and materials necessary for the tasks			
In the execution phase:				
1	The bibliography and materials necessary for the tasks are available			
2	You do the tasks assigned for independent work			
In the control phase, the teacher:				
1	Evaluates and marks the results of the work done			
2	Is fair in his evaluation of the learners' work			
3	Explains the reasons for the marks given			
4	Explains the aspects which were not clearly exposed so the learners can deepen their knowledge			
II In your opinion, what is independent work useful for?				
	Pass exams			

	Assimilate, consolidate, deepen their knowledge	
	Lessen the teacher's workload	
	Assign contents which were not dealt with in class because time was not enough	
	Develop study skills	
	Master study methods and techniques	
	Learn to work in groups	
	Develop self-learning skills	
	Develop self-evaluation capacities	
	Fulfill the subject curriculum	
III	Independent work phases, requirements and procedures are part of the object of study of your pedagogic formation course	Yes No

Source:-Enríquez (2009)

The direct lesson observation guide was based on the guidelines used and validated by Basulto (2009) in his Master's Degree dissertation "Methodological strategy for the development of independent work in the Environmental Law subject". The objective of the study was to verify the teachers' performance during the orientation and control of independent work in the Pedagogy Discipline lessons.

Aspects observed:-

1. There is orientation towards the task objective. Yes___ No___
2. The teachers master the subject contents. Yes___ No___
3. Students are able to take notes in class independently. Yes_ No _
4. The teachers dictate notes. Yes___ No___
5. The task for independent work is oriented correctly. Yes_ No _
6. The bibliography and other teaching aids necessary for the execution of the independent work are oriented adequately. Yes___ No___
7. The independent work assigned in the previous lesson is controlled and evaluated. Yes___ No___
8. The teachers explain the mistakes made in the task to help the learners deepen their knowledge. Yes ___ No___

Development:-

As a propedeutic phase for the diagnosis a thorough bibliographic review was done and some of the most salient findings are presented below.

Epistemological approach to independent work:-

The present social dynamics demands from Higher Education that the development of the learners' cognitive independence becomes one of the crucial problems of the teaching learning process, particularly in the pedagogic formation courses where the focus is twofold: on the one hand, the future graduates should develop this capacity for their professional and personal development; on the other, their curriculum should include it as object of study to equip the teachers-to-be of skills that allow them the implementation of strategies to be able to develop their pupils' cognitive independence capacities in the future (Hernández, 2016; Soto, et al. 2017).

One way to achieve this is by means of the systemic assignment of independent work tasks (Asprilla et al., 2017), since independent work is considered one of the most effective resources in the learner's cognitive activity; it is the process that makes possible the development of skills and deepening their knowledge that have not been achieved in the classroom context. (Peña & Gessa, 2004a; Fernández, 2014).

So far there is not agreement on the conceptual aspects of this topic, for Pidkasisti (1986) and Enríquez (2009), independent work is an inclusion pedagogic means in a context with many ways for the development of the cognitive activity, which comprise: forms of organization of the teaching learning process, methods, procedures, etc.; for Álvarez de Zayas (1999), it is a system of methods of reproductive, applicable or creative work, in which the learner works by himself.

All these authors agree on the main characteristics of independent work: activity, independence and creativity, which determine its aim. According to Yesipov (1969), there is independent work when:

“the learner can relate correctly the task assignment with methods to follow to complete it, when he can apply his knowledge and capacities to complete the task without direct teacher intervention to orient every detail; that is, independent work is done by the learner without the teacher’s direct participation but under his orientation, in a given period of time in which the learner strives consciously to achieve the objectives pursued, showing the results of his mental and/or physical activity” (p. 12).

Taking into consideration what has been stated by these authors, it can be concluded that the process of independent work is characterized by the following essential features:-

1. There is a task assignment by the teacher.
2. A mental and/or physical effort on the part of the learner is required to complete the task.
3. There is no teacher’s direct intervention during the execution of the tasks.
4. Other aspects to be considered regarding the system of independent work, according to Saborit (2000) are:
5. Allotting a reasonable time for the execution of the task by the learner. The teacher should let the learners know the amount of time allotted for the execution of the activities of the task.
6. The assignment should be conceived as a system of tasks; it should be planned keeping in mind the components of the teaching learning process; it cannot be a teacher’s arbitrary and spontaneous improvisation.
7. Fostering educative values. During the fulfillment of the task activities values such as constancy, responsibility
8. love for study, truthfulness, and sensitivity to the research processes should be fostered.
9. Process phases. Independent work has phases or stages that should not be ignored.

This last aspect has been taken into account by several authors, who agree on dividing the process in phases or stages. Authors like Saborit (2000), Enríquez (2009) and García (2010) consider three phases: orientation, execution and control, including planning in the orientation phase; however, Cáceres and García (2000), and Díaz (2011) consider planning as an independent phase that should precede orientation with its own characteristics and functions.

In the planning phase a diagnosis should be made to determine the learners’ level of departure, to know the knowledge and skills they have, and then the discipline and subject curricula are analyzed and it is checked that the necessary teaching aids, textbooks and other bibliographic materials are available. It is also checked that the necessary infrastructure is available: technologies, libraries, laboratories and other facilities. Taking this diagnosis into account the system of activities of the task is designed.

The orientation phase is particularly important; its quality will determine the learners’ motivation for the effective completion of the tasks (Mega, Ronconi and De Beni 2014). According to Peña and Gessa, (2004b), López (2007) and Espinoza, Serrano and Brito (2017), the orientation phase also allows the formation of generalized procedures for the solution of similar tasks and even of different kinds of tasks.

In this sense Saborit (2000) states that in this phase the orientation towards the objective should take place, the learners should know where to direct their efforts; the precision of the objectives is determined by aspects such as: familiarization with the task, task conditions, information available, procedures and strategies to solve the problems and when to use them. These aspects invite to a reflexive position of the learners during their learning activity.

Later on, in the execution phase the learners apply the methods and procedures analyzed in the orientation phase; an adequate orientation permits that the learner achieves a conscious and rational execution (Saborit, 2000; Hernández and Infante, 2016).

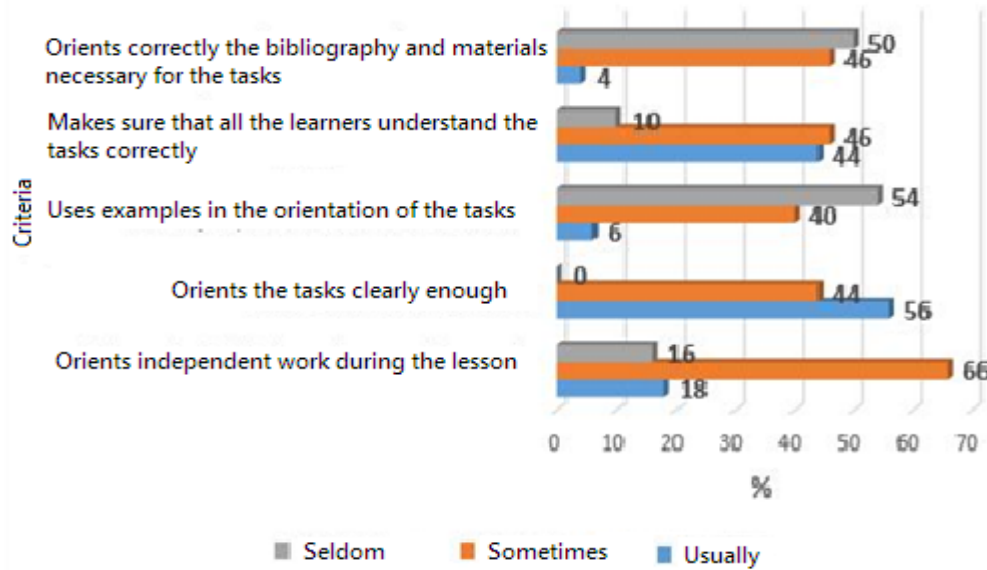
Finally, the control phase consists on the evaluation and assessment of the actions carried out and their results. It comprises the regulation and analysis of the results. In this phase is also important the learners’ self-control of the process of the cognitive activity since this contributes to foster the values of self-criticism, truthfulness and responsibility.

These contributions were the theoretical foundations for the findings and analysis of the results obtained in the present paper.

Results:-

Student survey results:-

The data collected from the survey given to the 50 learners chosen from the different pedagogic formation courses is represented in the graphs below.



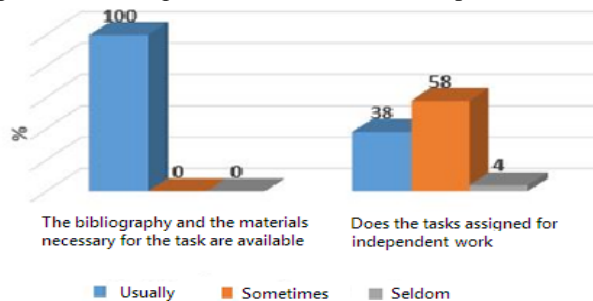
Graph 1:-Actions during the phase of orientation of independent work. Machala Technical University learners. 2017-2018 academic period.

Source:-Student survey

According to the graph 66%(33) of the surveyed learners think that the teacher gives orientation for independent work during the lesson, 18%(9) stated that usually and for the remaining 16%(8) it seldom happened. 56 %(28) consider that independent work is oriented clearly enough and 44 % (22) that it occurs only sometimes. However, 54%(27) consider that the teacher seldom uses examples in the orientation of the tasks, 40%(20) states that sometimes and 6%(3) that usually.

It was considered by 46%(23) of the learners that sometimes the teacher makes sure that all the learners understand correctly the orientation for the tasks, while 44%(22) say that usually and 10%(5) that seldom. 50%(25) of the learners think that the teacher seldom orients accurately the bibliography and materials necessary to carry out their independent work, while 46%(23) considers that he does it sometimes and only 4%(2) that it happens usually.

The learners’ opinions regarding the execution phase is summarized in Graph 2.

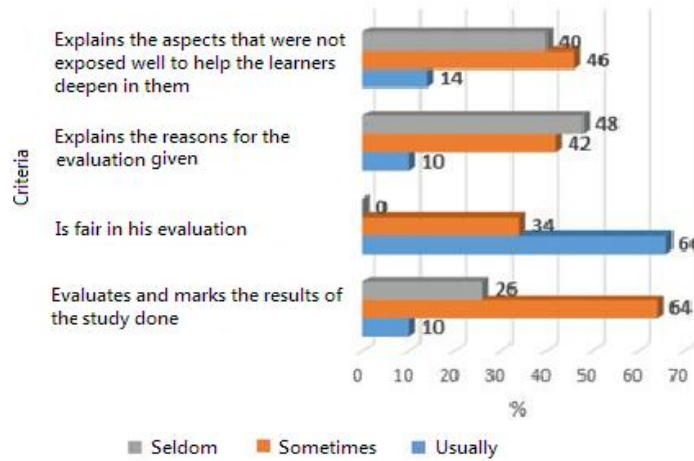


Graph 2:-Actions during the phase of execution of independent work. Machala Technical University learners. 2017-2018 academic period.

Source: Student survey

All the learners (100%) thought that the bibliography and materials necessary to carry out the tasks are available and can be located easily. 58%(29) said that they sometimes do the task, 38%(19) usually and 4%(2) seldom.

Teachers' actions in the control phase are presented in Graph 3.

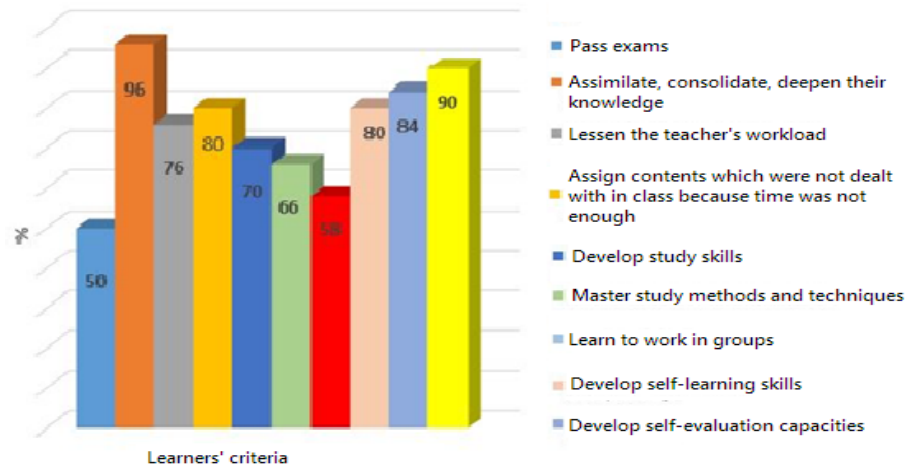


Graph 3:- Actions during the phase of control of independent work. Machala Technical University learners. 2017-2018 academic period.

Source: Student survey

The graph shows that 64% (32) of the learners consider that the teacher sometimes evaluates and marks the results of the work done, 10%(5) think that usually and 26%(13) that seldom; on the other hand 66%(33) of the surveyed learners consider that the evaluations made by the teacher of the task results usually fair and 34%(17) think that sometimes. 48%(24) of the learners answered that the teacher seldom explains the reasons for the evaluation given, 42%(21) think that sometimes and 10%(5) that usually. 46%(23) consider that the teacher sometimes explains the aspects which were not well exposed in the development of the task to help the learners deepen their knowledge, 40%(20) that seldom and only 14%(7) considered that usually.

Graph 4 summarizes the learners' criteria about what they think the teacher uses independent work for.



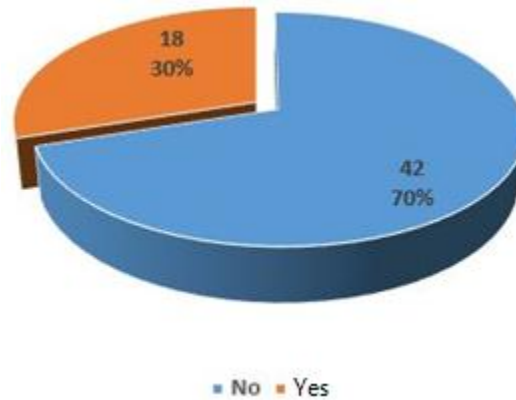
Graph 4:-Use of independent work. Machala Technical University learners. 2017-2018 academic period.

Source: Student survey

As can be seen 96%(48) of the learners consider that independent work is used to assimilate, consolidate and deepen their knowledge; 90%(45) to fulfill the subject curriculum; 84%(42) to develop the self-evaluation capacity; 80%(40)

to develop self-learning capacities; 76%(38) consider that it is used to reduce the teacher's workload; 70%(35) to develop study skills; 66%(33) to master study techniques; 58%(29) to learn to work in groups and 50%(25) to pass exams.

Graph 5 offers information about the learners' criteria concerning the treatment of independent work as object of study in the Pedagogy Discipline in the context of pedagogic formation courses.



Graph 5:-Independent work as object of study. Pedagogic formation process. Pedagogy Discipline. Machala Technical University. 2017-2018 academic period.

Source: Student survey.

According to the data presented in the previous graph 70%(42) of the surveyed learners considered that independent work is not seen as object of study in the pedagogic formation courses.

Results of direct observation of the teaching learning process:-

The following table shows the results of the direct observation of the teaching learning process with the aim of verifying the performance of the teachers during the orientation and control of independent work in the lessons of the Pedagogy Discipline.

Table 2:-Direct observation of assignment and control of independent work in the Pedagogy Discipline lessons. Teaching formation process. Machala Technical University. 2017-2018 Academic period.

Aspects observed	Yes	%	No	%
There is orientation of the aim of the homework assignment.	9	60,0	6	40,0
Teacher masters the subject contents.	15	100,0	0	0,0
Students take notes in class independently.	2	13,3	13	86,7
Teachers dictate notes.	14	93,3	1	6,7
The homework assignment is properly oriented for independent work.	3	20,0	12	80,0
The bibliography and teaching aids necessary to do independent work are properly oriented.	2	13,3	13	86,7
Independent work assigned in the previous lesson is controlled and evaluated.	3	20,0	12	80,0
Teachers explain the mistakes made in the homework assignment to help the students learn from them.	2	13,3	13	86,7

Source:-Observation guide

Direct observation of the teaching learning process of the Pedagogy Discipline revealed that in 100%(15) of the lessons the teachers showed mastery of the subject contents and in 60%(9) of them there was orientation towards the objective of the homework assignment; however in 93,3%(14) of the cases the teachers dictated notes; in 86,7%(13) the students did not take class notes independently, bibliography and teaching aids necessary for the learners' independent work were not properly oriented and in the control phase the teachers did not explain the mistakes made by the learners so that they could learn from them. In 80%(12) of cases the homework assignment was not properly oriented for independent work and the homework assignment oriented in the previous lesson was not controlled and evaluated. In 40%(6) of the lessons observed there was not a good initial motivation towards it.

Discussion Of Results:-

The results of the student survey and direct observation of lessons revealed that there are weaknesses in the development of independent work in the courses of teaching formation at Machala Technical University. Although the majority of the surveyed subject considered that there is orientation of the homework assignment, they are not able to exemplify and teachers not always check that the learners have understood the instructions to do the activities assigned and the resources to be used are not oriented. However, they consider that the bibliography and materials to be used can be easily obtained.

The insufficiencies in orientation cause that the learners do not do the tasks, only some of them usually do their tasks. Other reasons are the lack of systematization of evaluation and marking of the tasks by the teacher since the lack of control demotivates the learners, although it is positive that the teacher is fair when he sometimes does.

In the control of independent work it is very important to explain the reasons for the evaluation given, as well as to point out the mistakes made by the learners so that they can deepen their knowledge about those contents (Díaz, 2011), aspects which are not always taken into consideration.

The learners' opinion about the independent work proposed by the teacher is very interesting; they recognize that it is useful to assimilate, consolidate and deepen their knowledge; their self-evaluation and self-learning capacities increase; they develop study skills and techniques as well as their collaboration spirit. However, a considerable number of learners think that the teacher uses independent work just to fulfill the subject curriculum and lessen his workload, aspects which denote weaknesses in its use, such as lack of conception and planning as a system, leaving it to the teacher's improvisation. Although independent work is useful for the systematization of knowledge and in this way contribute to achieving satisfactory evaluations, it should not be its aim, but a consequence of the daily work of learners and teachers.

The majority of the learners consider that independent work is not seen as object of study in the pedagogic formation courses.

In spite of the teachers' mastery of the contents, direct observation of the teaching learning process in Pedagogy Discipline showed weaknesses in the development of independent work skills: the teachers dictate notes, the learners are not able to take notes by themselves, tasks and bibliographic materials and other teaching aids necessary for their study are not properly oriented; often tasks are not controlled and evaluated and when they are checked the mistakes made by the learners are not explained.

Besides, it was observed that the learners often ask the teacher for help to solve the activities, which reveals an excessive dependence. Similar results were obtained by Cruz (2015), Alonso, Leyva and Reynoso (2016), and Espinoza, Serrano and Brito (2017).

These data permit to state that the learners in pedagogic formation courses have limitations in the development of the skills necessary for the execution of independent work and as a result of that there are weaknesses in the achievement of cognitive independence capacity. These results coincide with the findings of Rosales (2003), Enríquez (2009), Basulto (2009), Díaz (2011) and Ramos, Herrera and Vidal (2015).

Conclusions:-

The analysis of the results obtained by means of the instruments applied allowed the author to conclude the following:

1. Students in pedagogic formation courses at Machala Technical University have insufficiencies in the development of independent work skills and, consequently, they have cognitive independence limitations.
2. There are insufficiencies in the teachers' orientation and control of homework assignments.
3. Independent work is not dealt with as part of the contents of the pedagogic formation process and consequently the graduates have to face their professional lives with insufficiently developed skills for the design and application of didactical and methodological strategies that guarantee the development of cognitive independence capacities in their pupils by means of a permanent and systematic use of independent work.

References:-

1. Alonso, G. A., Leyva, F. C. & Reynoso, F. M. (2016): Pertinencia del trabajo independiente en la formación ambiental del estudiante de arquitectura. Una experiencia. Universidad de Camagüey, Universidad Autónoma de Nuevo León Revista de Psicología y Ciencias del Comportamiento de la U.A.C.J.S. 7(1), enero-junio, 23-43.
2. Álvarez, M. & Fernández, R. (2015): Cuestionario de Hábitos y Técnicas de Estudio. CHTE. Madrid: Tea ediciones.
3. Álvarez de Zayas, C. (1999): Didáctica. La Escuela en la Vida. La Habana, Pueblo y Educación.
4. Asprilla M. M. et al. (2017): Fortalecimiento del aprendizaje autónomo. Available at: <https://repository.usta.edu.co/bitstream/handle/11634/10038/Bola%C3%B1os2017.pdf?sequence=1&isAllowed=y>
5. Basulto, M. D. (2009): Estrategia metodológica para el desarrollo del trabajo independiente desde la asignatura de derecho ambiental. (Tesis en opción del título de Máster en Ciencias de la Educación Superior). Universidad de Camagüey.
6. Cáceres, M. M. & García, C., R. (2000): El trabajo independiente: una estrategia para la atención de la diversidad. Cienfuegos: Universidad de Cienfuegos. Retrieved from: <http://www.ts.ucr.ac.cr>
7. Coll, C. (2001): Psicología y currículum. Una aproximación psicopedagógica a la elaboración del currículum escolar. México, D.F.: Paidós.
8. Cruz, B. S. (2015): El desarrollo de la independencia cognoscitiva en la formación de estudiantes de arquitectura. *Arquitectura y Urbanismo XXXVI* (2). Retrieved from: <http://scielo.sld.cu/pdf/au/v36n2/au10215.pdf>
9. Díaz, V. J. (2011): Sistema de Enseñanza-Aprendizaje soportado en una red de transmisión de datos como alternativa al trabajo independiente de la asignatura Informática Médica II. (Tesis de Maestría), Universidad de Granma, Granma.
10. Durán, C. J. & Hernández, O. Y. (2014): Metodología para potenciar la independencia cognoscitiva en los estudiantes de la carrera Licenciatura en Logopedia. *Revista Electrónica EduSol*, 14(47), abr.-jun.1-12
11. _____ (2010): Variantes metodológicas para el desarrollo de la independencia cognoscitiva. UCP Guantánamo. *Revista electrónica Edusol*.
12. Enríquez, C. J., Mendoza, F. T. & Carbó, A. J. (2013): Acercamiento a la enseñanza problémica como alternativa metodológica viable en la Educación Médica Superior. *Rev Educación Médica del Centro*; 1(2),3. Retrieved from: <http://www.revedumecentro.sld.cu/index.php/edumc/article/view/29/63>
13. Enríquez, C. L. (2009): El trabajo independiente de los estudiantes de Cultura Física en la Universalización de la Educación Superior. (Tesis en opción al grado científico de doctor en ciencias de la Cultura Física) Instituto Superior De Cultura Física Manuel Fajardo. Facultad de Holguín.
14. Espinoza-Freire, E., Serrano Polo, O., & Brito Paredes, P. (2017): El trabajo autónomo en estudiantes de la Universidad Técnica de Machala. *Revista Universidad y Sociedad*, 9(2), 202-212.
15. Fernández, P. F. (2014): Inventario de Hábitos de Estudio. Madrid: Tea ediciones.
16. Franco, M. (2012): El trabajo independiente, una forma de reforzar el valor responsabilidad en los estudiantes universitarios. *Revista EDUMECENTRO*, 4(3), 198-205.
17. García, V. J. (2010): Tareas docentes para el desarrollo del trabajo independiente de la asignatura Seguridad Nacional. *Revista electrónica de pedagogía Odiseo*, 9(17). Retrieved from: <http://www.monografias.com/trabajos12/laindepcg/laindepcg.shtml>.
18. Guerra, M. J., Betancourt, G. K., Méndez, M. M., Fonte, H. T, Rodríguez, R. S. (2014): Intervención pedagógica para la dirección del trabajo independiente en Morfofisiología. *EDUMECENTRO*; 6(1). Retrieved from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2077-28742014000100004
19. Hernández, A. (2016): Las estrategias de aprendizaje como un medio de apoyo en el proceso de asimilación. *Revista Cubana de Educación Superior*. Academic One File.
20. _____ (2011): Didáctica General. Universidad de Jaén. Retrieved from: http://www.4.ujaen.es/~ahernand/documentos/efdgmagtema_1.pdf
21. Hernández, I. R. & Infante, M. M. (2016): El método de enseñanza-aprendizaje de trabajo independiente en la clase encuentro: Recomendaciones didácticas. *Revista de Pedagogía*, 37(101),215-231.Universidad Central de Venezuela Caracas, Venezuela. Retrieved from: <http://www.redalyc.org/articulo.oa?id=65950543011>
22. Ibáñez, L. C., Muñoz, V. W., Restrepo, B. S. & Trujillo, M. (2018): Trabajo independiente de los estudiantes y aula invertida. *Revista de la Universidad de la Salle*, 75. Retrieved from: <http://scielo.sld.cu/pdf/rus/v9n2/rus03217.pdf>

23. López, H., J. (2007): La orientación como parte de la actividad cognoscitiva de los escolares. En Gilberto García Batista (Comp), Compendio de Pedagogía (2ª ed.) (pp.102-108). Ciudad de la Habana: Editorial Ciencias Médicas.
24. Mega, C., Ronconi, L. y De Beni, R. (2014): What Makes a Good Student? How Emotions, Self-Regulated Learning, and Motivation Contribute to Academic Achievement. *Journal of Educational Psychology*, 106(1), 121–131.
25. Mejía-Gallegos, S. G., Michalón-Acosta, R. A., & Michalón-Dueñas, D. E. (2017): El trabajo independiente: importancia en la calidad el proceso de enseñanza-aprendizaje en la carrera de Odontología. *Universidad y Sociedad*, 9(2), 28-36. Retrieved from: <http://rus.ucf.edu.cu/index.php/rus>
26. Nérici, I. G. (2012): *Hacia una Didáctica General Dinámica*. Buenos Aires: Editorial Kapelusz. Retrieved from: <http://www.unpan1.un.org/intradoc/groups/public/documents/icap/unpan039746.pdf>
27. Peña, M. J. & Gessa, P. H. (2004a): La comunicación como vínculo entre la actividad cognoscitiva y el trabajo independiente de los estudiantes en la clase. Universidad de Cienfuegos Facultad de Ciencias Sociales y Humanística. Departamento de Ingles. Cienfuegos, Cuba.
28. _____ (2004b): Presencia de la creatividad en el trabajo independiente de los estudiantes. Universidad de Cienfuegos Facultad de Ciencias Sociales y Humanística. Departamento de Ingles. Cienfuegos, Cuba.
29. Pidkasisti, P. I. (1986): La actividad cognoscitiva independiente de los alumnos en la enseñanza. Ciudad de La Habana: Pueblo y Educación.
30. Ramos, L. M., Herrera, R. J. & Vidal, R. C. (2015): El desarrollo de la independencia cognoscitiva en los estudiantes en la educación superior. *YayaboCiencia2015*. Retrieved from: http://biblioteca.uniss.edu.cu/sites/default/files/CD/Yayabociencia%202015/documentos/16-Ciencias_Pedag/72Miladys%20Ramos%20Lage.pdf
31. Rodríguez, M. J. & Trujillo, J. P. (2015): Sistema de tareas docentes para el trabajo independiente en Medicina Natural y Tradicional. *EDUMECENTRO* ;7(2). 15. Retrieved from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2077-28742015000200004
32. Rodríguez, S., Valle, A. & Núñez, J. C. (2014): *Enseñar a aprender. Estrategias, actividades y recursos instruccionales*. Madrid: Pirámide
33. Rosales, M. F. (2003): Una alternativa para desarrollar la independencia cognoscitiva en el aprendizaje de la Matemática a través de la formulación de preguntas. (Tesis en opción al título de máster en didáctica de la Matemática). Instituto Superior Pedagógico José de la Luz y Caballero. Holguín, Cuba.
34. aborit, R. (2000): El desarrollo del trabajo independiente. Retrieved from: <http://www.monografias.com/trabajos84/desarrollo-trabajo-independiente/desarrollo-trabajo-independiente.shtml#ixzz3Q76I58Lk>
35. Soca, G. E. B. (2015): El trabajo independiente en el proceso de enseñanza-aprendizaje. *Revista RCIM*. Retrieved from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1684-18592015000200002&lng=es
36. Soto S. V., Felicó, H. G., Ortiz, R. G., Sánchez, D. J., Soto, S. B. & Cuenca, F. K. (2017): Propuesta metodológica para la dirección del trabajo independiente desde Metodología de la Investigación y Estadística. *Revista EDUMECENTRO*; 9(1):48-67. Retrieved from: <https://dialnet.unirioja.es/descarga/articulo/5210269.pdf><http://www.medigraphic.com/pdfs/edumecentro/ed-2017/ed171d.pdf>
37. Toledo, R. O. C., De Aparicio, X. & Florez, B. W. (2017): El trabajo independiente en la asignatura Contabilidad de costos de la carrera de Ingeniería en Gestión Empresarial. *Universidad y Sociedad*, 9(4), 19-26. Retrieved from: <http://rus.ucf.edu.cu/index.php/rus>
38. Vergara, R. (2014): *Didáctica General*. Corporación Universitaria del Caribe. Colombia: CECAR. Retrieved from: [http://www file:///C:/Users/Angy/Downloads/DIDACTICA%20GENERAL-DIDACTICA%20GENERAL.pdf](http://www.file:///C:/Users/Angy/Downloads/DIDACTICA%20GENERAL-DIDACTICA%20GENERAL.pdf)
39. Yesipov V. P. (1969): *El trabajo independiente de los alumnos en la clase*. Moscú: Utschepiedquis.