

Successful learning strategies in adult studies and works in the form of executive degrees in Unitec

Estrategias efectivas de aprendizaje para el adulto que estudia y trabaja en las licenciaturas ejecutivas de Unitec

SANDOVAL-PALOMARES, Jessica*†

Universidad Tecnológica de México, plantel León. Blvd. Juan Alonso de Torres Ote. No. 1041 Col. San José del Consuelo León, Guanajuato, 37200

ID 1st Author: *Jessica, Sandoval-Palomares* / ORC ID: 0000-0002-3294-0916, Researcher ID Thomson: S-9841-2018, CVU CONACYT ID: 827848

Received March 28, 2018; Accepted June 30, 2018

Abstract

Learning strategies are one of the MOST Relevant topics of research in education, describes tools methodologically That Facilitate the acquisition, development and implementation of Processes to manage the Acquisition of content, as well as ITS discrimination, Facilitating the steps of an effective learning process. Learning strategies Represent changes in the traditional paradigm, from behaviorism sustained in the stimulus-response relationship, to another That Arises from the constructivist approach, Which is Characterized by the influence of mediating variables and by the Active elaboration of meanings on the part of the student himself. In This new premise is the primary objective That the student is an active subject in the learning process, it is significant the employment in the teaching-learning process, the use of metacognitive strategies, Which help to plan, Regulate and Evaluate student learning; It Also AIMS to dominate a series of skills and competencies (learning strategies), and to teach you to be able to self-Regulate your performance as a response to the Demands and Demands of the task and situation, to Become a student Strategic, Reflective , Critical, autonomous and capable of developing meaningful learning. The research is divided into two presented parts: in the first, different theoretical postulates are the student's Mentioned Regarding strategies and learning; In the second, the results Obtained after the application of the instrument to Identify the metacognitive strategies used by the students

Meaningful learning, learning strategies, metacognition

Resumen

Las estrategias de aprendizaje constituyen uno de los tópicos de investigación más relevante en materia educativa, describen metodológicamente herramientas que facilitarían la adquisición, el desarrollo y la puesta en marcha de procesos que permitan administrar la adquisición de contenidos, así como su discriminación, facilitando los pasos de un proceso de aprendizaje eficaz. Las estrategias de aprendizaje representan cambios en el paradigma tradicional, desde el conductismo sustentado en la relación estímulo-respuesta, a otro que nace del enfoque constructivista, el cual es caracterizado por la influencia de variables mediadoras y por la elaboración activa de significados por parte del propio alumno. En esta nueva premisa el objetivo primordial es la de que el alumno sea un sujeto activo en el proceso del aprendizaje, resulta significativo el empleo en el proceso enseñanza-aprendizaje, el uso de estrategias metacognitivas, las cuales ayudan a planificar, regular y evaluar el aprendizaje del alumno; así mismo pretende que este, domine una serie de habilidades y competencias (estrategias de aprendizaje), y que le enseñen a ser capaz de auto-regular su actuación como una respuesta a las demandas y exigencias de la tarea y de la situación, para convertirse en un alumno estratégico, reflexivo, crítico, autónomo y capaz de desarrollar aprendizajes significativos. La investigación que se presenta está dividida en dos partes: en la primera, se mencionan diferentes postulados teóricos respecto a las estrategias y el aprendizaje del alumno; en la segunda, se muestran los resultados obtenidos tras la aplicación del instrumento para identificar las estrategias metacognitivas empleadas por los estudiantes.

Aprendizaje significativo, Estrategias de Aprendizaje, Metacognición.

Citation: SANDOVAL-PALOMARES, Jessica. Successful learning strategies in adult studies and works in the form of executive degrees in Unitec. *Journal Health, Education and Welfare* 2018, 2-2: 13-18

* Correspondence to Author (email: jessica_sandoval@my.unitec.edu.mx)

† Researcher contributing first author

Introduction

Today has been given great importance to the study of learning from the perspective of students, since they are the ones who give it meaning and meaning to the content they receive, process and assimilate, that is, decide what they will learn and how. In addition to knowing how much knowledge acquired, so it is to identify the processes that used to take up the information, based on the premise that to achieve meaningful learning requires active student participation.

So you can present adequate academic performance and thus meaningful learning, cognitive strategies must be accompanied by the self-regulatory strategies, namely, comprehension monitoring, goal setting and management effort and persistence, so it is necessary that the student understands how and when to use them properly.

Significant learning

In view of the importance and relationship between the concepts of knowledge, meaningful learning, cognitive and metacognitive strategies, it is necessary to refer to the theoretical perspective that has gained great importance in education. Roman and Ten (2000) mention the distinction made between receptive learning Ausubel vs discovery learning and rote learning among vs meaningful learning.

- **Learning receptive:** the student receives the information to be internalized, in particular, explanation of teaching, printed materials, audiovisual information, etc.
- **Learning by discovery:** the student must discover the material itself prior to incorporation into the cognitive structure; this learning can be autonomous by the student or be guided by the teacher.
- **Rote learning:** It is mechanical or repetitive, it occurs when the student performs a recall of information, facts or concepts.
- **Significant learning:** It is performed when the concepts and tasks are related in a manner consistent; when the student decides to learn and become builders of new knowledge from those who had already acquired, and most relevant, builds because you are really interested in learning.

According to the above, the following situations in the classroom will be distinguished:
- **Receptive-repetitive-rote learning:** The student will learn the concepts derived repeat the explanation that the teacher made, the information will not be incorporated into the conceptual structure of the student, as it is rote learning.
- **Repetitive-rote learning Guided Discovery:** Teaching guides and teaches strategies and techniques, "neglects" the concepts and frameworks. The student learns to learn and to know correctly use active techniques; the teacher makes no conceptual methodological dosage (teaches techniques to solve problems of daily life or knowledge).
- **Repetitive rote learning by self-discovery:** This situation is similar to the previous, as the student produces work systematizing what studies or notes, lacks conceptual and reflective framework.
- **Significant-receptive learning:** It often occurs from exposure of a master class. It becomes significant when the information received is incorporated into the conceptual structure that the student has, it involves a reworking of concepts and knowledge.
- **Significant discovery learning guided:** Behind this type of learning, there is an active and research methodology. The teacher guides the student in the construction of procedures and concepts.
- **Meaningful learning for self discovery** students construct their own knowledge in the preparation of reports on a particular topic, your research is oriented, it is clear about the ways and means to achieve it.

The professor plays a particularly important role in this model, because it is in the learning process of the pupil and influences directly in the process of selecting the significant learning materials.

According to Ausubel et al (1973), the basic conditions of meaningful learning are: the provision of the subject to learn significantly and the material to be learned is potentially significant.

Concept and importance of metacognition

Metacognition is one of the areas of research that has contributed to new conceptions of learning and teaching (Glaser 2004). From the constructivist approach it is attributed an important role in consciousness that has the student and regulation carried out on their own learning.

For Flavell (1976), a pioneer in the use of the term, says metacognition, on the one hand, refers to "the knowledge one has about their own processes and products cognitive or any other matter related to them, for example, properties relevant information for learning "and secondly," the active and consistent supervision regulation and organization of these processes in relation to objects or cognitive data on acting, usually for the sake of some goal or objective".

Under this knowledge, metacognition person performs when it is aware of the difficulty you have to learn a topic, when you understand that you should always verify a phenomenon before accepting it as a fact; when a choice is made before deciding on the best, among other things.

For Carter (2001), metacognition is knowledge that people have about their cognitive functioning. The distinction between metacognitive knowledge and metacognitive control refers to the difference between declarative knowledge concerning know what and procedural knowledge referred to know how. Therefore, it is possible to distinguish two components of metacognition: one of declarative nature (metacognitive knowledge) and a procedural nature (metacognitive control or self-regulated learning), both equally important for learning and interrelated.

Metacognitive knowledge in the following characteristics are identified:

- **Knowledge of the person:** It refers to knowledge that we as learners, our abilities, potentials and cognitive limitations.
- **Knowledge of the task:** It refers to the knowledge possessed on the objectives of the task and all features related to it. This knowledge is important because it helps students to choose appropriate learning strategy.
- **Knowledge of the strategies:** It refers to the ability to choose the best strategy that will allow you to perform the task, how to apply and the conditions under which the different strategies will be more effective.

Cognitive and metacognitive strategies

Learning strategies are mental operations that are used to facilitate the acquisition, retention and retrieval of knowledge. In this sense we can say that are instruments at the service of processes. The techniques are more specific operating modes of carrying out corresponding strategies, integrating in this respect in the process.

Monereo et al. (1994) defines cognitive learning strategies as "procedures or action sequences integrated action plans constitute the subject selected from various alternatives in order to achieve a set goal of learning."

For Osses (2007), metacognitive learning strategies as "the set of actions to meet own operations and mental processes (what), know how to use (how) and know readapt and / or change them when required by the proposed goals".

Both are important because they contribute to the final result: significant learning, as cognitive strategies increase and improve the products of cognitive activity, favoring the encoding and storage, later retrieval and use in solving problems; instead metacognitive strategies are used to plan, monitor and evaluate the implementation of cognitive strategies. Therefore, it follows that metacognitive strategies are formed as a support for cognitive strategies.

For knowledge of cognitive and metacognitive strategies are transformed into action, you must be accompanied by the intentions or appropriate goals and a pattern of positive beliefs about their own resources to carry out, in short, self-regulated learning results from the interaction that occurs between cognition, metacognition and motivation.

Teaching metacognitive strategies

Depending on the degree of awareness of strategies (Burón 1990):

- **Blind Training:** so, called because students do not realize the importance of what you are asked or reason. Students do what is asked, but not displayed if that way of working is better than others. Thus, teaching strategies does not lead to lasting learning is a useful tool to learn mechanical instruction, but not to learn to learn.
- **Training informed or reasoned:** Students are asked to learn or work in a certain way and it is explained to them why they should do it, highlighting its importance and usefulness.
- **Metacognitive training or control:** The teacher also explained to students the usefulness of using a specific strategy leads them to check it themselves, so that leads them to become aware of their effectiveness.

In the latter mode of metacognitive dimension in the learning process involves teaching students to plan, monitor and evaluate its implementation, which favors the spontaneous and autonomous use of strategies and facilitates generalization to new problems.

- Depending on the level of support offered by the teacher or degree of autonomy granted to the student (Mateos 2001).

Professor takes on the role model and guide cognitive and metacognitive student activity, leading gradually to participate in an increasing level of competition, phasing out the support provided to relinquish control of the process in the hands of the student. This methodology is divided into four stages:

1. **Explicit instruction:** The teacher provides students with explicit information on strategies that will later be practiced mode. This information can be provided through: a) a direct explanation of the strategies to be taught and each of its stages, trying to generate declarative knowledge (knowing what), procedural (know how) and conditional (knowing when and what). b) cognitive modeling, where the teacher can model the cognitive and metacognitive activity carried out during the task. Modeling is not only cognitive actions involved in the task, but also metacognitive planning, monitoring and evaluation of the first.
2. **Guided Practice:** The teacher acts as a guide driving and helps students on the path to self-regulation. It is characterized by dialogue between teacher and student, to provide student support and sufficient to achieve goals that are beyond their means without that help guide.
3. **Cooperative practice:** It provides an additional source of individual learning scaffold. It is carried out in the context of interaction with a peer group that collaborate to complete a task. Control the activity moves the group to be distributed among its members.
4. **Individual practice:** Increase student responsibility through individual work.

Methodology

This study is part of the quantitative approach and is non-experimental, taking into account the objectives of the research and according to Briones (1982), by not manipulating the study variables are especially appropriate for descriptive and relational investigations.

It is transeccional in relation to the time in which the information was collected because the instrument was applied to the population only once.

It is a descriptive study because according to Hernández, Fernández & Baptista (2006) this type of study has the purpose of studying the relationship that exists between two or more concepts, categories or variables.

The method used was the survey and this was carried out through the design and application of a questionnaire structured on a Likert scale, which consists of two parts, the first of which contains participant identification data (gender, age and level of studies) and the second is made up of 20 paragraphs which correspond to the two dimensions of metacognition: Self-knowledge and Self-regulation.

The universe of study is the population of the third, fifth and sixth semesters of the degree in psychology, executive mode at the Technological University of Mexico, Leon Guanajuato campus.

The instrument was applied to a total of 22 students, 19 are women and 3 men, the ages of the participants fluctuate between 25 and 50 years.

Objective

Know the metacognitive strategies most used by the students of the psychology degree at the Technological University of Mexico.

Results

The analysis of the items yielded the following information:

The average of the items corresponding to the Self-knowledge dimension was 4 (of a scale of 5), which determined a systematic use of the metacognitive strategies of self-knowledge or cognition knowledge in the psychology degree of the school.

In this dimension 10 items were evaluated, of which the one that obtained the 100% positive response rate was the item "You make sure you have understood what to do, and how to do it", (22 responses, representing all the population under study). While the item that obtained the lowest answers was "You use multiple thinking techniques or strategies to solve the activity or task" (18 answers with almost never) representing 81.81% of the surveyed population, emphasizing an area of opportunity.

In the particularized analysis of the items, it was observed that the majority of students are aware of the cognitive processes they use and the results they throw at them. Most of the items obtained a grade of 4 ("almost always").

In this way we found that a significant number of participants, 81.81% (18 of 22 students), acknowledged not using varied thinking techniques in the resolution of tasks or activities, concentrating only on employing those techniques with which they are more comfortable with regard to processing, organization and incorporation of information, focusing on the memorization and repetition of the content of the subject.

Regarding the variable of self-regulation and control of the task, it was observed that the highest frequency of responses corresponds to the item "You strive to understand the key information of the activity before trying to solve it" in 90.90% (20 of 22 participants) . In contrast, 86.36% of the lowest answers (19 of 22) are found in the item "You are aware of the thought processes you use (of how and what you are thinking)". However, it can be seen that the results of the evaluations are around the grade of 4 (almost always), which indicates that the students carry out the academic activities in a self-regulated way most of the times and, in addition, they are aware of the process self-regulation.

One thing in which it is important to focus is on the thrown item "Trying to understand the objectives of the activity before you get to resolve the dispute", which refers specifically to the analytical ability of the student depending on the intent of the process Learning. 43.6% of respondents answered "almost always" and 40.4% "always. Holistically ("almost always-always) this item evidence 84% analytical and visualization capability intention of cognitive processes in participants study population. These capabilities are of great importance for the self-regulated learning because the student support in the organization, prioritization and approach to personal goals relating to the learning process.

The item "You are aware of the need to plan the course of action" is closely linked to the previous and the results observed confirm this relationship, with 42.5% "almost always" and 33.2% "always"; thus within the integral context item it represents 75.7% which consolidates the assessment expressed in the preceding paragraph.

As a whole, the variable self-regulation and control of learning shows (like the self-knowledge) high valuations in terms of how often develop metacognitive activities and in the number of people who say they use them.

This reflects that students degree in psychology there is a process of important and systematic reflection on their learning processes and arrangement thereof, and the evaluation of results.

Conclusions

In the review of metacognitive strategies used by college students majoring in psychology at the Technological University of Mexico, it can be inferred that the ages of the students are directly related to the level of consciousness that manifest themselves in regard to their own learning processes. Students externalize, through the questionnaire, the use made of different metacognitive resources, conscious systematic ways to support their learning.

It is important to emphasize the relevance of making available to students, strategies to enhance their cognitive and metacognitive so tools, encourage intellectual development, preparing them to learn for themselves, encourage personal reflection and development of what is he has learned, ensure the functionality of learning, understood not only as the set of valid to consolidate mental structures as a basis to acquire more knowledge, but also as content skills development and planning strategies and regulation of the activity of learning.

As well as dimension in their respective importance the active role of the student as ultimately responsible for their learning amending and reworks their schemes of knowledge, renewing the acting mediator has the teacher to facilitate the construction of meaningful learning that establish relationships between knowledge and previous experiences and new content.

References

- Alonso, J. (1991). *Motivación y aprendizaje en el aula*. Madrid: Santillana.
- Alonso, J. (1997). *Motivar para el aprendizaje. Teoría y estrategias*. Barcelona: Edebé.
- Argüelles, D., N. Nagles (2007). *Estrategias para promover procesos de aprendizaje autónomo*. Colombia: Alfaomega.
- Ausubel, D. P., J. Novak, H. Hanesian (1973). *Educational psychology*. N. York: Holt, Reinhart & Winston.
- Burón, J. (1990). *Enseñar a aprender: Introducción a la metacognición*. Bilbao: Mensajero.
- Mayor, J., A. Suengas, J. González (1995). *Estrategias metacognitivas*. Madrid: Síntesis.
- Monereo, C., M. Castello, M. et al. (1994). *Estrategias de enseñanza y aprendizaje. Formación del profesorado y aplicación en el aula*. Barcelona:
- Osses, S. (2007). *Hacia un aprendizaje autónomo en el ámbito científico. Inserción de la dimensión metacognitiva en el proceso educativo*. Concurso Nacional Proyectos Fondecyt.
- Pozo, J. I. (1990). *Estrategias de aprendizaje*. En: Coll, C.; Palacios, J.; Marchesi, A. (eds.). *Desarrollo psicológico y educación* (Vol. 2: 199-221). Madrid: Alianza.
- Román, M., E. Diez (2000). *Aprendizaje y Curriculum*. Buenos Aires: Novedades Educativas.
- Pozo, J. I. (1996). *Aprendices y maestros*. Madrid: Alianza.