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Self-regulated Learning and Academic Stress in University Students

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Abstract

After an investigation and exploration of studies, concepts, theories, it is intended by means of this article to conceptualize information regarding self-regulated learning and academic stress within an academic framework. Taking as relevant points self-regulated learning in the educational context and its dimensions and academic stress in an educational context and its moments or phases and, finally, self-regulated learning and academic stress in university students.

Key-words: Self-regulated Learning, Academic Stress, University Students.

1. Introduction

In these times, the teaching-learning practice is conceived as a process that involves mobilizing various areas both in the cognitive and behavioral aspect and through which the student plays a major role, being the main responsible for their own learning and monitoring of the activities carried out in order to meet their objectives. For this reason, it is intended that students play the role of active subjects and that they manage to develop the different competencies at the different educational levels and not only play the role of passive receivers of information. For this reason, it is inferred that students should develop a type of learning that allows them to regulate the different

elements involved in the teaching-learning process. When speaking of this type of learning, reference is made to self-regulated learning, which is defined as active and constructive development, through which learners set their own learning goals, and then carry out a series of actions such as monitoring, regulating and controlling the different dimensions of cognition, motivation and behavior; these actions are guided and in turn limited by the characteristics of the environment (Pintrich, 2000).

As for academic stress, stress is understood as an organized, adaptive and fundamentally psychological process, which can be evidenced in three phases or moments, the first refers to the stressors, which are the set or group of demands or academic demands, which exert pressure on the learner, the second phase is the manifestation of symptoms, These are triggered by the presence of stressors, causing a systemic imbalance in students at the physical, psychological and behavioral level, finally, the third phase is the taking of coping actions in the face of the aforementioned imbalance, which refers to a series of actions that seek to achieve balance in the system itself (Barraza, 2009). As mentioned by Barraza, it is understood that stress is the pressure exerted on the university student in the face of academic demands or requirements, which in turn cause in him a series of manifestations at the psychological, physiological and physical level, to then reach the decision making with the desire to overcome and meet the proposed goals.

In the following paragraphs of this review article, we will present and analyze the theories and concepts related to self-regulate learning in relation to academic stress in higher education students.

2. Self-regulated Learning in the Educational Context

Self-regulated learning is conceived from the socioconstructivist current, since it is a construct with several dimensions and fulfills various functions. This refers to learners, who perform a series of actions, such as hypothesizing, self-observing, evaluating, contrasting and finally arriving at the construction of theories in order to self-regulate and make use of different strategies to achieve a particular goal (Paris, 2001).

According to Zimmerman and Schunk (2011) who argue that self-regulated learning is closely linked to the educational context, since it is in this environment in which students develop this learning allowing them to activate and guide their cognition, affect and behavior towards the achievement of their learning goals or purposes. In this way, this concept could be defined as the student's ability to direct his thoughts and actions, monitor and regulate them towards the achievement of his objectives, this process is generated by the student's own motivation and interest.

Likewise, under his model Zimmerman (2000) considers the elements of behavior, the person and the environment and three cyclical phases: Premeditation, voluntary performance or control, and self-reflection. In this way, an effective or ineffective performance can be considered, depending on the quality of the self-regulatory processes employed.

It is understood then that self-regulated learning has processes, which are executed and observed from the educational context, as mentioned by Zulma (2006) who states that self-regulated learning is a form of action control adopted by students and whose main characteristic is the integration of metacognitive knowledge, motivation and cognition regulation.

There are several instruments related to the measurement of self-regulated learning, one of them is the MSLQ (Motivated Strategies for Learning Questionnaire) based on Pintrich's model (Pintrich, 1990) which is divided into three subscales, a scale of motivational beliefs and two scales for the use of cognitive strategies and self-regulation. It is worth mentioning that this instrument has been successfully applied in several countries such as the United States and other English-speaking countries, and that it has an acceptable level of reliability and validity.

Currently, studies are being carried out at an international level referring to this type of learning in the higher education field in relation to the characteristics and academic background of university students (Inzunza, 2020) and the application of the Motivated Strategies for Learning Questionnaire instrument in higher education students (Navea, 2018).

3. Self-regulated Learning and its Dimensions

Self-regulated learning is defined as an active process through which students determine their learning goals, and then carry out processes such as monitoring, regulating and controlling the different dimensions of cognition, motivation and behavior, which are guided and limited by the characteristics of the environment (Pintrich, 2000).

Within these dimensions students perform regulation processes to achieve their goals, one of them and according to Pintrich's model cognition is an area that develops different processes when interacting with the various phases. For the first phase of previous thinking, goal setting is performed, in the second phase of monitoring, metacognitive awareness, in the third phase of control, strategies are selected and in the fourth phase of reaction and reflection, cognitive judgments are issued (Pintrich, 2000). Cognition refers to a process that alludes to the various elements included in the cognitive practice; these could be strategies, operations, processes, among others. These could be

strategies, operations, processes, among others, used for the purpose of accomplishing a given task (Organista, 2005).

Another of the dimensions immersed in self-regulated learning is that of behavior, which is evidenced through actions carried out in the different phases of self-regulated learning, in the first phase of previous thinking, it is evidenced in the planning of time and effort, in the monitoring phase, the awareness and monitoring of effort, in the third phase of control, the increase or decrease of effort and finally in the last phase of reaction and reflection, the behavior of choice is evidenced (Pintrich, 2000). The concept of behavior or conduct points to the actions performed by students to achieve their objectives. An example would be the fulfillment of the programmed activities, since this implies in him, to perform various actions such as raising their purposes or goals, reviewing and analyzing, implementing the activities as planned, monitoring whether what was done was adequate or requires some modification and finally executing the steps that continue (Zimmerman, 2000).

The context is the dimension that refers to the environment in which the student carries out the learning process and also includes the means or support resources used by Zimmerman (1986). In the context dimension, for the first phase of previous thinking, the perception of the task and the context is observed; in the second phase of monitoring, the change of the conditions of the context is evidenced; in the third phase of control, the modification and rethinking of the task is observed; and in the last phase of reaction and reflection, the evaluation of the task and the context is evidenced (Pintrich, 2000).

Finally, motivation is caused by internal forces, which are considered psychological and external forces, which respond to the perception of an object. This generates in students the incentive that mobilizes them to act and think strategically (Lewin, 1969). Motivation can be self-regulated through the use of control strategies that allow the student to overcome negative emotions, such as fear and anxiety. In the first phase of previous thinking, the adoption of goal orientation is observed, in the second phase of monitoring, the awareness of motivation is evidenced, in the third phase of control, it refers to the selection of strategies to regulate motivation, and in the last phase of reaction and reflection, affective reactions are observed (Pintrich, 2000).

4. Academic Stress in the Educational Context

Academic stress understood as stress produced within the educational context under the pressures exerted by academic activities, is constructed based on the systemic cognitive model, which is based on four hypotheses, the first referring to the systemic components of the process, the second

conceives academic stress as a psychological condition, the third refers to the causes of the imbalance and the fourth refers to the state of coping to overcome the imbalance (Barraza, 2008).

In the educational environment, academic stress is understood as an organized, adaptive and fundamentally psychological process, which presents three phases or moments: The first indicates the stressors, which refer to the set of academic demands that exert pressure on the student. The second moment is the presence of symptoms, which are triggered by the presence of stressors causing a systemic imbalance in students. The third moment is the taking of coping actions against the imbalance previously triggered by the presence of stressors (Barraza, 2009).

Considering also that academic stress is present in all levels of studies, from preschool to postgraduate studies, that is, in every academic period since the study causes a state of tension experienced by students, either individually or as a group (Orlandini, 2009), this pressure is generated by the demands imposed in the academic field, therefore, not only students are affected by this type of stress but also teachers, since they all participate in this educational dynamic (Pulido, 2007).

There are several studies at the international level referred to academic stress Zarate (2018) presented in his article the analysis of the existing relationship between study habits practiced by university level students and academic stress present in them, in which he concluded that between the lack of practice of study habits and the presence of academic stress there is a significant relationship. Another study referring to academic stress is that of Cobiellas (2020) who in his article proposed as a purpose to determine the level of academic stress and mental depression of higher level students. The conclusion of the study was that academic stress levels and mental depression are related.

5. Moments or Phases of Academic Stress

Within the academic context, university students present stress in three moments (Barraza, 2009) which start from the presence of stressors, these refer to the academic demands or requirements perceived by students, such as academic work, overload of activity or tasks. These can be classified into three types: psychological, social and physical, which are detrimental to the student's integrity (Barraza, 2006). This first moment refers to everything belonging to the outside world that triggers a homeostatic imbalance, the reaction to stress is what the body itself does to correct that imbalance and restore itself (Sapolsky, 2004).

After perceiving the stressors, symptoms appear, which according to Barraza (2006) are the series of manifestations triggered by the stressors, which produce an imbalance in students, reflected in signs in the physical area, such as headache, in the behavioral area, opting for isolation and in the

psychological area, presenting problems to concentrate. This moment could be defined as an alteration or reaction as an expression or manifestation of some imbalance; this indicates that, in order to present a symptom, the individual must be in a bad state of health (Desviat, 2010).

Finally, students proceed to propose certain strategies to overcome the impression or impact obtained by these stressors, at this time students perform coping strategies which are restorative responses of the system itself, against the imbalance produced by the stressors, in order to overcome or recover the balance of systemic type. These strategies can be searching for more information about a class topic, elaboration of an organized plan to perform tasks, compliments to one self, among others (Barraza, 2008). These strategies are also understood as psychological techniques that the student uses in order to cope with situations that cause stress. Sometimes they are not effective or do not achieve the desired result, however, they are very useful to promote, avoid or reduce confrontations between people, providing benefits at a personal level and strengthening them emotionally (Macías, 2012).

6. Self-regulated Learning and Academic Stress in University Students

Self-regulated learning is defined as active and constructive development, through which students set their own learning goals, and then monitor or regulate the different dimensions of cognition, motivation and behavior, these actions are guided and in turn limited by the characteristics of the environment (Pintrich, 2000). This type of learning demands from the student a high level of exigency, since it requires a previous planning, determination of objectives, constant monitoring and self-evaluation to select the strategies that were effective, reason for which, it could generate in him or her certain level of stress, stress is understood as the process of organized, adaptive and fundamentally psychological character, which can be evidenced in three phases or moments, the first one refers to the stressors, The second phase is the manifestation of symptoms, which are triggered by the presence of stressors, causing a systemic imbalance in students at the physical, psychological and behavioral levels. Finally, the third phase is the taking of actions to cope with the aforementioned imbalance, which refers to a series of actions that seek to achieve balance in the system itself (Barraza, 2009).

There are studies at international level referred to both self-regulated learning and academic stress in educational contexts in countries such as Chile, explaining the relationship between self-regulated learning and the sociodemographic characteristics and academic background of higher level students, where they obtained results in which both male and female students use motivational and

cognitive components to achieve self-regulation of their learning, these students constantly monitor their academic progress so they maintain a good average in the areas treated (Inzunza, 2020).

Study in Spain, Navea (2018) conducts an exhaustive study of the sections of the adapted MSLQ self-regulated learning instrument; the sections studied were the motivation section and the section referring to the use of learning strategies by university level learners. From this study, they provided some recommendations for educational practice. In their results, they showed a strong relationship between the variables treated and suggested rethinking the curriculum to include greater interaction among students.

And referring to academic stress, Zarate (2018) proposes in his study to analyze the relationship between the study habits practiced by university students in Mexico and the academic stress present in them. This study, after analyzing its results, determined that the lack of practice of study habits and the presence of academic stress there is a significant relationship.

7. Conclusions

Self-regulated learning within the educational context is defined as an active process, in which the student takes a leading role in his own learning, since he is the one who determines his goals, and then makes decisions, monitors, regulates and controls his actions in the dimensions of cognition, motivation and behavior, these actions are oriented and limited by the characteristics of the context or environment. (Pintrich, 2000).

Academic stress is an organized, adaptive and psychological process, which can be evidenced by three moments, the first refers to the stressors, the second is the presence of symptoms and finally the taking of coping actions against the imbalance produced in order to achieve the system's own balance (Barraza, 2009).

There are several studies referring to self-regulated learning in university students at national and international level, where the relationship between self-regulated learning and student characteristics is proposed (Inzunza, 2020). Regarding academic stress Zarate (2018) proposed in his article to analyze the relationship between study habits practiced by university level students and academic stress present in them and concluded that between the lack of practice of study habits and the presence of academic stress there is a significant relationship. Therefore, it can be inferred that self-regulated learning has a certain relationship with academic stress in university students.

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