

## The development of learning strategies by distance learning students in the face of self-regulatory activities



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### ABSTRACT

The purpose of our research was to analyze the development of learning strategies used by distance learning students of Pedagogy and ADS courses in the face of self-regulatory activities. This research presents as a differential the fact that the didactic and pedagogical elements were elaborated in an unprecedented way so that there was an adjustable environment with a learning trail built on the principles of cognition, planning and self-motivation. We interviewed 100 students, in which they were submitted to a semi-structured

questionnaire that would offer us clues as to how the process of strategy development took place during the 30 days in which the virtual room was available in the VLE of the Ser Educacional Group in EAD. As a general objective, we seek to analyze the development process of students of the Pedagogy and ADS Course in EAD da Uninassau in the face of pedagogical activities from a perspective of self-regulation of learning, as this, we propose to: identify students of the 1st period of the Pedagogy and ADS Courses, we elaborate in the VLE (virtual learning environment) didactic materials that guarantee the stimulation for the development of self-regulation strategies and we understand how this student learning process took place. As a methodology, we applied a semi-structured questionnaire inserted in the VLE so that we could analyze the students' self-regulatory skills. There were two moments, the same questionnaire being applied at the beginning of the classes and at the end. With this, we identified that the students who participated in our research showed significant changes in their understanding of self-regulation, as well as reported that they developed new habits and changed their academic and personal lives. This could be analyzed in the data collected and during the development of the students and the discipline.

**Keywords:** Self-regulation of learning, Educational Technologies, Learning strategies.

## 1 INTRODUCTION

In distance education (DE), the innovative elements of practice that are introduced through the physical separation between the teacher and the student, as well as the use of modern technology, create an educational environment characterized by learning autonomy and active engagement. This means that the student, in order to facilitate his/her own learning, manage the learning process and achieve academic success, is required to monitor, control and modify his/her own action through self-assessment of his/her cognitive skills and behaviors (PRETI, 2005).



Learning autonomy is considered an important factor for academic success in distance education. Learning in distance education presents challenges. Lack of self-regulation skills is a significant reason for the increased dropout rate in online courses. This may be due, in part, to students not recognizing the effort and organization required to succeed in this type of modality (BELLONI, 2015).

Success in distance learning correlates positively with learners' ability to self-regulate and direct their own learning efforts. As a critical factor affecting learning performance in distance education, self-regulated learning has attracted considerable interest. Self-regulated learners can manage their learning activities efficiently, but researchers indicate that learners have difficulties in promoting self-regulated learning (SRL). Thus, providing support to facilitate the process of self-regulated learning becomes extremely important.

For Zimmerman (1989) self-regulation is the competence of the individual to self-manage thoughts, feelings and actions that are planned and cyclically adapted for the attainment of personal goals and objectives. Self-regulated learning emphasizes the role of learners in setting goals and strategies, dynamically approaching task planning and execution, and acknowledging and reflecting on perceptions and their influences alongside the learning task. Self-regulated learners can be defined as proactive in their efforts to learn, because they are aware of their strengths and limitations and because they are guided by personally set goals and task-related strategies. These learners monitor their behavior in terms of their goals and reflect on their increasing effectiveness. This increases their self-satisfaction and motivation to continue to improve their learning methods. Because of their superior motivation and adaptive learning methods, self-regulated students are not only more likely to succeed academically, but also to view their future optimistically (ZIMMERMAN, 2002).

The literature has pointed out a permanent need for the promotion and insertion of educational proposals using learning strategies, aiming to foster the development of self-regulation through new technologies that enable the realization of individual activities and provide collaborative, interactive and flexible teaching applied to distance learning (SIMÃO, 2004) (ZIMMERMAN; SCHUNK, 2011).

Our intention in this proposal is to continue the research carried out in 2019/2020. The results indicated that the Pedagogy students of the 8th period showed signs of using self-regulation strategies. The students of the 1st period had results lower than expected regarding the strategies of self-regulation of learning. With this, our problem originated, in which the students of the 1st period, if they were stimulated to the development of self-regulation strategies at the beginning of their course, could present better pedagogical and learning development? In search of possible answers, we highlight the following questions: a) Can the elaboration of a learning trail based on a self-regulation perspective influence the development of students regarding the internalization of their university autonomy? b)



Can the Pedagogy and ADS courses contribute to the development of self-regulation strategies for learning by offering self-regulatory activities in the VLE (Virtual Learning Environment)?

This research presents academic relevance that can guide not only the functioning of the courses, but, our study is based on several theorists such as: (BOEKAERTS, 1996; BOEKAERTS & CORNO, 2005; BOEKAERTS, PINTRICH & ZEIDNER, 2000; CORNO, 2001; LOPES DA SILVA et al, 2004; PINTRICH, 2000; ROSÁRIO, 2004; SCHUNK, 2005; VEIGA SIMÃO, LOPES DA SILVA & SÁ, 2007; VEIGA SIMÃO, 2002; ZIMMERMAN, 1998, 2000, 2008).

When we analyze the aspects that promote the development of self-regulation, we see how we have gaps. This fact is visible when we check the learning trail proposals in which students are exposed. With this we question whether in fact we have a supposedly ideal environment, elaborated with a content based on self-regulation, can influence the development of strategies for the use of self-regulation with the adoption of a regulable behavior.

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## 2 MATERIALS AND METHODS

In our research, we carried out a previous registration in which we had 700 students. We chose to draw lots after choosing the appropriate profiles and 100 students were counted. The students were inserted in the VLE in an interactive classroom designed according to self-regulatory perspectives. We held orientation web conferences for participating students, prepared 04 learning guides and inserted various materials to stimulate strategy development. Several activities were applied: we applied 02 questionnaires made available to students in the VLE. The first application was carried out at the beginning of classes and the second after the end of the room.



### 3 RESULTS AND DISCUSSIONS

As results, we initially identified that the participating students had difficulty understanding what self-regulation of learning would be. With this we verified that besides not understanding the term they had difficulty in seeing themselves as a regulable individual. From the first presentation web it was visible that the main doubt would be how this knowledge would help them in their routine. This being the initial concern.

In the continuity of application of activities, web conferences and interaction with tutors, students show great interest in the theme. This occurred during the webs, because the teachers used several didactic strategies of interaction with the students.

To categorize the results, we elected the following premises: a) self-assessment of student performance; b) study planning as an academic activity; c) evaluation process; d) use of physical or digital teaching resources; e) annotation of class content; f) concentration in the study environment; g) strategies for memorization of the topic studied; h) review of class content.

When we asked about self-assessment and student awareness of overcoming difficulties 31.9% stated that they always self-assess and 29% that they do this sometimes. The remaining students do not perform the action.

Regarding the category that deals with "I try to make a plan before starting a study or academic activity", 4.3% never plan; 18.8% a few times, 21.7% often and 27.5% always. As for the test or evaluation activity 5.8% never study before the test; 8.7% a few times, 20.3% sometimes, 36.2% often and 29% always study in advance.

The search for physical or digital resources can be visualized according to the analysis: 2.7% never resort, 21.7% a few times, 26.1% often and 15.9% always resort. With this we verify that there is low demand for resources that could enhance students' learning.

The writing about the class showed that the students still have the habit of writing the narration of the teachers' classes, being: 2.9% never write; 13% few times. 30.4% sometimes write, 21.7% often and 31.9% always write the classes or web conferences they participate in.

The concentration of the students had as indicators: 4.3% rarely seek an environment without distraction to study, 13% sometimes seek, 21.7% often and 60.9% always seek a quiet space without distractions. We saw with this that most students feel the need to have a calmer and quieter space to study.

To memorize the subjects we saw that 10.1% never use strategies that help them remember the content, 18.8% a few times, 23.2% sometimes, 26.1% often use strategies and 21.7% always use strategies to memorize the subjects. With this it is evident that many use strategies that help them remember the study content.



The search for support was also an interesting data, since 2.9% never seek help from teachers or colleagues, 11.6% a few times, 24.6% sometimes seek help, 17.4% often and 43.5% always seek help. It is interesting to note that most students understand the need to seek support. It is evident that these students are developing the principles of self-regulation. The fact that they know their difficulties and how to solve them is an outstanding fact.

In view of the above results, we understand that the students in fact demonstrate an important level of development and that it could be evaluated as a result of the experience lived by them in the VLE in an environment prepared to stimulate their self-regulation strategies.

#### 4 CONCLUSION

In this study we cannot finalize it without pointing out indications that need to be investigated. We note that there was a development of the students surveyed. This was evidenced in their participation in the webs, interaction with tutors, responses to challenges and feedback received.

The theme addressed is relevant and needs further research. We conclude that we have achieved the intended objectives and understand that when the learning room follows a pedagogical didactic organization, students will be able to expand their learning and development of their self-regulation of learning.



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