

The knowledge of the administrator: a look from the pedagogical strategies for an administration program at a public university in the city of Bogota

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Abstract

This paper presents the proposal for the planning subject matters in terms of achieving student's effective learning. The study is based on the American researcher Cody Blair proposal regarding the retention of knowledge from the pedagogical strategy used in the teaching process. An instrument with 29 pedagogical strategies was designed and conducted to teachers of the 46 subjects that make up the curriculum of an administration program in a public university. The results show that the 65.3% pedagogical practices for the development of subjects are active considering that they correspond to teach, practice, argue and demonstrate, while 34.7% are passive, corresponding to the use of audiovisual, listening and reading resources. The development of activities linked to relevant pedagogical strategies allows to achieve significant learning which is a great benefit to the students, as well as the productive sector and the higher education institutions.

Keywords: Managerial learning, managerial competencies, pedagogical strategies.

Introduction

The knowledge of the administrator, as well as that of other professions, fulfills its role in the family, social and productive context once the learning objectives that allow solving problems in the real environment are achieved. In this way, it is important that institutions develop pedagogical proposals and strategies pertinent to fulfil the market in terms of professional profiles. So it is important to plan actions with the purpose of making more efficient processes of training and learning in students, since they must be adjusted to the demands of society within the globalized framework (Parra, et al.,2018).

Likewise, knowledge is progressively formed from experiences of confrontation between the object and the construction of the mental representation of information of the individual who builds new and more complex knowledge,

enriched with new mental relationships and associations that he/she has with the new information (Marín, 2017).

The knowledge of the administrator must form him as a person and as a professional, making him a complete professional where the complete objectives of the teaching and learning process are achieved. In this regard, Galdeano and Valiente (2010) state that the competence of a person covers the full range of their knowledge, skills, attitudes and abilities in the personal, professional or academic field, acquired by different ways and at all levels, from the basic to the highest and whose application results in superior performance, contributing to the achievement of its objectives.

For all the above, the professional competencies model should be analyzed so that higher education institutions provide professionals with high preparation to achieve companies growth in

an increasingly competitive market. Similarly, Villafuerte and Benites (2018), cited in Bolivar (2010), state that the development of high capacities of the professional allows to enhance their contribution towards a model of economy, whose main resources are represented by knowledge.

Methodology

This is a study of mixed approach consisting on a descriptive type based on different sources of specialized information that allowed to glimpse the perspective of learning outcomes and pedagogical strategies in university contexts, from positions presented through a series of resources provided by those who, in one way or another, have experienced around the object of study. In the qualitative approach, the context was achieved from the documentary review, mediated by a process of interpretation regarding the object of study from a descriptive perspective, supported by the hermeneutics as a way to achieve the understanding and interpretation of the context in which a tool of financial leverage is located for micro and entrepreneurs in Bogota from the different authors and sources consulted. Thus, it is established that in front of the epistemological vision of the subject under study, contributions from different approaches, knowledge and professions related to dissimilar sciences and disciplines were taken.

A phenomenological research supported with a data collection technique such as the survey was applied, and the results allowed to know about 29 pedagogical strategies and their use in the program under study. As stated by Hernandez, et. al. (2003), "the non-experimental research is done without deliberately manipulating the variables; what is done in this type of research is to observe phenomena as they occur in a natural context, and then analyze them" (p.270). In turn, Baena (2017) states that studies where data collection is done in a single moment with the purpose of discovering variables and analyzing their incidence and interrelation at a given time, as it was intended to do in this study, are classified as cross-sectional research designs.

The informants for this study were the teachers who develop their classes under the

face-to-face modality in a public university in the observed administration program. The information was collected through an instrument mediated by the Google Form tool, then it was processed with the help of SPSS from where the different graphs and tables exposed to strengthen the context of the document were achieved. It is thus considered that the exposed results represent the analysis in large part of the empirical world that is strengthened from the experiences and approaches of actors related to the topic of study, with "the purpose of reconstructing the reality as observed by the actors of a previously defined social system" (Hernández, ed. al., 2014, p.19).

As for the quantitative approach of this research, the answers were collected to know the number of pedagogical activities for each of the items, divided by areas, semesters, among other relationships between the items that grouped questions with which it was possible to observe the levels of relationship between them. Likewise, the descriptions were developed in the light of the theoretical framework guide for the verifications of good practices to achieve meaningful learning in students and graduates of the management program observed (Fidias, 2012).

Frame of reference

Higher Education Institutions (HEI) and their commitment to public policies is a challenge oriented to the development of training processes in knowledge that have a family, social and business impact. In itself, it is an "invitation" for higher education to vehemently promote learning around scientific research, which as Niebles, Martínez-Bustos and Niebles-Núñez (2020) expose is not only very useful for the better development of the activities proposed in the classroom, but also in the contribution of scientific production, social problem solving and better performance in professional work in the spaces that the profession requires it. Then, together with the focus by competences that the HEI has been working on, where the teachers assume the responsibility of being motivators of students to face and solve, as far as possible with more success, the different situations that are presented to them, now the challenge is added to them to guarantee, through their training process, change and/or strengthening in the

knowledge, beliefs, conduct and attitudes, making use, as far as possible, of the lived experiences, developed capacities of the students, as well as, of the pedagogical strategies adequate for the purposes of the respective discipline or area of knowledge (Ambrose, et al., 2017). This reflection for the context of learning is echoed by Jonnaert, et al. (2006) who refer that "learning must allow life to enter the classroom and give meaning to learning" (p. 26).

Decree 1330 invites to discuss the learning outcomes and serve as a guide for the change of teachers' behavior facing the circumstances and the future of education and knowledge and its impact on professionals. Part of the reflection is that it is not enough to be a professional in an area of knowledge, or an expert in the field, but to have the attitudes and skills to learn and unlearn and achieve changes in appropriate behavior to develop in their work as a trainer (Hernandez, Garriga & Baños, 2009). Learning outcomes, then, is a process that involves stakeholders, students and teachers dynamically in terms of achieving changes in behavior and cognitive processes, as a result of the experience gained from adapting to environments that change by obligation (Garcés and Mora, 2020).

The demands of society are permanently altered by the logic of globalization, a fact that leads HEI to understand and react, since the response with qualified professionals is the most appreciated criterion of quality and correspondence for the present and an uncertain future. Therefore, it is necessary that learning that generates competences linked to a specific discipline ensures, in addition to the ability to communicate and work in multidisciplinary and multicultural teams, the ability to continue learning throughout life alongside advances and discoveries and needs that arise in the globalizing process (Nava-Rodriguez, 2014). Thus, the dialogue on the subject under study is based on how to make learning occur, for which Castillo et al. (2006) point out that it is necessary to promote spaces for students to develop and maintain the ability to establish relationships between what they know as a result of experiences throughout their lives and training process and the new information with which to structure better knowledge, as well as manage and ensure the necessary learning to enhance and give meaning to such knowledge. In this way, the teacher and his pedagogical strategies

are fundamental in the acquisition and development of new knowledge (Ibid., 2006).

The learning outcomes are motivated to a large extent by the teacher who knows the reality and the contents of their academic activities in correspondence to the professional profile of the graduate and the stimulation to encourage are related to the perception of student learning of a particular subject, learning that is not precisely for the short term and that requires pedagogical strategies different from the master classes that only allows listening, therefore different practices are more related to the proposal of tasks that allow the student an autonomous, responsible, permanent and guided learning by the teacher (Bautista, 2011), with experiences that the traditional expository method does not generate for all equally (Domingo and Segura, 2017).

It is considerably necessary, in order to better contextualize what was stated in the previous paragraph, to explain the model that represents the possibilities of knowledge and recall acquired by students over time from the pedagogical strategy used. In this way, Cody Blair's pyramid is an inspirer for the planning of academic activities that lead to effectiveness in the proposed learning outcomes. The proposal of this author invites to reflect on the activities or resources provided to students since they allow to achieve meaningful learning, because when students learn the most is when they interact in their academic environment with a topic that they design freely and autonomously from their experience, thus stimulating and making them feel protagonist of their learning (Lindt & Blair, 2017).

Based on Lindt and Blair (2017) and Prieto (n.d.), the pyramid of Cody Blair points out that after 24 hours barely 5% of what is heard through a master class is remembered, reading which is an activity with more performance, compared to the previous one, allows in time a 10% of remembrance. The interaction from the use of audiovisuals has a remembrance of 20%; when the activity is focused on the demonstration product of confronting theoretical or empirical evidence has a recall of 30%, but the argumentation is more challenging and complex since several capabilities are put into action, such as: reading and understanding the topic of work, evaluating alternatives that allow the best achievement of what is intended

to expose, safeguarding a position and convincing, which is why this has a recall of 50%.

The activity that leads to a more significant learning, with 70%, is the practical activity, possibly because of the integration of various skills and knowledge in an active and useful way. According to the author, the activity that generates 90% is teaching others, since it requires a mastery of what is explained by resorting to different forms of examples and actions, as shown in Table 1.

In short, the involvement of students makes them become active participants in the learning process and be able to reach an increasingly significant level of autonomy when it comes to learning. On the other hand, it can be thought that when strategies that are only related to listening, reading and the use of audiovisuals are used, it is a passive learning process; meanwhile, activities that invite demonstration, argumentation, practice and teaching others are active processes.

Table 1. Exemplification of Cody Blair's retention pyramid.

Percentage of recall	Categories	Related pedagogical strategies by category
5%	Listen to	Master Class Listen to lectures Seminar attendance
10%	Read	Reading specialized articles Reading book chapters Reading case studies
20%	Audiovisuals	Projection of videos and films Listen to and analyze audios or recordings
30%	Demonstrate	Rapporteurships Comparative tables Summary table Timeline Conceptual map Construction of mind maps Construction of field diaries Summary of remarks Infographics
50%	Argue	Essays Reading Report Role play

		Article Debate
75%	Internships	Laboratory activities Field trips Execution of classroom projects Use of software Reflective workshop Case Solution
90%	Teaching others	Teaching others

Source: Own elaboration, based on Lindt and Blair (2017) and Prieto, A. (n.d.).

Table 1 offers an overview of Cody Blair's pyramid, the pedagogical strategies cited are only a part of the existing and possibly used in the academic environment at different levels of training, which were grouped according to their nature.

Results

The results obtained from the instrument applied

where the teachers of the administration program of a public university report the use of the pedagogical strategies used every semester. At a general level, after the information on the strategies used in 46 subjects, among those considered theoretical and theoretical-practical, which are part of the curriculum with which the administrator profile is formed, it was found that, among all the subjects observed, teachers perform an average of 2085 activities in the semester.

Table 2. *Theoretical and theoretical-practical subjects of the professional program in administration.*

Theoretical-Practical	Theoretical
ORAL AND WRITTEN COMMUNICATION WORKSHOP	INTRODUCTION TO ADMINISTRATION
WORKSHOP ON LIVING IN VALUES	THEORY OF ORGANIZATIONS
COMPUTER WORKSHOP	INTRODUCTION TO THE CONSTITUTION
ENGLISH I	MACROECONOMIC THEORY
ENGLISH II	DEVELOPMENT COMP. EMP.
RESEARCH METHODOLOGY	MARKETING
LABOUR LAW	INTERNATIONAL ECONOMY
MARKET RESEARCH	HUMAN TALENT DEVELOPMENT
PRODUCTION MANAGEMENT	MANAGERIAL COMPETENCIES

BUSINESS PLAN	COMMERCIAL LAW
MANAGEMENT INFORMATION SYSTEMS	STRATEGIC PLANNING
BUSINESS PRACTICE I	MARKETING AND INTERNATIONAL INTERNATIONAL
TAX LAW	PROFESSIONAL ETHICS
BUSINESS PRACTICE II	SALES MANAGEMENT
OPERATIONS RESEARCH	BASIC SEMINAR PROF.
ACCOUNTING*.	RESEARCH SEMINAR
MATH*.	COMPLEMENTARY SEMINAR PROF.
COSTS*.	TRENDS CONTEM. OF ADM.
MICROECONOMICS*.	MARKETING MANAGEMENT
CALCULATION	DEGREE SEMINAR
FINANCIAL ANALYSIS*.	
DESCRIPTIVE STATISTICS*.	
INFERENTIAL STATISTICS*.	
BUDGETS*.	
FINANCIAL MATHEMATICS*.	
FINANCIAL ADMINISTRATION*.	

Note: *are the subjects considered quantitative in the observed management program.

Source: Own elaboration.

On average, theoretical subjects make up 43% of the offer presented in the syllabus. The other 57% correspond to theoretical-practical subjects, with respect to the total, 24% are quantitative due to the relation they have with mathematics in their contents. It was found that the subjects that most activities, with pedagogical mediations, are done by teachers are those considered theoretical, which account for an average of 51% of the total activities carried out in the semester. Meanwhile, the group considered as theoretical-practical, with regard to the quantitative subgroup, has 20% and the remaining 29% is the complementary subgroup. In sum, when putting together the quantitative and the practical ones, considered as theoretical-practical, it takes an important weight as far as activities mediated by pedagogical strategies are concerned.

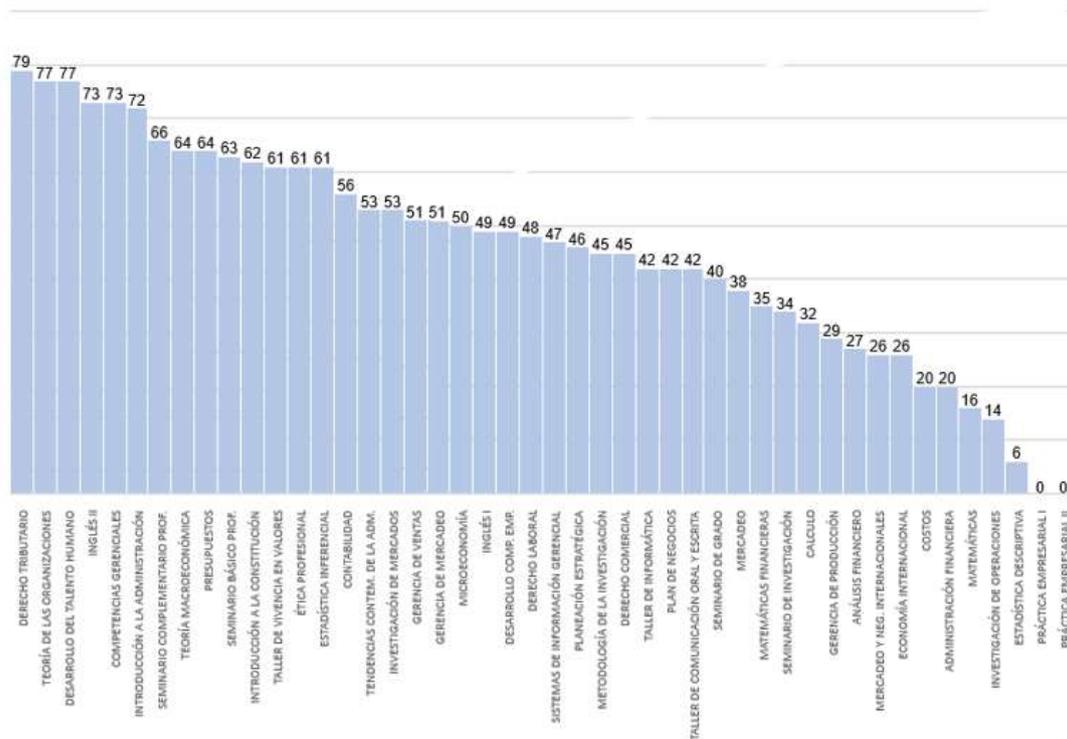


Figure 1. Number of activities carried out in each subject in the semester.

Source: Own elaboration.

From the pyramid exposed in the referential framework, in relation to what is proposed by Cody Blair, the observed management program makes use of all the pedagogical strategies evaluated. However, at a general level, it shows to be passive, in the management of these, in front of meaningful learning.

In summary, this first look at the results shows that 31% of the activities are mediated with passive pedagogical strategies. However, when the use of activities through pedagogical strategies that generate a 30% retention of knowledge in meaningful learning, as stated by Cody Blair, is 29%. Likewise, the activities that allow retention of more than 50% is 32.9%.

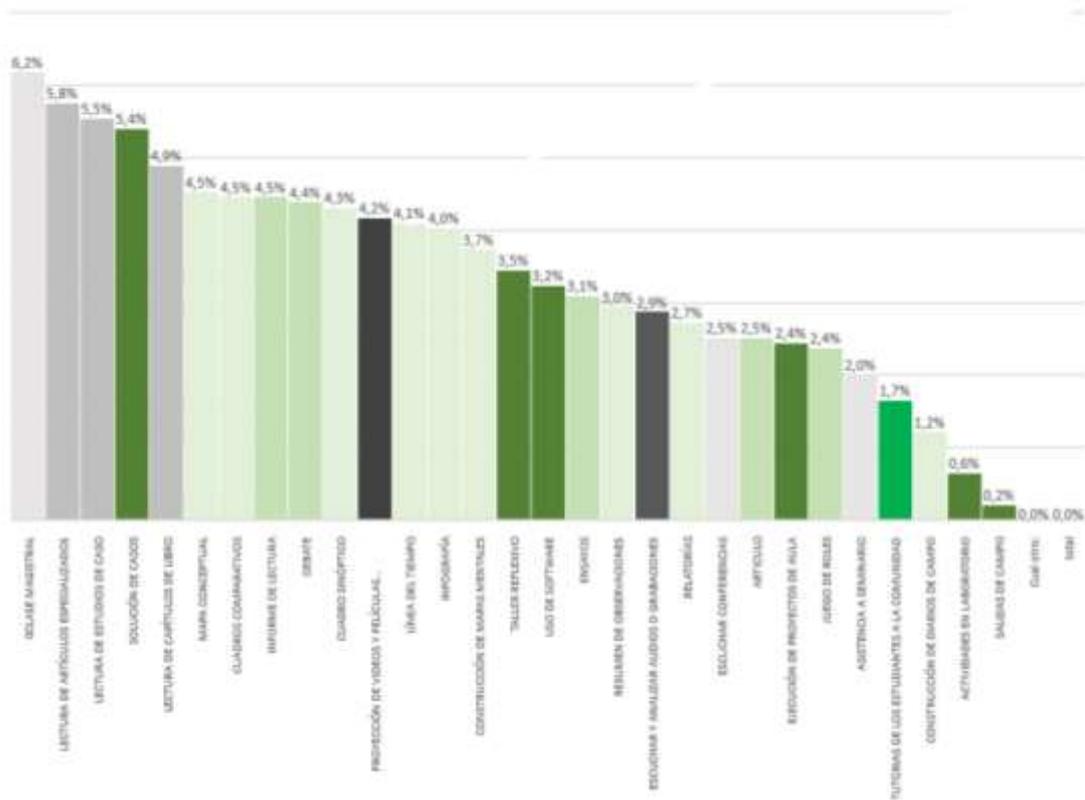


Figure 2. Average number of pedagogical strategies carried out in 48 subjects per semester.

Source: Own elaboration.

When it is observed by the areas of knowledge that compose the observed administration program, it is found, on the one hand, that at a general level the master class is the one that predominates, same that barely, based on Blair's pyramid, generates a retention of the learning in 5% and, on the other hand, that of the 138 master

classes that are given in the semester among all the subjects, the area that more uses them is the administrative and quantitative weighing 21% and 20% respectively, meanwhile the one that less uses them is the marketing and the normative sharing 9%.

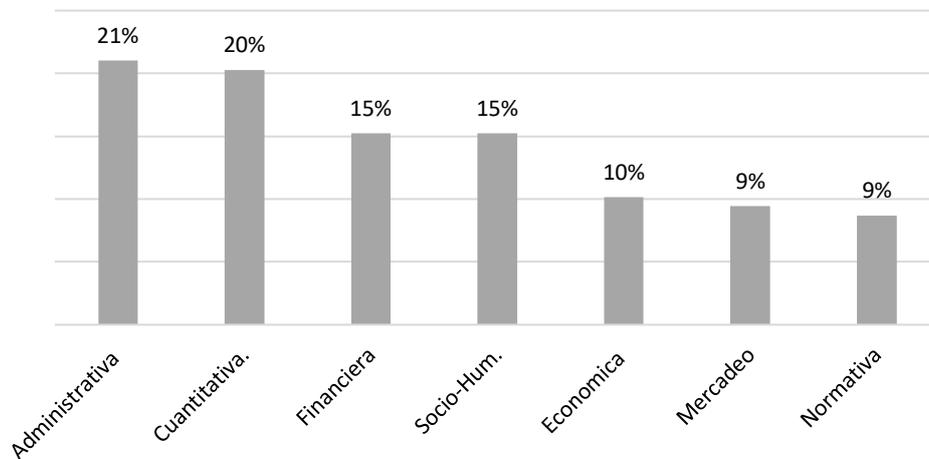


Figure 3. Percentage of use of master classes by area of knowledge in the program.

Source: Authors.

When observing the data by semesters, it is found that the least activities are used in the

tenth semester, while the most is in the first semester, shared with the second semester.

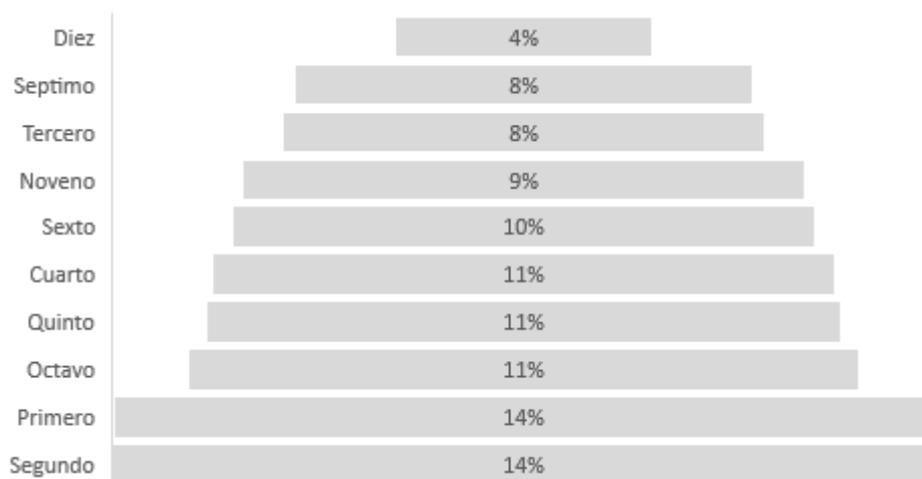


Figure 4. Average number of activities carried out in each semester.

Source: Authors.

It was found that the first and second semesters are the ones with the most activities compared to the total, while the fourth, fifth, sixth and eighth semesters are in second place, while the third,

seventh and ninth semesters are in third place and the tenth semester is the one with the least activities.

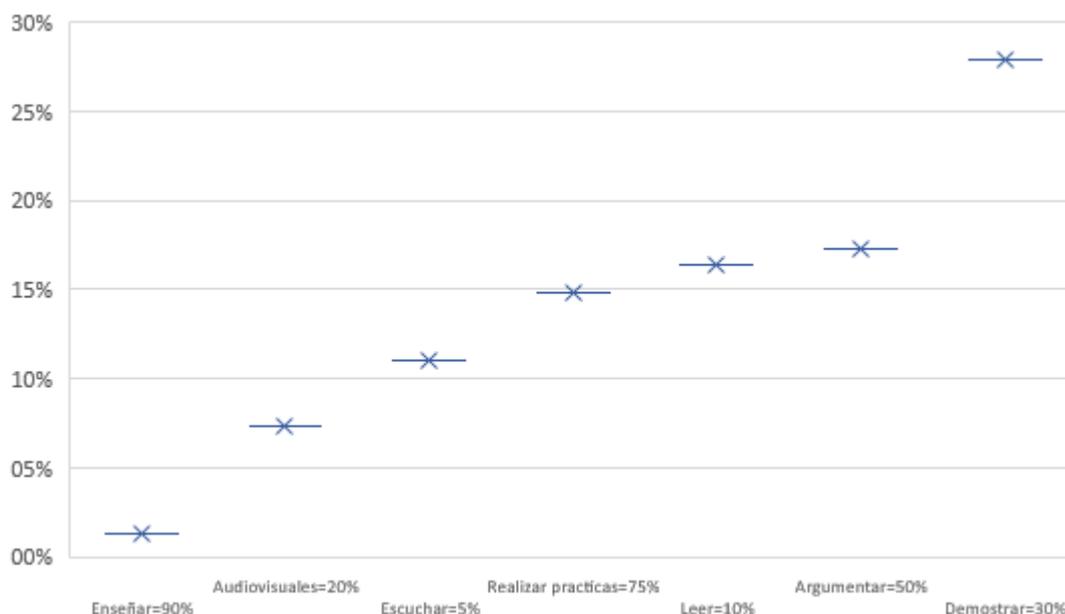


Figure 5. Strategy use grouped into seven categories

Source: Own elaboration.

When observing the experiences of teachers in relation to the use of pedagogical strategies and the level of learning retention that these entail with the passage of time, it was found that

activities used related to the category, demonstrate the ones that allow 30% of recall, as shown in the Figure 5 that presents the Blair pyramid, are the most predominant, taking into

account that 27.9% of the teachers surveyed reported. Likewise, at the opposite extreme is teaching, with only 1.3%. The average based on this information is in the category that covers activities related to practices that would report an effectiveness towards the retention of knowledge of 75% according to Blair. Summarizing, regarding these categories, practical activities predominate in the observed program, considering that 65.3% correspond to teaching, performing practices, arguing and demonstrating, while the passive ones for learning correspond to 34.7% including the use of audiovisuals, listening and reading.

Conclusions

The proposals for training professionals in general and administrators must be accompanied by appropriate pedagogical strategies to the pretensions of the results of students, as well as the intentions of meaningful learning, since this depends on the understanding of the teacher against cognitive structure that relates to new information in the student, so learning can occur when new knowledge is related to ideas that are established because of the experiences provided by the environment (Ausubel, 1983).

The diversity of pedagogical strategies used in the professional program of administration does not guarantee significant learning if they are not properly applied, according to the pretensions of the subject or theme to be developed. In other words, the fact of making use of diverse pedagogical strategies are not a guarantee for the retention of learning, and there must be an understanding on the part of the teacher if the subject is of theoretical, theoretical-practical or practical nature and, at the same time, to glimpse with which capacity the student must remain to respond to the needs of his environment and, based on it, to identify strategies to apply and to follow up with the evaluation. Finally, the Cody Blair postulates refer that individuals have greater retention in their learning process interacting with certain topics both theoretically and practically, articulating strategies related to the visual, auditory, debate and reflective.

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