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# Diagnostic evaluation application as requirement on course beginning for first baccalaureate "A" sciences on educational unit "El Carmen"

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**Abstract---***This paper analyzes the application of diagnostic evaluation, a requirement at the beginning of the course in the First Baccalaureate "A", Sciences in the Educational Unit "El Carmen", using as a methodology the survey focused on students of the first baccalaureate, obtaining in this institution that if they carry out a 100% diagnostic evaluation, using the written test as a format, with closed questions, making the respective feedback and generating in students the knowledge of the importance of said evaluation for their formative process. Therefore, it has concluded that teachers are doing on time and using a good evaluation format with students.*

**Keywords---***education, interdisciplinary knowledge, learning evaluation, methodological strategies, previous knowledge.*

## Introduction

This research is exploratory; it has carried out in the Educational Unit "El Carmen", of the canton El Carmen, province of Manabí, the information collected from students through the survey technique. It has carried out to address the problem of Insufficiencies in diagnostic evaluation, at the beginning of the course in the First Baccalaureate "A". Sciences in the Educational Unit "El Carmen", first because of the importance of having a source Reliable information such as that provided by students who have been evaluated and based on this information to establish a channel for dialogue with fellow teachers and improve on what is still observed to have deficiencies.

It is necessary as teachers to have a starting point and know first-hand the general level of a group of students to better focus the respective feedback and generate in students a leveling according to the course in which they are. The present work can serve as a reliable source of the information provided by the boys regarding the diagnostic evaluation in the Educational Unit "El Carmen" in the first of parallel high school "A". It is also good to know the relationships of students with the school (Vélez & Rodríguez, 2020; Chávez & Quijije, 2018; Malaiya *et al.*, 2017). This helps the teacher to become familiar with the students and the family's relationship with the school. There are studies conducted in Ecuador related to the academic performance and behavior of the student, where they describe the general situation. Exposing the problem related to academic performance at different stages and where some behavioral difficulties that are affecting the first year of school students are evaluated (García & Rodríguez, 2019; Tamir, 1988; Gérard, 1998), some factors are related to socio-economic, family and pedagogical problems.

## Materials and Methods

This research is exploratory-deductive, the method used is to perform the search for several articles using as descriptor "diagnostic evaluation" in each of their titles using Google Scholar to perform their due analysis. The sample was held in the Educational Unit "El Carmen", in the canton, El Carmen, province of Manabí, 34 students of first unified general high school "A" participated, being 23 women and 11 men, of which information was collected through the survey technique and as an instrument the questionnaire. The data processing has carried out using statistical techniques that provided us with the inputs for its analysis and interpretation of the results.

## Results and Discussions

### *Evaluation*

The author [Garcia & Asevedo \(2016\)](#), nowadays, with the results of other investigations, they have been able to redirect education with a more explicit boom in curricular proposals, designing, shaping, and planning curricular models that are practiced in other countries. It is here that it manifests that teachers have not to be specialized in a single area of study but rather stand out from more science topics know about the general culture and soak up a bit with subjects of each subject, to clear criteria or doubts of students.

Currently, some authors argue that evaluation is a strategy used by teachers to learn about the assimilation of knowledge, skills, aptitudes, and skills of students, obtained from the beginning, development, and teaching-learning process. The evaluation does not only consist in placing a numerical qualification on the acquisition of knowledge but also being able to determine and analyze the students' cognitive goal development and thus adapt the educational process to the student ([Cuesta et al., 2016](#)). Some factors negatively influence this process, such as dysfunctional families ([Celorio et al., 2019](#)), which in many cases affect the evaluation of students.

### *Diagnostic evaluation*

In this text, the objective of the diagnostic evaluation is to be studied, as an essential requirement to be able to know and identify the previous skills and knowledge that students have at the beginning of the school year, educational institutions are presented as an environment, these provide socialization. Social behaviors and attitudes, since within the classroom students spend much of their time relating to each other, sharing knowledge, experiences, feelings, and ideas probably in different contexts ([Cuesta et al., 2016](#); [Nissani, 1997](#); [Hovelynck et al., 2010](#)).

The diagnostic evaluation includes a systematic and rigorous process carried out at the beginning of the school year. Academic period or when a specific subject is to be addressed; which seeks to understand the state in which students are at the beginning of the year, subject or period and make the most appropriate decisions that contribute to facilitate and improve the teaching-learning process

The evaluation has applied in three aspects:

- a) What the student knows,
- b) What motivates the student, and
- c) The student is learning conditions.

Some methodologies allow the student to prepare for the evaluation, they through the process of the inverted class can prepare for the evaluation process from their homes ([Cobefia & Rodríguez, 2019](#)).

### *Purpose of the diagnostic evaluation*

The diagnostic evaluation is not only used to determine the degree of development of the competencies achieved by the student but also serves to provide rigorous and valid information to all educational agents so that based on it they can perform the changes and improvements necessary to consolidate and strengthen their strengths. This establishes a correlation between student and teacher, therefore, the evaluation has considered as an interactive, dynamic, collaborative process, integrated to the teaching, to the cultural and social life of the classroom. Teachers ask to modify the sphere of conceptions about teaching, learning and evaluation, attitudes, and professional practices. The pedagogical function of the evaluation has used to establish, carry out, and organize legitimately and effectively possible the teaching and learning activities, ([Herrera, 2018](#); [Bryson & Mobolurin, 1997](#)).

### *The preventive character of the diagnostic evaluation*

Through diagnostic evaluation it is possible to know the possible difficulties that students have at the beginning of a stage, identify the level of acquisition of skills or aspects related to them and establish specific strategies that serve to reinforce and follow up to the teaching-learning process. Diagnostic follow-up tests have been performed at the beginning or end of a process so that it is possible to compare students' knowledge before and after learning and perceive their progress.

### *Types of evaluation*

The functions that have been established for the evaluation are diverse. The authors distinguish them between different functionalities but it is of total interest to focus on two main functions such as summative and formative. However, we must bear in mind that both interact in the teaching process based on the diagnostic evaluation, since students must possess certain knowledge that helps to assimilate the new knowledge that they will acquire at the beginning of the school year, these actions usually reach objectives working together in the development of student learning. Students (Urrea & Suarez, 2018). Summative evaluation. The purpose of the summative evaluation is to know and assess the student's results of the teaching-learning process. That is, as a final evaluation, or a qualification that aims to classify or certify if an objective has achieved.

Formative Evaluation As the evaluation has assured, it must be a tool that allows the processes of teaching and learning of students to have potentiated. Therefore, it has ensured that it must be a permanent process that using various evaluation techniques and instruments, can unravel the needs of the students, allowing a better orientation and reorientation of their school activity. Diagnostic evaluation. The diagnostic evaluation or initial evaluation is the first approach that should have made when starting any learning phase. Its purpose is to provide insight into the knowledge, previous ideas, misconceptions, correct and novel understanding of students that serve as support to decide and plan the initial points to has treated within the educational process.

The evaluation of learning is carried out by both teachers and students, to know what is learned, how far it goes with that learning taking into account the means, strategies and moments of teaching, this evaluation is to learn, enrich, and acquire knowledge together teachers and students, which allows a dialogue, share criteria to achieve the objectives. We can evaluate in different ways, within the classroom, using different assessment instruments, after this identify the weaknesses and weaknesses of the process and apply the feedback of the topic (López, 2017; Medeiros *et al.*, 2011). The evaluation of learning has considered a fundamental requirement to obtain more knowledge and share them with our students; this process is the starting point of the teaching process. The information obtained from this evaluation gives us the guideline to adjust the methodology and teaching, according to the needs of the students and the environment in which they operate.

The importance of this evaluation has had a considerable increase in recent years and more in developing countries, for this reason, the ministries of education in Latin America, are deepening efforts to make adjustments in the curriculum, based on the results obtained in the evaluation of learning (Córdova, 2018). To make learning meaningful and for the student to build their knowledge. This is based on the previous ideas that are generated on the exposed topic, to convert them into new knowledge, applying different strategies (López *et al.*, 2020), this learning moment helps the teacher to know the cognitive situation of their students, and the interaction within the classroom (Latorre, 2017; Katsuno & Mendelzon, 1991).

This learning involves the assimilation of the contents to have learned, a relationship is made of the ideas already existing in the student's brain and those that are to have acquired, arriving at a debate to choose or identify which are contradictory or similar, and then reformulate the ideas and thus reach new knowledge. In these instances, the role of the teacher is essential because is he who guides and guides his students, before, and after the teaching process (Díaz & Hernández, 2015). For an individual to learn, they must go through certain steps considering their cognitive approach. They must begin with the reception that their senses make through the perceived information, and then this information is analyzed and reordered. So that the knowledge has meaning and leads to meaningful learning, the same that is stored in the long-term internal memory, hence whenever information on the subject is received, it is reviewed, assimilated to have used at the desired time (Villegas & Pereira, 2015). The results obtained from the responses of each student to the questions posed in the applied survey have presented below. According to the data analyzed, 100% of students have received the application of the diagnostic evaluation at the beginning of the school year. In figure 1, a parity has observed as to how easy the diagnostic evaluation was for the students.

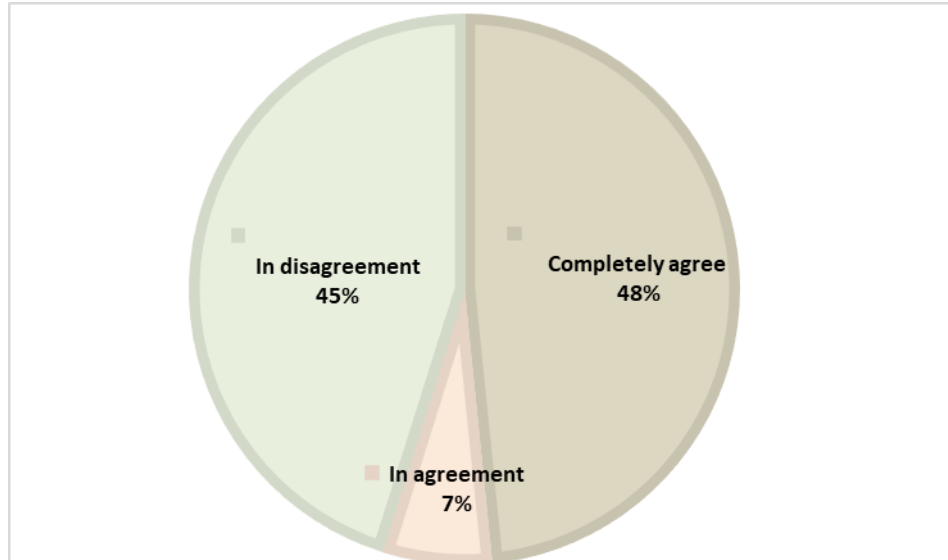


Figure 1. Results of the diagnostic evaluation in the students

As it is observed, it was easy to understand the evaluation in 48% of the answers, while in the option of disagreement he managed to obtain 45% of the results and the remaining 7% replied that He agreed that the diagnostic evaluation. The results of Figure 2 are shown, 65% of the answers indicated that the questions they received were closed questions, in their response options, following the pattern of structured evaluations, in addition to applying the teaching instruments in writing.

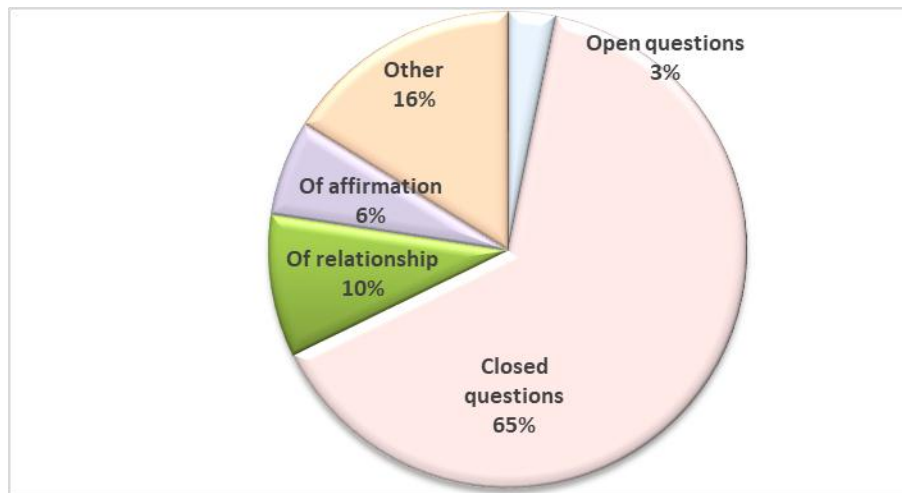


Figure 2. Results of the diagnostic evaluation in the students

The closed questions, allow the teacher to know and validate the levels and knowledge of the students and to be able to prepare the conditions so that their classes, the knowledge they teach reach the students adequately and these can adequately assimilate these.

In figure 3, it has shown how 61% of the students indicated that they completely agree that they did receive adequate feedback after the application of the diagnostic evaluation; besides, most students fully agree and recognize that diagnostic evaluation is necessary for the training process.

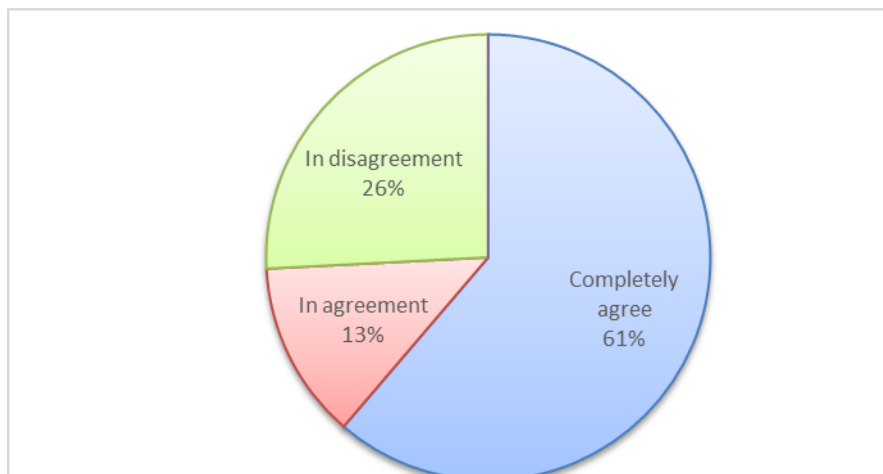


Figure 3. Feedback in the diagnostic evaluation diagnostic

The evaluation is an instrument that allows the teacher to know how the student is, in their knowledge to begin the process in high school so that the teacher can draw up strategies to level it and guide it throughout the process. This evaluation is also positive for students to match the knowledge of those in their group, and the teacher can apply individual differences and harmonize the content for each student.

## Conclusion

All teachers made the application of the diagnostic evaluation at the beginning of the school year; besides, almost all of the students understand them. The teachers of the institution apply the diagnostic evaluation in the form of a written test and the questions used by the teachers in the diagnostic evaluation were closed questions in a very high percentage being the most used option. The students received adequate feedback after the diagnostic evaluation.

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