Chapter 5 Assessment in Higher Education

Capítulo 5 la evaluación en Educación Superior

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Resumen

El proceso de la evaluación no es un ente independiente de la enseñanza, son procesos indisociables, a lo largo de más de 20 años de experiencia como docente de nivel superior, he constatado de primera mano que el momento de mayor tensión para los alumnos se presenta en los periodos de evaluación, los exámenes generan un sin número de reacciones y las calificaciones propician comentarios que tiene focos comunes sin importar el semestre o licenciatura que se curse, se escucha que los alumnos no están conformes con las calificaciones que reciben, pues consideran que no son el reflejo de sus acciones, que no fueron equitativamente valorados, que los criterios de evaluación son incomprensibles, que los docentes califican de forma arbitraria. Por ende, el trabajo que se presenta es el resultado de una investigación documental que busca entender el descontento estudiantil, para brindar elementos teóricos y metodológicos a los docentes que permitan mejorar las prácticas evaluadoras y así, incidir de forma positiva en el desempeño de los alumnos. Iniciamos el abordaje indagando sobre el origen del término, se exponen los fundamentos, características y fines; así, como cada una de las etapas, se hace una descripción de la tendencia evaluadora en México y su herencia derivada del proceso de industrialización de los Estados Unidos con matices científicos con influencia del paradigma cuantitativo con enfoque tecnocrático y sumativo.

Evaluación, Enfoques de la evaluación, Instrumentos de evaluación

Abstract

The evaluation process is not an independent entity of teaching, they are inseparable processes, over more than 20 years of experience as a higher-level teacher, I have verified first-hand that the moment of greatest tension for students occurs In the evaluation periods, the exams generate a number of reactions and the grades lead to comments that have common foci regardless of the semester or degree being taken, it is heard that the students are not satisfied with the grades they receive, because they consider that They are not a reflection of their actions, that they were not equitably valued, that the evaluation criteria are incomprehensible, that teachers qualify arbitrarily. Therefore, the work that is presented is the result of a documentary investigation that seeks to understand student discontent, to provide theoretical and methodological elements to teachers that allow improving evaluation practices and thus, positively influence the performance of students. students. We begin the approach by inquiring about the origin of the term, the foundations, characteristics and purposes are exposed; Thus, like each of the stages, a description is made of the evaluating trend in Mexico and its inheritance derived from the industrialization process of the United States with scientific nuances influenced by the quantitative paradigm with a technocratic and summative approach.

Evaluation, Approaches to evaluation, Evaluation instruments

Introduction

Evaluation is a very complex human practice, and without a doubt, it is very likely that it appeared informally long before education. It probably contributed to the survival of the human species that were lacking the superior capacities and abilities that other species had. For example, other species such as the ancient hunters had to evaluate the necessary number of men they needed to be able to face their prey. The ancient kings evaluated if they had the capacity to face the enemy or if it would be more advantageous to establish a peace agreement. If we delve into the areas in which evaluation occurs, we will realize that it exists from religion to everyday life. It is not for nothing the great apostle St. Paul tells his disciple Timothy "Be diligent to present yourself approved to God." This notion refers us to an evaluative practice that consists of measuring the merits of a person around a predetermined objective and issue a pass or fail judgment. For example, in everyday life, a person's personal speed to cross a street and not be run over by an oncoming car; in the business context, corporations spend large sums of money annually to evaluate the relevance of launching new products on the market.

In the field of evaluation, the most stressful stage for students is the so-called evaluation or exam period. Regardless of the educational level or the type of school in which they study, every student has experienced that feeling of helplessness, frustration, and anger when they receive their grades and judge that they are not consistent with the efforts and activities that they performed.

Teachers sometimes do not have an easy time either, since they feel that the evaluation can provide elements to judge their performance in front of the students (especially in private schools). In light of such situations, an informal survey was conducted among a group of senior-level students in three schools (this exercise was part of a commitment to a subject of a doctorate that was studying at the IEXPRO University Center). The exercise in question used the tool in-depth interview and was applied to both teachers and students.

The results were analyzed in an automated way with the Atlas Ti program, and they were very revealing. It was noted that the teachers do not even know the meaning of the term evaluation, and they also show a pseudo-knowledge of the evaluation techniques and instruments. Something that attracted a lot of attention was that one of the students' suspicions was confirmed that the teachers grade arbitrarily for the following reasons: they use evaluation indicators but do not establish the criteria in a congruent, coherent, and systematic way. They often confuse the techniques with the instruments of evaluation and arbitrarily assign scores to indicators not established in the framework (which is certainly questionable) of the subject. On the other hand, the students do not have firm performance references, since the activities are rarely sanctioned according to a commonly established parameter. Also, sometimes they identify that the teachers do not keep systematic records of the evidence of the students' work.

In view of such revelations, the present document is not exhaustive nor absolute, but it aims to provide guidance at first of a theoretical nature and then to propose practical situations that will lead to an improvement in the evaluation activities developed by teachers which will consequently improve student performance.

1. The evaluation in Higher Education

1.1. The evaluation origins, foundations, characteristics, and purposes

1.1.1. Origins and development of the evaluation

Undoubtedly, trying to understand the teaching process independently of the evaluation can be irresponsible if one does not start looking at the origin of a term so often used but very misunderstood in education.

Etymologically speaking, evaluating means "determining the value that something has for the achievement of certain objectives" (Zarzar, 2010; Page vi) and from an administrative point of view, one of the four steps of the administrative process: defining objectives, planning, implementing, and evaluate. The online dictionary of the Royal Academy of the Spanish Language presents evaluation simply and plainly as "Action and effect of evaluating" (RAE, 2019; S / P), which is directly related to estimating knowledge, skills, and student performance.

In a query to the Webscolar dictionary, citing Popham (1990) and Ramos (1989), they define evaluation as an activity inherent to all intentional human activity that consists of determining the value of something through a systematic process of identification and collection or data processing in order to assess it. On the other hand, Fernández (2005), Doll (1989), and Rodríguez (2000) consider evaluation as a contextualized, systematized, continuous, and intentionally designed process to collect and inquire relevant, reliable, and valid information that allows an evaluative judgment to be made, often related to the measurement or verification of the degree of achievement of objectives.

For the international labor organization dependent of the UN, citing the OECD (2010), it considers that evaluation as a "systematic and impartial appraisal of an ongoing or concluded project, program or policy, its design, its implementation, and its results" (OIT, N/D; S / P). Of this definition, the characteristics of systematicity, continuity, and integrality are redeemable, which determines to what extent the previously determined objectives have been achieved, which include the incorporation of the study of processes, results, and impact. In another vein, Lafourcade (N/D) explains that evaluation is the stage of the educational process that seeks to systematically verify to what extent the objectives proposed in advance have been achieved. Adding to that, Macario, Pila, and Teleña (N/D) state that the evaluation consists of making a value judgment based on a set of systematically collected data, integrated into the educational activity with the aim of continuously improving through the most exact knowledge possible of the student in all the aspects information on the progress or the results of a student.

Mora (2004) gives a quantitative definition in which he says that evaluation is "a control phase that aims not only to review what has been done but also to analyze the causes" (Mora, 2004; Page 2) Once some conceptual references have been established, we proceed to a brief approach to the history of evaluation. Durkheim (1938), Judges and Díaz Barriga (1971 and 1993), cited by Hernández, Montes, and Delijorge, (2013), point out that evaluation dates back to an exam that was given in the Chinese bureaucracy to choose the mandarins who would administer the resources of the Dynasties from the year 2375 BCE which remained until 1905 CE, many insist on pointing out that this stage should be considered as the first or Pre-Tylerian. However, only taking into account the practices of the Chinese would be unfair to other parties in other parts of the world that also developed practices that contributed to the construction of the evaluation, for which reason each of the stages are outlined below. The development stages of the evaluation

The First Stage appears in the second century (BCE) when oral examinations were given in China by Chinese officials in the selection of civil service officials. Forrest cited this in Sacristán (2002) as well as Alcaraz (2015), Stufflebeam (1987), Gil, Morales, and Meza (2017). Lemus (2012) goes a little further and places the application of the evaluation questionnaire used by Socrates and other 5th century masters (BCE). On the other hand, Durkheim, cited by González Pérez (2000), says that educational evaluation systems (dogmatic) can be placed between the 5th and 15th centuries (AD), Hernández, Montes, and Delijorge (2013). Durkheim also said that the exam that appears in the educational setting of the medieval university was given in order to show the competence acquired by the student and not as an instrument of certification or promotion.

From the appearance of evaluations in China and Greece to evaluations in medieval times, there were no great advances. However, after the medieval period, Lemus, Hernández, and Guzmán (1991) tell us that in the United States in 1845, they began to give performance tests to students. In Great Britain, the public services created a commission to evaluate education in Ireland. In 1845, in Boston, the use of school achievement tests to evaluate schools began. Between 1887 and 1898, the pedagogue Joseph Rice used comparison groups to measure the effectiveness of programs for the first time and was recognized as the first formal evaluation in America.

Other important data was presented by Stufflebeam and Shinkfield (2005), Guba and Lincoln (1982, 1989), and show agreement in naming "Pre-Tylerian Epoch" (the Pre-Tylerian or technical) to the period of development of the evaluation comprised between 2000 BCE and the year 1930 CE. They expressed particular interest in the year 1916 when performance and intelligence tests were given. Guba and Lincoln (1989) agree to name this period as the first generation, the generation of the measure. However, it should be noted that evaluation and measure had little to do with school programs.

For Escudero (2003), measurement and evaluation were interchangeable terms before the First World War. But then, a special interest in the application of intelligence and personality tests arose. Between 1920 and 1930, standardized tests occupied a privileged space in the education field with the intention of measuring school skills. This gave place for the next stage of the evaluation to arise; however, according to Stufflebeam and Shinkfield (N/D) cited by Alcaraz (2015), evaluations before the 1930s were focused on assessing the outcome of educational programs in students.

The so-called Second Stage, also known as the "Tylerian Period" Alcaraz (2015), went from 1930 to 1957. According to Guba and Lincoln (1982, 1989), it is also known as the second generation of evaluation. It was given this name by the father of the educational evaluation, Ralph Tyler (1969). Its main characteristic was that the evaluation based on the norm began to be abandoned, and what arose is known as criteria-based evaluation.

The Third Stage is recognized by Alcaraz (2015), Guba and Lincoln (1982, 1989), Stufflebeam and Shinkfield (2005) as the "era of realism" or the "third generation of evaluation," that of judgment, which ran from 1957 to 1972. It is in this period that accountability begins, so it was also called the generation of the judgment and valuation by Stobart (2010). At the same time, proposed that the accountability present in the current PISA, PIRLS assessments are direct legacies of this stage. This period has the harshest critics of Tylerian thinking in Cronbach (1963) and Scriven (1967), since they pointed out that it was necessary to overcome the limitations of the evaluation model in what they call subject-oriented evaluation.

According to Guba and Lincoln, cited by Escudero (2003), evaluation in the Tylerian period is characterized by introducing the assessment and the judgment as intrinsic content in the evaluation. Hernández and Guzmán (1991), as well as Cronbach (1963), and Scriven (1967), make special contributions to overcoming Tylerian constraints. For that reason, they are considered the founders of modern curriculum evaluation and of the principles that today are defended in terms of educational evaluation. They introduced the use of questionnaires, interviews, systematic and non-systematic observation as evaluation techniques, to which we owe currently used terms such as formative evaluation, summative evaluation or intrinsic evaluation, and extrinsic evaluation.

The Fourth Stage also called "the fourth generation," the sensitive, "sensitive and constructivist," or "the era of professionalization" by Stake (1976), Guba and Lincoln (1982, 1989), Alcaraz (2015), and Stufflebeam and Shinkfield (2005) is happening from 1973 to the present day. In this regard, Escudero (2003) points out that this period is divided into two sections, the first with marked Tylerian characteristics and the second from the seventies with the appearance of the alternative models of evaluation. Also, Guba and Lincoln (1982) establish two groups of evaluation: "the quantitative and the qualitative." In addition to this, two fundamental elements emerge: "the constructivist methodology and the responsive evaluation" (Alcaraz, 2015; Page 17).

The Fifth Stage is a personal proposal and does not appear as such in any document consulted. However, we are in a period that far exceeds the last century's approaches to evaluation. The so-called fifth stage is due since it has its own characteristics, such as what I call functional illiteracy about evaluation (theoretical knowledge of evaluation techniques and instruments, intermingled with a total lack of practical knowledge of them). On the other hand, in the sources consulted (which do not correspond to work carried out in the last quarter of the 20th century), reference is made to a period of construction and consolidation. So logically, at the beginning of the third decade of the 21st century, with the boom in research in several areas of education and currently even careers related exclusively to evaluation, the current stage may well be called the number five. Yet another reason is that the development of evaluation has not remained static, as expressed by Vélez (2007), cited by Alcaraz (2015), which speaks of the birth of a new paradigm.

This new paradigm opens up new evaluative possibilities that consider relevant the need to promote the exchange of opinions, the values, and experiences of those involved in the assessment of pupils; using not only information on the objectives achieved, the lessons learned, the mistakes made, or the weaknesses identified in the process. It involves going further, using the instruments not only as tools to collect information but as elements for the assessment of the process, products, and evidence. In this model, evaluation is not the end but becomes the means to design, execute, and follow up on the learning process of the students. This is complemented by a different treatment in relation to the techniques and instruments, which become means and no longer ends for monitoring, selection, and recognition of pupils. In this sense, teachers cease being operators to become builders and generators of evaluation strategies. Also, the consideration that evaluation was only the domain of specialists in the field is set aside, thus abandoning the technological vision of evaluation that was present in the Tylerian stage.

1.1.2. Fundamentals and Characteristics of Educational Evaluation

"Educational evaluation in the international context in the midst of the industrialization process of the United States" (SEP, 1998; Page 24), Giroux (1981) comments that in the early years of the twentieth century, schools were conceived as factories, students were the raw material, and educational concepts knowledge, values, and social relations were reduced to terms of neutrality. It is in this context that Fayol (1916) established that the "basic principles of all actions in the administrative, planning, execution, and evaluation fields are a business and evaluation heritage that has evolved in parallel to our times with their respective consequences" (SEP 1998; Page 29). Because of this evolution, scientific evaluation in education arises within the quantitative paradigm with a technocratic approach. Rama (1989), González, and Ayarza (1997) emphasize that "from the 1970s, evaluation began to take hold as a profession that relates evaluation to research and control." (Mora, 2004; Page 7).

For Córdoba, "evaluation is the bridge or main link between teaching and learning that goes beyond quantitative results that determine how much students have learned" (Córdoba, N/D; Page 2). In relation to this, "the polysemy of the term "evaluation" can be derived from the most common meanings that are usually associated with it, among these are: verify, interpret, measure, estimate, understand, know, compare, assess, judge, apprehend, cipher, appreciate, etc." (Córdoba, N/D; Page 3). In this sense, Barlow (1992), cited by Bertoni (1997), states that evaluation is "a very singular term that can express a thing and its opposite: the precise and the approximate, the quantitative and the qualitative" (Córdoba, N/D; Page 3). The evaluation should favor the aspects that account for the observed phenomena or situations.

Along the same lines, Díaz Barriga and Hernández (2000) argue that "from a constructivist perspective, the assessment of learning any kind of content should reveal as much as possible everything that students say and do by constructing valuable meanings from the curricular contents" (Córdoba, N/D; Page 4). In the same vein, León Pereira (1997) describes that through evaluation it is possible to "systematically obtain and analyze the feedback on the processes aimed at cultivating each human dimension, in order to reach even higher levels of understanding and orientation" (Córdoba, N/D; Page 5). The above represent actions that the teacher deliberately uses to investigate. Salinas (2001) says that evaluation must accompany, guide, propose, and offer participation, understanding, and improvement to decide and act on the teaching and learning processes which is the formative function of evaluation.

In the words of Córdoba, the traditional forms of evaluation with a summative approach are closely related to the behavioral theories of learning only interested in the initial and final states, "the reflection on the evaluative results is centered on what the student does, the center is the student's response" (Córdoba, N/D; Page 7).

According to Casanova (1999) and Rosales (2000), formative evaluation should focus on a "permanent and continuous action of assessment and reflection on the development and evolution of students' learning and training" (Córdoba, N/D; Page 8). It implies recognizing what students do and how they do it, which provides valuable elements for didactic orientation and self-evaluation, offering a greater wealth of useful data.

Moreno states that there are three theoretical perspectives of evaluation: evaluation as technology, evaluation as a cultural practice, and evaluation as a socio-political practice. Unanimously, a good part of the 20th century and so far in the 21st, the results of the evaluation have been used mainly to make decisions related to classification, selection, and certification. This is all based on measurements of what individuals know, as well as on the judgments that are made about learning and that are undoubtedly mediated by the design of instruments measurement, as well as by assigning scores and their interpretation. From this epistemological perspective, it is understood that "evaluation as measurement develops functions in which selection, repression, control, and empowerment of the dominant social reproduction are privileged" (Moreno, 2016; Page 104).

According to House (1981), evaluation is a cultural practice, and "it is evaluated with the intention of improving educational processes, and in this, all are actors" (Moreno, 2016; Page 111). That is, evaluation transforms the culture of human relations and involves a constant dialogue with and among students. In this context, the evaluation requires continuous self-evaluation and mutual assessment among peers.

Within the fundamentals of evaluation, we find something that is called socio-evaluation, which is understood as a "political practice used as a mechanism to exercise power, to select and classify individuals according to their merits" (Moreno, 2016; Page 112). In this area, evaluation becomes a tool that verifies individual learning and the acquisition of knowledge. This type of practice emphasizes greater speed and resilience of students when facing evaluation activities. According to Rothblatt (1982), Kemmis (1988), and Moreno (2016), valuation serves as a basis for granting privileges within the framework of the socio-evaluation; technology is used for specific social selection purposes; evaluation is conceived as a democratic, participatory, and liberating process that implies awareness of the student as a learning subject.

The evaluation is not limited to the basic or middle levels; it is also a concern of the higher levels, the latter being the space where the evaluation has its greatest challenges and where it can find more fertile ground. It not only faces the challenge of incompatibility of teacher profiles but must also overcome and respond to the dual role of evaluation in the university as part of the accreditation process and as a mechanism to verify that students have the basic skills for the correct exercise of the profession that Fernández (N/D) aspires to practice. The characteristics that define the university educational evaluation are:

a.   Evaluating is to measure and assess.
b.   Evaluation is a systematic process.
c.   The formulation of a value judgment is based on the result given by the measurement
d.   Evaluation is global and comprehensive in nature.
e.   Educational evaluation has multiple objects.

For Fernández (N/D), the main characteristics of the evaluation for university learning are characterized by:

1.   To be an essential component of the teaching process.
2.   Use procedures and instruments to collect information.
3.   Be a process centered around the student.
4.   Constitute a professional teaching task.
5.   To specify, determine, and express the lessons learned.
6.   To design an evaluation system.
7.   To determine the type of evaluation.
8.   Develop instruments to verify the acquisition of these learnings.
9.   Specify assessment criteria.
10.   To publish the results.
11.   Provides data to facilitates educational research.

Currently, in almost all educational systems, references are made to three approaches to evaluation. According to Fernández (N/D), the first is called initial or diagnostic and is used to check if students have the necessary prior knowledge and skills, and to adjust the starting point of the teaching process to the class group. The second is called formative evaluation and is to determine the degree of acquisition of learning, informing students of their successes and errors in order to provide feedback during the educational process by using tools that detect the mistakes and successes. And finally, there is the summative evaluation that is mainly used to assign scores or grades to students and the certification of the acquisition of certain levels, which is identified with the traditional concept of evaluation.

1.1.3. Purposes and Functions of educational evaluation from 1980 to the present

Precise delimitation of the purposes and functions of evaluation represents a major crossroads because the purposes and functions are intermingled with many of the characteristics and fundamentals of the evaluation process. However, it is possible to identify some of the purposes and functions. By the 1960s, the learning objectives model was a powerful technology for assessment, which at that time was synonymous with measurement, test, or examination. This model limited curriculum reform, trivialized the nature of learning, and prevented judging the value of the goals with the aim of determining the students' behaviors, De la Garza (2004).

By 1979, accountability had acquired political importance by overemphasizing administration, program evaluation, and naturalistic evaluation, De la Garza (2004). These evaluation practices were mostly normative focused on selection. In this type of evaluation, the qualifications indicated the success or failure, Moreno (2016), derived from this condition, studies carried out by Stufflebeam in the early '90s of the last century, Gil, Morales, and Meza (2017), promote new theories and evaluation methods as well as new programs to prepare the evaluators themselves. Among the voices that are heard around evaluation, we also find those of Noizet and Caverni (1978), Glaser (1981), Coll, Palacios, and Marchesi (1991), who seek to provide the teacher with reliable and valid reports in terms of usefulness in order to facilitate constructive adaptations. For them, the diagnostic evaluation "must be centered on the student's basic abilities" (Jiménez, 1992; Page 4).

According to the new proposals outlined by Jiménez (1992), evaluation in the 1980s generates a new understanding of the process, highlighting:

1. That the student has sufficient potential.
2. Learning must be optimized.
3. The evaluation should be diversified in terms of methods and instruments.
4. Measurement and evaluation are fundamentally referred to as psychometric and psychodiagnostic techniques.
5. Evaluation should not be considered as an element of prognosis, prediction of success or failure, and the consequent orientation.
6. To assess the dynamic process in its proper dimension.
7. The evaluation should not only give importance to the objectives.
8. The initial evaluation should not be considered only a way to provide information to determine the baseline of the teaching and learning process.
9. The evaluation should consider the continuity of evaluations of the different activities.
10. The evaluation must use the information obtained as feedback.

Since the 1990s, politicians, businessmen, and communicators have demanded greater quality in educational actions. However, evaluation should not be used as a policy instrument to the detriment of evaluation actions but rather as a space to create a culture of evaluation. Regarding the evaluation, Díaz-Barriga (2017) proposes to stop focusing on the quantification of results and detach it from a mechanical relationship with the measurement model. Due to the prevailing condition, "the culture of evaluation has become a kind of halo associated with the simplified use of quality" (Díaz-Barriga, 2017; Page 334).

The individualistic perspective of each program or evaluative action, as well as the dominant evaluation model in the world is individualistic, according to Lecompte and Rutman (1982). Evaluation is elementary, and according to them, the model that has proliferated since the mid-eighties of the last century is the use of the exam to assess performance in order to organize rankings of various forms.

In relation to the above, Ausubel, Novak, and Hanesian (1978); Driver (1981-1982); Messick (1984), and Jiménez (1992) emphasize the importance of appreciating the student's prior knowledge in order to organize and plan instruction.

Stiggins (1995) argue that professor and teacher training models are disconnected from evaluation and that they are centered on learning as a legacy of the evaluation paradigms in force in the last decades of the 20th century and the first decades of the 21st century. There is a marked "evaluative illiteracy that predominates in schools, without a transparent vision about the evaluation process focused on the student and their learning, and without the ability to transform that vision into quality evaluations to help students progress by integrating the evaluations in their usual practice" (Moreno, 2016; Page 101).

The evaluation of student learning aims to assess the changes or results produced as a consequence of the educational process, "the learning evaluation constitutes the final phase of the educational process since it acts permanently on it" (Fernández, N/D; Page 6). Among the evaluation functions that must be currently overcome or expanded, we find:

a. Check if the proposed objectives have been achieved and to what degree.
b. Evaluate and grade the students.
c. Inform the interested people.
d. Orientation, motivation, and learning.
e. Evaluation of the results.
f. Detecting and clarifying problems.
g. Providing data that facilitates educational research.

According to Mora (2004), Posner (1998), Hernández (1998), and Díaz-Barriga (1999), any type of evaluation that is carried out in the educational field must comply with the functions mentioned below:

I. Diagnostic function: orientation and guidance to derive actions to improve the quality of education
II. Instructional function

III.   Educational function
IV.   Self-training function

1.2. Evaluation in Higher Education

1.2.1. Evaluation in Higher Education Background and Foundations

Since the eighteenth century, the period in which the evaluation related to education and verification of learning was born in Europe, the concern of institutions and governments for the improvement of the quality of education has been promoted worldwide, since good grades of the students are generally associated with the quality of education provided in a school. In our country, there are large cracks in the evaluation of student learning at the higher education level. This is caused by multiple reasons, among which stand out, on the one hand, the great offering that exists related to the diversity of higher education institutions, whether they are government-supported or privately-supported; and on the other hand, the multiple profiles of teachers qualified to teach classes in the different schools of higher education, many of whom do not have any pedagogical training that allows them to properly address aspects related to the teaching-learning processes, among which evaluation stands out.

With regard to the background directly related to the regulation of evaluation practices, there is not much support since there are not many common points that direct what should be done when evaluating students. Additionally, there are higher education schools that have not yet made the transition to competencies, and those that have done so generally have only adapted the approaches to objectives and purposes and have given them the name of competencies. Thus, due to this legal loophole, most higher education schools have their own evaluation criteria and regulations. However, we will try to establish a line of development of evaluation practices in higher education.

Since the publication of agreements 3810 of March 30, 1976 (General Directorate of Education; 1976); 9909 of the General Directorate of Normal Education of June 25, 1959, until the publication of agreement 499 of November 4, 2009, there have been no substantial changes.

1.2.2. Background and Legal Foundations of Evaluation in Higher Education

The systematic, normative antecedent that was established in modern Mexico is represented by AGREEMENT number 3810, by which the learning evaluation procedures formulated by the National Technical Council of Education are authorized for their application throughout the Republic. Among the points that stand out from the said agreement, not because they are the most suitable, but because the following stand out because evaluative practices with marked nuances of their inheritance still subsist.

In section I, it is authorized that said agreement must be applied throughout the Republic in primary, secondary, normal education and of any type or grade, as well as in studies other than those previously mentioned that are taught in educational institutions of the Ministry of Public Education or that have official recognition of validity granted by the same agency.

Regarding procedures, it is stated in subsection "C" that the learning evaluation procedures formulated by the National Technical Education Council shall adhere to the principle whereby evaluation is understood as part of the educational process and as a systematic and permanent activity that allows checking the level at which the proposed objectives are achieved.

Subsection "D" states the following General Evaluation Principles:

a.   Be part of the educational process.
b.   Be comprehensive, permanent, systematic, and flexible.
c.   To be the object of all the elements involved in the educational process.
d.   Encourage the participation of the student and all the people who take part in their educational process.
e.   It should highlight the successes and deficiencies of the educational process.
f.   It should serve as a basis for the planning, mediate and immediate, of the educational activity.
g.   It must use appropriate tools and procedures.

Subsection "E" clearly states that the learning assessment is the process that allows the teacher to determine the level at which each student achieves the objectives of a grade-level program.
In the same section, it states that the evaluation includes measurement, interpretation, and value judgment and defines the stated terms as follows:

1. Measurement is the expression of the level of a trait or behavior achieved by the learner; it can be quantitative and qualitative and must be reiterated.
2. Interpretation is the analysis, understanding, and explanation of the data accumulated by the measurement.
3. The value judgment is the result of the interpretation of the costs of the changes that are noticed in the learner's personality.

The same agreement describes that the Discharge periods refer to the moments in which it is carried out, initial, continuous, and final. The initial evaluation is of an exploratory and diagnostic type that consists of activities through which the teacher will detect what level of knowledge that the students possess, which will allow them to select the necessary resources to achieve the subsequent goals.

Continuous evaluation allows to periodically assess the changes made in the student (attitudes, abilities, skills, habits, skills, and information) and allows planning new activities to reinforce learning at the right time.

The so-called final evaluation is the consideration of all the partial evaluations made during the course in order to elaborate the value judgments that define the level of efficiency achieved by the students in relation to the goals of the program. It is carried out at the end of the course and not to be confused with the traditional final exam.

Section "III" specifies the evaluation techniques, the types of evaluation according to the agents involved, although the development focuses on the instruments, almost leaving aside the techniques, as explained below:

a. The instruments most commonly used to carry out compliance are: "the interview, anecdotal records, checklists, and estimating scales" (Agreement 3810; 1976; S / P).
b. The student's self-evaluation, due to its formative significance, is an important element that the teacher must have to formulate the evaluative judgment of learning and that all of this information must be captured and processed by the teacher to achieve the comprehensive evaluation of the student.

The evaluation techniques listed in the agreement are:

1. Experimental techniques, which are those that put the subject in a given situation to be evaluated.
2. Pedagogical tests, which can be verbal and non-verbal, according to the degree of psychopedagogical specialization to develop them: informal and formal.

Section "IV" Expression of Progress in Learning

Since the evaluation must be continuous, the student's progress must be recorded with the same continuity so that the teacher can inform those interested in this process. The scales to be used for such recording are:

1. Interpretive scale. The progress of learning shall be expressed according to a scale that will cover different levels of efficiency.
2. Symbology that facilitates the recording of the previous levels.
3. Periodicity of the information can be monthly, bimonthly, quarterly, semi-annually, and annually.
4. The notation of the final evaluation shall be the symbolic representation of the last evaluative judgment, based on the interpretation of all the monthly, bimonthly, quarterly, semester, or annual evaluations recorded during the school year.
5. The Promotion Criteria will be dictated based on the final evaluation, according to the agreed-upon scale.

In Section "V," the annual recovery refers to the notation of grades that, for purposes of average school grades and educational levels, and establishes "the following numerical equivalence of the letters adopted in Section 2" (Agreement 3810; 1976; S/P):

1. E = 9
2. MB = 8
3. B = 7
4. R = 6

Another of the agreements that guide evaluation practices in most higher education institutions is agreement number 17, which "establishes the standards to which the learning evaluation procedures must be subject in the different types and modalities of education, under the control of the Ministry of Public Education" (SEP, 1978; S/P). The most outstanding aspect identified in this agreement is that "the evaluation of learning is a process inherent to the educational task, essential to verify if the learning objectives have been achieved, to plan the school activity; deciding to promote the student and contribute to raising the quality of teaching" (SEP, 1978; S/P). Thus, it is a practice that cannot be avoided in any educational institution. Furthermore, this agreement is much clearer in the norms that govern the evaluation, within which three articles stand out.

In articles 10, 20, and 30 we find that it is the obligation of schools and organizations that provide educational services to evaluate the learning of students, which must be carried out throughout the educational process through appropriate pedagogical procedures SEP (1978). They also list the official grading scale:

a.   10 Excellent
b.   9 Very good
c.   8 Good
d.   7 Regular
e.   6 Enough
f.   5 Not enough

In articles 10 and 70, it sets forth what is related to the promotion or non-promotion of the student as follows:

I.   Article 10: The student shall accredit a cycle, grade, subject, area of study, or subject in accordance with the current study plan when they obtain, as stipulated in the grading scale, a score of 6 or higher.
II.   Article 70: Students who obtain a score of 5 in the final evaluation shall be subject to the regularization procedures determined in this regard.

### 1.2.3. Conceptual Foundations of Evaluation in Higher Education

Tyler (1950), from a behaviorist position associated with measurement, states that evaluation is a process whose purpose is to determine the extent to which the established objectives have been achieved. It involves a value judgment that is issued when contrasting the information collected with the previously established objectives. In line with this postulate, Soler (1988) affirms that evaluation is a measurement of learning and does not allow knowing the errors and successes of teaching and, consequently, improving it.

Stocker (1964) proposes a quantitative connotation focused on the evaluation of the amount of knowledge accumulated by a student, expressing that evaluation is a methodological activity that consists of the collection and combination of work data, with a series of goals that result in comparative or numerical scales. On the other hand, Castillejo (1983) says that evaluation can be considered as a rigorous and systematic collection of information to obtain valid and reliable data about a situation in order to form and issue a value judgment about it. Another interesting proposal is that of Casanova (1991), who affirms that evaluation is a systematic and rigorous process of data collection, incorporated into the educational process, which provides access to continuous and meaningful information to know the situation, form value judgments about it, and make the appropriate decisions to continue the educational activity while progressively improving it.

To these ideas, we can add that of Verdugo (1994) in the sense that the evaluation should be considered a systematic compilation of information and articulation of a theoretical personal functioning model, based on the data collected that include experimental and non-experimental procedures. Just like quantitative and non-quantitative procedures, both statements refer to the systematization that requires the use of appropriate tools. In the conceptual references, the multiplicity of terms stated with respect to the evaluation are validated, such as those indicated by Gamboa (2013) and Acevedo (2013), who define it as the systematic determination of the merit, value, and meaning of something or someone based on some criteria, which consists of a comprehensive and systematic process through which information is gathered in a methodical and rigorous way, to know, analyze, and judge an educational object. From this perspective, school evaluation refers to the assessment of students' progress in terms of learning knowledge, abilities, skills, and attitudes, as well as personal and social adaptation.

The previous perspective agrees with the precepts of the Alfa Tuning Latin America project (2007), which presents evaluation as a formative process that considers all the possibilities that are part of the pedagogical process, the results of which will be used for the (re)approach of pedagogical practice; turning evaluation into a cyclical practice (Fig. 5.1). It is a constant back and forth between the analysis of what the student is capable of doing and what they can develop based on the teaching activities in which they have participated. It goes beyond simple memorization and reproduction of content to the real analysis of what the student can do and how they can create new strategies to solve problems in different contexts.
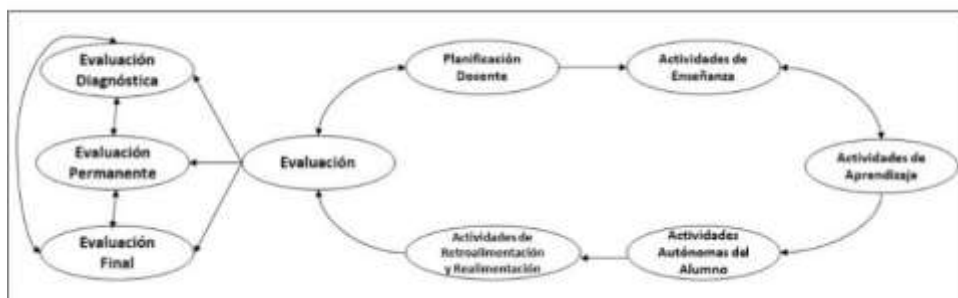
Figure 5.1 Evaluation cycle
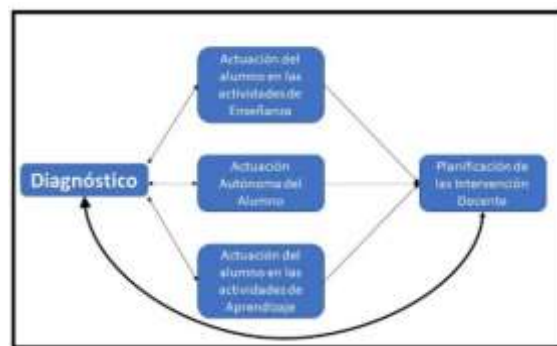
Source: Own Authorship

In the same vein, Gamboa (2013) states that it is imperative to reflect on evaluation as a process related to the educational practices of teaching and learning (Fig. 5.2), not as a moment to determine which student passes or fails.

Figure 5.2 Evaluation cycle

Source: Own Authorship

From the etymology, Pimienta (2008) presents how the act of pointing out the value of a thing, such a translation derives from the old French "value" valor, past participle of "valor": to value; coming from "valere": being strong, to have value. Such a concept could seem simplistic and colloquial, since in a good number of our Spanish-speaking countries valuation is synonymous with appraisal and vice versa. This last explanation is adapted in many of the evaluation practices that are developed in most of the higher education institutions.

The translator of Dr. Kennedy's manual (Declan, 2007) defines evaluation exactly the same as the Royal Academy of the Spanish Language Dictionary, which sums it up as estimating the knowledge, aptitudes, and performance of the students. Authors such as Zavala and Arnau (2008) state that evaluation is defined as a process in which student learning is analyzed, and teaching activities are characterized by three variables: teacher intervention, student experiences, and learning content.

Yolanda Edith (2010) and Leyva (2010), citing the Evaluation and Measurement Group (GEM) from the University of Valencia, affirm that evaluation is a systematic process of inquiry to understand the educational reality for the issuance of a value judgment on it. In order to understand the complexity of the evaluation process, four dimensions must be taken into account: a) People, b) Educational organizations, c) The material elements of the educational intervention, d) The normotype, e) The nomothetic, f) The functionality.

On the other hand, Santos Guerra (2003) says that educational evaluation is a phenomenon confined to the classroom, referred to students and limited to the control of the knowledge acquired through different types of tests, which is rarely taken into account as a complex process since it is overlooked that the process involving students contains intermingled elements that cannot be understood in isolation and independently. The teacher acts in a context that conditions his evaluation practice, these conditions can be grouped as follows: a) Evaluating a large number of students, b) Delivering the grades to the Ministry in a specified time determined by the latter, c) Using formats and protocols that are given to them. The above reasons are directly related to the factors that condition the evaluation: a) Legal requirements, b) Institutional oversight, c) Social pressures, d) Organizational conditions.

According to Frola and Velásquez (2011), evaluation is a process of gathering information on the evidence shown by the student to mobilize concepts, procedures, and attitudinal through observable performances, framed in a program or curricular plan that allows casting evaluative judgment on such evidence for making educational decisions.

As far as the Ministry of Public Education is concerned, there is very little official information available that identifies common points on evaluation at the higher education level. which is understood on the basis of the diversity of higher education institutions, both governmental and private, which enjoy a great deal of autonomy with respect to evaluation. However, the evaluation in basic education proposed in the document "The Evaluation During the School Cycle" SEP (2012) can be taken as a reference, which defines evaluation for learning as a process of recording and analyzing information on the student performance, in order to guide decisions regarding learning and teaching processes and which is developed in a formative way. This is the clearest nuance of the formative approach to evaluation, whose essential characteristics include a comprehensive and systematic process for gathering information in a methodical and rigorous manner, which makes it possible to know, analyze and judge the value of an educational object, students' learning, teachers' performance, and the degree of mastery of the curriculum.

According to the Ministry of Public Education (SEP, 2012), in Mexico, the evaluation should not focus on students but on learning as a process of obtaining evidence, making judgments, and providing feedback to students throughout their education. This confirms that the important thing to evaluate in education is performance and not the person, which is why it is considered that appropriate methods, techniques, and procedures should be used that respond to the demands of the Mexican educational system.

1.2.4 Principles of Evaluation in Higher Education

It is evident that most of the evaluation activities are focused on assessing school performance. However, as Lemus (1974) mentions in his school performance assessment manual, there are some principles (Fig. 5.3) that should be taken into account by teachers and educational authorities when evaluating school work. The following principles stand out:

1.   Consider yourself as an integral part of the entire educational process.
2.   Be a continuous process of educational activity.
3.   Make use of different resources (anecdotal records, observations, interviews, autobiographies, interest inventories, etc.).

4.   Be systematic.
5.   Dedicate yourself to different aspects of the educational process.
6.   Should be completed by different people.
7.   Be done in relation to educational goals.
8.   Make yourself in relation to the individual differences of the learners.
9.   Assess yourself.

Figure 5.3 Evaluation cycle
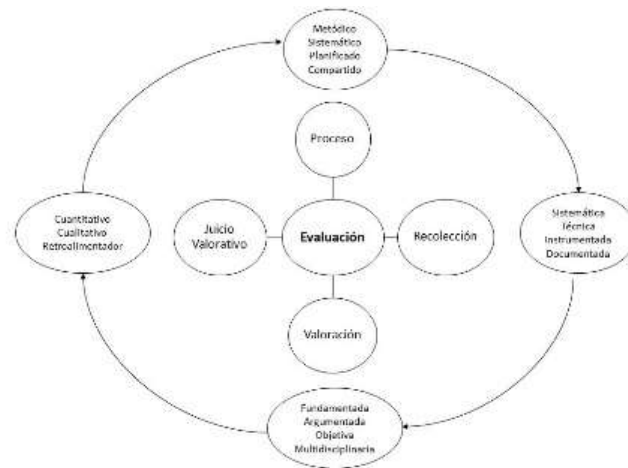
Source: Own Authorship

For Lemus (1974), evaluation can have several purposes, such as learning motivation, diagnosing student problems, awarding grades, educational guidance, and supervising all school personnel. However, the most important criteria that tests must meet to be considered efficient means of evaluation are: validity, reliability, objectivity, and practicality.

Blanco (1996), citing Cronbach (1963), says that the concept, functions, and methodology of evaluation should not be reduced to the restrictions of a program, since its scope is wider, evaluation is an instrument that provides significant information to make decisions and improve the evaluated object, it also plays a political function, since political motivations influence both the information and the development of the evaluation, which are nuanced by the methodology. Therefore, it is convenient to carry out analytical and controlled studies since they are more useful to compare alternative versions of a program. Since large-scale studies may affect the clarity of the results, the evaluation techniques to be used can be questionnaires, interviews, systematic and unsystematic observation, and test trials.

For Cronbach (1963), the evaluation should be oriented to the improvement of a program that is being used and should seek the maximum social benefit. He agrees with the use of qualitative and quantitative techniques as evaluation instruments, depending on the circumstances. For Scriven (1967), no matter what is evaluated, the objective of the evaluation is always the same. It should be a process that allows estimating the value of something that is evaluated and that can be formative and summative. These latter functions depend on what is to be evaluated, either a program under development to improve it or to check the efficiency of a program when it ends to decide whether to continue it or not. He proposes two issues, first to give the evaluation a single objective, which consists of saying whether something has value or not, and secondly, to introduce formative, summative, comparative, and ethical functions.

On the other hand, Bloom (1975) says that the evaluation should systematically gather evidence to determine whether changes occur and to what degree in each student. The summative evaluation takes place at the end of a period and has two intentions, first to qualify the students in the corresponding unit, chapter, course, or semester. Second to judge the effectiveness of the teacher. On the other hand, the formative evaluation is given during the academic life of the student, in a continuous process that provides the teacher and the student with feedback on the effectiveness of their work, which also reveals in which parts of the unit the student has difficulties. The evaluation can adopt different functions, as it can be diagnostic when the diagnosis is used at the beginning of a course or school year.

However, it should not be forgotten that it is a process that is not limited only to the final exam, but that there may be various indications. In addition, it is a process in which the different functions of the evaluation are presented: diagnostic, formative, and summative.

1.2.5. Evaluation in Higher Education Characteristics and Functions

Without trying to unify the criteria around the characteristics of the evaluation in higher education, since such au undertaking would be a fallacy due to the difficulty represented by the existence of a great diversity of concepts related to the definition of the term, some are listed below from the point of view of Castillo and Cabrerizo (2010):

i.   Be integrated into the design and development of the curriculum.
ii.   Be formative, which helps to perfect the process and the result of the educational action.
iii. Be continuous, throughout the entire process.
iv.   Be recurring.
v.   Be criterial.
vi.   Be decisive, allowing judgments to be made about the objectives to be evaluated and decisions to be taken.
vii. Be cooperative, which allows the participation of all those involved.

Moreover, as stated by Tindal and Martson (1990):

1.   The data must be directly related to the contexts.
2.   A general and specific perspective is needed.
3.   It is imperative to focus on academic achievement in the classroom.
4.   Multiple-reference assessment strategies are needed.
5.   Empirical bases for evaluative practices are required.

Casanova (1992) says that: "the functions that in each case we assign to the evaluation, (...) can use the modalities or types of evaluation that are most appropriate for the object of the study, research, or work that is undertaken" (Castillo and Cabrerizo, 2010; Page 31). In this sense, Cardona (1994) assigns the following functions to evaluation:

a.   Diagnosis: knowing the starting assumptions facilitates both the adaptation of the training offering to the users and decision making.
b.   Regulatory: regulates student learning.
c.   Predictive: it facilitates the estimation of possibilities of actions and/or performances, it becomes operative in the initial and formative modalities, oriented to the contextualized design of curricular projects.
d.   Feedback: it has a guiding function in the educational process.
e.   Control: it is necessary due to the demands of the educational administration, in everything related to obtaining academic degrees and the connotations that these have.

Evaluation, like any school activity, must go through a systematic and focused planning path, stated Moreno and Moreno (2019), citing Flórez (2001), and the evaluation deserves planning, preparation, design, and prior reflection; which agrees with Castillo and Cabrerizo (2003) who affirm that "just as teaching programs are designed, evaluation must be designed so that, with the conjunction of both (teaching and evaluation), the desired learning is achieved" (Moreno and Moreno, 2019; Page 100).

1.2.6. Evaluation Techniques in Higher Education

Evaluation in higher education faces many challenges and challenges, probably one of the main ones is related to the use of adequate techniques and instruments to carry it out, which is closely linked to the profiles of teachers (in most schools, teachers do not have pedagogical training) Cerda (2000), Barriga and Hernández (2002) and Allen (2004) cited by Moreno and Moreno (2019), "assessment methods should stimulate learning more and avoid generating conditions that do not stimulate the student" (Moreno and Moreno, 2019; p. 101). Moreno and Moreno (2019) explain that there are three types of evaluation techniques: informal evaluation techniques, semi-formal techniques, and formal techniques:

1. Informal techniques. They are teaching sessions with a short duration; the teacher does not present them to the students as evaluative acts; there are two types of informal techniques: observation during the activities carried out by the students and the exploration that uses formulated questions.
2. Semi-formal evaluation techniques. They require more time than the informal ones, they demand greater assessment and require more lasting responses from the students; their identified variants are: the work and exercises that the students do in class, the tasks and the work that the students do outside of class, among the tools used, the portfolio evaluation stands out.
3. Formal techniques require sophisticated planning and elaboration processes and are applied in situations that demand a greater degree of control; they are not usually used periodically only to finish a complete teaching cycle; the preferred instruments are: tests or exams, concept maps, scales, rubrics, among others; one of the conditions recognized in formal techniques is that they always provide answers to how and with what to evaluate.

Higher education academics face the dilemma around which are the most relevant instruments to evaluate student learning, especially since almost all higher-level educational centers have turned to competency assessment. However, Moreno and Moreno (2019) consider that before evaluating, the teacher must answer the basic questions such as what do they want to evaluate; that is, if the teacher wants to evaluate concepts, then they can do it through short-answer tests, multiple-choice, exemplification, essay, reasoning, observation techniques, a checklist, ethnographic records, and the portfolio. In case the teacher wishes to evaluate attitudes, she can make use of the techniques and instruments related to "the survey, the participant observation, using the anecdotal record and the estimation scale.

1.2.7. Stages in the Practice of Assessment in Higher Education

Carrying out an evaluative work in a systematic and focused manner that responds to the multiple concerns generated by the evaluation of learning in higher education classrooms forces us to rethink the way in which the process is being developed. Evaluation in the first semesters in higher education serves to select those who are most adaptable to higher education in such a way that it seems that the main objective of the evaluation is to eliminate those who are less able to adapt. This path can be overcome if higher education teachers take ownership of evaluation expertise and develop this practice appropriately. Mendivel (2012), Moreno and Moreno (2019) propose the following procedures or stages for evaluation in higher education:

A. Preparation of the evaluation plan.
B. Discussion of the evaluation plan with the student.
C. Development of activities that allow for formative evaluation.
D. Prepare the tests that will allow for the collection of measurable data that give the student the ability to self-evaluate.
E. Discussion between students and teachers of the grades to be given in partial and/or final form.

1.2.8. Evaluation of Students in Higher Education

The modern world is a victim of its own heritage. Over the centuries, human beings have developed the ability to pass judgment, assess, and act accordingly; this ability encouraged the survival of our species. Our daily life is full of moments of evaluation; without this practice, our decisions would be flawed and would depend a lot on random factors. However, when our evaluation processes are focused on other objects or on other people, the situation becomes complex and requires time and effort because a conventional systematization of certain methodological steps to carry out such evaluations, Frola and Velásquez (2011) state that when evaluating, we face a process that begins with obtaining information using multiple and varied ways.

Evaluation in the context of education does not differ much from evaluation in other contexts, nor should there be gaps in evaluation that create restrictions at the educational system level; since it is understood that education, regardless of the level, is focused on the construction, appropriation, and reinforcement of learning. Frola and Velásquez (2011) state that in the educational field, the evaluation process involves obtaining information through instruments (surveys, inventories, questionnaires, tests, among others) to make judgments once the information has been processed and consequently decisions are made to improve processes and services (Fig. 5.4).

Figure 5.4 Evaluation cycle
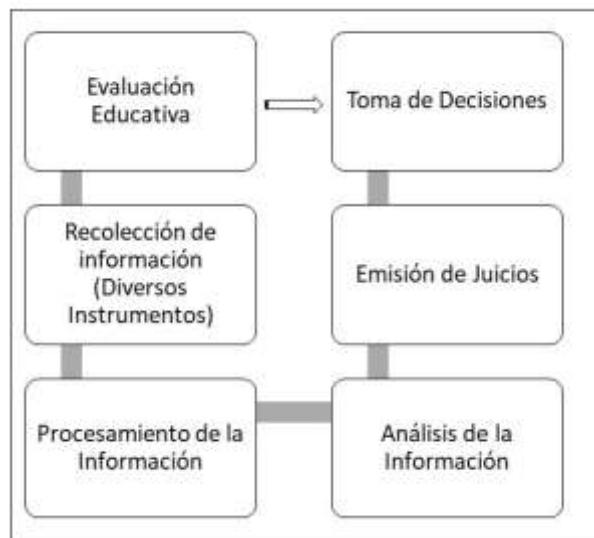
The way in which university students are evaluated or should be evaluated has its starting point, in what is understood as learning evaluation. According to Salinas and Cotillas (2007), in the context of higher education, "to evaluate" means estimating, appreciating, calculating the value of something. Therefore, it consists of making a judgment about the value or merit of something, and it is essential to develop two stages before making the judgment: the first consists of collecting the evidence and the second, the application of quality criteria in relation to the evidence, which will allow an estimation of the value or merit of the object being evaluated.

When the term performance evaluation is used in teaching, the object to be judged is the student's learning, and according to Salinas and Cotillas (2007), it can have different purposes, among them:

a.   Derive grades.
b.   Guide the student to improve performance.
c.   Discover the students' difficulties.
d.   Discover one's own difficulties in teaching what we want to teach.
e.   Assess certain teaching methods.
f.   Motivate students to study.

Broadening the scope of the connotations about evaluation, we identify a deeply rooted conflict in higher education that arises when it comes to answering the question: do we evaluate to grade or evaluate to learn? If the assessment is for grading, the problem consists in choosing the best instruments that quickly and easily provide evidence of student learning; and from there to grade, that is it. On the other hand, Salinas and Cotillas (2007) state that if the evaluation aims to offer information to make decisions so that the student learns more and better, the difficulty lies in periodically informing the student about the status of his learning and guiding him for improvement. Such a practice generates another conflict, that of evaluating to grade and evaluating to learn. In this sense:

"Summative evaluation is understood as making judgments at the end of a teaching period, the purpose of which is to grade according to the performance assessed, (...) at the end of that period. Ultimately, the summative evaluation will be represented by a PASS, FAIL, PROFICIENT... (or their corresponding numbers) in the grade report (Salinas and Cotillas, 2007; Page 19).

"On the other hand, we understand formative evaluation as making judgments that are made throughout a teaching period and that are intended to inform the student and the teacher about the student's progressive achievements in order to improve both teaching and learning. The two types of evaluation are not exclusive and, at present, both types of evaluation are considered necessary" (Salinas and Cotillas, 2007; Page 19).

The above lines offer an alternative to the dilemma of the inseparability of formative and summative evaluation, because only in this way is it guaranteed that students are really learning. Since evaluation for training entails, among other things, feedback and replenishment of learning, while summative evaluation is a way of stating that the student has reached the minimum required to be able to migrate from one level or grade to another Furthermore, for the evaluation to serve as an instrument that contributes to training and accreditation, it must meet certain conditions, including those set forth by Frola and Velásquez (2011):

a.   Functional: fulfill one or more previously defined functions.
b.   Systematic: organized, controlled, regulated, and with evidence of the methodological steps to carry it out; to be inserted or linked with other evaluation systems.
c.   Continuous: activity that takes place at different times and with different purposes.
d.   Comprehensive: considers cognitive, psychomotor, and affective aspects.
e.   Guiding: serves to improve, reorient, remediate educational practice, and guide the students' process instead of eliminating or excluding.
f.   Cooperative: socialized from its conception, phases, procedures, definition of purposes, object of measurement, reference profile, selection, and validation of responses.

Improving evaluation proposals in higher education should be a practice that begins with the optimization or adaptation of the elements that are already known and that have probably been used partially or have been operated in inappropriate ways. In recent years there have some trends have emerged that disqualify many of the evaluation procedures using superficial or rhetorical arguments; as stated by Frola and Velásquez (2011), there is a range of concepts related to evaluation that does not need to be eliminated or disqualified since they can serve as complements with a view to enriching evaluation practices, specifically referring to:

1.   Measurement: procedure for collecting information and ordering it according to its quantitative or numerical characteristics; in order to assign a numeral based on its comparison with a previously defined or agreed unit, parameter, or scale.
2.   Rating: procedure to establish a correspondence between scores obtained on a numerical scale and the qualitative ranges or categories that represent value judgments when crossing them with such scores.

Undoubtedly, there is no formula that guarantees the success of the activities involved in the teaching and learning processes. Moreno (2009) says that evaluation must be an inseparable process and antonomasia linked to learning; that is, it must be evaluated to improve learning, not to fail, eliminate or exclude; when we build on these premises, we show that we see in the evaluation an interactive process of teaching.

Moreno (2009), citing Olivos (2004), states that evaluation in higher education must be understood in its natural development regarding what happens, which uses multiple resources that get to know the student; therefore, requires conscious and reflective attention on the part of the teachers.

Finally, it is necessary to address the matter of the means or instruments that a teacher can use to develop an assessment of learning appropriately. Hamodi, López, and López (2015), citing Castejón et al. (2009) present a series of tools available for teachers to collect the necessary information in the evaluation process, but they clarify that it is difficult to separate the instruments from the evaluation strategies and techniques.

Castejón et al. (2009), cited by Hamodi, López, and López (2015), classify the evaluation instruments based on their oral, written, or observational manifestation, among those that are common we have:

1.   Instruments of written expression: exam, written work, essay, poster, report, review, project, field notebook, practical files, diary, folder or dossier, portfolio, and memory.
2.   Oral expression instruments: presentation, debate, interview, group interview, discussion group, round table, a panel of experts, presentation, and communication.
3.   Practical expression instruments: representation, demonstration or performance, simulation, project development with practical aspect, research, and supervised practices.

In conclusion, the evaluation in education must take into account the teacher-student binomial to improve the realization of the teaching-learning process. In this sense, some conditions cannot be overlooked, among which the fact that the teacher must properly handle the following concepts:

1. The means of evaluation: each and every one of the students' presentations, which can take three different forms: written, oral, and practical.

2. Evaluation techniques: strategies that the teacher uses to collect information.

The new ways of evaluating involve breaking paradigms. In this sense, it is no longer possible to continue using totally unidirectional and vertical ways of evaluating. The new evaluation practices imply an active, reflective, and responsible involvement of the students. As proposed by Hamodi, López, and López (2015), we can develop the following evaluation practices with students:

a) Self-evaluation: evaluation by the student of their own evidence or presentation based on previously negotiated criteria.

b) Peer evaluation or co-evaluation: process in which the student evaluates his peers reciprocally, applies evaluation criteria that have been negotiated; it can be carried out through documentary analysis and/or observation; some authors call it peer evaluation, co-evaluation, or collaborative evaluation.

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