

The Application of the Standard in the Evaluation Process to Measure Student Learning

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ABSTRACT

The evaluation of students in HEIs by teachers has always been a difficult and complex matter that in most cases when it is carried out does not fulfill its true function within the teaching-learning process, which is none other than to demonstrate the degree, level, quantity and quality of learning and the development of the respective competencies achieved by the student during and/or at the end of the course or semester. Generally, the teacher carries out a final evaluation at the end of his course, an evaluation that consciously or unconsciously only has the purpose of measuring the number or percentage of correct answers that the student can achieve because he knows (by heart) the answer or by luck; this situation allows categorically classifying the student as good, regular or bad, giving a number as a passing or failing grade, determining at a group level the percentage of accredited or non-accredited students and some other statistical data as an administrative requirement. Unfortunately, this type of assessment does not provide information on progress, stagnation or regression in relation to the curricular knowledge, skills and competencies that the student must acquire, so we can say that it only fulfills a limited, uncritical, passive, indifferent and sometimes irresponsible and inappropriate administrative function on the part of the teacher; this type of measurement is known as "norm-referenced assessment".

The evaluation of students in the IES by the teacher has always been a difficult and complex matter that in most cases when it is carried out does not fulfill its true function within the teaching-learning process, which is none other than to demonstrate the degree, level, quantity and quality of learning and the development of the respective competencies achieved by the student during and/or at the end of the course or semester. Generally the teacher performs a final evaluation at the end of the course, an evaluation that consciously or unconsciously only has the purpose of measuring the number or percentage of success that the student can achieve because he/she knows (memoristically) the answer or by luck; This situation allows categorically classifying the student as good, regular or bad, giving a number as a passing or failing grade, determining at group level the percentage of students accredited or not accredited and some other statistical data as an administrative requirement. Unfortunately, this type of evaluation does not provide information on the progress, stagnation or regression with respect to the knowledge, skills and curricular competencies that the student should acquire, so we can say that it only fulfills a limited, uncritical, passive, indifferent and sometimes irresponsible and inappropriate administrative function on the part of the teacher; This type of measurement is known as "evaluation with reference to the norm".

Keywords: Assessment; Learning; Standard, Evaluation; Norm

Introduction

One of the most difficult, complicated and critical situations that teachers perform or have to perform in Higher Education Institutions (HEIs) is the measurement of the learning and skills acquired by their students as a result of the teaching processes applied in a classroom, in the holistic understanding that this activity should have the pur-

pose of generating active and critical learning. This situation, as time goes by, becomes more and more complicated as it is increasingly altered and permeated by an endless number of educational, social, economic, political and administrative factors and/or variables. A process and complication that is far from being resolved, despite the fact that more and more teachers are taking or have taken postgraduate courses to improve their academic profile (especially in the field

of Educational Sciences); this situation poses, both in particular and in general, a series of challenges to groups of teachers and educational institutions that, concerned and busy in finding solutions at very diverse levels, have worked on proposals ranging from the creation and application of job promotion policies aimed at strengthening the academic career from the perspective of teacher professionalization, to formulating specific teacher training, qualification and updating programs designed to address this complication. The concern and at the same time worry about meeting the needs of a quality education that meets the levels of excellence required by the labor market without neglecting or overvaluing the qualitative and quantitative aspects demanded by employers, is forcing or should force each teacher at some point in their life and work and academic career to stop along the way, look back and reflect on the processes they carry out regarding the way they assess their students' learning in order to evaluate and/or measure it.

The new administrative requirements and supervision measures arising from the new federal educational policies applied by the Ministry of Public Education in Mexico (SEP), regarding the measurement of the achievements of the purposes determined by the Missions and Visions of each HEI, should generate a state of awareness in the teachers of these institutions regarding the indolence, inertia and apathy that exists in the vast majority of cases regarding the evaluation methods applied to assess the quantity and quality of the learning generated, as well as through this appreciation, identify the ups and downs that arise in each student and, to the extent of each one's possibilities, intervene to help improve their learning (Cáceres Mesa, et al. [1]). We recognize that in almost all HEIs there are trained teachers who are also concerned about this problematic situation regarding the common nature of light, superficial and totally quantitative evaluations, which only seek to have a simple, objective and limited element, argument or justification to determine the accreditation or non-accreditation of a student, teachers who plan and prepare on a daily basis to carry out holistic and complete evaluations that really reveal the degree of progress, stagnation or regression of the student with respect to the learning and skills they should have based on the grade or semester they are enrolled in. This concern of the SEP and of some administrative authorities of education is partly due to the fact that with each passing day financing higher education is more expensive for the federation and for the student themselves, however, the performance achieved reflected in the learning obtained does not always correspond to the investments made to offer a quality education or at least as close to it as possible.

The survival and future of HEIs depends increasingly on the measures and actions adopted and applied to achieve better education, and under this paradigm, society and particularly employers are becoming the true judges who determine the level of competitiveness of the professional who provides the service. Aspects that determine the prestige and benefit of many educational institutions when judged on

the basis of the education they provide in quantity and quality, could be controlled and increased with the more widespread application of more complete, qualitative forms of evaluation capable of determining comparatively the "should be" versus the "is" at the level of learning and the skills obtained as a result of the relationship and interaction between the main actors, the teacher and the student. Therefore, the general purpose of this work is to leave the teaching collective with a personal and shared reflection regarding the way in which, based on customs and practices, the great majority of teachers learned how to carry out and apply an objective, simple, straightforward evaluation to their students, without complications or questions regarding their students' learning, with the sole purpose of signing a passing or failing grade for the semester; in this sense and for the purpose of this work, we will call this simple and thoughtless process "assessment with reference to the norm".

Grading or Evaluation "Sui Generis"

Traditionally and commonly in HEIs, evaluation has been conceived and practiced only as a final grading activity of the teaching-learning process, it has been assigned a static, passive and inconsequential position for the pedagogical and didactic process that takes place within classrooms, laboratories and school clinics, it has been given a merely mechanical function consisting of only applying exams and assigning a passing or failing grade at the end of the course or semester, also and in many cases it has also been used as a means or instrument of symbolic violence (intimidation), repression and even control that some teachers tend to use against students. In other words, the evaluation, despite its importance in understanding and explaining the educational process in general and in making decisions for the pedagogical work carried out by the teacher, has been distorted because it is currently understood as a mere statistical procedure which, thanks to the direct or indirect help of teachers, consciously or unconsciously, predominantly plays an auxiliary role in the task of administrative control rather than educational or academic control within educational institutions (González Pérez [2]). Under this premise, we will mention some negative aspects that permeate the logic and the reason for the evaluations applied to students by their teachers, which contaminate and reduce the educational task to a mere reproduction, assimilation and apprehension of the knowledge and know-how that is imparted to them and which at the same time point out the absence of a true partial or integral formative evaluation and how this process is wrongly substituted by the simple concept of numerical qualification that determines the accreditation or non-accreditation of a student.

If we take into account the complexity that the subject of evaluation and its hierarchy within the teaching-learning process entails, we will then understand the intention of continually emphasizing in this work the importance and the implications that true evaluation has in the educational-formative process of the student, conceiving this process as an organized whole, where the elements that integrate

it maintain a potential interaction and that when this potentiality becomes a fact, the pedagogical and didactic (educational) process is consolidated and fully fulfills its purpose. The formative and holistic pedagogical work carried out by the teacher should be understood and carried out as a pedagogical action that opposes encyclopedic, mnemonic, informative, passive, uncritical and conventional teaching, work that has the purpose and objective of being an alternative critical, active, formative, interdisciplinary educational response, under which and through which the student learns to learn and acquires knowledge, know-how and skills to inform and interpret reality, systematize and apply that information; a process that recognizes and requires evaluation in a broad sense as an adjuvant in the complex educational administrative process in an efficient, effective and economic way in order to also evaluate and manage the teaching work carried out within the IES. However, because we believe that there is generally an error in conceptualization, understanding and benefit among teachers and education administrators regarding the assessment of learning, making this weakness one of the main problems and obstacles to be able to carry out assessments appropriately and properly, we will now raise some concepts regarding assessment.

For example, Hilda Taba points out that when we refer to the curriculum or study plan, everything can be assessed, its objectives, its scope, the quality of the teaching staff, the preparation of the students, the importance of the various subjects, the degree to which the objectives are met, the teaching media, etc., although in this work what is at the central axis is only the assessment of the learning generated in the students (Esparza Urzúa, et al. [3]). On the other hand, Sonsoles Fernández [4] conceives evaluation as a broader and more complex task than just subjecting students to exams; evaluation includes the clarification of learning that represents good performance in a particular professional field, and must have and develop procedures to use in various ways the evidence obtained about behavioral and attitudinal changes that occur in students to improve teaching itself, a process that must previously have appropriate means to synthesize and interpret this evidence and propose how and for what to use the information obtained in order to improve pedagogical-educational work. Evaluation is a process that allows to know the academic progress of the student, reports on their knowledge, skills, interests, attitudes, study habits, etc., this process includes, in addition to the various types of exams that can be applied, other learning evidence such as work, essays, presentations, reports, discussions, etc. It is also a method that allows to obtain and process evidence to improve learning and teaching; Likewise, evaluation is also an activity that helps to review the process and group progress, in terms of the conditions in which it was developed, the learning achieved, those not achieved, as well as the causes that made it possible or impossible to achieve the proposed goals.

Once the conceptual framework for evaluation has been established as a reference point, contrary to what is believed and practiced, the evaluation of the teaching-learning process does not begin when

the course ends or when the exams begin to be given. Before the course begins, when the objectives or purposes to be achieved in terms of learning are specified, is when the evaluation process actually begins, which implies that evaluation is not a final stage of the teaching-learning process; evaluation begins from the planning of a course, from the determination of the objectives or learning purposes, which are and will always be the goal to be achieved and on which the planning must revolve from beginning to end. Consistent with this order of ideas, we believe that every teaching situation maintains the purpose of evaluating what students have done and achieved as learning experiences in accordance with and in comparison, to the objectives or purposes set forth in the general curriculum and in teaching planning. This implies a relationship between the organization and the characteristics of the teaching that is or will be taught, as well as the type of evaluation that is practiced; that is to say, the type of evaluation is not independent, but is subject to the structure of the teaching process that is managed; hence, a modification of the concept of evaluation must necessarily start from a modification in the nature of teaching; in that sense, teaching experiences become relevant to the extent that this indissoluble link between teaching-learning-evaluation is made clear.

In this situation, it is clear and understandable that teachers who move away from the rote learning scheme have had to introduce new forms of assessment that may not be the best, but which demonstrate the need to seek an assessment structure that is more in line with educational policies and new forms of teaching. This position highlights that assessment is not an act by which a teacher judges and/or issues an opinion regarding a student, but rather it is a process through which the teacher assesses the degree to which the student has achieved the learning that both pursue. For this reason and more, evaluation plays a transcendental role in the determination, implementation and achievement of learning. Without a full teacher awareness of this reality, it will not be possible to teach adequately and verify results in accordance with what was intended. Under this situation, the teaching task and the learning generated will have a random, irrelevant character and will not correspond to the needs and interests of individuals in particular and to the current demands of society in general. The full acceptance of the paradigm of the technification of evaluation has led to this function being accepted only as a mere psychometric step almost totally divorced from the purpose pursued (González Pérez [5]). The assessment of learning cannot be properly objective, because this situation by itself does not confer justice and accuracy to learning, because even accepting that objectivity is an important property of the assessment instruments, it would be necessary to consider other properties such as validity, reliability, comprehensiveness and particularity, which also influence to confer technical objectivity to the mentioned instruments, but not to the learning process; in other words, this objectivity only allows to accept the norm of the standardized, homogeneous and reproduced process of only looking for a numerical grade to accredit or not accredit the student.

Another of the final aspects that learning assessment entails is the important and great influence it has on the decisions made from it, which almost always go far beyond the limits of the school and its impact affects students individually, socially and as a family, thereby losing its apparent neutrality, since its results generate ideological aspects that alienate and disturb students, among other things they think or are made to think that they are the only ones responsible for their school and social situation. Ideologically, the school, by conferring authority on teachers, endorses and legitimizes their role as judge and dictator of student performance. Under this harmless and delicate function, the school thus becomes an effective organ of social control through its teachers to the detriment of large sectors of the population that present marked socio-economic inequalities.

Norm-Referenced Assessment

If each student enrolled in a HEI were asked to think a little about the 16 years they have had on average in the different schools where they have been enrolled, many would possibly remember moments and situations in which they were rewarded for achieving first place in achievement, whether it was for being part of the school escort, for standing out in sports or for good behavior, among many other activities, and as a result of this they were recognized with a diploma, medal or with mere verbal recognition before an audience within or outside the school. These situations and actions cannot be considered fortuitous, rather they are the beginning of a long process of conditioning in the student (and with it the passage of time of future teachers). These cases are not circumstantial, but rather they fit and work under the logic of a conception of educational assessment already implemented that we will call "norm-referenced assessment" (Díaz Barriga [6]). Explaining this conceptualization, we will say that this should be understood simply as the comparison and determination of the performance and actions of each student with respect to the group to which they belong. All contrasted students with similar or equal characteristics participate in this comparison; under this standard, the particular learning achieved by each of them is contrasted by applying the predetermined master scale for learning in this group.

A more concrete example of this type of evaluation with reference to the standard, which is the most common in HEIs, would be if an evaluation were applied at the end of the course or semester to a group of students with only an exam with 10 reagents previously coded by the teacher as an instrument to determine the quantity and quality of what was learned or apprehended, where the maximum score would be 10 as a result of 10 correct answers and where 6 or more correct answers would give the student a passing number or grade and in case of 5 or less correct answers it would generate a failing grade and at the end and statistically and in the simplest way possible, have the percentage of students who passed and/or failed, complemented with a superficial numerical analysis indicating that 60% of the students had passed and 40% failed. In this example, the

rule determines that the teacher must aspire or wait for each student to obtain a total of 10 correct answers to give them a numerical grade of 10.0 and so on in decreasing order, 9 correct answers, numerical grade of 9.0. If a student obtains less than 6 correct answers, their numerical grade will be equivalent to the number of answers obtained, under this reason the teacher thinks and informs based on the pre-established rule (10 questions, 10 correct answers, grade of 10.0, passed), the reference or rule for this case will be the exam with 10 correct answers and from that the students who get the highest number of correct answers are those who know more and the students who got less than 6 correct answers are those who know less.

Under this situation, the only thing the teacher does is determine that student "X" who got 9 correct answers knows more than student "Y" who got 8 correct answers and knows less than student "A" who got 10 correct answers. Under this reasoning we would ask: What does "know more or know less" mean quantitatively and qualitatively? How much of the objective or purpose stated in the curriculum or in the planning carried out was achieved? (If a teaching plan was made), it is difficult to answer these two questions. With this type of simplistic, objective, uncritical and to a certain degree irresponsible evaluation, what is done is to classify the performance and achievement of the students by comparing the performance of each member of the group, taking as a standard the student who obtained the greatest number of correct answers, forgetting about their personal learning, their achievements, their shortcomings, without thinking about the difference between what they know and what they should know. In the absence of another principle, the above operates in HEIs where many of the teachers use it for so long to grade their students, staff that they come to believe dogmatically in it and cling to its results due to the force of habit.

Characteristics of the Evaluation with Reference to the Norm (Normal)

Under a final analysis and reflection, this evaluation only serves to provide comparative information regarding the capacity of a student in relation to another or others, hence it is useful only to order and place students within the group to which they belong instead of individually assessing the level in quantity and quality of their specific learning with respect to the course taught. An example of the above would be to fictitiously point out that in the Bachelor of Medical and Dental Surgery at the Autonomous University of Zacatecas in 2021, 250 students entered and 4 years later, of that generation only 120 finished the university degree, that is, only 48% completed higher education; thinking about this example and information, it would not be possible to know or say with what type, level, quantity and quality of knowledge, know-how and skills they graduated. As we can see, the evaluation with reference to the norm generally only allows to numerically measure limited aspects that generally have nothing to do with learning.

Conclusion

As a final part of this work, we can see that all these situations indicated allow us to conclude the following: the “assessment with reference to the norm” consists fundamentally in classifying and labeling the students as those who are successful, those who are just getting by and those who have failed; these assessments based on the norm only detect differences between the students in reference to subjects, UDI subjects, modules, areas, etc.; by giving grades categorized as good, average or bad; when there are variations in them it causes strangeness in the teacher and he cannot explain or accept them, generating a situation of crisis and conflict. This type of assessment fulfills, among other meta-functions, the legitimization of social inequalities by making comparisons between students without considering their possible social, economic and cultural differences, causing traumatic and conditioning situations for the student himself until he ends up convincing himself that the only one to blame for his poor performance is himself. On the other hand, it develops a competitive spirit among students that, more often than not, far from promoting solidarity and camaraderie, creates rivalries, fraud and dishonesty that, instead of contributing to their education, complicates it; for all this and more, this type of evaluation, which is very common in HEIs, seems to only seek to select and applaud the group of students who excel and point out to other less fortunate students that they are incapable and that for this reason they fail.

We recognize that this situation of applying this type of assessment requires three moments or stages to appear; the first of them is the baggage of experiences that the teacher has accumulated since the time he went through the different schools and was also subjected to this type of assessment assuming that this is the normal, official and expected way and method to measure learning and from that to

grant a grade (from that moment, the student begins to understand, build, deconstruct and rebuild the figure and the teaching task). The second moment is when that student has the job opportunity of being a teacher in a HEI and without having the training, capacity and qualification to perform that function (sometimes even and despite having pedagogical-didactic training) he faces the complicated situation of evaluating a large group of students and groups and does not have the working conditions (time, space and resources). Third moment, when the same teacher recognizes and accepts that despite having the intention to carry out holistic evaluations, there are no conditions for it and when finding himself in the situation of complying with the administrative indications, he assumes that the only option he has to comply is to carry out evaluations with reference to the standard, all this without being aware of the entire genesis of this evaluation.

References

1. Cáceres Mesa ML, Gómez Meléndez LE, Zúñiga Rodríguez M (2018) The role of the teacher in the assessment of learning. UAEH Conrado 14(63).
2. González Pérez M (2001) The assessment of learning: trends and critical reflection. Higher Medical Education 15(1).
3. Esparza Urzúa GA, Zavala Taylor GM (2015) Curricular framework for teaching or meaningful learning? A conciliatory vision within the classroom. DOCERE (13).
4. Fernández S (2017) Evaluation and learning. Marco ELE Journal of Didactics of Spanish as a Foreign Language 24.
5. González Pérez M (2000) Evaluation of learning in university teaching. Center for Studies for the Improvement of Higher Education. Journal of University Pedagogy, University of Havana, Cuba 5(2).
6. Díaz Barriga F (2005) Principles of instructional design of learning environments, a sociocultural and situated framework. Journal of Educational Technology and Communication 41.

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