

# Clinical Learning Evaluation Process at UAO/UAZ

**María Dolores Carlos-Sánchez, Jesús Rivas-Gutiérrez\*, Laura Susana Rodríguez-Ayala, Martha Patricia Delijorge-González, Martha Patricia De La Rosa-Basurto, Georgina del Pilar Delijorge-González, José Ricardo Gómez-Bañuelos and María Guadalupe Zamora-Gutiérrez**

*Universidad Autónoma de Zacatecas, Mexico*

**\*Corresponding author:** Jesús Rivas Gutiérrez, Universidad Autónoma de Zacatecas, México, Mail iD: rivasgutierrez@hotmail.com

## ARTICLE INFO

**Received:** 📅 February 22, 2025

**Published:** 📅 February 26, 2025

**Citation:** María Dolores Carlos-Sánchez, Jesús Rivas-Gutiérrez, Laura Susana Rodríguez-Ayala, Martha Patricia Delijorge-González, Martha Patricia De La Rosa-Basurto, Georgina del Pilar Delijorge-González, José Ricardo Gómez-Bañuelos and María Guadalupe Zamora-Gutiérrez. Clinical Learning Evaluation Process at UAO/UAZ. Biomed J Sci & Tech Res 60(5)-2025. BJSTR. MS.ID.009501.

## ABSTRACT

Undeniably, the whole educational process that takes place in a IES is complicated and difficult when it is matched with the curricular purposes that were proposed, but one of its most complicated parts is the stage of evaluation of the achievements reached; under these situations, it could be pointed out as responsible for its realization to the education administrators and teachers who carry out their work in this regard from three contexts, the first has to do with the cultural background they bring, where the experiences had in their stages as students significantly determine how to perform their work and under what justification, in a second moment the administrative demands of control, supervision and support are also conditioned by the amount and place to perform the respective work, which is determined by the number of groups, students and time to do it; The third context is conditioned by the ease and comfort to carry out the educational activity and the approval of the administration on duty. At the Autonomous University of Zacatecas, the Academic Unit of Dentistry indicates that the evaluation of clinical learning should be performed under the criterion/domain paradigm, unfortunately the three contexts mentioned above are also present conditioning the form of evaluation.

**Keywords:** Assessment; Criterion; Domain; Evaluation

## Summary

Undeniably, the entire educational process carried out in a HEI is complicated and difficult when it is intended to match the curricular objectives that were set, but one of its most complicated parts is the stage of evaluation of the achievements attained; under these situations, the education administrators and teachers could be pointed out as responsible for its realization, who carry out their work in this regard from three contexts, the first has to do with the cultural baggage they bring, where the experiences had in their stages as students significantly determine how to carry out their work and under what justification, in a second moment the administrative demands of control, supervision and support are also conditioned by the amount and place to carry out the respective work, which is determined by the number of groups, students and time to do it; the third context is conditioned by the ease and comfort to carry out the educational activity

and the approval of the administration in turn. At the Autonomous University of Zacatecas there is the Academic Unit of Dentistry which indicates that the evaluation of clinical learning must be carried out under the criterion/domain paradigm, unfortunately the three contexts indicated are also present, conditioning the form of evaluation.

## Introduction

For some time now, in the field of education, assessment practices regarding the theoretical framework and the use of instruments have increased and diversified. What is interesting and important is that these changes are emphasizing the explicit definition of the domains or standards to assess student learning and the teaching provided by teachers in relation to the curricular objectives or purposes of each educational institution. Because of this and due to the current deficiency situations that school education is going through, at this mo-

ment what seems unquestionable is that the assessment of learning needs to redefine its proposal and stop making only comparisons between students and instead establish firmer and more representative schemes that more accurately reflect the status quo of said learning and at the same time adhere to the present and future work, individual, institutional and social reality of students who are enrolled in a Higher Education Institution (HEI). Under this situation and order of ideas, the approach to evaluation by criteria and domains manifests a conception of education in general and of the teaching-learning process totally different from that traditionally followed by educational practices, where its fundamental intention is not to find the few students who can be successful, but to work so that the majority of them can acquire the knowledge, know-how and skills considered essential for their integral and harmonious development, in addition to accompanying this position with institutional-administrative conditions for the teacher and for the student so that they have the opportunity and the necessary time to achieve it (Valverde Berrocoso F, et al. [1]).

In this sense, we will point out that when education practices an evaluation with reference to the criterion/domain, it weighs the commitment and responsibility that the HEI has to strive to provide all students with a wide program of experiences and learning conditions, seeking with this the best possible use in each and every one of the sessions given by its participating teachers. These remarks are relevant because the evidence manifested in their failure, delay, and desertion rates indicate that many students do poorly in school, some fail completely, others advance very little compared to their possibilities and many more give up the opportunity offered by the school to develop in some profession and to insert themselves adequately and successfully in the labour field. Although the panorama described by the three indices referred to is essentially the major problem that we find in most HEIs, this situation paradoxically does not constitute the main concern for educational authorities, even though for that reason it is their responsibility to make a series of transcendental decisions to deal with and address it, even less so for teachers who are the direct agents of the changes and the good progress of the teaching process. The main concern of the authorities has to do, erroneously, with economic, financial and administrative aspects; a situation that from the outset clashes with this type of evaluation, which is the achievement of the established curricular standards, regardless of the number of attempts that have to be made to achieve mastery of the learning.

It could be said that an educational system consistent with criterion-based assessment would be much more expensive than normal systems due to the increase in remedial courses, permanent means of accreditation and an indefinite number of actions and institutional resources to be used by the teacher and the student, which could be the biggest obstacle to its implementation. On the other hand, and without underestimating the importance of the economic problem, possibly the biggest obstacle that would have to be overcome to implement an educational-administrative system appropriate to criteri-

on-based/domain-based assessment would be attitude, collaboration and empathy, since the culture of competition is so deeply rooted in our culture that surely many people related to the educational process such as authorities, teachers, students and even parents would consider unfair a system that tends to eliminate the recognition of the superiority of some over others. The above statements regarding the existing obstacles to the implementation of criterion-based/mastery-based assessment are not intended to provide excuses or pretexts to invalidate this type of assessment or to make one think that there are no conditions or possibilities to implement it; they are simply intended to point out that in order to carry it out, obstacles of different kinds must be faced and resolved through management and planning, which, given the somewhat rigid characteristics of many HEIs that are reluctant to introduce innovations or changes to the educational-evaluative process, would have to be done, but above all, work to change and create a new professional awareness and vocation of service on the part of teachers to conduct themselves in accordance with this evaluative proposal (Pérez Hernández AF, et al. [2]).

### **Innovation vs Tradition**

Evaluation has always been a concept and a practice inherent to every educational process, where it is philosophically and theoretically established that it should never be considered or carried out as an isolated activity and much less considered as something secondary or unimportant within the educational fact, since it is part of it. The educational task cannot be thought of without the evaluation of learning and therefore, it should not be treated as something alien or separate since it is closely linked to all the aspects that determine the educational result. The nature of the evaluation depends, first, on the curricular goals that must be achieved and second, on the purposes for which the results of the evaluation will be used; the broader and more complex the goals, the more complex the task of the evaluation will be. Usually in HEIs educational innovations are not accompanied by clear and precise proposals (although there are exceptions) for carrying out careful evaluations. Generally, these proposals for transforming the educational fact that concerns the teaching-learning process do not entail administrative supervision in accordance with the transformative proposal and at this stage of the process, traditional evaluations continue to be applied based on the norm learned and understood consciously or unconsciously by the teacher, which in one way or another is part of their culture. This lack of systematic and methodological evaluations is the reason why, in education in general and specifically in HEIs, in the changes and transformations proposed regarding teaching practice, traditional pedagogical strategies are adopted that are foreign and contradict and clash with the advances in research and educational innovation.

Traditional teaching has a model or paradigm where the task and function of the teacher consists of transmitting knowledge and know-how through the classic lesson or session and checking if they are acquired and subsequently reproduced. This situation denotes certain

circumstances where the teacher is not sufficiently clear about the objective or purposes that he or she pursues or should pursue with his or her teaching and pedagogical work. Under these situations, it seems logical to assume that if the teacher himself or herself does not have sufficient clarity in relation to the goal(s) that he or she pursues or if he or she handles them in an implicit and inadequate way, Less clear may be their students, especially if the management is taken into account, almost always in a wrong way and under interpretations of the concept of academic freedom where they assume themselves as owners within the classroom and do there what they consider and want (Valverde X [3]). On the other hand, regarding this point (to further clarify the idea regarding evaluation), we understand academic freedom as the right of the teacher to carry out his teaching activity in a professional and respectful manner, without restriction due to his ideological orientation or political preference, he has the right to express his convictions, dissent and distance himself from the prevailing governmental or ideological policies.

This freedom, however, finds a clear delimitation and obligation in the study plans and programs, as well as in the regulation of the teaching-learning process that the educational organization has established through its curriculum and programs and that the teacher is obliged to observe and comply with, without detriment to his opinions on them. In these conditions of confusion and conflict that lead to the application of traditional assessments, the teacher and the educational institution will not be able to know precisely whether or not they achieve their goals, nor will they be able to establish valid comparisons if there is no data and evidence to issue judgments or opinions. Certainly, with the difficult situation of the educational goals of the traditional system, it is practically impossible to carry out assessments based on a teacher's criteria or a mastery by the student regarding certain knowledge, know-how and/or competencies that he or she must know, know, handle or in other words acquired in transit or at the end of the course or semester.

This type of criterion/domain evaluations have no tradition in the Mexican educational and pedagogical field. There is even a belief that its application is more feasible in open educational systems or in individualized teaching due to the more relaxed administrative and school conditions compared to the difficult and complicated ones of face-to-face and group school systems. Therefore, it is necessary to work constantly, continuously and firstly with the educational authorities and secondly with the teaching staff so that it is understood, and its benefits are recognized as well as the theoretical and methodological frameworks that support it.

This evaluation focuses its concern on the full development of the student and rejects the idea that there are students who can learn little; rather, it considers that this attitude may be a justification or an excuse for some teachers not to make an effort to improve their teaching work (Holmos Flores E, et al. [4]).

## Evaluation by Teacher Criteria and/or Student Mastery

As already mentioned, the referred evaluation proposes to comprehensively reflect the learning that a certain study program or teaching work plan foresees; when for certain reasons the student does not achieve the expected results, the teacher must promptly point out both the progress in the learning that he or she has already mastered, as well as those that he or she has not yet mastered, so that, knowing his or her academic, administrative and school situation, he or she can act accordingly. An example of the above would be: when a student is expected to be able to correctly define and explain 60% of the words on an exam because they will not be able to answer more than that percentage and they correctly write 55%. When it is said that he or she has written 55% correctly, we describe the results of a reference to the standard or to what is established as common and expected and no indication is made to the students nor any action of teaching intervention. When evaluating with reference to the criterion-domain, it would be said "the criterion of 60% was not met, therefore they must be taught more". Another example of the above to better clarify the nature of this type of evaluation, we will resort to a discipline in the health field such as Dentistry. Let us imagine that there is a student of the Bachelor of Medical and Dental Surgery who is the best in the class and in his group, let us imagine that he is about to perform an extraction (exodontia) of a first upper left molar (36) and that before starting with the clinical treatment and with the patient already lying in the dental chair and with his mouth open, he says to him "Sir, I am going to start the extraction treatment, do not worry (and then he tells him), I have obtained the highest grades in knowledge of anatomy, dental pathologies and tooth extraction techniques, I only got bad grades in anesthesia".

The feeling that the patient would experience in this situation would be exactly the same as that of any person going to any professional to request their services, who has always been evaluated and accredited based on the standard. In the evaluation with reference to the criterion/domain, the important thing is to verify the learning internalized by the student. It is not about teachers and students striving to approach the goal, but rather about the student demonstrating whether he or she has fully, partially or to a limited extent achieved the knowledge, know-how and skills required to be promoted to the next higher grade. When the criteria or domains that are intended to be achieved are important, that is, when there is a genuine need to achieve them because they are determining factors for a good and correct performance during the training process and consequently, of the professional exercise, it is necessary to verify it in its proper dimension and the only way to do so is by comparing the performance of each student with the established curricular criteria (Hortigüela Alcalá, et al. [5]). The standards for this type of assessment are taken as fixed and determined points by which the mastery and/or achievement of the skill can be judged as adequate or inadequate, regardless

of the collective performance of the reference groups. These patterns, called standards referred to a criterion, are absolute because they do not depend on a reference group and because they indicate what a student can do with respect to the carefully determined learning goal.

### **Purposes of this Assessment**

When the assessment of learning does not consider the diagnosis of multiple individual differences as a primary task, when it forgets about the student and his circumstances and is only used to justify existing procedures, conceal problems or justify decisions that an administrator wants to make, it becomes a very paradoxical situation, since the school considers the individual and social development of the student as one of its essential functions. In accordance with these ideas, the practice of evaluation according to criteria should pursue the following purposes: Evaluate individual performance in relation to absolute criteria, which indicate what an individual can do based on said criteria and not in relation to the performance of other individuals; establish a system of verification of achievements, at each moment of the teaching-learning process, in such a way that allows detecting successes and errors in a timely manner, in order to take the appropriate measures. The fulfilment of these purposes would allow obtaining systematic information on the learning obtained, in order to decide on the most appropriate pedagogical sequences in each case in order to take the appropriate measures to overcome the deficiencies, that is, to establish remedial teaching programs or actions. Currently, and despite the theoretical rethinking that has arisen around the evaluation of the teaching-learning process, in practice it is still not given the importance it really has.

The starting point of the evaluation by criterion and/or domain must be the definition of the criteria or domains that the student must achieve; These domains are derived from the professional profile or the partial profile depending on the semester or course that is being taken, a profile that every institution should have clearly explained in its curricular documents in order to guide the development of the knowledge, know-how and skills necessary to be promoted to the next higher level or for their professional practice according to social and labour market demands and not according to the teacher's decision (Hidalgo N, et al. [6]).

### **Projection and Perspective of the Evaluation**

It is necessary that the mechanisms and instruments that the teacher uses to verify the progress, stagnation or regression of the learning of their students are planned adequately (intention and purpose) so that from there they can gather information, issue judgments and take validated decisions and use it properly as evidence that the learning process has developed conveniently and that the established criteria or domains have been achieved. To do this, it is necessary to take into account the type of evidence that is desired to obtain, in such a way that it values both the pedagogical-didactic process and the achievement or not of the planned objectives or purposes, the

scope or limitations of the instruments themselves and the possibilities of the student and the teacher in terms of time, resources and capacities to work with the designed evaluation instruments. Once the instruments designed to be applied at the beginning, during the course and at the end of the course or semester have been applied and the information of each student has been concentrated in their respective evaluation form, an analysis and interpretation of them can be carried out, a task that constitutes the essence to issue the judgment regarding the level, quality and quantity of knowledge, know-how and competences that the student has acquired in comparison with the planned goals. This analysis will allow a rational taking of a series of decisions such as the following: The evaluation applied at the beginning will allow to know if the knowledge, know-how and competences of the students cover the basic requirements planned to continue linking the new ones on them, at the same time it will allow the teacher to determine the entry expectations to propose the experiences and work dynamics.

At the same time it serves to know the deficiencies of the group and consequently take the pertinent measures to overcome possible deficiencies and to be able to satisfactorily start the corresponding course (Gil Flores J [7]). During the course, it will allow feedback on the teaching-learning process once the failures have been detected and analysed in order to know the type of remedial instruction for those students who are not achieving the expected learning. At the end of the course, it will allow certification of the capacity achieved by the students with respect to the established criteria-domains, to evaluate the internal and external coherence of the teaching-learning process; that is, group development, the results obtained and their relationship with those required by society and the professional field.

### **The Case of Clinical Evaluation at the UAO/UAZ**

With respect to everything raised and pointed out in relation to the evaluation by criterion / or domain we can point out that within the Autonomous University of Zacatecas (UAZ) there is an Academic Unit that since the beginning of the year 2000 made the innovative approach and presented a proposal to carry out this type of evaluations to know the degree, level, quantity and limit of the learning of the students in the clinic; this academic unit is that of Dentistry (UAO), said measurement was raised and justified curricularly in the sense of getting to know and assessing the degree of progress, stagnation or regression that the students had in relation to the gradual and progressive acquisition of learning, knowledge and / or skills that they should be acquiring and internalizing with and through knowledge of the cause regarding and referring to the dental treatments that they directly perform on their patients, under the direct and continuous supervision of their clinical teacher. This innovative assessment proposal was designed for its application with a series of criteria and domains clearly established in the curriculum corresponding exclusively to the part of the clinical work depending on the semester that the student was going through. These teaching criteria are estab-



lished based on the categories of learning achieved: familiar (partially or fully assisted), knowledge (partially or fully assisted), competent (partially or fully assisted).

The mastery that the student must have is established by the type and quality of dental treatment that he must perform on a curricular and semester basis in order to care for the patient who requests his medical-dental service and thus resolve his oral-dental problem or pathology from a preventive or rehabilitation perspective (Curriculum [8]). All clinical treatment protocols that are considered in the study plan that the student must learn to perform them with professionalism but under the supervision, surveillance and tutelage of the clinical teacher must be monitored step by step in the modules and clinical units from the moment the student begins to work on patients at the beginning, in the transition and at the end of the course or semester; these protocols are subjectively segmented pedagogically and didactically at the time of review-supervision by the teacher to be evaluated step by step so that at the end of the treatment he can partially and globally issue a criterion referring to the methodological form and quality of its application by the student and take partial note of it so that at the end he can perform an analysis of the performance and quality of what was done to the patient under the criterion categories of familiarity, knowledge, competent.

Unfortunately, despite the innovative and pertinent nature of the evaluation proposal referred to, its application in this academic unit has not been total, adequate and fully utilized as planned, institutionally wasting the benefits for the student, the teacher and the IES itself, since in many clinical teachers the logic of traditional evaluation permeates even when they apply the methodology and formats designed for evolution by criterion-domain and they continue to carry out evaluations from the perspective of comparison between students and they in turn work under the domain of competition and rivalry.

## Conclusion

Undoubtedly, educational processes in HEIs truly require to be analysed from the perspective of the evaluation stage, because as mentioned, in the great majority of them, the traditional method or strategy is used to give an assessment (grade) of the students' learning, that which adheres to the norm, thereby depriving them of a true supervision and monitoring of what is being learned over time and permanence within the educational institution. We recognize that the proposal itself is difficult and complex to understand and apply, the first is due to the fact that culturally the own experiences, assimilated

and internalized by teachers during their stage as students generate a very deep-rooted burden that most of the time is imposed (remember that the figure of teacher is built by the subject essentially from the experiences lived and is complemented with the theoretical aspects that are internalized). Secondly, we understand that the administrative overload that teachers are subjected to in relation to the work they represent, such as the number of groups and students, also generates a weight that is difficult to bear and so we look for ways to lighten it and make it bearable and comfortable. In addition to this, the lack of training, capacity and vision that most educational authorities have also plays an important role in this situation, since for many of them there are more important aspects within the educational process to attend to, such as the economic and political aspects, which completely inhibit other concerns and relegate the student's progress in relation to their learning to something secondary. We can affirm that these situations are the same causes that have hindered the correct application of this innovative proposal at the UOA/UAZ.

## References

1. Valverde Berrococo F, Revuelta Domínguez I, Fernández Sánchez MR (2012) Competency-based assessment models through a learning management system: experiences in teacher training. *Ibero-American Journal of Education OEI/CAEU* 60(2012): 51-62.
2. Pérez Hernández AF, Mendez Sanchez Cristian Janet, Perez Arellano Pedro Perez Arellano, Yris Whizar Hector Manuel (2017) Criteria for the assessment of learning in higher education. *Emerging Trends in Education* 28(63): 60-68.
3. Valverde X (2017) Traditional assessment vs. alternative assessment in FAREM-Carazo. *Torreón Universitario Journal* 6(15): 161-168.
4. Holmos Flores E, Atencio Gonzáles RE, Espinoza Moreno TM, Abarca Arias YM (2023) Alternative assessment and traditional assessment in the context of university education. *Koinonía Interdisciplinary Refereed Journal Santa Ana de Coro* 8(16).
5. Hortigüela Alcalá, Pérez Pueyo A, Abella García V (2015) Student perspective on traditional assessment and formative assessment, contrast of groups in the same subjects, REICE: *Ibero-American Journal on quality, effectiveness and change in education* 13(1): 35-48.
6. Hidalgo N, Murillo FJ (2017) Conceptions about the process of evaluation of student learning. *REICE: Ibero-American Journal on Quality, Effectiveness and Change in Education* 15(1): 107-128.
7. Gil Flores J (2012) The evaluation of learning at the university according to the experience of students. *Semi-annual Journal of the Department of Education Faculty of Philosophy and Letters University of Navarra*.
8. (2018) Curriculum. Academic Unit of Dentistry Autonomous University of Zacatecas.

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2025.60.009501

Jesús Rivas-Gutiérrez. Biomed J Sci & Tech Res



This work is licensed under Creative Commons Attribution 4.0 License

Submission Link: <https://biomedres.us/submit-manuscript.php>



#### Assets of Publishing with us

- Global archiving of articles
- Immediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles

<https://biomedres.us/>