

THE FRANKENSTEIN EVALUATOR**

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**"From its modest beginnings in the eighteenth century universities and the educational systems of the nineteenth century, learning evaluation has rapidly grown to become the undisputed arbiter of value, either of student achievement, institutional or national quality and competitiveness in education. Equally remarkable has been the lack of any serious challenge to its hegemony." (Bradfoot, 2000: IX).

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Resumen

Dada la importancia que la evaluación ha adquirido en el país tras dos décadas de haberse instaurado el llamado “Estado evaluador”, el discurso de la evaluación se ha modificado sustancialmente pero las prácticas en el aula apenas si han cambiado. Este artículo persigue dos objetivos: reflexionar acerca del papel del docente como evaluador del aprendizaje en el ámbito actual de la educación superior y desentrañar el funcionamiento del sistema en la evaluación de los alumnos.

Palabras clave:

- Evaluación del aprendizaje
- Evaluación de alumnos
- Evaluación cualitativa
- Políticas de evaluación
- Educación superior

Abstract

Given the importance evaluation has garnered in Mexico, at two decades from the inception of the “Evaluating State,” the evaluation discourse has undergone substantial modifications, yet changes in classroom dynamics have been barely noticeable. This paper pursues two goals: to reflect on the role of the teacher as a learning evaluator in higher education environments, and to unravel the functioning of the system in evaluating students.

Key words:

- Learning evaluation
- Student evaluation
- Qualitative evaluation
- Evaluation policies
- Higher education

Exposition

Regarding the title of this paper, as the reader may recall, Dr. Victor Frankenstein, surrounded by his instruments, as his experiment successfully draws to a close, casts a spark of life into the monstrous body he had forged by joining various parts of dissected corps. At that point Dr. Frankenstein realizes the abomination he has created, rejects it in horror and flees his laboratory. But the "demonic monster" he created followed him like a shadow, leaving in its wake a trail of tragedy and sorrow.

Establishing a parallel, the university teacher—due to his own lack of training in teaching—experiments with evaluation in the classroom, until he turns it into a "monster" that in its wake leaves a trail of unrest, resentment and suffering in students, who end up becoming victims of the "Frankenstein Evaluator." Only that in this case damage to individuals tends to be psychological and emotional, and perhaps not so apparent to the naked eye.

In this paper we depart from the assumption that most university faculty lack training in teaching, therefore, they have no specific training in the field of evaluation, which in practice, hinders the recognition of the complexity of both the learning process and its proper assessment.

Teaching is increasingly difficult and learning has become more challenging for students in an ever more globalized and interconnected society (Hargreaves, 2003; Stoll, Fink and Earl, 2003). Although student assessment has always been a complex issue, nowadays it seems even more so, for it entails assessing both cognitive and social skills (Moreno, 2009c). This by its very nature bewilders an assessment supported by rudimentary tools and techniques that fail to capture all of its depth and richness. In this regard Barnett (1994: 171) states: "Evaluation of the quality of higher education is still at a very rudimentary stage, therefore we cannot be sure about the rigor of any method."

The teacher, according to his own biography, education, experience and the contextual conditions in which he is immersed, creates a framework to approach the task of evaluating students, which constitutes a required function. In this sense, we may say that evaluation is a personal affair between each teacher and his group, but also it is a social affair, because the way evaluation is conceived and practiced is shaped and influenced by the context, the pedagogical forms and traditions the teacher shares with colleagues (past and present) as a collective, and those that shape his professional identity. Hence, if we want to change the evaluation we need to focus not only on the individual teacher but on the broader teaching profession and the educational culture at large (Hargreaves, 1996, Bolivar, 1993).

In several higher education institutions (HEIs) there are series of contradictions and imbalances that lead to evaluation becoming a "Frankenstein", since the concepts, approaches, methodologies and schemes adopted correspond to a wide range of different disciplinary traditions ranging from all: teaching, learning and evaluating theories. In this vein, evaluation practices

in the classroom become an "amorphous body", from the union of different parts, which ultimately ends up being harmful and even at times threatening to its very creator/inventor. We all know cases of teachers who have (or had) troubled relationships with students because of the evaluation results or the procedures used.

In such scenarios, evaluations, far from being a means to enhance learning, the development of students and improving teaching, can easily become a barrier for its main stakeholders: the students and the teacher. This situation is paradoxical because it is they who should benefit from the assessment, provided, of course, it is not seen as a control mechanism but in its formative nature (Moreno, 2009a, Santos, 2007).

We will now focus on some of the contradictions present at the macro-level, the evaluation of the educational system, to then get back to the imbalances that occur at the micro level (classroom), so faculty may compare experiences and draw some categories, serving as triggers for a process of reflection aimed at improving evaluation practices, as "for strengthening the quality of teaching and learning it is essential to develop qualitative reflective abilities as well as leadership skills in teachers" (Nakazawa and Muir, 2009: 37).

Contradictions in the evaluating system

Formative evaluation is emphasized in the discourse yet in practice summative evaluation is imposed. There are frequent references to evaluation as a tool that seeks the integral and harmonious development of the individual, taking into account personal objectives and goals, involving both the learning processes and its results. Nevertheless, in practice this discourse is betrayed by giving excessive weight to national admission exams for high school or college, graduate tests, regular and special examinations to pass the courses of a degree program, and international tests (e.g., PISA). This is because "as it is, students must have good grades (or measuring equivalent) to advance in their academic trajectories and have access to the most desirable opportunities. In principle, grades are used to assess actual skills... because they are considered a guarantee of a sufficient knowledge level. In practice, it is the result that counts. With two well-known perverse effects: the fast and shallow preparation for examination and cheating" (Perrenoud, 2008: 89).

The complexity of evaluation in the hands of lay and improvised personnel. Faculty recruitment and selection policies tend to be too lax about the conditions and requirements for admission into academia. Degree requirements (masters or doctorate) have increased but not in regards to teacher training. Most teachers joined faculty with not more than bona fide and noble intentions. It is worth wondering if we would board a plane piloted by someone who loves to fly and likes heights but has never been trained as a pilot.

This disregard for teaching as a profession reveals the low social value that is awarded to it, beyond the rhetoric about teachers being key actors in curriculum design. The truth is that, in general, HEIS do little to professionalize their teachers, which ultimately may have dire consequences in the teacher's role as a learning evaluator.

Sending conflicting messages to students: it is commonly stated that what is important is learning, not scores. It is difficult to persuade students to strive and work hard for achieving significant learning and professional skills, that "they must study to learn, not to pass exams" when in a meritocratic society like ours educational institutions promote a school culture which gives prominence to surveys, contests of knowledge¹, honor rolls, classifications according to test scores, and so on. This mismatch of the system causes a teacher that encourages students, telling them to gear their efforts towards learning, to appear in the eyes of the students as naive at the very least.

Sending mixed messages to teachers: It is requested from them to recognize and respect diversity in the classroom, while there are established formats and deadlines for evaluation. Many university professors experience evaluation as a contradiction, for it is difficult to balance the process of training and evaluating the diversity of students (motivation levels, cognitive styles, previous knowledge, needs and interests...) when institutional policies rigidly set deadlines in which students must demonstrate, usually by being administered an exam that they have learned the contents of the curriculum as if learning could be reduced to a single event. The exam schedule becomes a "straitjacket" that constrains the possibilities of deep and relevant learning, which halts the creativity of both teachers and students, which often results in a learning that is mechanical and artificial.

Stealing the evaluation results from its natural constituencies. When learning evaluation becomes almost exclusively a tool in the service of administrative procedures it is to be expected that the results serve to prepare reports or accountability statements, but not to enhance learning and teaching. This is one way to steal the evaluation results from the main actors in the educational process, since they do not benefit from it.

Evaluation for improvement or for controlling? Another learning evaluation inconsistency is when evaluation is expected to be an instrument for positive change but in reality it is used to control people, whether it is the teachers by the system, or the students by the teacher. In this case, evaluation stops being something that helps the learning process and becomes a liability with no benefit whatsoever for the teaching-learning process, therefore, it represents only a compliance with established laws and formalities (Barron and Diaz Barriga, 2008).

¹ For example, the Supreme Court has summoned 16 HEIS, both public and private, with the most nationally recognized law degrees, to a knowledge contest called The Legal Challenge, the contest is transmitted on the Court's cable channel. Authorities at my university feel very proud about the performance of the 4 students who represented the institution in the competition because in the first phase, they beat out the ITESM team from Monterrey, that had won the competition in the previous year.

Establishing a causal relationship between evaluation and quality. It is considered that evaluation almost automatically means to raise the quality of education, with this belief in mind, it is all about evaluating whenever possible and this would automatically ensure quality learning. An impoverished view of both evaluation (turned into simple measuring) and quality (reduced to indicators) thereby prevails².

In line with this mentality: "In higher education, quality must be attached to indicators that allow it to be measured... there are internationally recognized indicators for determining the quality of programs offered" (u2000 Mexican Education Newspaper).

This reduction of the concepts of quality and evaluation has permeated the entirety of educational system policies. This has baffled faculty who are constantly caught in this dynamic evaluation schizophrenia.

It is true that positive quantitative indicators³ have gone up, which has made it seem that the situation has indeed improved significantly. But "the indicator improvement only shows that the efforts of the past two decades have been geared towards establishing greater uniformity in the system and in establishing a new baseline, however, the promised improvement of educational quality in itself has likely not been achieved. Mainly because it still has not addressed teaching and learning in and of themselves, but other related factors" (Canales, 2010: 24).

The pretense is to improve evaluation without changing the conditions in which the teacher teaches. It is not enough to expect teachers to improve their evaluations by receiving training in this area. Knowledge, skills, desirable dispositions and attitudes are required to create conditions within the HEIs for teachers to implement the new learnings acquired. They also need incentives to take risks and cope with the frustration this may entail. In short, qualitative evaluation requires time for teachers to be able to reflect and discuss among themselves, this basic condition is something that in many universities is simply non-existent. Teacher collegiality cannot exist in current conditions, academic bodies are often an effort that results in a contrived collegiality (Hargreaves, 1996; Moreno, 2006).

The contradictions of the system significantly influence evaluating concepts and practices by teachers, leading to imbalances that materialize in the classroom. Some of these most common inconsistencies will be hereafter referred to.

² Barnett's (1994: 172) reflections on the evaluation of quality are very poignant: Our methods for evaluating quality arise from our deepest beliefs about what could be considered as quality. But, more importantly, these beliefs about what is considered quality are derived from the most fundamental assumptions on the ideal nature of higher education. If we believe that higher education is ultimately the last instance for the redistribution of opportunities in life, this idea will generate a particular view of what is considered quality and this, in turn, leads us to use some evaluation methodologies and to equip ourselves with certain performance measures rather than others. Consequently, different rationales would flow if we consider that higher education is essentially a matter of capturing specific sets of 'truths' about the world, or if we feel that higher education is to project a higher profile for this technological economy in the world order.

³ Some higher education indicators evaluated during this period were: coverage increased almost ten percentage points; enrollment grew by more than 1.5 million students; the teaching chairs nearly doubled; competitive funds were established; teachers' education level and the time they devote to teaching have increased substantially; completion rates improved slightly; a growing number of programs have been accredited; the number of books, projects and papers continued to increase. Also, subject failure and dropout rates have slowly declined (Canales, 2010: 23).

Inconsistencies of the teacher as evaluator

Students are key players in their learning but not in their own evaluation. New educational models and curricula for higher education have a constructivist approach, these models focus on the paradigm of learning, insisting that students are responsible for their own education. They appeal for an active and committed participation of learners in constructing their own learning, this is indeed positive, but then the implementation of the model cracks when the time comes for evaluation, the student –referred to as the subject– becomes a passive and receptive object of the evaluation. The protagonist is the teacher who designs, implements and evaluates the results. The student is excluded from the evaluation, and therefore from the benefits that participating in this process can provide for their learning (Stiggins and DuFour, 2009).

A speech that introduces concepts of alternative evaluation but within a traditional scheme. Some university professors have adopted innovative language in regards to evaluation, due in part to their attendance to training courses, lectures or reading books on the subject, so in their speech they incorporate educational terms such as meaningful learning, authentic evaluation, formative assessment, self assessment, co-evaluation, rubrics, portfolio of evidence, and even a few of them –the least– have dared to experiment in the classroom with some of these forms of evaluation, only that, due to a lack of broader pedagogical training, teachers end up using old schemes to assimilate the new tools of qualitative assessment. Then their evaluation system ends up becoming a "hybrid" or a "Frankenstein", so for example, we have teachers that use continuous assessment or a portfolio of evidence (which are alternative formative assessment techniques) in a conventional manner.

Theoretical confusion. The absence or lack of teacher training is conducive to teachers' conceptions and beliefs, which largely guide their teaching and evaluation practices to become ambiguous. This translates into eclectic and inconsistent actions. In the absence of clarity about the theoretical guidelines that orient the teacher and evaluator it is difficult for them to justify decisions or explain certain actions in the classroom.

The use of different theoretical evaluation approaches such as: evaluation a) focused on objectives; b) based on decision making; c) as synonymous of measure; d) as a type of research; e) for improvement; f) to detect responsibilities; g) to exercise authority; h) assessment of merit (Nevo, 1997). As well as the adoption of evaluation approaches ascribed to psychological trends such as behaviorism, cognitivism, constructivism, etc. which can translate into contradictory activities that teachers generally are not even aware of.

The argument that evaluation is a source of motivation for all students. This belief that many teachers hold is not entirely true, because if it is true that the evaluation can motivate "some" students, the mistake is to generalize and say that it can serve to motivate all students. For students who have had previous experiences of academic failure it is difficult to find a source of inspiration in evaluation for redoubling their efforts, and it is predicted that

if faced with demands to achieve ever higher performance standards, they will fall prey to disappointment and hopelessness (Stiggins, 1999).

An open teaching-learning process that closes at the time of evaluation. Some teachers show openness in their teaching approaches by incorporating strategies and methodologies (cooperative learning, collaborative learning, problem solving-based learning, group techniques) that encourage student participation, creating a relaxed classroom environment in which communication flows and where interaction is encouraged. But then everything falls apart and a gap emerges when implementing a closed approach to evaluation. The use of written tests is favored and the former teacher-facilitator, motivational guide turns into a spy watchdog, a jealous guardian of tradition. As if he were prey to a psychological disorder, the gentle teacher suffers a split personality commotion on test day and becomes an ogre who instills fear in the group (Moreno, 2009b).

The use of written proof responds to the need for tangible and objective evidence (exams, papers, essays...) in the case of any student grievance that merits further justification. This highlights a problem of credibility in the evaluation process.

Evaluation as a technical rather than an ethical and moral issue. This is a sensitive issue that much of the literature on the subject ignores or neglects, especially those who consider that evaluation is a purely technical matter in which the scientific and methodological rigor has to be most important. The language is littered with technical jargon: mean, mode, standard deviation, average, sampling, percentiles, quartiles, objectivity, validity and reliability of instruments used, neutrality of the evaluator... This is a language that only experts in measuring can decipher. Evaluation results are enshrouded in mystery.

We argue that it is not about performing good evaluations from a technical standpoint but to reflect on why to evaluate, what is it for and who is it serving, what are the values we are endorsing and promoting with our evaluation practices. Let's not forget that "evaluation may be objective but unfair." Evaluating has two dimensions: technical and moral-ethical, the second being more important than the first (House, 1994).

Not recognizing the weight of informal evaluation in the results of formal assessment. Informal assessment is a concept used long ago by Perrenoud (1996), the author mentions that the term informal does not mean second rate or of lesser importance, on the contrary, this type of evaluation is as important as formal assessment, or more so, since it consists of the value judgments and hierarchies of excellence built by faculty from the value assigned to the activities and performance of students. In this sense, informal assessment strongly influences the results of formal evaluation.

Making co-evaluation and self-evaluation a trap for the student. These evaluation methods hold great benefits for student learning but also pose risks to the tranquility of the teacher and the stability of the group when they are implemented by unexperienced teachers or people lacking social skills,

who do know how to navigate the type processes that may arise, especially with those groups of students that have grown accustomed to controlled evaluation.

These types of participatory assessment practices require teachers to be willing to give the group some of their power as evaluators, to have an open and honest attitude toward students, to keep their promises and to be prepared to take this exercise to its ultimate consequences, even if the end result may not turn out to be as expected. In this regard, Alvarez (2001) suggests that the self-assessment that does not involve self-awarding of scores is a fraud, for students and teachers must be able to accept this condition from the beginning. In short, these are complex processes that require a change of mind and a fresh look at the evaluation process.

Recommendations

In the preceding pages we have reviewed some of the most frequent inconsistencies in higher education around the issue of learning evaluation, now is the time to go from criticism to proposing, the reader is probably wondering: How can I improve my evaluation practices in the classroom? The following are some suggestions in this regard, with the understanding that they should only be taken as guidelines:

- The theoretical and conceptual training in the field of educational assessment, and particularly that of learning, is paramount. This does not necessarily refer to training through formal schooling or courses, it may be accessed through various routes. This requires a practical training component which may include modalities such as self-assessment and peer assessment so that teachers can develop their evaluating skills in their work environments, this will require advice and guidance from professionals in the field. To have the expectation that from the beginning teachers will be able to develop these skills by themselves is an ill founded idea.
- Recognizing that teaching, learning and evaluating are complex processes, thus answers that simplify the assessment process, e.g., with the use of a single technique or tool to assess learning achievement, are inadequate. The phrase "learning is too complex and evaluation too imperfect to account for this complexity," sums this idea up well.
- To learn, unlearn and relearn from evaluation. Updating is necessary because evaluation is an evolving field with innovative and suggestive theoretical and methodological developments. It will be necessary to replace or discard some of the knowledge, skills and attitudes that were useful in other times but now have become outdated and even counterproductive, given the characteristics of the new generations of students and the expectations that contemporary society has of teachers. This resignation is not an easy task, it is a process that could be hard and painful but definitely necessary, the concept of lifelong learning becomes essential to relearn a new body of knowledge in order to innovate.

- Including students in the evaluation process. Learning for understanding that promotes relevant learning requires formative evaluation and this cannot happen without active student participation. To involve learners in the process is to engage them and hold them accountable for assessing their learning processes, but this has to be done gradually since most students have not developed the skills and attitudes favorable for objectively evaluating their own work and that of their peers. The acquisition of this competence requires time and patience in good doses.
- Introducing changes in educational culture so that the conventional assessment of which essential functions are: oversight or control of the selection and classification of students, among others, yields its throne to an *assessment of learning and for learning* where formative, training, feedback, guiding and motivating functions become central to the educational process.
- To distinguish the administrative functions of evaluation, seeking accountability through accreditation, from the pedagogical functions that seek to promote student learning.
- To understand that evaluation is not a purely technical issue but has a moral and ethical dimension that the teacher and evaluator ought not overlook. It is not true that the end justifies the means, the teacher has to wonder if the means are ethical and just.
- HEIs must generate, support and sustain over time conditions for teachers to innovate their evaluation system. If we take seriously the new curriculum models currently in vogue, which are more flexible, learner-centered and oriented towards the development of professional skills, the stage is set to renew, or better yet, change the entrenched ancient practices for evaluating that still linger in much of contemporary higher education.

Final Thoughts

To improve teaching and learning it is necessary to improve evaluation, since due to its relevance, it significantly effects other elements in the curriculum. Given the supremacy that evaluation has achieved in recent times, it is difficult to imagine that anything can move in another direction, leaving the evaluation unchanged (Leathwood, 2005).

To renew evaluation we must begin by recognizing that what we have been doing has not been adequate or at least it may be perfected. In Mexico, after two decades of experimentation with evaluation, it is necessary to create a truly national system of evaluation, for the presumed improvement of education thus far has not yet become evident.

The assessment of learning is no trivial matter. To make the evaluation machinery work, many decisions need be made, and negotiated. Finally, all of this leaves few resources for teachers to renew their teaching, embarking on new learning experiences, transforming their methods or their style of classroom steering. This obstacle is as simple as it is crucial, often evaluation absorbs the lion's share of the energy and ingenuity of students and teachers, leaving innovation scant space.

The first requirement in a real revolution in evaluation is to take the

myth of Dr. Frankenstein seriously, that is, of evaluation as an artifact, as a process of amassing and compounding an inert body of disconnected and irrelevant knowledge, in the minds of learners (Santos, 2008).

For these reasons it is urgent that education authorities, those responsible for teacher education programs and teachers themselves act decisively and commit to change, so that the current "Frankenstein Evaluator" becomes a "fit and healthy body." For the sake of our students' well being we have the ethical commitment to look at evaluation from a broad new perspective.

References

- Álvarez, J. M. (2001). *Evaluar para conocer, examinar para excluir*, Madrid, Morata.
- Barrón, C. y Díaz Barriga, A. (2008). "Los sistemas de evaluación y acreditación de la educación superior", en Díaz Barriga, A. (Coord.), Barrón, C. y Díaz Barriga, F. *Impacto de la evaluación en la educación superior mexicana. Un estudio en las universidades públicas estatales*, México, ISSUE-UNAM, pp. 129-163.
- Barnett, R. (1994). "Power, Enlightenment and Quality Evaluation", en *European Journal of Education*, Vol. 29, (2), pp.165-179.
- Bolívar, A. (1993). "Culturas profesionales en la enseñanza", *Cuadernos de pedagogía*, núm. 219, Barcelona, pp. 68-72.
- Broadfoot, P. (2000). Preface, in A. Filer (Ed.) *Assessment: social practice and social product*, London, Routledge Falmer, ix-xii.
- Canales, A. (2010). "Evaluación: dos décadas de experimentación", en *Educación 2001*, núm. 176, enero, pp. 20-24.
- Hargreaves, A. (1996). *Profesorado, cultura y postmodernidad*, Morata, Madrid.
- Hargreaves, A. (2003). *Enseñar en la sociedad del conocimiento*, Barcelona, España, Octaedro.
- House, E. (1994). *Evaluación, ética y poder*, Madrid, Morata.
- Leathwood, C. (2005). "Assessment policy and practice in higher education: purpose, standards and equity", en *Assessment & Evaluation in Higher Education*, Vol. 30, Num. 3, June 2005, pp. 307-324.
- Moreno, T. (2009a). "La evaluación del aprendizaje en la universidad: tensiones, contradicciones y desafíos", en *Revista Mexicana de Investigación Educativa*, COMIE, Vol. xiv, núm. 41, abril-junio, México, pp.563-591.
- Moreno, T. (2009b). "La enseñanza universitaria: una tarea compleja", en *Revista de la Educación Superior*, ANUIES, Vol.xxxviii (3), núm. 131, Julio-Septiembre, México, pp.115-138.
- Moreno, T. (2009c). "Competencias en educación superior: un alto en el camino para revisar la ruta de viaje", en *Perfiles Educativos*, ISSUE-UNAM, núm. 124, abril-junio.
- Moreno, T. (2006). "La colaboración y la colegialidad docente en la universidad: del discurso a la realidad", en *Perfiles Educativos*, CESU-UNAM, Vol. xxviii, núm. 112, pp. 98-130.
- Nakazawa, K. y Muir, H. (2009). "Implementing Change in Assessment Practice through Participatory Action Research: Trial through Distributive Leadership Model", en *The International Journal of the Humanities*, Vol. 6, (10), pp.37-44.
- Nevo, D. (1997). *Evaluación basada en el centro*. Un diálogo para la mejora educativa, Bilbao, Mensajero.
- Perrenoud, P. (1996). *La construcción del éxito y del fracaso escolar*, Madrid, Morata.

- Perrenoud, P. (2008). *La evaluación de los alumnos. De la producción de la excelencia a la regulación de los aprendizajes*. Entre dos lógicas, Buenos Aires, Colihue.
- Santos, M. A. (2007). *La evaluación como aprendizaje. Una flecha en la diana*, Buenos Aires, Bonum.
- Santos, M. A. (2008). *La pedagogía contra Frankenstein. Y otros textos frente al desaliento educativo*, Barcelona, España, Graó.
- Stiggins, R. y DuFour, R. (2009). "Maximizing the power of formative assessment", en *Phi Delta Kappan*, May, 640-644.
- Stiggins, R. (1999). "Assessment, student confidence, and school success", en *Phi Delta Kappan*, November, 191-198.
- Stoll, L., Fink, D. y Earl, L. (2003). *It's About Learning (and It's About Time) What's in it for schools?* UK, Routledge.
- U2000 *Crónica de la Educación Superior en México*. Entrevista a Javier de la Garza, Coordinador General de los CIEES y director general del COPAES. <http://u2000.com.mx/670/670prima.html> [Retrieved jul. 2010].