

Formative Assessment as an Essential Competence of University Teachers

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Abstract: *In the framework of a competency-based education, teachers require to acquire previously the formative assessment as a fundamental task to develop an educational process of higher quality. In this article the complexity of the educational act is analyzed from a socio-cultural approach, presenting the theoretical bases that support a continuous and ongoing evaluation of student performance. It is highlighted the role of teachers in order to help students to achieve their learning objectives and it is promoted a comprehensive evaluation, where self-assessment, peer assessment and hetero assessment are essential stages for feedback of the teaching-learning-processes. The evaluation will be useful when strengths and weaknesses of the educational process could be determined holistically, to consolidate and transfer strengths to other areas or contexts overcoming weaknesses and shortcomings in time, before the end of the semester. It is recommended that university teachers develop the competence of formative assessment so that they are in a position to redirect scientific discourse to a scenario in which the educational process unfolds. For this, the teacher needs to assume its role as a mediator of knowledge, so that the course contents are understood and assimilated by the student.*

Keywords: *learning, assessment, feedback, teacher competence.*

I. Introduction

The purpose of this paper should explain the nature of the problem, previous work, objectives and the contribution of the paper. The contents of each section may be provided to understand easily about the study. It is presented a framework for the formative evaluation process at the top level to contribute to the improvement of the educational process.

The authors of this study based on their experience as teachers and administrators in higher education, consider the following questions detonate a series of reflections on the educational processes currently underway at universities in Mexico:

Do students gain knowledge and skills in educational programs established? How can we know if the institutional efforts are being successful? Are college students learning the course contents? Are teachers adequately giving feedback to the educational process?

It should not be a surprise the existence of traditional or conventional educational practices in the classroom, when it is consider that efforts to improve the quality of education have not been systematic or systemic. Educational research implies that is not easy to change entrenched practices on teachers.

Generally speaking, the pedagogical training of teachers in the middle and higher level is very limited and specifically weak regarding to evaluation. Update teaching activities offered in Higher Education Institutions have neglected the educational process.

In recent years, the attention of educational institutions has focused on large-scale assessments, while the comprehensive evaluation of the educational process that may have greater influence on student performance has been neglected almost completely [1].

National or regional assessments seeking to hold schools accountable for reaching certain standards may be unfavorable to the consequences of poor performance. Educational policies established are designed to strengthen the institutions that have more resources.

Too often these standardized tests determine what happens in the classroom, since some teachers focus on providing only the content that will be evaluated in these trials, with the intention of obtaining a satisfactory ranking, making the test result an end, not a means to education. Many teachers, if not all, perceive these external assessments as something conflicting or opposing the development of a truly comprehensive education [2].

It is important to recognize that there are some problems in higher education institutions to develop formative assessments, for example, the lack of a clear definition of evaluation, the contrast between formative and summative assessment and the absence of formative assessment educational planning [1].

However, to the extent science education advances it opens new horizons for improving learning assessment methodologies, especially for those who seek to serve educational purposes, providing elements so that teachers and students could direct their efforts to achieve better academic results. Formative assessment is an educational competition, whose complexity requires special attention, because it permanently develops during the process of teaching and learning. Formative evaluation is a fundamental competence for university teachers which besides assessing the performance and products generated by students, it also implies taking into account the personal, family and social students [3].

II. Development

The teaching and learning process demands a comprehensive evaluation to demonstrate significant progress in achieving the academic skills of students. From the first contact with the group, it is essential that teachers perform a diagnostic assessment to all students, to learn the skills, background knowledge as well as their expectations and based on these elements it could be planned the didactic planning on teaching-learning process to ensure mastery of the program contents, the teacher has the responsibility to substantiate the learning of their students before, during and after the learning experiences.

In a second stage, formative assessment or evaluation of the educational process is presented; this stage takes on a formative because it provides the opportunity to perfect the student's performance, enabling the facilitators and students know the level of achievement of objectives, to refocus pedagogical practice promptly. Here the self-assessment and peer acquire an indispensable role. Unfortunately it is known that there are more teachers who do not provide this feedback to students to improve their performance, hoping that the academic papers are properly made on the first try, without taking into account that academic success is more about perseverance than by talent.

Student self-assessment allows a critique of their own performance. The student must know clearly the criteria for the academic product meets the standard set. The facilitator should provide these criteria previously in class, or publicize the instrument by which the student will be evaluated. If the student does not know the criteria that will be evaluated, then there won't be benchmarks to compare their performance.

After this stage, it is necessary that the works of students are reviewed by peers to receive feedback on the product or performance. This allows identifying gaps, deficiencies or weaknesses in the work. Thus, the partner who evaluates other recommended changes that are necessary before delivering the final work the teacher for feedback. This kind of interaction is part of the reciprocal teaching to reach the Zone of Proximal Development (ZPD) that usually occurs between the inexperienced student and a partner with greater mastery of content or between student and teacher. The purpose of the peer assessment as well as the hetero assessment made by the teacher will always be to improve student performance, not to be committed to parents, education authorities or society by giving good grades.

As noted hetero assessment is the one made by the teacher to the student, or in a broader sense, the hetero assessment is the one that takes place between people who are at a different level of the organizational structure of the school system, so when the teacher evaluates the student is also considered a hetero assessment. Thus, hetero assessment is a continuous and ongoing process, which allows the teacher feedback on the students' knowledge to retain and relate the new information presented in class. The timely evaluation of exercises, tasks and products, either through self-assessment, peer assessment and hetero compensate for deficiencies models allow academic products or exercises to achieve full ownership of the learning objective.

A comprehensive evaluation must be understood as a dialectical process of continuous improvement, critically should provide feedback to improve the process of teaching and learning practices undertaken by both the teacher and the students, and through dialogue strategies adopted or decisions to reorient academic work, based on rational interpretations involving all existing information, thus allowing to keep, modify or replace the activities of teaching and learning and work attitudes are taken.

Finally, after these steps, it will make sense summative evaluation, which involves making a final assessment, considering the score obtained in the integrating activities or those evidences that determine the course approval. Therefore, so that teachers could adopt the new university teaching practices it is required certain conditions, not absolute but needed, to remove the obstacles presented by inadequate regulation and external evaluations incompatible with formative assessment. It is important to mention two essential points [1].

A teaching approach centered in the curriculum, overloaded with content, requires teachers to spend most of the class time to each subject and prevents them from acting on the complex processes that involve modifying the conceptions of the students, develop trust in their own learning opportunities and autoregulation skills that are fundamental for students to play an active and productive role being responsible for her training.

Adequate formative assessment and good teaching demands that teachers have the necessary skills to identify the needs of their students, and to replace structures and erroneous preconceptions by scientific knowledge.

Formative assessment therefore implies continuous action assessment and reflection on the development of teaching-learning process, that some authors include evaluation on a triple loop in the process, expressed as a teaching-learning-assessment, this approach allows to recognize what students do, how they do and why they play the way they do. Formative evaluation is intended to provide alternatives to improve student performance and learning levels [4].

Formative assessment model is much more than a collection of information of student performance, since it considers itself a learning moment. The theoretical foundation of formative assessment is derived from the sociocultural theory of learning, which considers learning as a factor in human development, which is presented as more social construction than biological, where the higher functions are the result of cultural development that it presented with the intervention of mediators of knowledge. Regularly Sociocultural Learning Theory is explained through the known as Zone of Proximal Development (ZPD) established by Lev Vygotsky, which is a region in an imaginary continuum of learning, between what the student can do independently and what it can be done with the support of someone with greater knowledge. The Learning is a form of appropriation of the cultural heritage available and not just an individual process of assimilation. Social interaction is the origin and motor learning, in other words, through interaction with peers consciousness is acquired and learned to use symbols that allow the person to think so ever more complex [5].

For Vygotsky there are two types of mental functions: the lower and upper. Lower mental functions are those with which we are born, they are the natural functions and are determined genetically. The lower mental function, behavior or conduct limited to a pulse level as an adaptive response to the environment. Instead of higher mental functions are acquired and developed through social interaction, presenting complex thinking and behavior [5].

Sadler (1989, cited by Shepard, 2006) notes that it is insufficient when evaluating teachers that they simply indicate if the answers are right or wrong, making dichotomous observations if they are good or not the learning activities, on the contrary should be encouraged an evaluation that explicitly define clear performance criteria and to provide students with extensive feedback strategies to improve their performance, in simple and understandable explanations of how to fill a gap, thereby enriching the performance [6].

Feedback is recognized by the new approaches as a crucial action to fulfill its formative evaluation function [7]. The feedback provided by the formative evaluation seeks to bridge the gap between the current level and a desired level of learning.

Evaluative research has demonstrated the effectiveness of a formative assessment system to overcome obstacles to the achievement of learning objectives, where students of the group where a feedback system was implemented during the formative evaluation improve the level of utilization of university students mastering the most important issues of the course, beating ten points out of 100, the group that received no feedback [8].

It is important to recognize that students respond differently to the way learning experiences. Students regularly achieve shallow or deep contents that are taught in the subjects of the curriculum domain. Needless to say students are not deep or superficial, but these labels refer to their way of assimilating the contents, it is not to label students as good or bad, since this classification refers to the performance in the task school and not a moral judgment [9].

Some students easily adapt to the demands of the activities proposed by teachers, this means that if a student is performing satisfactorily or outstanding manner with respect to their group, easily adopt an attitude to serve superficially to the activities this level of work required to meet the learning objective [10], whereas a student who is used to working superficially will have to improve their study habits to acquire a deep learning of content, because it requires more guidance, motivation and effort.

Deep learning is considered a desirable path to reach a quality level in the academic performance. Therefore, a quality university education will be the one which promotes deep learning for most students through learning activities. However, to achieve this purpose it is also required that teachers reflect on their own performance, since the teacher is in charge of planning the learning objectives, the activities of teaching and learning and student assessment and learning process .

It is essential to note that the assessment is a means for educational purposes and also by itself is a teaching-learning strategy therefore has to be included in the planning process as an important pillar for achieving educational purposes. By living the experience of the evaluation process, the student takes a deep level in the field of competency elements evaluated. The same evaluative experience modifies the levels of reflection and learning object domain; therefore, after each assessment the proficiency level of the student will increase [11].

Teachers need to have the competence to diagnose situations and propose methods and effective techniques for students to improve their performance, based on a continuous assessment of the development of teaching programs, so that their work does not become a curricular experimentation unfounded.

III. Conclusion

The evaluation will be useful when it allow us to know the strengths and weaknesses of the educational process holistically, to consolidate the strengths and transfer them to other areas or contexts overcoming weaknesses and shortcomings in time, before the end of the semester. Knowing indexes or hard cycle data of previous semesters is very important, but it is better to know the reality of ongoing educational process. Adequate and permanent record of this information will determine new strategies and learning activities to avoid taking the wrong course. Moreover, formative assessment is a process in which teachers and students can discuss their achievements and difficulties.

It is expected that the reflections presented in this paper will facilitate the generation of deep thinking that distinguishes formative assessment as a complex process that cannot be confused with the simple act of examining. There are implicit multiple actions and practices that go beyond the act of grading the achievements of students.

Evaluation should be consistent with the methods of teaching. In addition there must be consistency between the program objectives, content and type of activities fostered learning [9]. Therefore, one of the main obstacles of the evaluation is the uncertainty of teachers about whether they have properly organized activities, or properly implemented methods, chose teaching resources appropriate to the needs of the group.

It is recommended that university teachers develop evaluation skills, particularly the competence of formative assessment so that they are in a position to redirect scientific discourse to scenario in which the educational process unfolds. For this, the teacher needs to assume its role as a mediator of knowledge, so that the course contents are understood and assimilated by the student.

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