

Evaluación Crítica y Formativa en Estudiantes de Educación Secundaria

Luz Marina Llanos Díaz (*)

llanosdiaz@uniminuto.edu.co

<https://orcid.org/0000-0001-7775-8133>

Luz Aidé Figueroa Zapata (*)

lfiguer5@uniminuto.edu.co

<https://orcid.org/0000-0003-4829-8339>

(*) *Corporación Universitaria Minuto de Dios - Uniminuto*
Bogotá, Colombia

Recibido: 15/07/2021 **Aceptado:** 27/10/2021

Resumen.

Este estudio describe los enfoques que tiene una institución educativa privada sobre el proceso de enseñanza, aprendizaje y evaluación. Su plan de estudios incluye un documento riguroso con políticas de evaluación, (SIEE: Sistema de Evaluación Institucional) con una valoración de tipo formativo hacia el pensamiento crítico y analítico en los estudiantes. El objetivo fue analizar el tipo de evaluación que se realiza, las consideraciones de los estudiantes sobre la misma y la motivación hacia el aprendizaje. Se utilizó un método cualitativo de tipo descriptivo de acuerdo a Hernández et al, (2010). El análisis incluye estadísticas descriptivas, cuestionarios, entrevistas abiertas, protocolos de observación y análisis de la literatura. Se concluye que algunos docentes no están involucrados en las dinámicas contextuales del aprendizaje, ni toman en cuenta los intereses de los estudiantes, actualizarse. Por consiguiente, esto lleva a advertir que los actuales maestros deben estar actualizados y conducir la docencia a través de estrategias de investigación dinámicas y motivadoras. De esta manera, la propuesta del modelo pedagógico transformador y la evaluación crítica formativa, tendrá sentido en los estudiantes, y por consiguiente en nuestra sociedad.

Palabras clave: Evaluación formativa, métodos de evaluación, pensamiento crítico, pedagogía, métodos de enseñanza.

Critical and formative evaluation in secondary education students

Abstract

This study describes the approaches that a private educative institution has about teaching, learning and assessment process. Its curriculum includes a rigorous document with evaluation policies, the SIEE (Institutional Assessment System) is offering a formative evaluation, critical thinking and analytical formation on students. The research was directed finding what kind of assessment is done, student`s considerations about assessment, and motivation for learning. A qualitative descriptive method was used (Hernández et all, 2010). And the analyses include descriptive statistics, questionnaires, open interviews, observation protocols, and literature analysis. The paper concludes that some teachers are not involved in the contextual dynamics of learning, nor do they take into account the interests of students. So, this leads to warning that today's teachers must be updated and conduct teaching through dynamic and motivational research strategies. In this case, the proposed transformative pedagogical model and critical formative assessment will have sense on students and therefore, in our society.

Key words: Formative evaluation, Assessment methods, critical thinking, pedagogy, teaching methods. (Tesaurus de la UNESCO)

Introduction

Challenges facing education in Colombia are many, and they can be addressed from different aspects such as quality, coverage, technology applied to the economic and scientific development, as well as urban and rural development, among others equally necessary. But in the area of assessment and its relation to teaching learning processes, it must be directed and mobilize more rapidly in all sectors, given that its application is what determines to a large extent, the learning quality processes, educative institutions are bringing. And, therefore, it reflects the quality of formed citizens, who become the new leaders, or the qualified labor force that a globalized and transverse world is waiting for, (Figueroa & Vasquez. 2018). This aspect is also expressed by Richmond, Salazar & Jones (2019 in terms of "Scholars also have asserted that the goal of assessment should be to address issues that challenge the nation such as global competition"(p.86)

For many years, the word “assessment” was used primarily to describe processes of evaluating the effectiveness of sequences of instructional activities when the sequence was completed, (William, 2011.p.3). However, it should be noted that there are many factors that intervene in education, and some of these occur within the classroom because there is a complex degree of responsibility between two entities: students in the commitment to develop their competencies to the extent that they appropriate the knowledge and skills. And the teacher, who is the guide in directing cognitive and procedural skills. In addition, it must be clear that assessment is not the end but rather the means by which skills and acquired abilities are demonstrated. Since there are many other factors that make possible or could be a disadvantage for individual performance (Agudelo, Figueroa, Vásquez, 2019).

Additionally, the Colombian education system seeks to improve these performance standards, which are quite unequal between private and public education institutions, with lower performance for the latter, according to the weighted average on the scale established by the ICFES (Colombian Institute for the Promotion of Higher Education). This is reflected in the statistics for 2015, 2016 and 2017 where many of the private Educational Institutions (EI) manage to be above 60%, while the official sector barely reaches 50%, having had a slight increase in 2018 (ICFES. 2018).

It is necessary to highlight that education in the private model, makes much emphasis on the preparation for the state standardized test, and on the different strategies that are

developed in simulations and Pre ICFES workshops, which allow to have a considerable advantage over the results of public schools (ICFES, 2018). In this study we intend to show which are the processes of formative critical assessment that are followed in a private educational institution in the city of Medellin, Colombia, which performance is higher from public schools. Despite this, it was established that in many cases memory is privileged, with multiple choice tests that argue for exact and objective knowledge, through mnemonic and not so significant practices. It leads teachers to reflexive processes or relations between the contents or previous knowledge and the real context of the learner in terms of resources, habitat, individual characteristics or learning rhythms, ignoring in most cases that we are entering a new era with multiple characteristics (López & González 2018).

In addition to this, assessment of the learnings in secondary schools plays a decisive role whereas schools, teachers and students are often judged by the results obtained in the state standardized tests which is applied in many countries, too (Wragg, 2003). And beyond this, although the result does not significantly affect the training process of students or delay them in their life projects, but it does question the quality of the education provided, later reflected in access and performance during higher education (Agudelo, Figueroa, and Vasquez. 2019. p. 24).

Background regulating evaluation in Colombia.

To enter into an objective analysis of this study, one must be clear about the guidelines of the Colombian Ministry of Education; through the General Education Law 115, in Decree 1860 where establishes that the evaluation is a process and not a final act (MEN, Ministry of National Education, 1994), and in Decree 1290, (MEN,2009) where students evaluation is regulated by learning performances, and all considerations of early promotion, under a pedagogical and dialogical perspective through the SIEE.

Likewise, the SIEE must integrate three significant elements: the pedagogical that includes evaluation and promotion criteria, follow-up actions for improvement and student self-evaluation processes. The methodological, within which are synthesized the strategies of assessment and comprehensive support of school performance. And finally, the administrative and institutional, which specifies the scales of assessment and national equivalence, the delivery of reports and the procedures and mechanisms for attention and participation (MEN, 1994). In this way, assessment of the learnings should be a creative, dynamic, flexible, permanent, and

organized process, directed to the interpretation of reality based on knowledge acquired. As it was expressed by Shavelson, (2008) “Moreover, assuming alignment (at least to some degree) between curriculum assessments and standardized assessments, students might transfer their embedded and end-of-unit test performance skills to standardized testing situations (p.297).

Therefore, it is important to remember that the evaluation includes its own methods such as: self-evaluation, where the subject evaluates his own activities, and identifies his or her knowledge with maturity. The co-evaluation that consists in the mutual evaluation between student and teacher, allowing to improve the learning and everything that happens in the classroom. And the hetero evaluation, where the teacher gives his criteria from the learning obtained by the student. Here we can say "that assessment is complex and serves many different purposes and should determine not only the kind of data which are collected, but the ways these data are analyzed, used, and shared with others” (Richmond, Salazar, & Jones, 2019. p. 86).

In addition to that, we can say that a complete evaluative process, includes: What and How is it taught, what and How it learned, as well as contents and the methods is. In other words, the product and the process of education, that is, the value of knowledge is channeled, in some way, by evaluation, (Ruiz, 2009). And the process through which the scopes, achievements and goals of the individuals in formation are verified and allow them to contextualize theory with practice in different areas of social and personal performance.

Appraisal and evaluation: The process.

Here, three methods of assessment are proposed and determined as a complete system of values to take into account at the moment of evaluation during learning process:

Diagnostic evaluation: It is defined as the previous step to determine the skills, abilities and knowledge status of the learners. It is carried out at the beginning of the learning stage, in the case of schoolchildren, it is known as an entry background knowledge in which teachers can rearrange his or her work plan according to previous proficiency. Which will give the teacher the opportunity to homogenize the cognitive processes, but in terms of competences due to social and behavioral characteristics. A similar opinion was expressed by the OECD (2013) “countries are becoming more and more diverse in terms of student backgrounds and prior learning, teachers are increasingly expected to identify what students already know and can do to in order to respond to the learning needs of individual students” (p.150).

Formative evaluation or evaluation by processes: It is the permanent feedback between teacher and student on the progress being generated, allows the identification of problems and their possible solution, employs various activities to overcome weaknesses and strengthen knowledge. According to Hamodi, López, López, (2015), formative evaluation develops in the learners the critical and analytical capacity to interpret their learning. In the words of Monteagudo (2014) formative assessment allows students to advance in social and personal development, they feel comfortable and they grow up in self autonomy.

The summative or final evaluation: which guarantees that a stage of the process has ended and leads to radical decisions to establish the achievement of competencies, provides information to individualize the difficulties in learning, and evidences the significant changes that the student has had in his journey. However, the ideal is that it attends to the individualities, establishing a genuine teacher – student communication. So “teachers are increasingly expected to identify what students already know and can do to in order to respond to the learning needs of individual students” (OECD, 2013.p.150).

In the E.I of this study, the Institutional Assessment System (SIE) was designed with those features mentioned above, and according to educative laws. It is socialized and approved by the educational community, so it is supposed to be the guide in cognitive assessment processes at the time of school promotion. And the results must be a positive promotion which includes a student with abilities, cognitive, personal, social competences which will be useful when they leave the school to develop their life project, as young and adult human beings. But something, a little different, was stated for students during the research process.

Assessment under the concept of transformative pedagogy.

The educational model of transformative pedagogy empowers all dimensions on human being and seeks to strengthen the competencies of being, doing and knowing. In this order, transformative pedagogy, which involves much of critical thinking on students, develops in them, values, disposition, attitudes and behaviors. It takes into account the biological, psychological, sociological, spiritual, intellectual and aesthetic processes. In other words, Rosnawati, Kartowagiran, Jailan, (2015) say that “critical thinking disposition is a constellation of attitudes and intellectual virtues which becomes a consistent internal motivation used to achieve critical thinking activities (p.187). Those have to be evaluated in such a way that the

subjects can build knowledge and transform their reality. In this sense, evaluation considers elements such as why, what, when and to whom does the teacher evaluate (Richmond, 2019).

Meanwhile, Siegel (2010) quoted in Rosnawati et al, (2015) emphasizes on “the importance of disposition: ‘the disposition to engage in and be guided by assessment ... Thinking disposition is a tendency towards certain intellectual behavior patterns’ proper of human beings (p. 187). Along these lines, is inferred that they are acting, analytical beings who seek continuous improvement when they are convinced of evaluation benefits. In this case, the teacher is an advisor and a guide, who establishes integral value judgments, both qualitative and quantitative, in a continuous process.

However, there is a gap between theory and actual practice that leads to epistemological changes in genuine and true evaluation, especially when private and public education are compared. There are manifestations linked to ideological, economic, political, cultural and institutional factors, as stated by the UNESCO, (2015) showing that in the educational system in the private sector, there is concern regarding the academic performance of students. Since each institution tries, by any means, to maintain a high level in standardized tests to obtain social recognition, and therefore better economic income. But the gap is noticeable, it does not depend in educative policies at all. Those who go to private school are families with a certain economic power and dedicate time to study. On the other hand, and according to PNUD, (2018) there are families which low incomes do not permit children and teenagers stay into the schools the time they want, they must work or resign because they do not have money or a family tradition of educative career. Both cases are taking into account when talking about performance and quality learning, between private and public schools.

Likewise, education and evaluation must be a continuous humanizing action, and teaching and learning would be integrated to instruct, guide and inform learners. Yoice et al, (2018,) refer that “in many cases, assignments may not simply reflect instructional decisions of the teacher... Therefore, humanizing assessment is of vital importance so that it generates in students the appropriation of knowledge and can be used in everyday life situations” (p.78). Besides that, it is worth asking about the teacher’s performance, he plays a fundamental role in educational processes. Just as the world and the social system are changing, he or she and the school must adjust to the social transformations from which educational models emerge and visualize the learner in a holistic manner.

Based on the individual and social development of each being in the transformative pedagogy (Freire.1997.p.49-52) which, in the evaluation processes, guarantees the development of the learner's skills. But we must be careful on grading by traditional and non-consulted assessment as a guarantee of quality learning, because as William (2011), expressed about evaluation function and the role of assisting students to learn, "a rebalancing of the attention paid to these two roles was needed, since an over-emphasis on the grading function not only used time that could more profitably spent on other activities" (p.5).

In addition, evaluation of the learning and teaching process is a necessary task, inasmuch as it provides teachers with a mechanism of self-control that regulates them and allows them to establish the problems or obstacles that disturb them. Then "the changes in classroom practice that are needed are central rather than marginal, and have to be incorporated by each teacher into his or her practice in his or her own way, (William, 2011, p.3).

In this regard, the Instituto Colombiano para la Evaluación de la Educación (ICFES), (2013) explains that transformation of knowledge and human conditions through education only happens from the practice of formative evaluation as a special activity that requires an organizational structure giving rise to knowledge and significant constructions. That is, continuous assessment, taking into account the permanent observation of student performance. In the words of Lafrancesco (2011), to transform means,

to change, in terms of modifying to improve, to progress and to evolve ... a transforming school has the mission of forming the human being, in the maturity of his processes, so that he can construct knowledge and transform his socio-cultural reality, solving problems through educational innovation. (p.9).

The transforming school, forms the human being from the knowledge, for the know-how, he develops the capacity to feel and to think, but in a responsible way for the acting, making the future citizen project towards a profession, to the society and in agreement with the economic and political activity of his or her region. An ideal of the neoliberal policies and from which it must detach as skillfully as possible to construct its own space (De Soussa & Meneses, 2011), this would be an ideal educative policy.

Critical learning, Holistic evaluation.

Thinking about assessment as the curriculum pedagogical axis would no longer be prudent, but instead, it is putting in the inkwell the problem inherent to it. The role of the teacher

and the instructor within this globalized world has been unacknowledged, regarded more as mediators between the duty of education and the obligation of the state (Mejía, 2017). A mediator who goes to school to claim the right to education for children, maintains the role of a knowledge that is mediated by the physical and epistemological resources that he or she possesses.

Teachers must call for the development of sciences, for the progress of civilizations, guardian of the expectations in the quality of life and human development through knowledge. As it is taken up by the pedagogy of the oppressed in which Freire (2005) reflects. A current trend that emerges as an alternative to the fragmentation of the learning and the subject, in cognitive, affective and psychomotor fields or spheres. It approaches the reality of the evaluative act and that of the phenomena involved in it, such as those that come from the nature of human perception and from the formation of evaluative judgments, whose recognition is essential to achieve greater objectivity in the practice of evaluation. As was Quoted by Richmond, (2019) “many classroom observation assessment tools exclude equity, humanizing pedagogy, and social justice and, instead, describes the development of content-specific observation rubrics that embody program values of equity and humanizing pedagogy” (p.87).

It is necessary to mention some of the stages that educational institutions have gone through for centuries, in their designs, plans and implementation of norms that, even today, regulate evaluation processes (Mejía, 2017, p. 56-58). At the time, traditional assessment had only oriented teaching to memorized repetition of concepts, without reaching the inference, development of skills and abilities; even today, in spite of the demands of contemporary societies, these practices are vast and multiple. Learners do not exclusively require much knowledge, they must also acquire the skills that allow them to be part of the development as critical active subjects. For this reason, Brown quoted in Pereira & Chaves, (2015) states that "students should understand learning as a multidirectional circuit in which they must take the initiative and stimulate critical, ethical, creative, and sensitive capacities in the management of their learning at all levels in order to foster their integral formation" (p.407).

The curricular guidelines and the planning in the educational institutions included in the PEI (Institutional Educational Project) must respond to the demands of globalization. Also, to the needs of human development, having clear anthropological, axiological, ethical-moral and formative dimensions of the human being, as a proposal of integral formation: a critical thinking,

reflexive and autonomous human being (MEN, 1994). Hence, one of the relevant aspects is its cognitive and therefore scientific development. Since pedagogy, as a discipline, offers some resources that guide the teaching towards other schemes, giving meaning to the existing ones, making the student use the innate and acquired capacities in the perfection of his or her learning. From this perspective, learning task must be continuous and permanent, allowing for co-evaluation, hetero-evaluation, and in a later phase, the respective referrals to a special support group, which implements mechanisms for qualifying student performance, (Richmond, 2019).

The fundamental role of teachers and learning mediators is to highlight, describe and assess the state of the academic processes of the students in their care; this must be done on the basis of ethics, responsibility and autonomy (Hanusheck & Rivkin, 2006). The evaluation process will guarantee the possibility of a critical or alternative assessment that goes beyond technicalities and mechanisms and contributes to the formation of new citizens.

Evaluation in the current context

Mejía, (2017) lead us to remember the teacher's role. He used to be one of authority, and the one who could interpret the contents was constituted as the knower of the truth, his methodology was verbalist, having a totally receptive and rote student without the possibility to give an opinion. Today, the construction and transformation of knowledge and reality was done from the knowledge he or she received and how is he able to transmit or transform, inviting students to participate as leaders.

De Zubiría, (2006), when referring to the subject states, that innovations are the managers of the change in education; but to be able to promote them. Where free and creative spirits are required to assume the challenge to support ambiguity to launch themselves on the path of generating social and educational transformations. In order to innovate, it is also necessary to overcome the fear of freedom (p.228-230). That means, learning must take place within the parameters of training, justice, relevance and transparency, covering all the dimensions of development in order to lead the subject to the strengthening of his or her abilities, to an integral development for his or her environment.

Today, the purposes pursued by evaluation are classified in three ways: An evaluation to render account like measuring results or efficiency. Another, to evaluate for development, that is, to strengthen institutions. In order to accomplish the purpose of defining evaluation process, see what William, (2011) quoted from Black & William, (1998b),

We use the general term assessment to refer to all those activities undertaken by teachers—and by their students in assessing themselves—that provide information to be used as feedback to modify teaching and learning activities. Such assessment becomes formative assessment when the evidence is actually used to adapt the teaching to meet student needs' (p.140).

In conclusion, it could be said that assessment involves general principles of evaluation applied to each context. Evaluation as a moral phenomenon, not merely technical, must be a process and not an isolated act. It must be a participatory process; evaluation has a corroborating and an attributive component, the language of assessment serves to understand and also to confuse, for it to be rigorous it must use diverse instruments, it is a catalyst of all teaching and learning processes, its content must be complex, global and necessary.

Method

The study was utilized under the qualitative paradigm research in a descriptive form, taking into account a particular school academic context in which research techniques as questionnaire tests, participant observation and personal interviews were applied, (Hernández, Fernández, Baptista, 2010). Flow diagrams, analysis matrix and literature review where the tools to get important and useful conclusions.

Participants: The school was an urban private institution considered one of the qualified schools in Medellín according to ICFES annual report. The sample were 34 eleventh grade students, as well as 3 directive teachers and 15 professors.

Procedure: The school has over 90% of its classrooms taught by highly qualified teachers who know and improve curriculum approved by educative laws according to the Ministry of Education policies. Teachers are asked to employ innovative and quality teaching strategies. Also, they are allowed to employ or modify various resources to teach eleventh grade, as well as adapting lesson plans, if needed. The analysis was carried out in accordance with the theoretical reflection made before. And the instruments mentioned above. The results were supported by three analysis categories: evaluative practices at the educational level, transformative pedagogy which includes critical thinking, and meaningful learning.

Findings

When describing evaluative practices used to grade development of significant learning, it was found that there are marked trends in the use of memory and traditional assessment strategies, which do not allow students to participate into a real process. Permanent evaluative practices are observed during the analysis. But the training process is not guaranteed of including critical and formative evaluation, involving feedback, self-assessment and hetero-assessment components in secondary education students at grade 11°. The following comparative table shows the duty of assessment and its doing, according to interviews with teachers and students. They express their concept about assessment, its application and learning effectiveness:

Interview Teacher knowledge and performance versus assessment (14)			
Conception of evaluation	SIEE application	Student Participation Level	Teacher's feedback.
There is the SIEE and the legal educative provisions. All of them are tools applied to improve the learning processes. -Projection of significant learning. Evaluate by dimensions and competencies. The Curricular Guidelines are taken into account. Family support is lacking.	Most of teacher apply it. Lacking disposition: Classes and testing are not really designed by dimensions or competencies. There is much cognitive assessment. Lack of planning, no knowledge of the specific area applied to the context.	It's good. Need to strengthen self and hetero evaluation. There is a high level of performance. They perform evaluations to get out of trouble. There is no student's conviction about learning. Demotivation towards learning. A grade is the goal, not knowledge.	Reflection. Feedback. Repeat tests. Evaluate class processes. Communicate process to families. Prepare students for standardized state exam.
Students' knowledge and performance versus assessment (15 participants)			
. Rules and legal provisions are known by students according to SIE document. . There are a lot of evaluation activities, . There are usually written memory tests. . It is not specified which dimension they are evaluating. There is a lot of theory. . Many do not apply legal provisions. . Teachers do not notify the evaluation early.	The maximum grade is five and the minimum is 1, with numbers. The evaluation regulations are followed. Many lectures, workshops, assignments, sometimes oral exams. Promotion meetings are at the end of the academic term, and there are reinforcement's activities before.	We do and study what they ask us <i>for</i> . <i>Some of us</i> are not very interested. What matters is <i>a grade over 3.0</i> . The self-evaluation is <i>made by questions pointed by teachers</i> . It is done for getting out of trouble. There are some classmates who are not very good because they do not need to pay for a degree in a public university.	Reinforcement workshops, activities, ICFES-simulations, <i>No</i> many teachers return to explain evaluation process. After the <i>grades</i> are delivered on academic reports, we continue with new topics. We are fear to face the teacher out

Illustration 1: Analysis of interview to teachers and students' knowledge and performance versus assessment.

It is highlighted in this table, that there are tools to strengthen the significant learning processes in students, but there are some aspects that do not help the process: teacher's will, application of other forms of evaluation, student interest and motivation, in addition to little family accompaniment. There is an evident gap between what is learned and why it is learned. There are no well-defined epistemological or social criteria regarding the importance of acquiring knowledge, and there is no critical position by either the teacher or the student concerning the benefits of heading learning through a formative assessment process. And a lack of knowledges would be more notorious when a standardized test type is applied at the end of their secondary preparation.

By having the opportunity to review standardized tests, it is observed that they are based on fixed concepts and do not evaluate competencies at all. These strategies do not account for critical, analytical thinking from transformative pedagogy as stipulated on the SIEE document. In this sense, it would require formative evaluations that lead students to make comparisons, inferences, and arguments of knowledge.

By recognizing the conception of critical formative evaluation that teachers and students have, it was established that the opinions are quite close but the praxis does not cover such purposes. See that in the following chart.

Questionnaire to students (34)					
Purpose: To recognize evaluation strategies and the importance of education in students					
How are you evaluated	Importance of critical formative assessment.	Learning Autonomy	Developed skills	Learning	Carrying out Self-evaluation / hetero-evaluation.
Scale of 1-5. Low to high level grade: theoretical and procedural activities In eleven the evaluations are not shared.	Practical evaluation is more important It teaches to think and express itself and the abilities are better evaluated.	Teacher's assessment is based on memory, the student is not allowed to exercise his thoughts, or solve problems independently.	It depends on the subject. We learn to analyze and reasoning about new interesting topics. Creating or arguing is part of a new knowledge.		Teachers consider we are not sincere in Self-evaluation. Both are carried out at the end of the academic term. Not during the process.
It is through the SIEE. 70% works, 25% final evaluation and 5% in self-evaluation. Many times there is no feedback or explanation. Too much summative assessment.	The person must be evaluated as a human being. Oral assessment is a way to develop more skills and knowledge.	Yes, we are autonomous of learning what we need or like. But evaluating our abilities is a challenge. Each teacher imposes the evaluation strategies, almost all the time.	We don't learn anything new. It's just about the classes. It is measured how each one learns. Some of us study just to get a grade. Learning does not matter a lot.		Grade are important for teacher, not our problems or wishes. The self-assessment complements the evaluation. In hetero-evaluation, teachers take part of it.
Assessments, individual or group presentations, workshops, quizzes, group work, writing, exams, debates or ICFES simulation. By dimensions: knowing, doing and procedural from the cognitive,	It takes into account the human dimensions. It involves our integrality as human beings. Different areas are valued. It evaluates academic and personal aspects that some teachers do not see.	There is autonomy, but we do not decide when to evaluate. To be autonomous is to do things for ourselves, but sometimes, our will is not a matter of assessment. The autonomy we have is	No, not many. The subject being evaluated is already explained. They could use new strategies towards thinking and reasoning. It is just memorizing. You study just for the grade, not for learning		We evaluate ourselves in attitude, behavior, what we are in classes. Sometimes teacher's opinion counts more than the student's one. A person is equal to a grade, half of the teachers make the difference.

aesthetic, and communicative.		studying and doing what we want, answering or not.		
A quiz or test do not grade each dimension on us. It would be on student's performance. They are elitist valuations for those of great memory in general tests.	This way they take into account behavior, attitudes and performance, not only numbers. They could evaluate everything on us,	No, but they are necessary. We have to adopt the SIE. Sometimes we suggest to evaluate different. But evaluation is a duty.	Knowledge does not require much effort. Reinforce knowledge and put it into practice counts a lot.	We self-evaluate our behavior, effort, attitudes. Some of us do the same self-evaluation every period.

Illustration 2: Analysis of questionnaire to students.

If a simulation between the Transformative Pedagogy model, guiding learning towards the critical and significant is made, teachers would not appropriate these concepts. They generally reduce their work in the classroom to merely cognitive and memory learning. It would be possible to think that, teachers hardly recognize the legal policies established in the school educational project. This could be adjusted to what was proposed by Newman et al. (2001), quoted in Yoice, Gitomer, Iaconangelo, (2018) about the importance of doing the best qualify work as professionals, “the authentic intellectual work as having three distinctive characteristics. First, it involves the construction of knowledge, arguing that authentic work requires one to go beyond routine use of information and skills previously learned the second, disciplined inquiry, which involves the use of prior knowledge in a field, ... The final characterizing feature is value beyond school, people who do their work authentically, always give positive impact and influence in others (p.49). That means, a teacher involved in any of the pedagogical, social, and scientific teaching fields, will motivate students’ abilities to contribute to their own human development.

Observation protocols

Fifteen teachers from different areas of knowledge were observed two times, and each protocol was designed to capture assessment activities, classroom environments, and interpersonal relationships. See the analysis:

Objective: To identify the strategies used by teachers to develop formative assessment towards meaningful learning and transformative pedagogy.			
Used strategies	Observed meaningful learning	Evidence of transformative pedagogy	Frequency
Written tests. Questionnaires with Multiple choices or written support according to books, explanations or notes from their notebook.	Cognitive aspects are evidenced in the majority of questions and answers Not much possibilities of changing mind.	A traditional learning method is presented here. The questions and the way they are designed do not differ so much from traditional rote learning process.	Most of the assessment time. Applied three or four times a week in different subjects,
ICFES simulations. Standardized tests. It involves the basic subjects.	A very constricted test. Knowledges are exposed to be answered concisely. No place for reasoning.	Evaluative activities with little procedures of analysis or critical thinking. Social and political context is not taken into account so much.	once a week, for 5 months

Discussion panel or oral presentations. Most of assessment activities are done in a written, fixed questions. Specific time for each one.	Oral participation, fluency of expression, there were some leaders, different subjects and knowledges were involved depending on the subject.	They showed a little opened mind during all participations. Sometimes, there was motivation and assertive talking including experiences from their context.	Twice or three times per month in different subjects
Workshops Group or individual. Summative assessment.	They were kind of written research from books or web pages. They did some group activities sharing their abilities. Their work is a little weak	It is clear that assessment is static and sometimes meaningless. Students made them as a responsibility. They need a positive grade. They do not make a strong learning purpose.	Every day in different subjects

Illustration 3: Observation analysis

Discussion.

The latest aspect to look-over in this topic would be the impact that evaluative practices carried out by teachers have had in the formation of meaningful learning for students in the mentioned educational center. It is not satisfactory for a teacher to find that the different evaluative moments and practices are perceived by the students as difficult and meaningless. On the other side, let's think on what Bennet (2011) said quoting Pellegrino et al, (2001) “Formative assessment, like all educational measurement, is an inferential process because we cannot know with certainty what understanding exists inside a student's head”, and then Bennet, expresses that “We can only make conjectures based on what we observe from such things as class participation, class work, homework, and test performance” (p. 13).

Also, students state that evaluation would be more pertinent and provoke spontaneous and real learning if assessment would be to their preference, in agreement with them, according to their cognitive needs. They do not feel summative assessment induce to successfully learning. Although “it should fulfil its primary purpose of documenting that students know and can do but, if carefully crafted, should also successfully meet a secondary purpose of support for learning” (Bennett.2011.p.7). Maybe students do not feel or see this second porpose in their learning process.

Bennet, (2011) also expresses the importance of good relations ships and agreement between both involved in learning process must have. This may be subjective on how to affect or benefit results in students’ assessment. He also says that “Affective causes may be situational ones related, for instance, to the type of feedback associated with a particular task or teacher, or such causes may be more deeply rooted, as when a student’s history of academic failure dampens motivation to respond even when he or she possesses the requisite knowledge” (Bennet. 2011. p.22).

It can be deduced that students' appreciation toward their tasks, influences the effectiveness, efficiency and effort on the results. Students must know when and what an evaluation is about, it leads them to prepare, this way brain is perceiving the need of activate memory and analysis capacity in any subject (Martinez, 2012). Since evaluation from the critical formative perspective must generate responsibility and creativity in the teacher and self-knowledge, autonomy and meaningful learning in the students. According to Yoice et al (2018) "We acknowledge that, in many cases, assignments may not simply reflect instructional decisions of the teacher (p.48) So, they also represent, different implied aspects, as student's behaviour, school necessities, beyond to national policies. Sometimes, assessment gives meaningful learning to survive in a negative classroom environment, for both, teachers and students.

Certainly, it is a researcher's duty inviting on the task of evaluating with a contextual purpose. Taking in mind that next generation of human beings should preserve our rights, our environment, our political and economic systems, but over all, our ethic and compromise in taking care of each other.

Some suggestions for improving teachers' practices, are necessary. If we pretend that our profession and educational system practices will be valued again, as the only way to get a better society. More than a century it was said that the real importance in education were students, then give to students the opportunity to participate in their own learning. Give them what they need, what they consider are able to change. Of course, students need the guidance of excellent professors so, "We have to rethink assessment from the ground up as a coherent system, in which formative assessment is a critical part, but not the only critical part (Bennett, 2011.p 20).

On the other hand, it is important to consider different aspects into the classroom which contributes to a better learning and assessment process. The use of contextualized assessment strategies that go in the direction of Transformative Pedagogy. Having a deep understanding of student's individualities, designed according to different learning rhythms, abilities and interests, a testing where students participate actively and have their feedback, up dated topics, use real life situations which would wake up internal interests. Ausbel quoted by William (2011) suggested half a century ago, that "the most important factor influencing learning is that the learner already knows, that teachers should ascertain this, and teach" (p.4)

The findings shows that teachers must be involved in the contextual dynamics of learning, they need to be updated about new or mixed pedagogical methodologies. It would be interesting when students are conducted through research strategies (Yepes Zambrano, 2019). In this case, transformative pedagogical model and critical formative assessment could be useful and have sense. The same is expressed by Shavelson (2008) “highlighting the importance of teachers in the formative-assessment equation, showed large variability in teachers’ practices, regardless of treatment condition, which in turn impacted student outcomes” (p.310).

Students also need to be conscious of their responsibility and duty. They have a role to play in society. They are expected to be the new scientific, political, social, ethical, members responsible for maintaining the new world order (Díaz, 2002). They must develop critical thinking through teacher’s formative assessment. “The developed formative evaluation model is a procedural model. Development is done by reviewing the theory of critical thinking and the model’s development, and testing a construct model of critical thinking” (Rosnawati, et all, 2015)

Here is a proposal of Natriello, (1987), he had a model of the evaluation process as consisting of eight stages which were quoted by William (2011.p.5):

1. Establishing the purpose of the evaluation;
2. Assigning tasks to students;
3. Setting criteria for student performance;
4. Settings standards for student performance;
5. Sampling information on student performance;
6. Appraising student performance;
7. Providing feedback to student performers; and
8. Monitoring outcomes of the evaluation of students.

Finally, it is recognized that Critical thinking disposition is a component that becomes an internal motivation involved in issues and decisions using creative thinking. The concept of assessment is as Rosnawati et all, (2015) describe: “Formative assessment model development of critical thinking begins with the development and disposition of instruments of critical thinking skills, (p.11). It invites teachers to clarify concepts about formative assessment and assessment for learning.

References

- Agudelo, A. Figueroa, L. Vasquez, L. (2019). Relaciones causales de los factores que afectan el desempeño de los estudiantes en pruebas estandarizadas en Colombia.. . (*Espacios, Ed.*) *Educación y Aprendizaje*, 40(23). Retrieved from <http://www.revistaespacios.com/a19v40n23/19402323.html>
- Alandete, J. (2012, Diciembre 03). El país merece docentes de calidad”. (L. C. Quindio, Ed.) *La Crónica del Quindio*. Retrieved from <https://www.cronicadelquindio.com/noticia-completa-titulo-el-pais-merece-docentes-de-calidad-j-alandete-cronica-del-quindio-nota-55349>
- Bennett, E. (2011). *Assessment in Education: Principles, Policy & Practice*. (Routledge, Ed.) Taylor and Francis group, 18(1), 5-25. doi: <http://dx.doi.org/10.1080/0969594X.2010.513678>
- De Sousa, B. & Meneses, M. (2011). *Epistemologías del sur (Perspectivas)*. Madrid, España: Ediciones Akal.
- De Zubiría, J. (2006). *Los Modelos Pedagógicos: Hacia una Pedagogía Dialogante*. (2 ed.). Bogotá: Cooperativa Editorial Magisterio.
- Díaz, F. (2002). *Estrategias docentes para un aprendizaje significativo*. (2da ed.). (2 ed.). México, México: Mc Graw- Hill.
- Figueroa, L. & Vasquez, L. (2018). Impacto de la licenciatura en pedagogía, en el desarrollo humano de las madres comunitarias del convenio UNIMINUTO –ICBF. *Revista Internacional de Educación y Aprendizaje*, 6(3), 143-152. Retrieved from <https://journals.epistemopolis.org/educacion/article/view/1652/1161>
- Freire, P. (2005). *Pedagogía del Oprimido* (Vol. 55 edición). Argentina: Editorial Siglo XXI.
- Freire, P. (1997). *Pedagogía de la Autonomía: Saberes necesarios a la práctica*. (S. X. Editores, Ed.) Madrid: Paz y Tierra Colección Lectura.
- Hamodi, C. López, V. López, A. (2015). Medios, técnicas e instrumentos de evaluación. *Perfiles Educativos* (UNAM, Ed.), vol. XXXVII, (147), 146-161. Recuperado en 31 de mayo de 2020, de http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-26982015000100009&lng=es&tlng=es, from http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-26982015000100009&lng=es&tlng=es.
- Hanushek, E. & Rivkin, S. (2006). Teacher Quality. *En* E. Hanushek, F. Welch, (Eds.). *Handbook of the Economics of Education*. Ámsterdam, Países Bajos: Elsevier. Volume 2, Chapter 18, pp 1051-1078, [https://doi.org/10.1016/S1574-0692\(06\)02018-6](https://doi.org/10.1016/S1574-0692(06)02018-6).
- Hernández, R. Fernández, C. Baptista, P. (2010). *Metodología de la Investigación* (6 ed.). Mexico: McGrawHill.
- Instituto Colombiano para la Evaluación de la Educación (ICFES). (2013). *Sistema Nacional de Evaluación Estandarizada de la Educación. Alineación del examen SABER 11°*. (M. d. Nacional., Ed.) Bogotá, Colombia: MinEducación, Colombia. Retrieved from

<https://www.icfes.gov.co/documents/20143/193784/Alineacion%20examen%20Saber%202011.pdf>

- Instituto Colombiano para la Evaluación de la Educación (ICFES). (2018). *Uso de Resultados Saber 11*. ICFES interactivo. Retrieved from <http://www2.icfesinteractivo.gov.co/www2.icfesinteractivo.gov.co › divulgacion-2018-saber-11>
- Indriago, L. & Arenas, M. (2012). El proceso de evaluación formativa de los aprendizajes desarrollados en la II etapa de educación básica. *Revista Mexicana de Investigación Educativa*, Vol.17. N° 54. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1405-66662012000300008
- Lafrancesco, G. (2003). *Educación y escuela transformadora*. Bogotá: Editorial Magisterio. Colección Educación, Escuela y Pedagogía Transformadora. <http://www.enjambre.gov.co/enjambre/file/download/9696>
- López, E. & Gonzalez, A. (2018). Las Pruebas de Evaluación Externa como Ejes de la Política Educativa y su Localización en España. *Social and Education History*, 7(3), 232-255. doi:org/10.17583/hse.2018.2836
- Martinez, F. (2012). La evaluación formativa del aprendizaje en el aula en la bibliografía en inglés y francés. (scielo.org, Ed.) *Revista Mexicana de Investigación Educativa*, 17(54). Retrieved from <http://www.scielo.org.mx/pdf/rmie/v17n54/v17n54a8.pdf>
- Mejía, M. (2017). *Educaciones y Pedagogías Críticas del Sur*. Buenos Aires: Parmenia.
- MEN. (1994, Febrero 8). *Ley General de Educación 115*. Retrieved from https://www.mineduccion.gov.co/1759/articles-321725_archivo_pdf_asignacion_funciones_UNALDES.pdf
- MEN. (2009, Abril). *Decreto 1290*. Retrieved from https://www.mineduccion.gov.co/1759/w3-article-187765.html?_noredirect=1
- Monteagudo, J. (2014). Las prácticas de evaluación en la materia de Historia de 4to de ESO en la Comunidad Autónoma de la Región de Murcia. *DART Europe*, 479.
- Natriello, G. (1987). *Evaluation process in school and classrooms*. Columbia University.
- OECD publishing. (2013). Student assessment: Putting the learner at the centre”, . In OECD, *Anynergies for Better Learning: An International Perspective on Evaluation and Assessment* (pp. 139-269). Paris: OECD publications. doi:DOI: <https://doi.org/10.1787/9789264190658-7-en>
- Pereira - Chaves, J. (2015). Evaluación, medición o verificación de los aprendizajes en el aula: Un estudio de caso. *Revista Electrónica Educare*, 19A22(2), 405-427. Retrieved from www.Scielo.sa.cr/pdf/ree/
- PNUD. (2018). *Índices e indicadores de Desarrollo Humano*. (W. D. Communications Development Incorporated, Ed.)
- Richmond, G. Salazar, M. Nathan, J. (2019). Assessment and the Future of Teacher Education. . (SAGE, Ed.) *Journal of Teacher Education*, 70(2), 86-89. doi:<https://doi.org/10.1177/0022487118824331>

- Rosnawati, J. Kartowagiran, R. (2015). A formative assessment model of critical thinking. *Research and Evaluation in Education Journal*, 1(2), 186-198. doi:<https://doi.org/10.21831/reid.v1i2.6472> .
- Ruiz, M. (2009). Evaluación Versus Calificación. *Innovación y Experiencias Educativas*, 1-10. Retrieved from https://archivos.csif.es/archivos/andalucia/ensenanza/revistas/csicsif/revista/pdf/Número_16/MARIA%20DEL%20CARMEN_RUIZ_1.pdf
- Shavelson, R. Donald B. Carlos A, Paul B, Erin F, María Ruiz-Primo, Miki K. T, and Yue M. (2008). On the Impact of Curriculum-Embedded Formative Assessment on Learning: A Collaboration between Curriculum and Assessment Developers. (Routledge, Ed.) *Applied Measurement in Education*, 295-314. doi:10.1080/08957340802347647
- UNESCO. (2015). UNESCO *Office Santiago and Regional Bureau for Education in Latin America and the Caribbean*. Retrieved from <https://unesdoc.unesco.org/inicio>
- William, D. (2011). What is assessment for learning? *Studies in Educational Evaluation*(37), 2-12. doi:<https://doi.org/10.1016/j.stueduc.2011.03.001>
- Wragg, E. (2003). *Evaluación y aprendizaje en la escuela secundaria* (2 ed.). Barcelona, España: Paidós.
- Yepes, R. (2019). Evaluación de los aprendizajes a través de estrategias investigativas. (J. Epistemologis, Ed.) *Revista Internacional de Educación y Aprendizaje*, 7(1), 37-45. Retrieved from <https://journals.epistemologis.org/education/article/view/1850>
- Yépez, R. (2019). La evaluación de los aprendizajes a través de estrategias investigativas. *Revista Internacional de Educación y Aprendizaje*, 7(1), pp. 37-45 Retrieved from: https://pdfs.semanticscholar.org/c94b/639a2164ed633a787c235da82e331488bd04.pdf?_ga=2.246873732.1292719263.1637179688-1961210973.1637179688
- Yoice, Y.; Gitomer, D.; Iaconangelo, Ch. (2018). Classroom assignments as measures of teaching quality. *Learning and Instruction* (54), 48-61. Retrieved from: <https://reader.elsevier.com/reader/sd/pii/S0959475216301323?token=F5B1C9CC2951037497A03F89C3136A8A01B6D8EFFE97375DCC72A55F4882B6E59E02D288E717E52BA0BC891CC7BB5C03&originRegion=us-east-1&originCreation=20211117201029>

Autoras:

Luz Marina Llanos Díaz

Docente en la Licenciatura en Pedagogía Infantil
en la Facultad de Educación de la

Corporación Universitaria Minuto de Dios-Uniminuto, Colombia.

Especialista en Pedagogía para la Docencia Universitaria y Magister en Educación.

Docente en el área de ciencias sociales en educación básica y media. Formadora de maestros en el Programa Todos a Aprender del MinEducación colombiano, 2020/2021

llanosdiaz@uniminuto.edu.co

Luz Aidé Figueroa Zapata.

Maestría en Educación; Especialista en Gerencia Educativa. Profesional en Idiomas Extranjeros, Inglés. 24 años de experiencia en educación del nivel de educación básica y media en el área de inglés y Lengua Castellana. Municipio de Medellín, Colombia y 23 en educación superior, Universidad de Antioquia, Universidad de Medellín, ITM de Medellín y en la Corporación Universitaria Minuto de Dios-Uniminuto, Colombia, docente de Pedagogía e investigación. Dirección de trabajos de grado y líder del semillero de investigación en Prácticas Pedagógicas Inclusivas, Investigadora en la misma Universidad. lfiguer5@uniminuto.edu.co

Como citar el artículo:

LLANOS, L. M., FIGUEROA, L. A. Evaluación Crítica y Formativa en Estudiantes de Educación Secundaria. **Revista Paradigma Vol. XLII, Nro. 2**, Diciembre de 2021 / 279 – 298. DOI: <https://doi.org/10.37618/PARADIGMA.1011-2251.2021.p279-298.id972>