




Formative evaluation: a look from its various strategies in regular basic education

Evaluación formativa: una mirada desde sus diversas estrategias en educación básica regular

Avaliação formativa: um olhar a partir de suas diversas estratégias na educação básica regular

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PALABRAS CLAVE

Aprendizaje, estrategia,
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ABSTRACT. The evaluation from its multiple models starts from being an essential component in any teaching process. This article aimed to review the state of the art of formative assessment with a view from its various strategies in regular basic education in students of regular basic education. A documentary review was carried out in the Scopus, Web of Science, Scielo, and Redalyc databases, using selection and exclusion criteria. It was found that formative assessment strategies should be used to enrich the development of teaching-learning. It was concluded that formative evaluation strategies are the starting point to strengthen student learning, in this way it was found that cooperative work encourages unity in the classroom; at the same time, the students share information about the activity they are doing, creating an atmosphere of peace and tranquility in the classroom. The student is the center of the formative and shared evaluation process, showing that self-evaluation and peer evaluation strengthens the development of their abilities and skills.

RESUMEN. La evaluación desde sus múltiples modelos parte por ser un componente esencial en cualquier proceso de enseñanza. Este artículo tuvo como objetivo realizar una revisión sobre el estado del arte de evaluación formativa con una mirada desde sus diversas estrategias en educación básica regular en estudiantes de educación básica regular. Se realizó revisión documental en base de datos de Scopus, Web of Science, Scielo y Redalyc, utilizando criterios de selección y exclusión.

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Se encontró que se debe aprovechar las estrategias de evaluación formativa para enriquecer el desarrollo de la enseñanza-aprendizaje. Se concluyó, que las estrategias de evaluación formativa son el punto de partida para fortalecer el aprendizaje de los estudiantes, de esta manera se encontró que el trabajo cooperativo, fomenta la unidad en el aula; al mismo tiempo los estudiantes comparten información de la actividad que están realizando, creando en el aula un clima de paz y tranquilidad. El estudiante es el centro del proceso de evaluación formativa y compartida, evidenciándose que la autoevaluación y la coevaluación entre sus pares fortalecen el desarrollo de sus habilidades y destrezas.

PALAVRAS-CHAVE

Aprendizagem, estratégia, avaliação formativa, metodologia ativa.

RESUMO. A avaliação a partir de seus múltiplos modelos começa por ser um componente essencial em qualquer processo de ensino. Este artigo objetivou realizar uma revisão sobre o estado da arte da avaliação formativa, tendo em vista suas diversas estratégias no ensino fundamental regular em alunos do ensino fundamental regular. Foi realizada revisão documental nas bases de dados Scopus, Web of Science, Scielo e Redalyc, utilizando critérios de seleção e exclusão. Verificou-se que estratégias de avaliação formativa devem ser utilizadas para enriquecer o desenvolvimento do ensino-aprendizagem. Concluiu-se que as estratégias de avaliação formativa são o ponto de partida para fortalecer a aprendizagem dos alunos, desta forma, constatou-se que o trabalho cooperativo incentiva a unidade na sala de aula; ao mesmo tempo, os alunos compartilham informações sobre a atividade que estão realizando, criando um clima de paz e tranquilidade na sala de aula. O aluno é o centro do processo de avaliação formativa e compartilhada, evidenciando que a autoavaliação e a coavaliação entre seus pares fortalece o desenvolvimento de suas habilidades e competências.

1. INTRODUCTION

It is a time when educational demands worldwide launch reforms to improve educational success, the interest is concentrated in formative evaluation of student learning (Romero et al., 2018; Muñoz et al., 2019; Fraile et al., 2019). In Mexico, the different educational institutions revealed their difficulties in formative evaluation, trying to carry out implementations to overcome these weaknesses in evaluation, for which they affirmed that it is necessary to improve the academic achievement of students (Luna, 2019).

It is essential to meditate on the evaluation problem, it is always observed from the qualification or quantification and this type of evaluation is not oriented to the development of competences, it is not considered pedagogically (Hortigüela et al., 2019 and Zolle-Valero & Fuentes, 2019). Also, students should not learn by rote the contents of an area (Navarro Gonzalez, Lopez, & Contreras, 2019). They argue that the assessment is a concern that by the time you have the link to the teaching-learning process; so, another look should be taken, one that trains the student in an integral way.

In Latin American region, the main problem of evaluation is that teachers should seek to use evaluation instruments of a formative nature (Pérez-Pueyo et al., 2019). Likewise, in Chile it was found that teachers continue to develop a traditional assessment, pretending that the student responds by rote; so, teachers should take a different look at this process; considering that the evaluation must be carried out according to the characteristics of the students (Serra-Olivares et al., 2018). Based on the above, teachers should not work traditional evaluation, it has to be replaced by a formative evaluation, in which the student feels is part of this process and that their learning will be strengthened.

In Peru, evaluation is not alien to the reality of other parts of the world, a study carried out at the "San Luis Gonzaga de Ica" University on evaluation mentions that it is the teacher who must inquire about evaluation, to

guarantee the evaluation, process learning, and it has been shown that formative assessment is a valuable element to strengthen students (Solano-García et al., 2019; Bizarro et al., 2019). On the other hand, contemporary pedagogical preferences, the conception of evaluation has been significantly transformed, which has ceased to be merely a practice whose center was teaching, where the appropriate and the inadequate were qualified, now it has come to be understood as a practice where the student is the center, while the teacher has a preponderant role in providing adequate feedback and at the precise moment with reference to the transformation of learning (Minedu, 2016).

At the local level, teachers continue to work on traditional evaluation with students, leaving aside a great ally to transform teaching-learning, also formative evaluation is where the teacher and student can reflect on their actions, which will strengthen them. After analyzing the problem about formative evaluation strategies, the objective was to carry out a review on the state of the art of formative evaluation with a view from its various strategies in regular basic education in students of regular basic education.

The perception of Scriven is elementary, if a first educational scheme is evaluated, it is in time to include changes in said evaluation (Martínez, 2012). Likewise, the evaluation must be of quality and equality, this is a transformation of communication and meditation on the products of the students, being formative, global, and constant (Minedu, 2016 and Niño et al., 2019). Also, formative evaluation is aimed at strengthening student and teacher learning, as well as enriching the transformation of teaching-learning in their environment (Gallardo-Fuentes et al., 2019). We also note that the teaching-learning process was strengthened in the classroom since the diversity of the students is respected (Pascual-Arias et al., 2019). On the other hand, formative assessment is perceived as a collective transformation in which the student builds and edifies their learning (Rodríguez & Salinas, 2020).

Theoretical approach to formative evaluation, performance evaluation, is established for the individual as a qualification instrument that makes it possible to co-evaluate himself regarding an assigned work, in this way the evaluator will realize his strengths and weaknesses present in everyone (Ortiz, 2020). Also, the search to measure the performance evaluation leads to considering the opinion of the individual, to implement the pertinent actions to achieve the planned products (Sotelo et al., 2020). Likewise, the authentic evaluation presents a convenience for students to carry out tasks that are meaningful and fruitful for their life project. This task leads them to be innovative and creative, in this way they have the possibility to develop, and promote a positive attitude towards school and learning activities, so it is based on the reflection of both the teacher and the students (George & González-Moreno, 2020).

On the other hand, evaluation for learning consolidates attention to what is being learned and to the quality of the links and interactions in the classroom, based on evaluation tasks and feedback (Rodríguez & Salinas, 2020). We have the developmental evaluation, we understand that evaluation is the process of being aware of the student's progress in the learning area to make correct decisions, which allows better learning in the future. Progress is analyzed on a progress map based on the evidence, the location on the progress map guides us to provide the kind of learning experience that will be provided in the following levels (Bizarro et al., 2019).

Next, the definition of teamwork is linked to dynamic listening, time organization, support between students and individual contribution to teamwork (Martínez, 2017). Likewise, the interpretation of the shared evaluation refers

to individual or joint conversations between the teacher and the student about teaching-learning, developed in advance (Molina-Soria, et al., 2020). On the other hand, we specify the active methodologies such as the methods, techniques, and strategies that the teacher uses to transform the teaching process into work that promotes the active collaboration of the student and materializes in the improvement of learning (Silva & Castillo, 2017).

Likewise, explaining the learning strategies as a flexible guide that are present, the use of them depends on the appreciation that the student must use them and the inclination or stimulation to learn and achieve beneficial results (Hendrie & Bastacini, 2019). In turn, the description of competence is the talent to argue triumphantly to the demands presented in an individual environment, activating knowledge and skills, as well as the social and behavioral factor (Zapatero et al., 2018). Moreover, the explanation of formative evaluation of learning makes it possible to know the level of achievement reached by the student (Cáceres, et al., 2018).

2. METHOD

A documentary review of the state of the art of formative assessment was carried out with a view from its various strategies. We worked with the bibliographic manager Mendeley and the contributions related to the subject and specialized documents were evidenced. También se empleó filtros por idioma, años, publicaciones de las distintas bases de datos para su búsqueda, Scielo, Latindex, EBSCO, SCOPUS. Then the work was systematized with the use of keywords: learning, strategy, formative evaluation, active methodology; with the use of Boolean operators or words in parentheses to find specific information (Moraga et al., 2014).

Some inclusion criteria were taken review articles, systematic reviews, bibliographic reviews that contain any of the key words and from the last 5 years. In some cases, information from previous years was considered due to its importance in the argumentation of the information. Regarding the exclusion criteria, articles that did not consider the topic, duplicate articles or information from journal articles that did not correspond to the database were filtered.

In Table 1, the information was organized using the file system and for the development it took into account the issue of formative evaluation: A look from its various strategies in regular basic education, including teamwork during the formative evaluation, the experience of shared assessment, active methodologies such as formative assessment strategies, learning strategy in formative assessment, competency perspective in formative assessment and formative assessment of learning and for each of these categories the topics detailed below were developed:

Table 1. Systematization of formative assessment strategies in categories and subcategories

Category	Subcategories
Teamwork during the formative assessment. (Alcañiz et al., 2015; Martínez, 2017; Segura, 2017; Fraile <i>et al.</i> , 2019; Gil-	<ul style="list-style-type: none"> • Formative evaluation processes in group work. • The effectiveness of teamwork • Collaborative learning.

<p>Izquierdo et al., 2020; Ahís, 2020 y Toedo et al., 2020).</p>	<ul style="list-style-type: none"> • Cooperative and collaborative teaching strategies. • Application of cooperative learning.
<p>Shared evaluation experience. (Romero et al., 2018; Reyes, 2019; Campos -Mesa et al., 2019; Abella et al., 2020; Souto et al., 2020; Gallardo-Fuentes et al., 2020 y Cortón de las Heras et al., 2019).</p>	<ul style="list-style-type: none"> • Learning goals in shared assessment. • Students' perception of active learning. • Project Based Learning • Attention to diversity in formative evaluation. • Advantages and Disadvantages of Formative Assessment.
<p>Active methodologies as formative assessment strategies. (Casado y Casado, 2017; Delgado <i>et al.</i>, 2017; Fuentes, 2019; Sociedad et al., 2020; Sîrghi, 2020; Candel, 2019; Corona, 2019 y Rodriguez et al., 2020).</p>	<ul style="list-style-type: none"> • Active methodologies in ICT. • Use of ICT in skills development. • Educational experiences with ICT • Gamifiers of the classroom through ICT. • Active methodologies in relation to emotions and ethical values.
<p>Learning strategy in formative assessment. (Hamodi y Lopez, 2015; Saltos-Dueñas y Chiriboga-Zambrano, 2016; Sobejano, 2017; Alarcón Díaz et al., 2019; De la Iglesia Villasol, 2020; Ureña y Lopez, 2020; Huamani y Mejia, 2020 y Pascual-Arias y Soria, 2020)</p>	<ul style="list-style-type: none"> • Student performance. • Learning strategies. • Use of formative assessment tools • Formative evaluation experience.
<p>Competency perspective in formative evaluation. (Bizarro y Quispe-Coaquira, 2019; Ortega-Quevedo y Gil, 2019; Heras et al., 2019; Bedolla y Miranda, 2019; Contreras, 2018; Zolle-Valero y Fuentes 2019; Muñoz y Martínez, 2019; Nolzco y Hernandez, 2019)</p>	<ul style="list-style-type: none"> • Formative evaluation from a competence approach • Didactic sequences of the competences • Feedback in the formative evaluation. • Self-regulation in formative assessment.
<p>Formative assessment of learning. (Pasek de pinto y Mejia, 2017; Solano-García et al., 2019; Chibas y Suceta, 2018; Salas y Escuder, 2020; Caceres et al., 2018; Prieto et al., 2018)</p>	<ul style="list-style-type: none"> • Formative and summative evaluation: a negative experience. • Assessment of interdisciplinary learning. • The role of the teacher in the assessment of learning.

Source: Authors.

3. RESULTS AND DISCUSSION

Teamwork during the formative assessment

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One of the formative evaluation strategies is the performance of cooperative works, in this line of thought it was established that the capacity for self-regulation is essential to carry out teamwork, which is based on innovation and endowment of evaluation criteria. Likewise, it was found that the core of the strategy is help among students; thus, generating a harmonious climate (Fraile, J., Gil-Iquierdo et al., 2020; Fraile et al., 2019; R. Martínez, 2017).

It was found that teamwork guarantees pedagogical intersection through the development of cooperative and collaborative didactic tactics. Likewise, the cooperative learning methodology and puzzle technique were identified, which took place in small teams and the co-responsibility of the participating actors, through debate and contrast of perceptions in different roles (Ahís, 2020; Alcañiz et al., 2015; Segura, 2017). Therefore, self-regulated collaborative work encourages support among students when developing their tasks, which must be done in a pleasant climate.

Shared evaluation experience

Research reports that formative assessment strategies are linked to shared assessment experiences, in that sense it was established that students should be aware of and are the main characters on the path to follow in their own shared and formative assessment. Likewise, along this path the established strategy of distributing learning goals to students was installed to guarantee this process (Reyes, 2019; Romero et al., 2018).

With the previous results, it is established that in this journey learning must be active, identifying as the most outstanding advantage the formative evaluation structure, which goes according to the growth of active, evolutionary, practical, and authentic learning, which is appropriate for the progress of student learning ability and dexterity (Souto et al., 2020; Gallardo-Fuentes et al., 2020). It is reiterated with these studies that the student is the center in the shared evaluation process.

The formative evaluation strategy focuses on the transformation of teaching-learning, then this route found that the students saw self-evaluation and co-evaluation with great acceptance, this implied a practice of self-regulation and self-reflection - critical regarding the acquisition of knowledge and development of skills. In this walk it was evidenced that project-based learning is a formative evaluation process from the perspective of strategies on self-evaluation and evaluation with their peers (Abella et al., 2020; Campos-Mesa, M., González-Campos, G., 2019). We can also indicate the students' liking when performing the peer evaluation among their peers, which will help improve their learning (Cortón de las Heras et al., 2019). It is evident that students observe project-based learning with great expectation, which is why it leads them to self-reflection and in turn work with their peers.

Active methodologies as formative assessment strategies

To the previous results, another formative evaluation strategy is added, which are the Active Methodologies geared to ICT, in this course of work it was identified that the classrooms in these times must be in accordance with the demands of the students, learning based on Projects enabled students to get involved in their own learning, in turn they learned and meditated on their performances (Casado & Casado, 2017).

Various investigations found that ICTs are the strategic ally for the teaching-learning process where graphic organizers were used, platforms to improve work in the classroom, enabling discovery learning (Carrión, 2019;



Corona, 2019; Fuentes, 2019; Granados, J., Vargas & Vargas, 2020; Sîrghi, 2020). Therefore, it is expressed that the perfect duo in the teaching-learning process are active methodologies and information and communication technologies, which in turn awaken the interest of students and significant learning is achieved.

On the other hand, although it is true that information and communication technologies lead to a world where a lot of information can be shared from the pedagogical part, care must be taken when making information our own, if we take this to the emotional part of the student, we must guide them to choose reliable educational pages (Rodríguez et al., 2020). From the foregoing, it is proposed that active methodologies and ICT as formative evaluation strategies open a range of opportunities for students to seek information from all areas of knowledge and in turn interact with other people from different cultures, guaranteeing learning through discovery and meaningful learning.

Integral Learning Strategy formative assessment

In recent years there has been an intense proliferation of formative evaluation strategy outlines, in this reasoning route a position was identified compared to classical education, which leads us to an education where the student is helped, supported and directed in the construction of knowledge, in reality it cannot be taught and evaluated in classrooms with many students, so the teacher cannot personalize a formative evaluation (Alarcón et al., 2019; Covadonga, 2020; Ureña, N., & Lopez, 2020).

To achieve the in the previous paragraph, the planning and construction of evaluation instrument designs should be considered, based on formative evaluation criteria. The application of these instruments allowed the students to reflect on the work and be an active part in evaluating their products (Hamodi, C., López & López, 2015; Huamaní & Mejía, 2020; Pascual-Arias et al., 2019; Sobejano, 2017). Therefore, the assessment instrument must be developed according to the student's needs and this must fulfill its training role.

Competency perspective in formative assessment

Another formative evaluation strategy is postulated, which is seen from the competence approach and in this way of reasoning, the student's self-esteem and self-evaluation were worked, improving the teaching-learning process (Bizarro et al., 2019; Ortega-Quevedo & Gil, 2019). It was also found that there are two forms of competence work, in which students are actively involved and help strengthen competition between similar learning to learn, making learning meaningful (Bedolla & Miranda, 2019; Heras et al., 2019). It is established that from the perspective of competencies, appreciation and self-evaluation are valued as the main axis for the development of abilities and skills of the student from the competency perspective in formative evaluation.

Another similar research deals with the self-regulation of formative evaluation based on feedback, in the teacher he identified the strengths and weaknesses of the students, reflecting with them on their performance in the teaching-learning process; on the other hand, interaction between colleagues was carried out, which strengthened the work, among peers, achieving to improve the academic performance of the students (Contreras, 2018; Muñoz et al., 2019; Nolasco, & Hernandez, 2019; Zolle-Valero & Fuentes, 2019). Therefore, feedback is based on the collection of evidence from students, first commenting on their strengths and then their

weaknesses, it is very important to work on feedback by discovery, feedback should also be given between teachers in terms of the exchange of experiences teaching.

Formative learning assessment

It is established that the formative evaluation strategies are an evaluation to achieve learning and continuous learning was based on the exploration of strategies referred to cognitive processes which evaluate the differentiated recognition of student learning, at the end of each stage of planning curricular (Solano-García et al., 2019). In addition, didactic, interdisciplinary, and formative management is the center of the student learning evaluation process. On the other hand, the formative and summative evaluation in this line of reasoning, gave a negative look at the dilemma between the student's training and verifying the level of achievement reached, where if this is not oriented well it is possible that it loses its essence and becomes contaminated the educational system, resulting in too many students passed with high marks, but with little preparation (Salas & Vicente, 2020). The formative evaluation of learning is pointed out as the product that is obtained after each curricular term where this process is certified.

In this sense, the role of the teacher in the evaluation of learning, starts from how he elaborates the formative evaluation instrument, how he uses it and the way of making the feedback during the feedback and will guarantee the learning of the students (Cáceres, Gómez, & Zúñiga, 2018; Pasek de Pinto, & Mejía, 2017; Prieto et al., 2018). The role played by the teacher is important when developing the instruments and assessing the students' evidence, the evaluation protocols, and the learning standards.

Based on the findings, it is assumed that, although it is visible in the theoretical framework that leads to objectivity, offering a range of formative evaluation strategies, in this process, cooperative work was found, it is the support that is given between When students carry out their activities in the classroom, this in turn generates a climate of tranquility between the teacher and the student. This is endorsed by what is mentioned by students who appreciate heterogeneous cooperative learning evaluated formatively in which participation, commitment and the strengthening of social and emotional skills are evidenced (González-Fernández & Salcines, 2019).

Then another finding, the student is the center of the formative and shared evaluation process, where self-evaluation and co-evaluation among their peers is well seen by students. This is confirmed when the students show high expectations for the formative and shared evaluation (Gallardo-Fuentes et al., 2020).

Active methodologies in conjunction with ICT are the perfect duo for the teaching-learning process. This is supported, in the research where it is argued that the formative self-assessment using ICT, as is the case of the Socrates's application and the Moodle questionnaires, damage the teaching-learning process, in turn strengthen the academic performance and complacency of the students (Cosi et al., 2020).

Continuing with the findings it is established that learning strategies in formative evaluation are based on planning, elaboration of evaluation instruments which must contain all the necessary elements, and thus obtain

reliable results. This is supported, when teachers promote and incorporate the formative evaluation methodology, they elaborate their evaluation instruments according to the protocols established for this and promoting quality education (Joya, 2020).

The finding, from the competence perspective in formative evaluation, refers to the student's self-esteem, self-evaluation, and feedback. This is contrasted, when mentioning that the curriculum in Chile in terms of the development of competencies has shortcomings in terms of its implementation, so it is necessary to create new assessment instruments where the progress of students is evidenced (Quiroz & Mayor, 2019). Another contrast occurs in this research work where evaluation strategies such as workshops and multiple-choice tests are proposed, which are not related to the constructivist pedagogical approach, in view of this dilemma, teachers give feedback on evaluations to students, the which improves learning (Hoyos, 2020).

As the last finding of this work, in the formative evaluation of learning, the pertinent and adequate evaluation instrument was used, giving as a product reliable results of the transformation of teaching, which will reflect what each student has learned, this becomes the student's certification. Likewise, all this was given considering the evaluation criteria, this occurs after a certain period established by the educational institution. This is legitimized, when the research found that the instruments used in the evaluation of the students achieved their mission of being formative to improve the learning of the students (Valle et al., 2018).

4. CONCLUSIONS

Formative evaluation strategies are the starting point to strengthen student learning, in this way it was found that cooperative work encourages unity in the classroom; at the same time, the students share information about the activity they are doing, creating a climate of peace and tranquility in the classroom. In turn, each member fulfills the role that corresponds to him / her performing it efficiently and effectively. Also, the student is the center of the process of formative and shared assessment, showing that self-assessment and peer assessment among peers strengthen the development of their skills and abilities to achieve competence finally.

From the above, it follows that this formative evaluation process achieves competencies, and these strengthen the abilities and skills of the students, which are given in workshops, achieving the purposes of the learning sessions. A key element to consolidate this process was the feedback, which was given in a harmonious environment, mentioning to the student their strengths and then their weaknesses, noting that the great impact occurred when the feedback by discovery was worked, strengthening the student's learning.

To support the established, this evolution of active methodologies linked to ICT, are the perfect duo in the development of learning sessions, this facilitates pedagogical work for both the student and the teacher and in this way has access to a diversity of information, which must be used considering the protocols. Formative assessment strategies are part of the development of assessment tools, which were made based on clear and observable criteria, such as the descriptors or indicators, not losing sight of the needs of the student with which reliable results were obtained.

Finally, this research work will strengthen teachers in the management of formative assessment strategies and in turn will be a point of support for future research.

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