Reaction Actions Based on Student Learning Assessment Results

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Abstract

Teaching professional development is one of the relevant fields of educational context education, this work aims to investigate pedagogical reinforcement through feedback as a method of control systems, in order to monitor and optimize the behavior of the evaluation of students within the learning-teaching process and if teachers apply it in a timely manner. The behavior of feedback actions and their improvement was assessed based on the results of the students' assessments, the Methodist to which it was applied was exploratory, to measure as behaved this in a selected sample of teachers in the 21st century Educational Unit José Aquiles Valencia Delgado, resulting in not all teachers applying it within the teaching process learn.

Keywords

feedback;
improvement actions;
learning teaching;
self-assessment;
result;

Contents

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1. Introduction

The transformations that occur in all stages of social life, generated essentially by scientific and technological development, require changes in education in order not to the saga and respond to such competencies, which means renewing tools and methodological things about how to teach, what to teach, how to evaluate and improve the learning-teaching process.

The evaluation is undoubtedly one of the most complicated parameters that the teacher must perform, sometimes has meanings of authoritarianism or power, harming the integral development of many students. This produces limited feedback actions and improves from the results of student learning assessments.

It is important to note that based on the results of the evaluation, several alternatives of solution are derived, in order to stimulate the development of activities in the educational processed the practice pedagogical, the questioner with students it is generated carrying out various activities that allow them to develop their capacities and thereby train competent people to deal with various situations in their lives.

Lo valioso en una evaluacion es que el estudiante sepa que es lo que esta logrando y que no ha logrado todavia. A partir de esta afirmacion, el docente debe conducir al estudiante hasta conseguir que el mismo supere las dificultades que tenia y construya de manera autónoma su propio aprendizaje. A este proceso se llama "retroalimentacion", y es importante para conseguir aprendizajes significativos y de calidad.

Studies in Brazil show that feedback in learning is a fundamental and necessary part, which teachers must know and apply in a clear and consistent way. This tool helps the students' training process to achieve goals in each area of school development. Teachers use the evaluation spaces to generate analysis, explanations and follow-ups in the learning teaching process of the students providing support and advancement in their competencies.

Brazil's education, is that it engages parents in the process of feedback of their children, so that they understand the urgency of understanding that the education of children is a collective task, that only achieved if they take advantage of each retro feeding practice to guide and assist in the activities or task entrusted (Osorio & López, 2014; Mahendra, 2016; Malaiya *et al.,* 2017).

In Ecuador, education is regulated by the Organic Lawon Cultural Education (LOEI), where it states that feedback is necessary and is an obligation that teachers must apply throughout the process students' education in order to promote academic improvement by preventing students from finishing the school period without reaching the expected learnings in the different areas.

Docents generally intentionally apply the feedback process because of little knowledge about it, a fact that has not been properly appropriately taken and applied correctly, a strategy that benefits both docents and students in the teaching-learning process. The student evaluation is a continuous diagnosis of observation, assessment, and recording of information that demonstrates the learning achievement of students and includes feedback systems, aimed at improving the teaching methodology and learning outcomes. The teacher must provide feedback to the student so that the student can improve and achieve the standards established for the approval of the subjects, orienting the student in a timely manner towards the achievement of the learning objectives (Mineduc, 2017).

At the provincial level, it is clear that pedagogical reinforcements are not fully met by a number of factors, such as the lack of support from parents in requiring children's learning activities from home, in order to achieve achievements that determine feedback as an important tool in learning, and present paper aims to investigate feedback actions and improve from the results of assessments of what students' apprenticeships.

2. Materials and Methods

This research was carried out in the José Aquiles Valencia Delgado Educational Unit, of the sangan Rocafuerte, was aimed at the 20 teachers who work in the education a institution, among them 5 men and 15 women, the methodology that was employed was of exploratory type and was used or thermals scientific, analytical - synthetic. The report was collected through the survey's technique. It was taken as a sample of the entire population.

The results obtained were processed and analyzed in the light of relevant and current sources.

3. Results and Analysis

3.1 Quality of teaching

When talking about education is to refer to the quality of teaching that students should possessor a better future, without losing sight that, in a democratic and pluralistic society, a quality teaching must be without a attend to the different styles of study and learning of students.

The self-assessment is a quintessential strategy to educate on responsibility and learn to value each student's teaching and learning process (Taras, 2015). This causes education to produce changes in learning in students, to stimulate and develop through a set of activities during the educational process.

The student will self-assess yudato become aware of his learning progress and facilitates the teacher, understand what is the teaching process for in relation to the difficulties that have arose and the objectives achieved.

There are any recommendations for implementing self-assessment, which are detailed in figure 1.

Orient your students to perform the self-assessment seriously and with correction. It is important that they become aware of the responsibility for their educational progress.

Provide your students with information from the didactic unit on the aspects that should be self-assessed, in order to examine their work throughout the academic process.

Guide them so that the excessive influence of subjectivity in the evaluation itself is avoided, so the presence of the teacher is essential.

Inform your students of the skills they can develop in each level of education and the evaluation criteria of their curricular area.
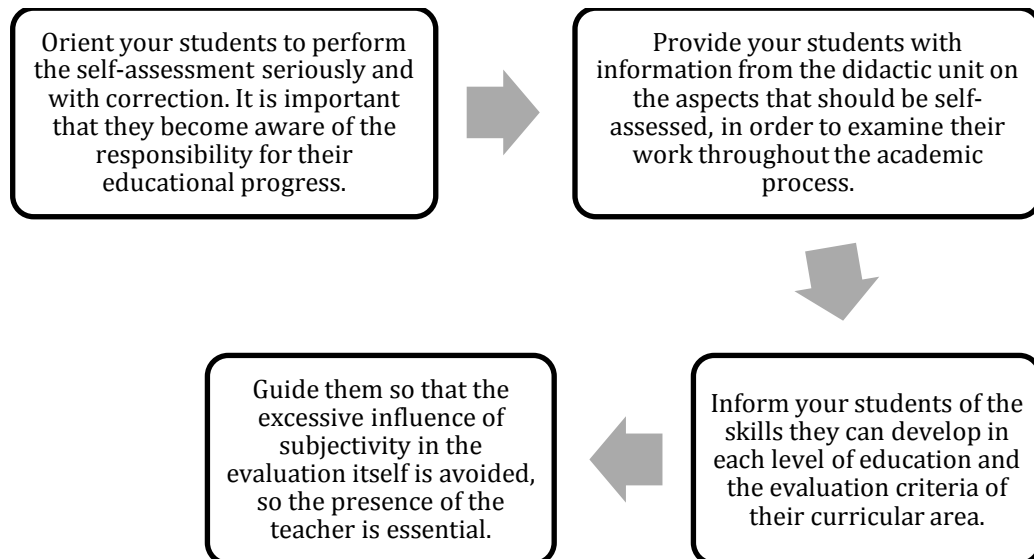
Figure 1. Recommunication's to implement self-assessment
Source: (Marciniak, 2016)

These recommendations should work with students in the adjustment process and learn to help the student learn to value their performance responsibly, through self-assessment reflect and become aware of their own learnings and the factors involved in them.

3.2 Mechanisms and strategies to achieve the quality of education

The teaching-learning process is intended to show education of quality and warmth, looking for mechanisms or strategies that help to achieve it. Nowadays, feedback must accompany the teaching-learning process throughout its teaching period, in order to provide immediate and effective information to the student about the quality of their performance so that they make the necessary corrections to improve their learning capacity.

Feedback is known as a process that helps provide information about each student's abilities, what to do and how they act. Allowing to describe the thinking, feeling and acting of the student in his environment, with the purpose of knowing how his performance is and how he can improve it in the future (Ávila, 2015).

The teacher when observing the successes and mistakes that students make, applies the necessary feedback as a form of stimulation to them, to do things better, thus increasing the intrinsic motivation to learn more efficiently. Feedback is one of the pedagogical actions influences the teaching process learning the students are an essential part of the evaluation process, to be effective and promote student learning should be considered the help to the people to align their own image with reality (Valdivia, 2016; Macías *et al.,* 2018).

It is an effective tool to learn how students perceive actions, knowledge, words, and works by making their perceptions known to others. Figure 2 reflects the characteristics of the learning feedback like:
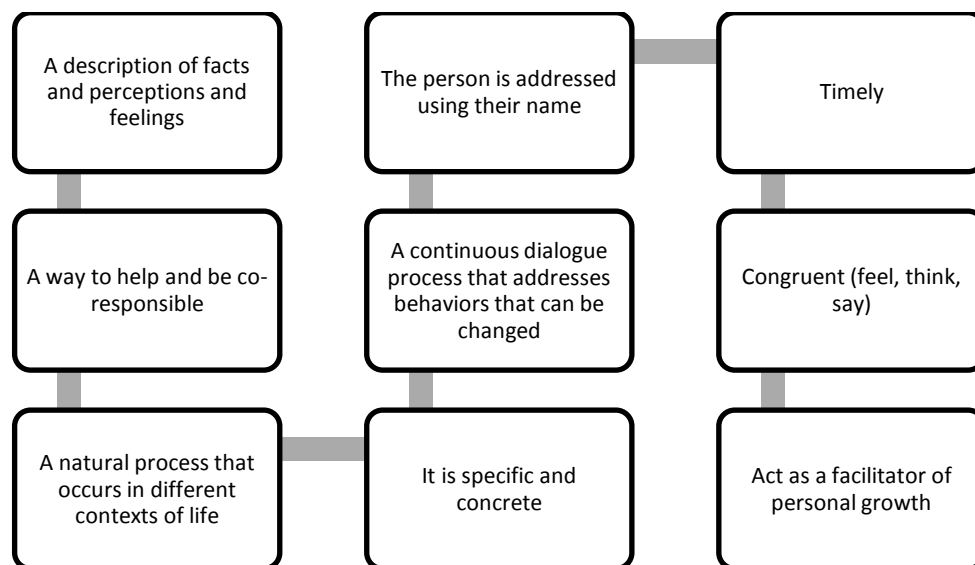

Figure 2: Learning Teaching Feedback Characteristics
Source: (Anijovich, 2015)

The best feedback is given and received when there is confidence when it is requested and desired when it remains among the students who have participated in it when it is motivated by an environment of constant improvement.

3.3 Types of feedback

Knowing the benefits that low-performing students are included in feedback to improve the quality of teaching-learning, there are six types of feedback shown below in Figure 3:

Prescriptive: refers to interventions in which the advisor tries to tell the practitioner directly what he should do, how to improve or modify the way he teaches.

Informational: the consultant provides the practitioner with information or knowledge about the situation from which a new awareness should be built and facilitate their personal growth.

Confrontative: the advisor seeks to raise the awareness of the practitioner about certain aspects of the teaching by sharing their perceptions of the practitioner's behavior and challenging it in areas that are seen as problematic and through this confrontation, improve their teaching skills.

Cathartic: this type of intervention seeks to allow practitioners to release their emotions and feelings particularly of sadness, fear and anger.

Catalytic: this type of intervention the advisor encourages the practitioner to discover himself, questioning critical areas and bringing knowledge and information.

Support: in this intervention the advisor affirms the practitioner's worth, mainly when rewarding and assessing what has been done.
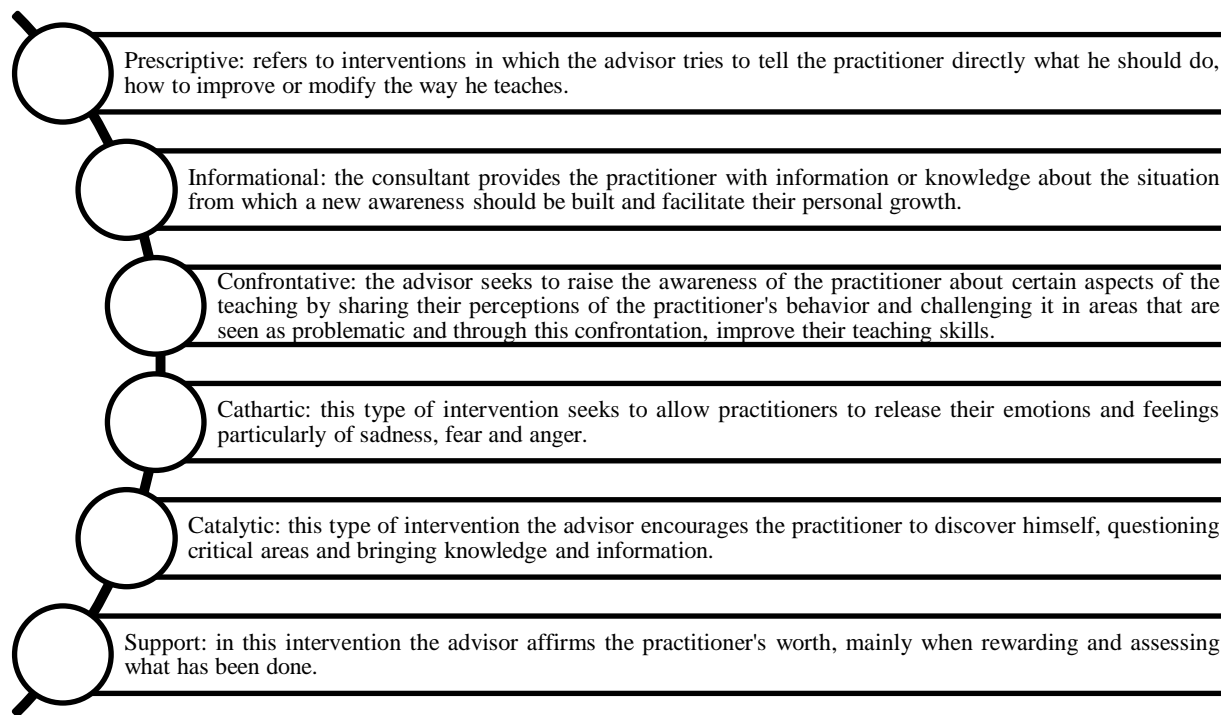
Figure 3: Types of feedback
Source: (Canabal & Margalef, 2017)

The teacher is the one who asks or actively seeks feedback for the student who needs it, letting the student be free to change according to their academic goals and needs building a support link based on confidence, honesty and concerning performing good study habits with a fruitful cognitive ability during their school term.

3.4 Importance of teacher self-assessment to apply feedback

One of the factors that are wasted in the educational evaluation process is the feedback, which is evident to take into account the amount of content that must be covered and the little time that is available to work and evaluate them, that is, In most of the times during the practice when trying to comply with the program and conclude with most of the issues, excellent opportunities are allowed to consolidate or deepen the important elements that will support the true learning process of the students (Martínez *et al.,* 2018).

The term of teacher self-evaluation refers to that to improve professional competence requires incorporating the reflection and evaluation of teaching, through the design of a system that allows analyzing the perception of teachers on their level of competence to carry out with rigor and professionalism their teaching functions (Ramos, 2017).

Implementing proposals for self-assessment is enriching with respect to professional autonomy, which allows teachers to self-direct themselves towards their professional development. And although it should be regulated, it is important that the teaching group is convinced of the need to develop professionally throughout their career. However, for teachers to benefit from opportunities to improve and want to do, they need information, feel motivated, resources and collaboration to take responsibility for improving their skills and professional growth.

The feedback process becomes a fundamental part of the teacher-student relationship, the importance it takes is extraordinary and reveals the student's level of performance, motivates him to self-assess, to stimulate dialogue with teachers, to positive motivation, to high self-esteem and take appropriate measures (Suárez, 2016).

Con feedback the educating enters into a thoughtful process that is generated from the evaluation, including methods to obtain clear and complete feedback, which allows the student to perfect themselves and correct themselves during the learning process. The self-assessment that the teacher takes by himself, makes it easier to professionalism, in generating students the practice frequents you of feedback, on the most occasions students they come to appreciate and thank their educator for the progress they are making in their school process.

3.5 Feedback mechanisms

The feedback mechanisms are part of the homeostatic bodily mechanisms, whose function is to contribute to the state of relatively stable body balance, a cycle of events in which a controlled body condition, for example, blood pressure, is continuously monitored, evaluated and modified in if necessary, then being re-monitored, reassessed and so on (Abreu, 2014).

It is important that the body condition of the students is in perfect condition, to generate effective encouragement in the feedback process, and thus obtain favorable results in the teaching of the same, this mechanism is based on three components, a receiver that sends variable intensity signals to a regulatory center that in turn sends signals to the effector mechanism that produces a response that alters the value of the controlled action parameter. The body has system control feedback mechanisms, in which the results obtained from a task or activity are reintroduced into the system in order to influence or act on future decisions or actions (Gómez, 2014). There are two types of feedback systems, as shown in Figure 4.

> Negative feedback mechanisms an increase or decrease in the variable being regulated triggers responses that tend to move the variable in the opposite direction.

> Positive feedback mechanisms are self-multiplier and present in conditions that do not happen very frequently. It gives a favorable response.
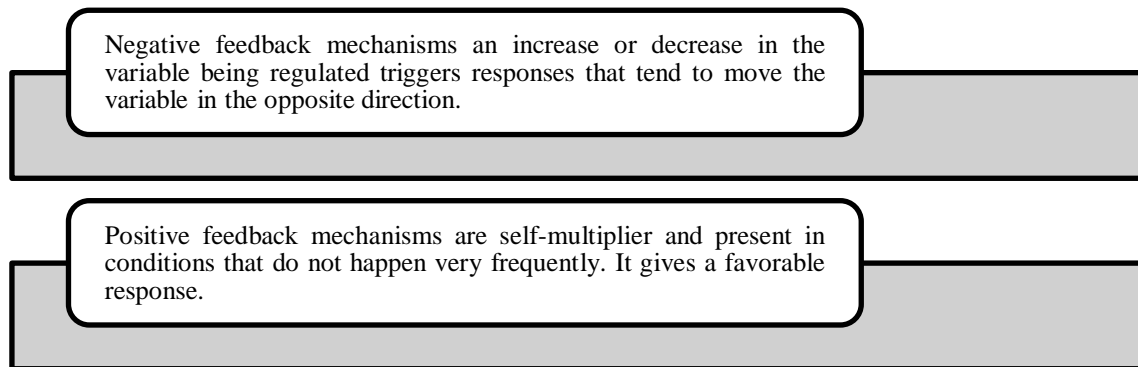
Figure 4. Feedback systems
Source: (González, 2015)

Each of these types of feedback, whether these positives or negatives are focused on optimizing the behavior of the systems, according to certain patterns and criteria, and say that the feedback or positive seeks to make things change, while negative feedback causes things to stay the same.

3.6 Actions to improve teaching-learning

Different feedback models should take into account the way students make sense and use the content provided in the feedback. The important thing is that students are able to compare real performance with a standard and take measures to close the gap that may exist between their performances (Gallego, 2018).

With this observation and all the actions that should be taken into account in improving learning, teachers should concentrate their efforts on strengthening their self-assessment skills or abilities in their students, allowing a greater degree of motivation in them to develop all academic activities during class days. It is necessary for teachers to promote students' self-assessment, to attend, respect and value the different learning rhythms or styles according to the different characteristics of each student, achieving optimal participation in their teaching-learning process (Soto, 2016).

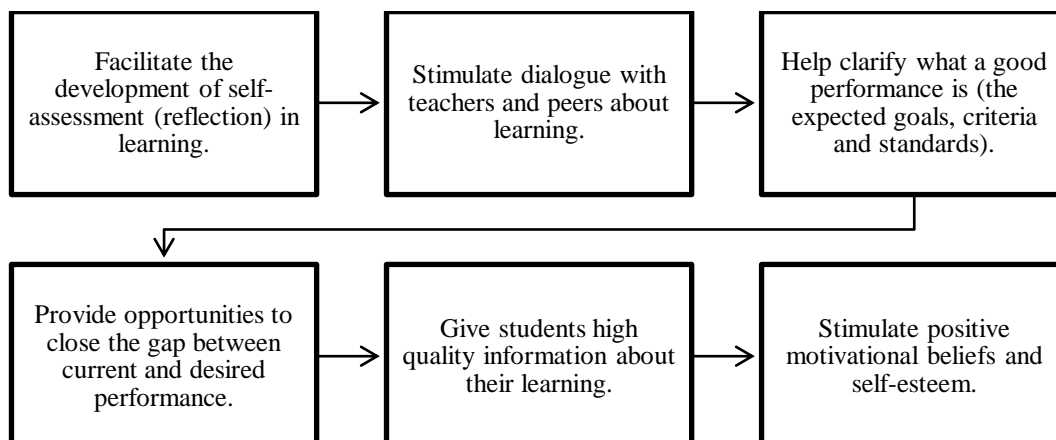Figure 5 shows the principles of feedback to improve teaching - student learnin.

Facilitate the development of self-assessment (reflection) in learning.	Stimulate dialogue with teachers and peers about learning.	Help clarify what a good performance is (the expected goals, criteria and standards).
Provide opportunities to close the gap between current and desired performance.	Give students high quality information about their learning.	Stimulate positive motivational beliefs and self-esteem.

Figure 5. Feedback principles for learning teaching
Source: (Celona, 2017)

These improvement actions help create a favorable environment for the proper development of the classes and the learning of each of the students. For teachers, it is gratifying to see the academic growth of their students when they actively participate and are interested in the topics discussed in the classroom.

This research was carried out in the José Aquiles Valencia Delgado Educational Unit, of the sangan Rocafuerte, was aimed at the 20 teachers who work in the educational institution, among them 5 men and 15 women, the methodology that was employed was of exploratory type and was used or theme all scientific, analytical - synthetic. The report was collected through the survey's technique. It was taken as a sample of the entire population.

The results obtained were processed and analyzed in the light of the relevant and current sources.

3.7 Evaluation of the quality of feedback in the Educational Unit Siglo XXI José Aquiles Valencia Delgado Delgado

The research was developed in the Educational Unit José Aquiles Valencia Delgado Delgado 21st century that has all levels of education from initial too high school, is located on the site the Higuerón of the canton Rocafuerte, where the greatest number of students are from the rural area.

Feedback behavior was investigated at the Basic General Education (EGB) level. According to the results obtained reflect that this strategy is a process that provides information about the skills of the students, about what they know how to do and how they act, allows the teacher to detect weaknesses during the evaluation and take the actions appropriate and timely to improve learning teaching methods.

Research information reveals that teachers have knowledge regarding feedback and the different ways to implement it, some of these teachers do not perform this reinforcement activity, because they assume that it is more important progress in the planning that has been proposed to carry out the completion of the planning, in accordance with the timetable established by the Ministry of Education.

The minority of teachers who perform this process in classes do so verbally, by asking questions or having students comment on the subject and exposing it, often without taking into account the particularities individual students.

In Figure 6, of the 20 teachers surveyed 75% said that if they are aware of what feedback means and the other 25% indicated that they would not.
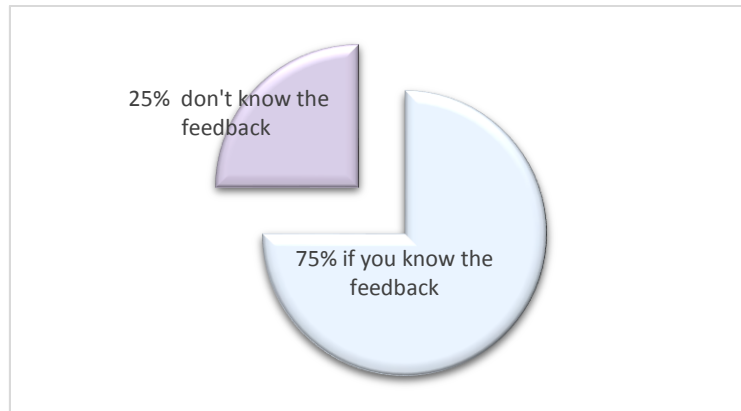
Figure 6. Result of teachers who know the feedback

It is noted in Figure 7, that the characteristic of the highest percentage is, to move forward to comply with the proposed planning, while feedback and use strategies such as contextualization share 20% each as well, we can also notice that the assign tasks out of class feature only have 10%.
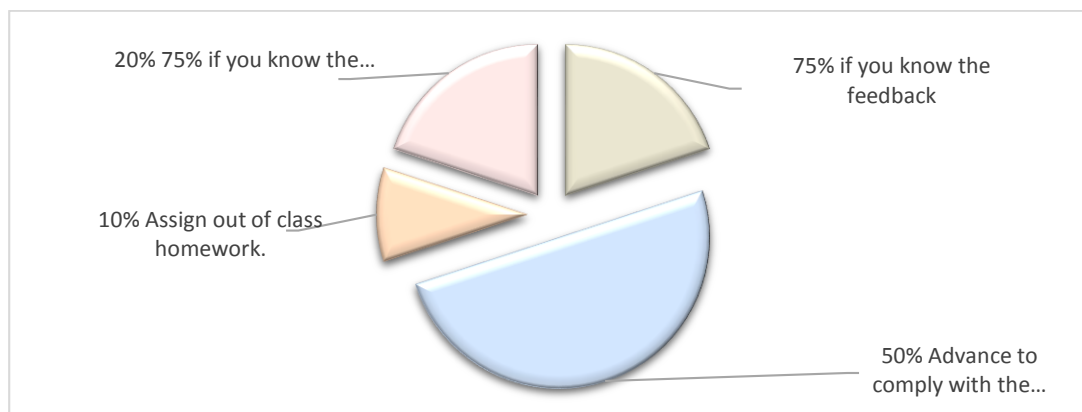

Figure 7: Results of the most relevant characteristics in the learning teaching process

50% of respondents as shown in Figure 8 stated that deter feedback sometimes considers the characteristics of each student, while 40% are aware that they do not, and there is a percentage low than if you do.
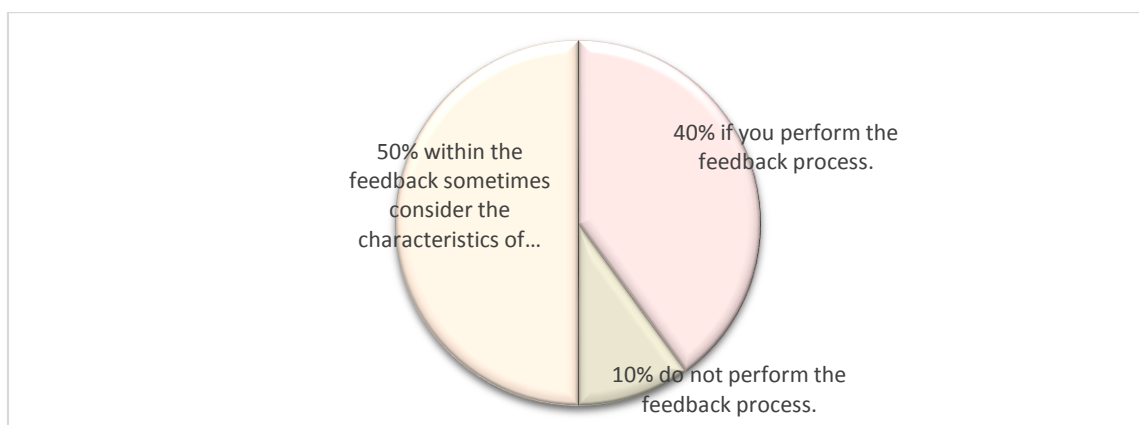
Figure 8. Results teachers do not use feedback as indicated by the Ministry of Education regulations.

In Figure 9, sand evidence that 70% of teachers use verbal feedback, which are statements, comments and questions, the meaning of which encompasses the summary of the message of our students, 20% do it in a written way and 10% do so in a non- verbal.
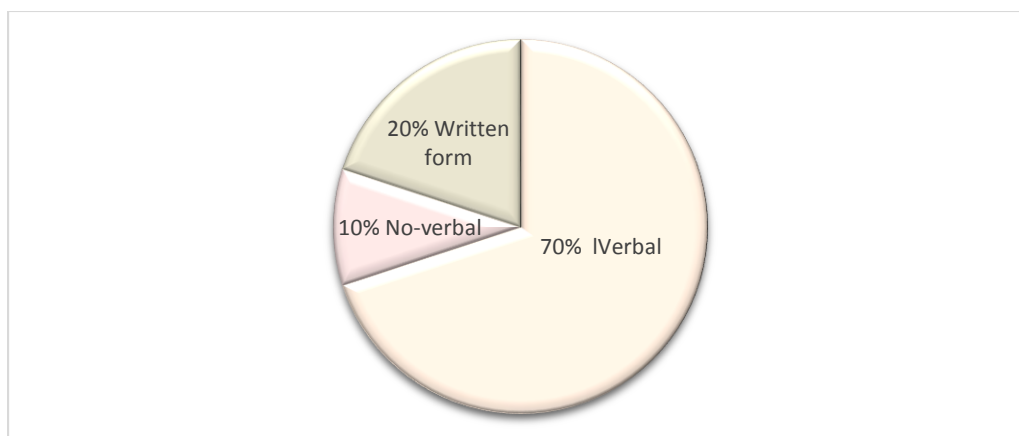

Figura 9. Resultados del tipo de retroalimentación que utilizan los docentes

4. Conclusion

Feedback in the teaching and learning process has been shown to be not all teachers applying the process properly, making it meaningful to recommend teachers to meet the strategy put forward to diagnose the level of knowledge that students possess at their academic level; verbal feedback being the most efficient and advantageous.

Teachers in addition to completing the curriculum or planning, as verified in the survey conducted, should make feedback because it is part of the improvement of the teaching methodology and learning outcomes, as determined by the General Regulation of the LOEI in Article 184 and when carried out in writing it is recorded as evidence for the support of its teaching portfolio.

Alcívar, M. E. G., Delgado, Y. M. G., Rodríguez, A. K. M., & Romero, E. L. C. (2019). Reaction actions based on student learning assessment results. International Journal of Social Sciences and Humanities, 3(2), 197-207. https://doi.org/10.29332/ijssh.v3n2.315

References

Abreu, L. (2014). *Concepto de mecanismos de retroalimentación*. Bogotá: CEET. http://knoow.net/es/ciencias-tierra-vida/biologia-es/mecanismos-de-retroalimentacion/

Anijovich, R. (2015). *El valor formativo de la retroalimentación*. Santiago de Chile: Planeta Chile. https://www.researchgate.net/publication/285321630_La_retroalimentacion_en_la_evaluacion

Ávila, P. (2015). *La importancia de la retroalimentación en los procesos de evaluación*. (Tesis de maestría). Universidad del Valle de México, Querétaro, México. https://www.educar.ec/servicios/0-Avila_retroalimentacion.pdf

Canabal, C., y Margalef, L. (2017). La retroalimentación: La clave para una evaluación orientada al aprendizaje. *Profesorado*, 15(1), 160-161. https://recyt.fecyt.es/index.php/profesorado/article/view/59454

Celona, G. (2017). *El aprendizaje eficaz*. (Tesis doctoral). Universidad de Extremadura, Badajoz, España. http://dehesa.unex.es/bitstream/handle/10662/6483/TDUEX_2017_Celona_G.pdf?sequence=6&isAllowed=y

Gallego, D. (2018). Los estilos de aprendizaje y la enseñanza de las matemáticas. *Revista complutense de educación*, 19(1), 95-114. file:///C:/Users/pc/Downloads/16419-Texto%20del%20art%C3%ADculo-16495-1-10-20110602.PDF

Gómez, L. (2014). Memoria organizacional en la retroalimentación de clientes. *AD-minister*, 17(25), 121-138. file:///C:/Users/pc/Downloads/Dialnet-MemoriaOrganizacionalEnLaRetroalimentacionDeClient-5413064%20(1).pdf

González, A. (2015). *La retroalimentación negativa como mecanismo a la base del cambio de preparación mental*. (Tesis doctoral). Universidad de Granada, Granada, España. https://www.ugr.es/~setchift/docs/a29-sepex2006-capitulo.pdf

Macías, E. I. P., Cedeño, H. A. C., & Chávez, G. M. R. (2018). Importance of Improving Resilience in Teaching-Learning Process of Students with Disabilities. *International Research Journal of Management, IT and Social Sciences*, *5*(2), 120-128.

Mahendra, I. W. E. (2016). Contextual learning approach and performance assessment in mathematics learning. *International Research Journal of Management, IT and Social Sciences*, *3*(3), 7-15.

Malaiya, S., Shrivastava, A., Prasad, G., & Jain, P. (2017). Impact of medical education trend in community development. *International Journal of Health Sciences*, *1*(1), 23-27. https://doi.org/10.21744/ijhs.v1i1.19

Marciniak, R. (2016). *Autoevaluación de programas de educación universitaria virtual*. (Tesis doctoral). Universidad Autónoma de Barcelona, Barcelona, España. https://ddd.uab.cat/pub/tesis/2016/hdl_10803_400023/rm1de1.pdf

Martínez, M., Yániz, C. y Villardón, L. (2018). Autoevaluación y reflexión docente para la mejora de la competencia profesional del profesorado en la sociedad del conocimiento. *RED*, 56(10), 3-11. https://www.um.es/ead/red/56/martinez_et_al.pdf

Mineduc (2017). *Reglamento General de la Ley Orgánica de Educación Intercultural*. https://educacion.gob.ec/wp-content/uploads/downloads/2017/05/Reglamento-General-Ley-Organica-Educacion-Intercultural.pdf

Osorio, K. y López, A. (2014). La retroalimentación formativa en el proceso de enseñanza – aprendizaje de estudiantes en edad preescolar. Revista Iberoamericana de Evaluación Educativa, 7(1), 13 – 30.

Ramos, G. (2017). *Autoevaluación de la práctica docente para profesores de educación primaria*. México: Antílope. http://ww2.educarchile.cl/UserFiles/P0001/File/autoevaluacion_practica_docente_para_prof_B%C3%A1sica%20Mx.pdf

Soto, V. (2016). Acciones para mejorar la interacción comunicativa desde el proceso enseñanza aprendizaje. *Cuaderno de Educación y Desarrollo*, 10(26), 28. http://www.eumed.net/rev/ced/26/ssfh.htm

Suárez, I. (2016). El proceso de autoevaluación del desempeño docente. EDUCARE, 12(3), 117-136. http://revistas.upel.edu.ve/index.php/educare/article/view/36

Taras, M. (2015). Autoevaluación del estudiante: ¿Qué hemos aprendido y cuáles son los desafíos? *Relieve*, 21(1), 4-6. https://dialnet.unirioja.es/servlet/articulo?codigo=5117366-

Valdivia, S. (2016). Retroalimentación efectiva en la enseñanza universitaria. *En Blanco & Negro*, 5(2), 21 – 24. http://revistas.pucp.edu.pe/index.php/enblancoynegro/article/view/11388.

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