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Training assessment, key in the management of the teaching - learning process

La evaluación formativa, clave en la gestión del proceso enseñanza – aprendizaje
Avaliação formativa, chave para a gestão do processo de ensino-aprendizagem

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Abstract: The present research "The formative evaluation, key in the management of the teaching - learning process in students of a state university in the district of Chosica - Lima, 2020" aimed to determine the effects of the formative evaluation in the management of teaching processes and learning carried out by students in pre-professional practice. The method was of a quantitative approach, of an applied type and a quasi-experimental design. The sample consisted of 240 students. Being 120 students the control group and 120 of the experimental group. Observation was used as a technique and the observation guide as an instrument. It was concluded that the application of the program "With formative evaluation I manage significant learning" improves the levels of management of teaching - learning processes.

Keywords: Formative evaluation, teaching-learning process management, program.

Resumen: La presente investigación "La evaluación formativa, clave en la gestión del proceso enseñanza – aprendizaje en estudiantes de una universidad estatal en el distrito de Chosica – Lima, 2020" tuvo como objetivo determinar los efectos de la evaluación formativa en la gestión de procesos de enseñanza y aprendizaje que realizan las estudiantes en la práctica pre profesional. El método fue de enfoque cuantitativo, de tipo aplicada y diseño cuasi experimental. La muestra estuvo conformada por 240 estudiantes. Siendo 120 estudiantes el grupo control y 120 del grupo experimental. Se utilizó la observación como técnica y la guía de observación como instrumento. Se llegó a la conclusión de que la aplicación del programa "Con la evaluación formativa gestiono aprendizajes significativos" mejora los niveles de gestión de procesos de enseñanza - aprendizaje.
Palabras clave: Evaluación formativa, gestión de procesos enseñanza – aprendizaje, programa.

Resumo: La presente investigación "La valuación formativa, clave en la gestión del proceso enseñanza - aprendizaje en estudiantes de uma universidad estatal no distrito de Chosica - Lima, 2020" tuvo como objetivo determinar os efeitos da avaliação formativa en la gestión de procesos de enseñanza y aprendizaje que realizan las estudiantes en la práctica pre profesional. El método fue de enfoque cuantitativo, de tipo aplicada y diseño cuasi experimental. La muestra estuvo conformada por 240 estudiantes. Siendo 120 estudiantes el grupo controle y 120 del grupo experimental. Use a observação como técnica e a guia de observação como instrumento. Se llegó a la conclusión de that la aplicación del programa "Con la Evaluación

Formativa Gestiono Aprendizajes COMPANSE" mejora los Niveles De Gestión De Procesos De Enseñanza - Aprendizagem.

Palabras clave: Evaluación formativa, gestión de procesos enseñanza - aprendizaje, programa.

INTRODUCTION

Learning assessment implies more than measuring the intellectual aspect and obtaining an evaluation, it is an opportunity for the student and the teacher to put their knowledge into action, value their achievements, know their successes and failures in order to improve their learning (Anijovich, 2017), that is why several countries such as Cuba and Serbia, in the search for educational improvement highlight how evaluation policies can work together effectively in improving student achievement, being necessary to analyze the difficulties observed to identify progress and improve educational quality, equity and efficiency, which has allowed their educational system to function properly, undertaking important institutional reforms to optimize teaching and learning (Maghnouj et al., 2020; Pérez et al., 2017).

Likewise, in Latin American countries, Formative Evaluation (FE) is used as a different perspective to traditional evaluation, being the subject of much research in order to contribute to the improvement of student learning. This, thanks to the substantial efforts to optimize educational quality, which allows showing improvements, however, there are still many challenges to overcome for the current training of people, future professionals of 2030 (Día, 2019, p.23).

According to Rueda and García (2013), in university education, there are currently evaluation systems with many weaknesses, still assuming that evaluation is equivalent to measuring, evidencing disarticulation of the evaluation with the objectives, mistakes in the development and planning of

instruments and, above all, absence of PE, which hinders the academic performance of students during the educational process. However, it is known that this type of evaluation influences the academic improvement of students, since it privileges processes and not results.

In Peru, teachers should know and use PE in their day-to-day evaluation; however, in the experiences of teaching work, it is possible to note a lack of knowledge and at the same time an interest in expanding their knowledge on the subject, taking into account that they are responsible for using appropriate teaching strategies (E-A) in their work with students to enable them to achieve learning.

Evaluation with a formative approach, benefits the monitoring of student learning progress as a result of practice, teaching or observation (Díaz-Barriga and Hernández, 2002), as well as allows the monitoring of student learning, facilitates feedback and strengthens meaningful learning (Hamodi et al., 2014). The management of the E-A process is the practical phase of the teacher in which the teacher-student relationship is evidenced, developing the analogy between the problematic situation and the student in the classroom context. Likewise, the teacher must organize work teams and pedagogical management actions (Llinares, 2006).

As for the educational program, it is said to be a proposal elaborated by specialized persons with respect to a subject in which they set forth the objectives that respond to the educational action plan that includes goals, forecasting, planning, resource selection, program implementation, control and evaluation (Pérez, 2006).

Thus, the present research allowed demonstrating the effect of Formative Evaluation as a strategy in the management of Teaching - Learning processes during the curricular planning, execution and evaluation of the E - A process.

National and international antecedents were taken into account, such as Sánchez - Otero et al. (2019) who asserted that pedagogical strategies in the management of the E - A processes can be used in the different training centers, strengthening the teacher's education, since he/she is the subject that can dynamize the learning strategies that make improvements in education possible.

Meanwhile, Nima (2018), in his research on E - A process management concluded that in this process the development of pedagogical activities is fulfilled, contributing to the knowledge of students, which indicates that he conceives positive results in their academic performance. However, Gutiérrez (2017), in his research concerning EF as an E - A strategy managed to identify the scope, progress and weaknesses that learners achieve in learning activities and according to this offered feedback to improve learning, concluding that they improved the level of learning achievement.

Pérez et al. (2017), in an article on EF in the E - A process, noted that it is necessary to have an integrative concept of evaluation, for being the essence of the evaluative process which implies having a competent teacher, with the ability to apply a relevant EF and effective using various methods, according to the objectives expected in students according to their level of studies, which ensures that the student develops self-regulation mechanisms to achieve new learning goals. This statement was strengthened by (Sánchez - Otero et al., 2019) who asserted that teachers have the duty to develop competencies that contribute to the management of the process of E - A. On the other hand, Trejo (2019) referred that teaching competencies for the management of the process of E - A could be defined as the knowledge, skills and qualities that, applied in teaching performance, ensure a good achievement in terms of the execution of learning.

In this understanding, in order to enhance the favorable results of this process and from an integrative perspective of the important didactic styles, Santos (2016) referred that the management of E-A processes always needs to be updated, considering knowing how to know, knowing how to do and knowing how to live together, requiring a good curricular planning in the management. Meanwhile, Sandi and Cruz (2016) concluded that combining different didactic strategies improves the E-A process and facilitates the student to assimilate knowledge in a meaningful way. They added that the production, adaptation of content and teaching strategies, design of methodologies, as well as innovative educational materials should be the teacher's unavoidable task.

Meléndez et al. (2008) stated that it is necessary to have an ideal curricular planning to present the proposal to the students, which allows fine-tuning the E-A actions. Meanwhile, Arnao (2015) in his research on formative research in Higher Education concluded that, given the need to change the curricular contents in university professional schools, going from a syllabus by objectives to one by competencies, it should not be executed in isolation but integrated to an institutional educational model based on competencies to avoid failures or intrascendence of innovative proposals. Ortega (2015), in his research referred to EF concluded that applying EF in the E-A process allows planning actions according to the particular and social characteristics of the student. And that in this E - A action methodological strategies are developed in its application and continuous information. He also added that in the permanent act of E-A, the learning of the students is contrasted in a permanent, adequate and timely manner, detecting in time the mistakes and strengths in the activities proposed to the student.

On the other hand, Arribas (2017), in his article on PE emphasized that evaluation is an important aspect of teaching practice; it is the assessment

made by the teacher in reference to the levels of student learning. While Briggs et al. (2012) in an article on meta-analytic methodology and inferences about the effectiveness of PE, conclude that the average effect of PE on student achievement is relevant, however, it is not determinant since many factors intervene in the process. Thus, there is still great uncertainty regarding the effect of formative assessment practices on student performance. Therefore, it is important to know the importance of formative assessment in the management of teaching-learning processes.

The variables considered in the research work are presented below:

Formative Evaluation

Díaz-Barriga and Hernández (2002) note that evaluation with a formative approach benefits the monitoring of student learning progress as a result of practice, teaching or observation. That is to say, it is an act in constant change, product of the students' activities and pedagogical proposals raised by the teacher. On the other hand, the Ministry of Public Education (SEP, 2012) states that the purpose of PE is to contribute to the improvement of learning, to regulate the E-A process, to adapt or readjust pedagogical actions in relation to the needs of students. And that the evaluation of their learning are processes that allow to have evidence, analyze them, make judgments and provide timely feedback.

In reference to the EF, the Ministry of Education (MINEDU, 2019) notes that its use is necessary during the evaluation process and not only at the end as a result, since permanent, timely and essential information is provided (Concepción and Rodríguez, 2016; Velásquez and Rey, 2005).

According to Perrenoud (2008), PE aims to provide the educator with the necessary information to participate pertinently in the regulation of student learning, making individual learning viable, since the purpose is to help them guide their knowledge. To do so, he/she must help them to know their own

knowledge through questions such as: what did I learn, how well do I do it, what do I need to learn to be able to solve the situation or problem I am facing, what do I want to do better, etc.? (Anijovich, 2016). This will allow them to have critical thinking, be interested in reflection and its application, which will allow them to face daily problems by thinking critically (Collazos et al., 2020).

Likewise, Condemarín and Medina (2000) affirm that PE is a process that strengthens learning, facilitating student organization. In this way, the student and the teacher can agree on the learning progression and adapt the activities according to their needs and possibilities.

On the other hand, Black and Wiliam (2009) note that evaluation is formative insofar as the evidence on student performance is interpreted and used by teachers and learners to the extent that they assume it in the E - A process. (2019) assert that among the principles of EF are that the mediation strategies determine the aspects of educational planning that are not achieved and that should be adapted to the progress of learners, should elicit actions that provide timely feedback, be an instrument that contains results in the evaluations and identify difficulties to be replaced or improved, thus optimizing learning.

PE should be at the service of learners, helping them to progress and develop cognitively, affectively, morally and socially. In addition, it allows the accompaniment of student learning, facilitates feedback and strengthens meaningful learning, since students can use this information to optimize their own performance (Álvarez, 2009; Hamodi et al., 2014; Sadler, 1989).

Thus, formative evaluations, unlike summative evaluations, produce descriptive data, are used in a diagnostic way and not to assign end-of-course grades, i.e., it gathers convenient evidence to optimize the E - A process and is performed throughout the development of learning and makes it possible for students to obtain more feedback regarding their progress, aspects to

overcome, as well as recommendations in their learning (Agüero, 2015, p. 120).

In other words, its purpose is to provide relevant information on student learning to monitor individual learning progress, which tells us what students learned and did not learn, what they can do and what they cannot do (Talanquer, 2011). For Black and William (2009), it serves to evaluate the effectiveness of teaching, where the teacher modifies his teaching to improve learning, therefore, it is essential to accompany and monitor learning and the understanding that students have about what they learn. In this way, they construct their own knowledge through interaction with their peers and foster collaborative learning and situated learning (Guerra, 2020, p. 21). That is, the EF is related to the learning opportunities offered to the student to continue learning and to communicate the result according to the evidence obtained in the learning process, as well as the reflections that are issued from it; which will allow making decisions for improvement since the assessment and description lacking improvement proposals are incomplete and inappropriate to optimize the E - A process (SEP, 2012).

Going deeper into learning assessment means taking into account the emotions of the evaluator and the evaluated, analyzing the contents and forms of E-A, as well as the values and opinions of teachers regarding the learning capabilities of their students Anijovich and Mora, (2010). In contrast to this idea, MINEDU (2016) notes that the vision of evaluation has progressed significantly, assuming itself as a practice focused on student learning, providing timely feedback to the process of E - A. It is essential to note that the teacher must make known the achievement of the unit, the evidence of learning to be evaluated, as well as the instruments to be used in the evaluation (SUNEDU, 2020).

In the management of E - A processes, the functions of planning, organizing, integrating, directing and controlling are carried out to ensure individual and group efforts becoming large teams (Koontz et al., 2012; Rodriguez, 2003). Furthermore, for Borroto et al. (2007), it implies a series of actions with the intention of reaching an objective in a certain time frame in order to find the solution to different difficulties and at the same time achieve certain goals. Thus, the teacher must structure, sequence and organize the new information with the new learning (Guerrero, 2017; Campos and Lule, 2012) affirm that they are activities used by the teacher to generate learning. Therefore, through the strategies, the teacher promotes student reflection, obtaining significant learning. Likewise, teaching strategies are based on three aspects: production of conceptual changes, formation of skills, promotion of natural development and cultural transmission, characterized by the context in which they occur (Gimeno and Pérez, 2008).

Thus, it is stated that the management of the E-A process is the practical phase of the teacher in which the teacher-student relationship is evidenced, developing the analogy between the problematic situation and the student in the context of the classroom. Likewise, in the management of the E-A process, the teacher must organize work teams and pedagogical management actions (Llinares, 2006).

According to MINEDU (2016), teachers must take into account the phases of the management of the E-A process comprising planning, execution and evaluation, which are the dimensions of the present research study. This statement coincides with the contributions of Huerta et al. (2013), who note that teachers, with the intention of offering a comprehensive training to the student, execute the process of planning, execution, evaluation in the management of the E - A process that promotes the achievement of significant learning. Aspects that translate into a series of performances that evidence

the mastery and application of knowledge in different contexts, fostering the ability to solve difficult problems in different situations (Tobón, 2013).

In curriculum planning, priorities are established on the basis of principles and theoretical or conceptual guidelines on elements involved in the educational process, such as the student's interest, needs and context, as well as the pertinent use of resources and materials. In other words, planning is to devise, anticipate and propose activities for students to learn; it also implies clearly establishing the purpose of learning (competencies, performances and cross-cutting approaches) based on meaningful situations that promote affective teacher-student communication, providing spaces for dialogue, organizing spaces and times for the execution of what is planned (MINEDU, 2016; UNESCO, 2020).

These contributions complement SUNEDU (2020), which states that all teachers, as part of their pedagogical functions, have the responsibility to program and plan the different training activities that make possible the achievement of competencies by students.

Execution of the E-A process, which implies carrying out the teaching and learning process, a fundamental aspect of the curricular process (UNESCO, 2020). MINEDU (2019) states that it is the process of effective teacher - student interaction, responding to specific learning purposes aimed at developing competencies, and responds to a pedagogical intention taking into account the way of learning, the educational intentionality, the context and the didactics of the competence.

Evaluation of the E-A process, an action that is in the whole process, from the identification of needs to the analysis of results, highlighting that evaluation strengthens the permanent process of readjustment, renewal or change (UNESCO, 2020). It is added that planning, execution and evaluation of

learning are joint processes and are constantly fed back, are constant and are executed from the reflection of the pedagogical praxis.

Educational Program

Given the characteristics and intentionality of the research, it was necessary to address the concept of the educational program, as it was the proposal that was applied to see the effects of PE as a strategy in the management of the E-A process.

An educational program is a proposal elaborated by specialized persons with respect to a subject in which they propose objectives that respond to the educational action plan that includes goals, foresight, planning, resource selection, program implementation, control and evaluation. In addition, the program integrates the educational objectives to be obtained by means of certain contents through an action plan that allows the teacher to create study plans oriented to the development of knowledge, skills and attitudes, conducive to promoting the integral development of the students, taking into account a given socio-cultural context (Pérez, 2006).

PE as a pedagogical intervention promotes students' reflection on their learning, since evaluating their learning and using the results obtained allows them to become involved in improving their learning. That is, the programs favor the formation of knowledge, skills and competencies in the student (Heslin and Mitchell, 2016; Pérez et al., 2017). Taking into account that in the Pre-Professional Teaching Practices (PPP), the students carried out the planning, execution and evaluation phases of the management of the E - A process, under the observation and accompaniment of the classroom teacher, who in turn is the teacher conducting the practice and who in this process, They carried out the evaluation of their students in charge, as well as the feedback through the platforms zoom, google meet and whatsapp (video calls), according to the context of the families (Universidad Nacional de

Educación [UNE], 2020) where practically, they assumed the role of the regular classroom teacher. In addition, in the management of the E-A process that they carried out virtually, they evaluated using didactic and technological resources, as well as relevant evaluation tools that allowed them to make decisions and provide feedback to students, considering the particular differences, socio-affective and cultural context (UNE, 2020).

Thus, in order to determine the effects of formative evaluation as a strategy in the management of E-A processes, a pedagogical intervention program called "With formative evaluation I manage significant teaching-learning processes" was proposed, which arose from the need to strengthen students' use of PE as a strategy in the management of the E-A processes they develop in the PPP.

The purpose of the proposal was to intervene assertively in the management of E-A processes carried out by students using the EF as a strategy in the different aspects of management such as planning, execution and evaluation. It was characterized by seeking that students manage to plan the pedagogical and didactic processes in coherence with the purposes and performances specified according to the competencies of the educational level, direct the E-A process with broad curricular knowledge, use of didactic-technological strategies and resources, as well as permanently evaluate learning using pertinent evaluation instruments to make decisions and provide feedback taking into consideration the particular characteristics and the cultural context of the student.

MATERIALS AND METHODS

The present research was of the applied type, since according to Vargas (2009) and Baena (2014) in this type of studies, knowledge is used to benefit the groups that are part of the study, specific problems are posed that demand

immediate solutions and provide solutions if the research is properly planned because the new information is very useful. In addition, because it was characterized by producing knowledge and applying it in the solution of the problem found (Hernández et al., 2014; Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica [CONCYTEC], 2019).

It was applied because it sought to demonstrate the impact of the application of the educational program on the PPPs of female students at a state university and the level was explanatory because according to Hernandez et al. (2014) it sought to determine the reasons for the phenomenon studied. The study design was quasi-experimental because in this type of design at least one V. I. to see the effect that the V.I. has on the V.D.

In this type of design the subjects were not randomly assigned to groups, nor were they paired because they were already formed before the experiment, i.e., they are intact groups. The design with pretest - posttest and intact groups (one of them as control) was used because in this design the groups were given a pretest, which served to verify the initial situation of the groups (Hernández et al., 2014).

Its symbology was:

Experimental Group 01 X 02

Control Group 03 - 04

Where:

01: This is the pre-test

02: This is the post-test

X: Refers to the intervention program "With formative assessment I manage significant learning".

__: No program applied

Once the unit of analysis was defined, the study population was delimited taking into account the similarity of specifications (Selltiz et al., 1980). It

was constituted by 307 students of pre-professional practices of the present academic cycle. The sample was a subgroup of the population with similar characteristics (Hernández et al., 2014) made up of 240 students. Being 120 of the control group and 120 of the experimental group who are students of the academic cycle 2020 - II, regularly take the subject preprofessional practice and dictate learning sessions. Non-probabilistic sampling was used, because the selection of subjects was non-probabilistic by convenience and chosen according to the researcher's decision, i.e., according to the purposes of the study, i.e., the selection was not based on probability formulas (Hernández et al., 2014).

The data for both criteria were collected through the google form, the results of which were: 38.3% were between 18 to 21 years of age, 47.9% between 22 to 25 years of age, 11.7% between 26 to 30 years of age and 2.1% between 31 to more years of age.

To collect data from the V. D., E - A process management, the observation technique was used, which is a data collection technique that consists of the orderly, valid and reliable recording of observable behaviors, procedures and situations, through a series of categories or indicators (Hernández et al., 2014; Bunge, 2014).

The instrument used was the observation guide, which according to Campos and Covarrubia and Lule (2012) is an instrument that allows the observer to systematically place himself in the object of study, and is also the instrument that allows the collection and gathering of data and information on an event. Meanwhile, for Rekalde et al. (2014) it is a format in which data are collected and recorded in a systematized way in two moments. It was applied twice (pre-test and post-test), both to the control and experimental groups. In the guide, the items are annotated in relation to the dimensions and indicators from the study variables.

The validity of the instrument checks whether it meets the research needs by measuring what it should measure and the content validity was given by the judgment of experts who, after reviewing the instrument, certified the validity of the instrument applied The reliability was carried out using Cronbach's Alpha coefficient to assess the reliability or homogeneity of the items. It is common to use this coefficient when dealing with polytomous response alternatives (Hernández et al., 2014). For reliability, a pilot test was applied to the variable Management of teaching-learning processes. The sample was composed of 100 randomly selected students to whom an 18-item test was applied. The measurement resulted in 0.83.3, which meant high reliability.

The initial evaluation made it possible to identify whether there were significant differences between the groups (control and experimental), then the program "With the formative evaluation I manage significant learning" was applied to the experimental group, after which the exit evaluation was applied to both groups (control and experimental). The control group continued with their traditional activities.

Once the data collection was concluded, data processing and analysis were carried out using the appropriate analysis tools for this purpose. The inferential information allowed us to test the hypotheses. The Mann-Whitney U statistic was used to test the difference between the two groups (control and experimental).

RESULTS

In this research, the observation technique was used to answer the general objective, which was to determine the effect of PE as a strategy in the management of E-A processes in students of a state university. Chosica - Lima, 2020.

Descriptive statistics were applied for the levels of variables and dimensions and inferential statistics for hypothesis testing.

Descriptive Statistics

The general descriptive results of the variable Management of teaching-learning processes are shown.

Pre-test: the control group showed that 31.7% of the students were in the low level, 50% in the medium level and 18.3% in the high level, while in the experimental group, 10% of the students were in the low level, 70% in the medium level and 20% in the high level. After the application of the educational program "With the formative evaluation I manage significant teaching-learning processes", the results show that in the control group 10% were in the low level and 90% in the medium level, while in the experimental group 5.8% were in the low level and 94.2% in the high level, therefore, it was concluded that the program had positive effects on the improvement of the management of teaching-learning processes.

The results of the dimensions of the variable are presented below.

Pre-test: the control group showed in Curricular Planning that 31.7% of the students were in the low level, 53.3% in the medium level and 15% in the high level, while in the experimental group, 10% of the students were in the low level, 70% in the medium level and 20% in the high level. It can be seen that after the application of the educational program "With formative evaluation I manage meaningful teaching-learning processes", the results show that in the control group 10% were at the low level and 90% at the medium level, while in the experimental group 13.3% were at the medium level and 86.7% at the high level. Therefore, it was concluded that the program had positive effects on the improvement of curricular planning.

Pre-test: the control group showed that in the execution of the teaching-learning process 25% of the students were in the low level, 56.7% in the

medium level and 18.3% in the high level, while in the experimental group, 10% of the students were in the low level, 70% in the medium level and 20% in the high level. It can be seen that after the application of the educational program, the results show that in the control group 10% were in the low level and 90% in the medium level, while in the experimental group 5% were in the medium level and 95% in the high level, therefore, it was concluded that the program had positive effects in improving the execution of the teaching-learning process.

Pre-test: the control group showed in the Evaluation of the teaching-learning process that 16.7% of the students were in the low level, 68.3% in the medium level and 15% in the high level, while in the experimental group, 10% of the students were in the low level, 70% in the medium level and 20% in the high level. It can be seen that after the application of the educational program, the results show that in the control group 10% were in the low level and 90% in the medium level, while in the experimental group 6.7% were in the medium level and 93.3% in the high level, so it was concluded that the program had positive effects on the improvement of the evaluation of the E - A process.

General Hypothesis

HG: Formative evaluation as a favorable cause-effect strategy in the management of E - A processes in students of a state university, Chosica - Lima, 2020.

Pre Test: The statistics of the study groups are shown, being the level of significance p=0.152 greater than p=0.0 (p>α) and Z = -1.432 greater than -1.96 (critical point), therefore, it was concluded that the students, at the beginning present similar results, i.e. there are no significant differences between the control and experimental groups. Post-test: in the results shown in Table 5, the statistics of the study groups can be seen, being the significance level p= 0.000 lower than p=0.05 (p< α) and Z = -6.332 lower than -1.96

(critical point). It is proved that formative evaluation as a strategy causes favorable effect in the management of teaching-learning processes in students of a state university, Chosica - Lima, 2020.

Specific hypothesis 1:

H1: Formative evaluation as a favorable cause-effect strategy in curricular planning in students of a state university, Chosica - Lima, 2020.

Pre Test: The statistics of the study groups, being the level of significance p=0.729 greater than p=0.0 (p>α) and Z = -0.347 greater than -1.96 (critical point), therefore, it was concluded that the students, at the beginning presented similar results regarding the Curricular Planning, that is to say, there were no significant differences between the control and experimental groups. Post-test: the results show the statistics of the study groups, being the significance level p= 0.000 lower than p=0.05 (p< α) and Z = -6.170 lower than -1.96 (critical point). It was proved that formative evaluation as a strategy causes favorable effect in curricular planning in students of a state university, Chosica - Lima, 2020.

Specific hypothesis 2:

H2: Formative evaluation as a favorable cause-effect strategy in the execution of the teaching-learning process in students of a state university, Chosica - Lima, 2020.

Pre Test: The statistics of the study groups are shown, being the level of significance p=0.339 greater than p=0.0 (p>α) and Z = -0.844 greater than -1.96 (critical point), therefore, it is concluded that the students at the beginning present similar results regarding the execution of the teaching-learning process, i.e. there are no significant differences between the control and experimental groups. Post test: in the results shown in the table, the statistics of the study groups can be appreciated, being the significance level p= 0.000 lower than p=0.05 (p< α) and Z = -5.915 lower than -1.96 (critical

point). It is proved that formative evaluation as a strategy causes favorable effect in the execution of the teaching-learning process in students of a state university, Chosica - Lima, 2020.

Specific hypothesis 3:

H3: Formative evaluation as a favorable cause-effect strategy in the evaluation of the E - A process in students of a state university.

Pre Test: The study groups, being the level of significance p=0.34 greater than p=0.0 (p>α) and Z = -0.955 greater than -1.96 (critical point), therefore, it was concluded that the students at the beginning presented similar results regarding the Evaluation of the teaching-learning process, that is, there were no significant differences between the control and experimental groups. Post test, as shown in the table, the statistics of the study groups are appreciated, being the significance level p= 0.000 lower than p=0.05 (p< α) and Z = -4.675 lower than -1.96 (critical point). It is proved that formative evaluation as a strategy causes favorable effect in the evaluation of the teaching-learning process in students of a university, Chosica - Lima, 2020.

According to the statistical results obtained in the nonparametric Mann Whitney U test, the proposed general hypothesis is affirmed: PE as a strategy causes favorable effect in the management of E-A processes in students of a state university. These results coincide with the research of Gutiérrez (2017) and Sánchez - Otero et al., 2019, in that the EF as a strategy allows identifying the scope, progress and weaknesses that learners obtain in the E - A process, strengthen the education provided by the teacher, since it can energize learning strategies that enable improvements in education. Likewise, they are corroborated with the concepts that the management of the E-A process is the practical phase of the teacher where the teacher-student relationship is evidenced, in which the teacher must organize work teams and pedagogical management actions (Llinares, 2006).

Regarding the effects of the research, it is proved that there is a significant influence of PE as a strategy in curricular planning. Results that coincide with the contribution of Ortega (2015), who in his research concluded that applying the EF in the E-A process allows planning actions according to the particular and social characteristics of the student. In addition, in the management of the E-A process it is necessary to have an ideal curricular planning to present the proposal to the students, which allows improving them (Meléndez and Gómez, 2008; Santos, 2016), being feasible to make changes to the planning according to the results of the evaluation, in order to respond pertinently to the learning needs of the students, taking into account the learning purposes (MINEDU, 2019).

Results that coincide with the approach of Trejo (2019) who refers that teaching competencies for the management of the E-A process could be defined as a series of knowledge, skills and attitudes that, applied in the teaching performance, ensure its good achievement in terms of the execution of learning. These statements are supported by the contributions of UNESCO (2020), in which it is emphasized that the implementation of the E-A process is the fundamental aspect of the curricular process. MINEDU (2019) states that it is the process of effective teacher - student interaction, responding to specific learning purposes aimed at achieving competencies.

The research also confirms that there is a significant influence of PE as a strategy in the evaluation of the E-A process. This finding coincides with the contribution of Pérez et al. (2017), who in an article on PE in the E-A process, note that it is necessary to have an integrative concept of evaluation, as it is the essence of the evaluation process. This implies having a competent teacher, with the ability to apply a relevant and effective EF using diverse methods, according to the objectives expected in students according to their level of studies, which ensures that the student develops self-regulation

mechanisms to achieve new learning goals. In other words, PE benefits the accompaniment of students' learning progress as a result of experience, teaching or observation (Díaz-Barriga and Hernández (2002).

The formative approach strengthens the evaluation, even emphasizing that what is important in the evaluation is the learning and not the student, therefore, the performance should be evaluated and not the person. Its use is necessary during the evaluation process and not only at the end as a result, since it provides permanent, timely and essential information, being an action that is in the whole process of E - A management, from identifying needs to the analysis of results, since precisely, evaluation strengthens the permanent process of readjustment, renewal or change (MINEDU, 2019; SEP, 2012; UNESCO, 2020).

This statement is based on the contributions of Anijovich (2010) who notes that planning, execution and evaluation of learning are joint processes and are constantly fed back, are cyclical and are executed from the reflection of pedagogical praxis. Furthermore, in evaluation there is a very important aspect that needed to be addressed to better understand the EF for learning: feedback, which is part of the evaluation process in which information, guidance, questions and assessment of the tasks performed by students, as well as their products and performances, are offered.

Therefore, feedback is a basic and fundamental activity in the reflective and conscious evaluation of both students and teachers, promoting in students an evaluation characterized by reflection, recognition of their strengths and weaknesses, especially their commitment to improvement. This will ensure that society will have new teachers capable of carrying out a conscious and reflective evaluation. Anijovich (2010). Moreover, it invites to work and use the knowledge of skills, which means that certain steps must be followed, in

which the teacher uses the PE and then provides the necessary feedback (Trigueros and Navarro, 2019).

Since the research is a quasi-experimental design and it is not possible to randomly assign the subjects to receive the experimental treatment, there may be possible problems of internal and external validity, precisely because of the lack of randomization (Hernández et al., 2014), which makes it impossible to affirm that the results can be universalized.

The research cannot be generalized to another population and sample because this research was applied only to students, which opens possibilities for further research on the topic, expanding the research with a population and sample of teachers, taking into account that these are the people who already manage the E-A processes and make a fundamental contribution to the training of future teachers.

A deficit was observed with regard to the evaluation dimension of the E-A process, which means that it is vital to empower the lead teacher who accompanies the students in issues related to the weakness found. This is affirmed based on the observation of the evaluation instruments they use and on the diversity of postures they assume in their pedagogical praxis in the management of learning processes, specifically with regard to the evaluation carried out by the teachers who accompany the students who are part of the population and sample of this research.

Another limitation found in the research is the deficiencies in the feedback received by the students, as well as in the teacher's self-evaluation regarding her role in the management of the E-A process. In addition, the future teacher, as part of her professional training, must carry out her PPP with excellent scientific, ethical and pedagogical preparation to be able to face the challenges she will encounter in the classroom. Thus, the profile of the graduate and future professional must be highly competitive, which is why a

good performance in the PPPs is necessary, as well as everything related to the interaction they must have with students and the environment in which they will develop, applying pedagogical and didactic processes in a pertinent manner (Hidalgo, 2017).

This shows the need to conduct research in this regard, taking into account that, in the evaluation at the university level, teachers are responsible for guiding the student through pedagogical and methodological strategies. Therefore, they are responsible for the results of student learning (Parada, 2020).

CONCLUSIONS

It has been demonstrated that PE as a strategy causes a positive effect on the management of teaching-learning processes in students of a state university, Chosica - Lima, 2020. The increase in the average rank of the experimental group was 9.5, which represents the positive effect of the program. PE as a strategy causes a positive effect on Curricular Planning, on the Execution of the E - A process and on the Evaluation of the E - A process in students of a state university, Chosica - Lima, 2020. The increase in the average range of the experimental group was 10.0, 11.67 and 6.5 respectively, which represents the positive effect of the program.

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