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### Evaluation of the effectiveness of educational strategies in nurse training

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## Summary

The growing demands of the environment generate new challenges every day for Higher Education Institutions, to comply with the minimum quality parameters in the training process of students in order to ensure the appropriate practice of Nursing, hence the need to implement the evaluation of the student's training process as a way to contribute to raising their professional quality. Objective: To identify the effectiveness of educational strategies in the training of nurses. Method Analysis-synthesis, induction-deduction, historical-logical, systemic approach and modeling were used as theoretical methods, as empirical methods, documentary and content analysis, obtaining as results that improvement in knowledge and skills, reflected in higher scores in exams, better performance in clinical simulations or positive feedback from hospital supervisors. changes in students' attitudes and perceptions of the profession; improved clinical competence; increased academic retention and success; Student and employer satisfaction, increasing the satisfaction of both nursing students and employers, thus concluding that increasing the quality of training is seen as a challenge, a necessity and a commitment for which students and teachers are responsible.

**Keywords:** management; quality; evaluation; methodology.

## Abstract

The growing demands of the environment generate new challenges every day for Higher Education Institutions, to comply with the minimum quality parameters in the training process of students in order to ensure the appropriate practice of Nursing, hence the need to implement the evaluation of the student's training process as a way to contribute to raising their professional quality. Objective: To evaluate the effectiveness of educational strategies in the training of nurses. Method Analysis-synthesis, induction-deduction, historical-logical,

systemic approach and modeling were used as theoretical methods, as empirical methods, documentary and content analysis, obtaining as results that improvement in knowledge and skills, reflected in higher scores in exams, better performance in clinical simulations or positive feedback from hospital supervisors, changes in students' attitudes and perceptions of the profession; improved clinical competence; increased academic retention and success; Student and employer satisfaction, increasing the satisfaction of both nursing students and employers, thus concluding that increasing the quality of training is seen as a challenge, a necessity and a commitment for which students and teachers are responsible.

**Keywords:** management; quality; evaluation; methodology.

### **Introducción**

Higher education institutions have undertaken various initiatives to integrate education with production and service processes, in recent years, numerous universities in different countries have focused on improving the quality of human resources education and training (1). In the field of nursing, educational programs consider practice as a fundamental space for the application of knowledge, where students acquire professional skills through the execution of concrete actions.

In order for students to integrate theoretical knowledge into their training as nursing professionals, a fundamental scientific method for this training is the nursing process, which provides a framework to support the theoretical-practical knowledge acquired during training, thus allowing professionals to incorporate a new dimension in the provision of care. This allows us to identify the importance of theoretical and technical content in the nursing profession to guarantee the provision of quality care.

By applying this scientific method in nursing care practice, the provision of care is facilitated in a rational, logical and systematic way, the implementation of the care process has repercussions at three levels: at the professional level, in the care of the patient and in the development of the profession (2). Likewise, the American Nursing Association considers the process as a standard for the practice of the nursing profession (3). Its relevance has driven significant changes in its stages, thus favoring the development of nursing as a scientific discipline and improving the quality of care provided to patients, families and communities.

Nursing is an essential profession in health care, and nurse training is a complex and challenging process, there are numerous educational strategies that are used to train nurses, and it is important to evaluate their effectiveness to ensure that students receive the best education possible, one of the most common educational strategies in nurse education is clinical education, Clinical education provides students with the opportunity to apply their theoretical knowledge in a hands-on environment, this allows them to develop essential clinical skills, such as patient assessment, medication management, and patient care.

## **Development**

Education represents a crucial component in the learning activities that are carried out in a generalized way, each of the challenges facing higher education in the 21st century require the implementation of a new educational approach based on the principles of excellence, quality and relevance, so this approach is closely linked to political changes. economic and social developments that have taken place in various countries, where social progress in areas such as science, technology, practice and research has required their application not only in theory, but also in actual practice (4).

## **Evaluation of educational strategies**

Evaluation is a continuous, systematic and reflective process, which allows the identification of the strengths that the student has to achieve meaningful learning based on constructivism, provides information to help, improve and make informed decisions for educational action. As far as the evaluation of educational strategies is concerned, this could be defined as the continuous process that measures the achievement of teaching-learning competencies (5). The evaluation of the educational strategy involves analyzing the correspondence that exists in the implementation of the learning activities with the elements that make up this process, which are:

- Curricular project
- Graduate profile, the academic program
- Teacher Role
- Role of the student
- Role of academic administrative management, as well as the availability of adequate infrastructure that supports the formation of the attributes of the explicit competence in the graduate profile.

Therefore, evaluation is a continuous, systematic and reflective process through which both quantitative and qualitative information is collected that evidences the strengths and weaknesses of the elements of the educational process in order to gradually improve the quality of these elements., with the ability to reason and adapt competence to any particular context. Likewise, it provides information to help improve and make informed decisions for educational action, and serves as feedback during the teaching-learning processes. Therefore, student learning depends on teaching and assessment by the teacher.

Likewise, during the learning process, formative assessment is essential to monitor it at each critical point and element towards the achievement of objectives that are expected during the course, so that the deficiencies of the student's experiential process are identified, and of the didactic strategy implemented by the teacher and the possibility of correcting them with new strategies (6). And finally, the assessment at the end of the course, which is the summative assessment, like the others, is necessary because it reflects whether the student has achieved the elements of the competence (knowledge, skills, attitudes, values and

aptitudes) of the learning unit, and whether he or she is sufficiently competent or capable of learning new knowledge in the subsequent cycle (7).

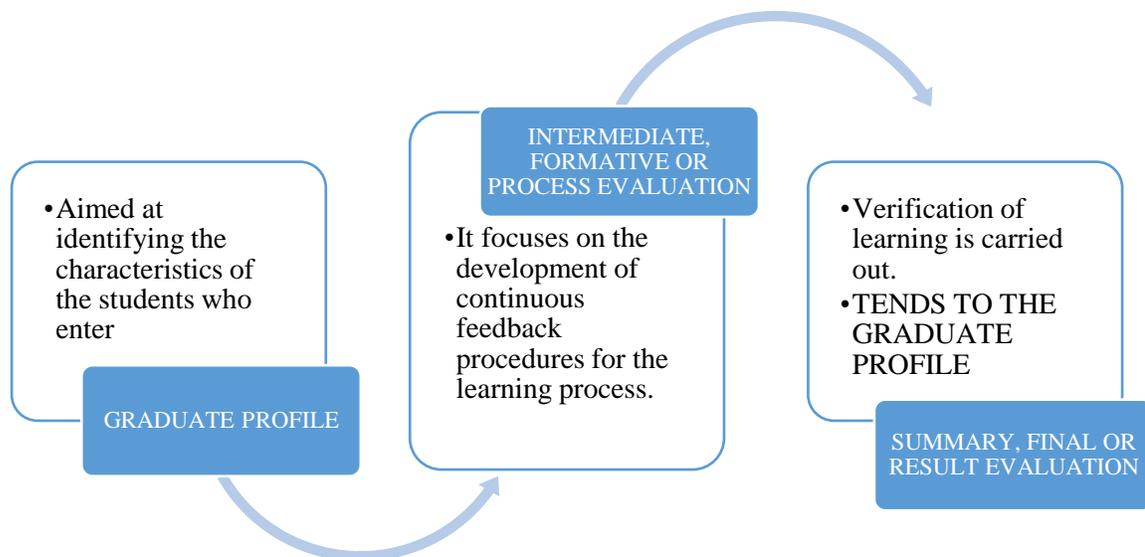
Thus, diagnostic, formative and summative assessment are integrated into the teaching-learning process, that is, at the same time that a diagnostic assessment is being made, a formative and summative assessment is already being made, allowing feedback in each of the learning activities, so that the following strengths, learning styles and strategies used by the learner in the process of knowledge acquisition are identified. Construction of critical, creative and reflective thinking for decision-making, thus considering feedback as part of the evaluation process.

### Objectives of the Evaluation

With regard to the functions or object of the evaluation, three main ones are recognized:

- The function associated with the previous moment in which the process occurs is called initial or diagnostic. It is aimed at exploring and recognising the characteristics of students entering higher education (entry profile).
1. Mid-term evaluation, also called formative or process evaluation, focuses on the development of continuous feedback procedures of the aprendizaje, in order to verify progress, identify common errors, and guide the development of learning outcomes.
  2. The so-called final, result or summative evaluation, in which the achievement of the expected learning and competencies expressed in the graduate profile is verified, and the decisions that must be taken on which aspects of the process should be optimized. It is about giving a value judgement on the results achieved in the training process.

**Figure 1. Functions of the evaluation**



### Instruments for the evaluation of educational strategies

Competence is assessed within the three knowledges that form it: theoretical knowledge (knowledge), procedural knowledge (skills and abilities) and attitudinal knowledge, through performance criteria that the student has to demonstrate in each knowledge of the competence in the different learning contexts (classroom, simulation and real scenarios) based on indicators that measure the level of mastery in each element of the competence through the assigning a quantitative value with respect to the degree of contribution to which the elements of competence are to be assessed (8).

Since the educational strategy is congruent within the pedagogical theory of constructivism and concretized in the teaching-learning strategies that are integrated into the competencies, these need to be evaluated through evaluation methods and instruments with indicators that allow showing the level of mastery in which the competence is developed based on criteria established in order to demonstrate the achievement of the learning of the competencies. dimensions of the same (knowledge, skills and abilities, attitudes and values, and aptitudes), issue a weighted evaluative judgment in each phase of the process of the formation of the competence and comply with the curricular profile of the graduate (9).

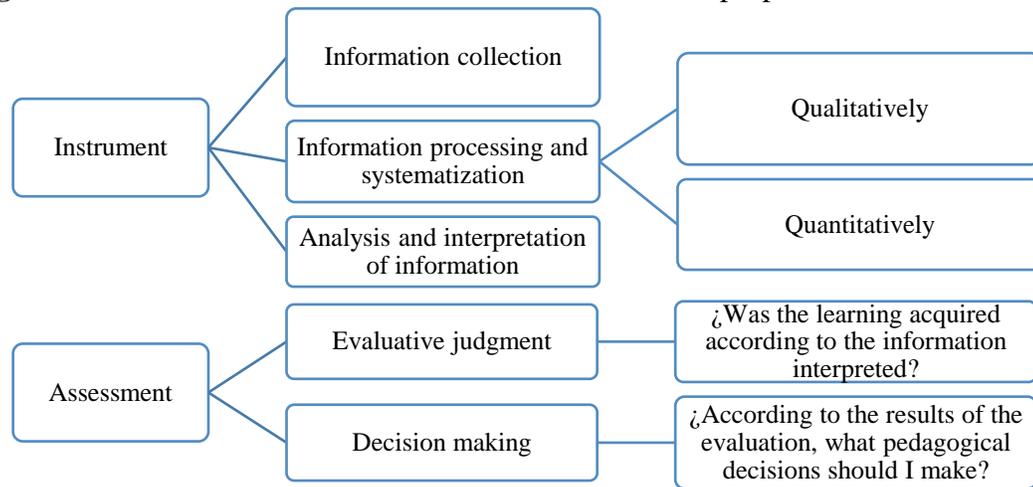
It should be considered that the quality of a health service is based on the level of competence and performance of its workers in the fulfillment of their labor and social functions (10). The competence of health workers consists of the knowledge, skills, attitudes, skills and judgments necessary, as well as their organization, retention and use in social practice, in order to provide relevant, safe and timely health services to the population, this will depend on education and professional training, since it is based on the actual behavior or conduct of the same. both in the professional and technical order, as well as in the interpersonal relationships that are created in the care of the health/disease process, including technical expertise, staff motivation, human and ethical values.

This conception of the quality of performance, linked and integrated with the quality of services, takes the evaluation of competence and professional performance as a continuous process of evaluation of the quality of health care, which breaks with purely academic frameworks, and links it with responsibility and social commitment. in response to the needs of the population (11). The International Council of Nurses in the United States describes the role of the profession as "encompassing the autonomous and collaborative care of individuals of all ages, families, groups, and communities, and in all settings." In this context, "the promotion of a safe environment, research, participation in health policy-making and in the management of health systems and patients, and education" are considered as key nursing functions (12).

Nursing education in universities and other higher education institutions needs educational evaluation through the results that show their educational processes in the graduate profile of professionals who certify as competent for professional practice. For this reason, the evaluation of the implemented educational process has to review the elements that permanently integrate it: curricular project specified in the curriculum, academic

programs, teachers, academic-administrative management, learning support services, infrastructure and educational strategies that are developed for student learning (13).

**Figure 2.** Outline of collection instruments and evaluation purposes



The analysis and interpretation of information corresponds to taking the information collected by the instruments, organizing and systematizing it in order to socialize it. The process of inferring ideas from data requires the use of referents that make sense of the results according to the purposes for which they are collected. In the educational assessment of learning, it is usually of a normative type or of previously defined criteria. From these, it will be possible to interpret the information obtained and verify the achievement of learning. The analyses carried out with the steps described above allow us to make a judgement in relation to the acquisition of learning of the subjects being evaluated (14). This judgment is not only based on the process of collecting, processing and analysing information, but also on a value framework (typical of the teaching profession or on the deontological codes of evaluation in education) to make this judgement (15).

### Evaluation and Educational Strategies

It is an essential component in the field of education, as it allows students to measure progress and achievement, identify strengths and areas for improvement, and make informed decisions to improve educational processes and outcomes. There are different types of educational assessment, as well as a wide variety of assessment instruments that are used to collect data and evidence. First, the types of educational assessment include diagnostic, formative, and summative assessment (16). Diagnostic assessment is conducted at the beginning of a course or program and aims to gather information about students' prior knowledge, skills, and competencies. This assessment provides a basis for adapting the teaching plan and addressing individual student needs (17).

Formative assessment is conducted on an ongoing basis throughout the educational process and provides regular feedback to improve learning and student achievement. Finally,

summative assessment is conducted at the end of an instructional period and aims to assess achievements and learning achieved (18). Assessment instruments may include written exams, objective or multiple-choice tests, individual or group projects, lab reports, oral presentations, assessment rubrics, performance observations, among others. Each assessment instrument has its own advantages and challenges, and the choice of the right instrument will depend on the assessment objectives, the characteristics of the students and the educational context (19).

In summary, different types of educational assessment and assessment instruments play a critical role in collecting data and evidence to measure student progress and achievement. Effective implementation of educational assessment allows for informed decision-making, constructive feedback, and continuous improvement of educational processes and outcomes. There are different types of evaluation that are classified according to their intentionality, the time of application, the evaluating agent and the extent of the evaluated. Each type of assessment has its own specific characteristics and purposes (20).

***Evaluation according to its intentionality***, two main types can be distinguished: formative assessment and summative assessment.

***Formative assessment*** focuses on monitoring and continuous feedback of the learning process, with the aim of identifying strengths and areas for improvement to guide and improve student performance.

***Summative assessment*** is carried out at the end of a period of instruction or programme and is mainly used to make value judgments about the achievements achieved.

***Evaluation Depending on the time of application***, a distinction can be made between initial assessment, formative assessment and summative assessment. The initial assessment is carried out at the beginning of a program or course, and aims to collect information about the students' previous knowledge and skills, which allows the teaching-learning process to be adapted. Formative assessment is carried out during the educational process, providing Ongoing information about student progress and needs. Finally, summative assessment is carried out at the end of the educational process to evaluate the results and achievements obtained.

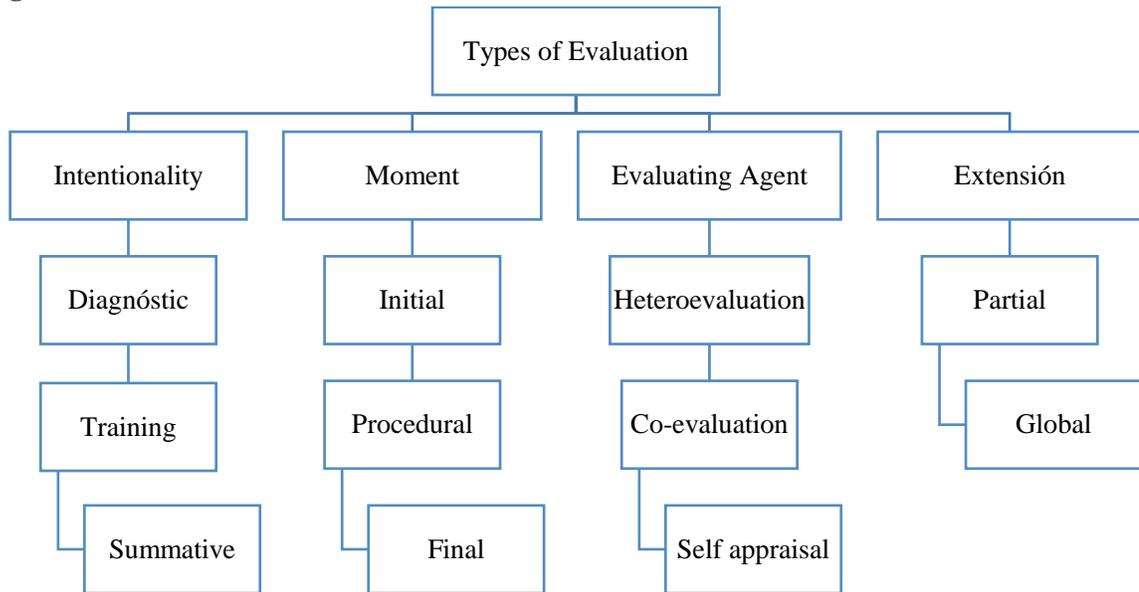
***Evaluation According to the evaluating agent***, a distinction can be made between internal evaluation and external evaluation. Internal evaluation is carried out by the faculty or educational institution itself, and focuses on internal improvement and the development of effective teaching and learning strategies. On the other hand, external evaluation is carried out by external and independent entities, such as government bodies or accreditation agencies, and aims to ensure quality and compliance with established standards.

***In terms of the extent of the person being evaluated***, a distinction can be made between individual evaluation and institutional evaluation. Individual assessment focuses on each student's performance and achievement on an individual basis, providing personalized feedback and supporting their academic development. On the other hand, institutional

evaluation focuses on the analysis and improvement of processes and results at the institutional level, with the aim of ensuring quality and compliance with educational objectives.

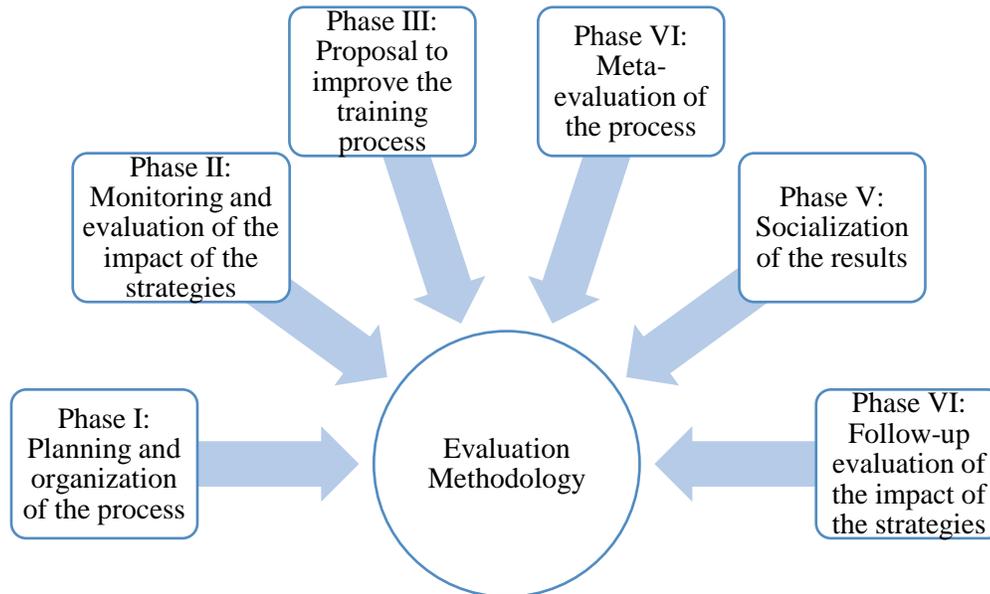
In summary, the different types of evaluation, depending on the intentionality, the time of application, the evaluating agent, and the extent of the evaluated, provide different approaches and perspectives to gather valuable information about educational processes and outcomes. An effective implementation of the different types of assessment can contribute to the continuous improvement of educational quality and the integral development of students.

**Figure 3. Classification**



The notions of evaluation are useful for identifying the characteristics and intentionality of its application.

**Figure 3.** Phases of the methodology designed to evaluate the quality of the nursing student training process



Source: Taken and adapted from Galarza et al (2017) (21).

The development of these phases is not rigid, but flexible and involves a participatory process of construction, reflection and permanent feedback, in which the intermediate results constitute support and starting point for the following phases.

### Conclusions

The evaluation of the effectiveness of educational strategies in nurse education is fundamental to improve the quality of nursing education and, ultimately, patient care, through the study and analysis of different educational approaches, such as problem-based learning, collaborative learning and simulation-based learning. It has been shown that these strategies can have a significant impact on the development of key skills and competencies in nursing professionals. On the other hand, collaborative learning has proven to be effective in improving communication and teamwork skills, essential skills in the interdisciplinary care setting, which provides a solid foundation for improving nursing education programs. These educational approaches can lead to quality care and contribute to the advancement of the nursing profession as a whole.

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