



**COMPETENCE-BASED EDUCATION AND REQUIREMENTS
APPLIED TO IT**

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ANNOTATION

This article will address the processes of integration of information, norms and standards, methods, processes and interdependence, and factors in different educational settings. The article will also examine the educational process and the requirements of this process to such competence.

Key words: competence, integration of values, standards, modalities, monitoring, educational strategy and methodology

INTRODUCTION

Many institutions around the world are restructuring their degree programs to include new academic and professional profiles that include different competencies. These competencies are individual and group standards and require the development of personal resources, which should then be integrated into the capabilities of the environment in order to complement each other or achieve maximum mutual benefit.

Powers are successful on a personal level because each of them sets a framework and direction for success. That is, we are satisfied only if the result is effective. Such achievements come from the development of our own (individual and social) qualities. We define competence as the integration and activation of information, norms and standards, methods, processes, talents and skills, attitudes and values in a variety of real-world settings. There are several models that include competencies considered important for professional success. In our example, we created a typology of competences, selecting those that are fundamental and can be learned in the university education process. According to the reports and studies discussed earlier, these competencies are useful and significant for a student's future career. Even for the most experienced teachers, getting students interested and motivated in higher education is a difficult task. While it's impossible to recommend a "one-size-fits-all" strategy, research shows that there are numerous behaviors that can help students become more engaged overall. Some ideas to help implement





the approach are discussed and some benefits of engineering education are mentioned.

Competency-based education has the following characteristics:

- a) The skills and abilities required for the job are carefully selected.
- b) Essential knowledge needed to perform skills is learned to enable us to perform tasks effectively.
- c) Materials designed to teach specific skills and knowledge help students achieve their goals.
- d) The teaching method is usually based on the idea that anyone can learn the necessary knowledge or skills, given the time and appropriate teaching methods.
- e) Students' knowledge and skills are assessed on entry into the program, and those with satisfactory knowledge and skills may bypass qualifications and qualifications they have achieved.
- f) Learning should be done at a pace that is comfortable for you.
- g) Training should be flexible and include different methods, such as group activities and individual learning

LITERATURE ANALYSIS AND METHODOLOGY

To implement competency-based education, we must first determine what skills are required in today's conditions. Of course, only universities cannot solve this without the participation of industrial and professional organizations. Different sectors have collaborated to develop a common offer of opportunities. This document requires defining the basic competencies required in each of the professions that prepare university graduates, which are taught along with all other aspects and dimensions deemed appropriate, relevant and necessary for the best education and preparation of students.

Competency-based education includes the development of general and transversal (instrumental, interpersonal, and systemic) competencies, as well as professional-specific skills. The aim is to provide students with resources for scientific and technological knowledge and the ability to use this knowledge in a variety of complex situations to achieve these goals, knowledge that is relevant to personal life as well as attitudes and values. And professional life of each student.

Competency-based education is a method of teaching and learning that begins with an academic and professional profile, which includes all the knowledge and skills that students should develop after a specific course of study. Includes skills. Their course of study should define the general and specific skills required and distribute them across the degree program. This strategy requires a lot of





coordination and collaboration among professors to effectively and efficiently contribute to the formation of an academic-professional profile through each subject or course.

Competency-based learning is based on a professional needs study that helps identify and prioritize the core competencies required for a particular profession or field of expertise. As stated in the 1998 World Conference on Higher Education, lifelong learning is to equip people with the skills they need to contribute to the cultural, social and economic growth of society very necessary. Competency-based learning is based on an examination of professional requirements that helps identify and prioritize the critical competencies required for a particular professional or specialty area. According to the 1998 World Conference on Higher Education, lifelong learning is essential to acquire the skills needed to contribute to the cultural, social and economic growth of society. CBL is a widely recognized teaching method based on the connection and interaction between several courses, each of which provides general and specialized education by providing scientific or technical knowledge helps develop skills. Students are the main drivers of their own learning in this way, so they require self-motivation and control, as well as cognitive methods and cognitive goals to help them learn and reflect on their learning requires development.

Competency-based learning is a method that works well with the European credit system, which requires students to dedicate enough time to their studies to acquire or improve the skills required within a set time limit. It is an individualized learning method that combines theory and practice, different from the old system that focused mainly on memorization, which allowed students to study hard only at certain times of the year. Many stages of implementation of competency-based education should be considered. As mentioned above, mastering a competence requires combining numerous factors (knowledge, methods, attitudes and values) in a scenario to cope with it correctly. It is important to instruct students to acquire or improve competencies in the following ways:

Define in a clear and detailed manner what is included in the competence to be developed and assessed: describe the context and conditions in which the activities are carried out (e.g. in an academic environment, classroom, laboratory, company, hospital or institution); whether the activity is carried out individually or in groups; and what tools or special techniques are used.





Estimate how much time you will spend on the activity: Indicate the main materials or resources that will be used, whether they are assigned or students will have to research. Describe the plan (methods and processes) for implementing the planned action: define the indicators or criteria that constitute a satisfactory indicator of the experience (evaluative criteria related to indicators and evidence).

The main elements of the training process: the basis of the system proposed here is competencies. The curriculum is defined in terms of general or transversal competencies as well as individual competencies.

The following are the four main parts of the teaching and learning process that contribute to the achievement of competence:

1. Educational strategy and methodology
2. Modalities
3. Monitoring
4. Evaluation

In this context, a strategy is a repeatable set of processes and guidelines for making the best decisions based on the objectives set in each situation, including appropriate methods and techniques and modifying them according to time constraints means creating a process. The professor should describe the teaching-learning approach he/she has developed for each subject in the degree program in the following words: First, the teaching-learning method should be used by students, both general and individual must guarantee subject competencies. Lectures and explanations, document studies, case studies, projects, problem-solving, group dynamics, discussion and debate, presentation of speeches, and other teaching methods and strategies should be described. It is necessary to determine spatial, material, audiovisual, computer and other educational resources for use. Determine the total amount of time students should expect to spend on each major part of the subject, both in and out of class.

Fashions are a general means of organizing the educational process at work. Full-time, part-time, and online are the three main options. In this case; modalities are a broad way of systematizing the teaching process. The three main ways to study are full-time, part-time and online. Correspondence education means that the regular attendance of students is augmented by virtual teaching. Universities are increasingly offering online courses, or at least online platforms, that allow students to complete and deliver work from their homes or other locations outside the classroom. Online learning requires electronic





equipment, as well as virtual supervision and teacher support. Learning Supervision – Online learning mode requires technological equipment as well as virtual supervision and guidance. Individual and/or group lessons; essay and project correction; full or partial evaluation of the project; feedback on exercises and problem-solving or case management etc. are all examples of supervision. In short, any technique can be used that gives students feedback on their progress or leads them to self-assess or reflect on how their learning and academic work is progressing. Monitoring can be done in the classroom or online, using study guides, portfolios, and other methods. In addition to monitoring the progress of students, the purpose of such supervision is to evaluate and advise each situation, give important advice and correct mistakes or help students overcome obstacles in their chosen direction. As students grow from year to year, supervision and what it means in terms of individual direction and supervision should be gradually reduced.

Evaluation - the professor should carefully construct the method of evaluation for each subject and give it to the students in the study guide. At least the components of the assessment method that affect the level of development of students' learning competencies and how this is reflected in the final assessment should be summarized in the course curriculum. The final grade is given to one decimal place and is expressed as a numerical score out of 10. The following information must be provided:

First, consider what is being assessed: the specific and general competencies that the class has worked on. The professor should outline the assessment criteria for each of the skills later in the curriculum. These indicators indicate increased proficiency in each general and specific competency. Second, how these competencies are tested - that is, the tools and methodologies used during the process and in the final assessment (final assessment). Other approaches appropriate to the nature of the skills being worked on should be used.

Third, students should be aware of the criteria used to evaluate their learning, as well as how these factors are taken into account in the final grade. The grading system should reflect a fair distribution of the different skills learned, and the different methods used to calculate the final grade.

The consistency of progress seen in student assessment and the approach adopted for this purpose is paramount.

Sometimes a teacher uses a process that is ineffective for analyzing what they really want to assess. This may be due to a lack of knowledge about which





methods are more appropriate or because some types of development or skills are more difficult to measure or require more time and effort than others. Assessment of skills, particularly general competences, is essential for determining the validity of the learning process, as outcomes depend on what is assessed and how it is measured. Teachers must have the technical ability to assess their qualifications.

CONCLUSION

In conclusion, it should be said that working with this competency assessment tool requires significant changes in educational processes, including the adoption of new approaches that enable students to become active and take responsibility for their own learning. Knowing how to implement these competency-based learning and apply them to the process is essential.

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