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Article

Competencies to be developed by the teacher in distance education

Competencias para desarrollar por el docente en educación a distancia

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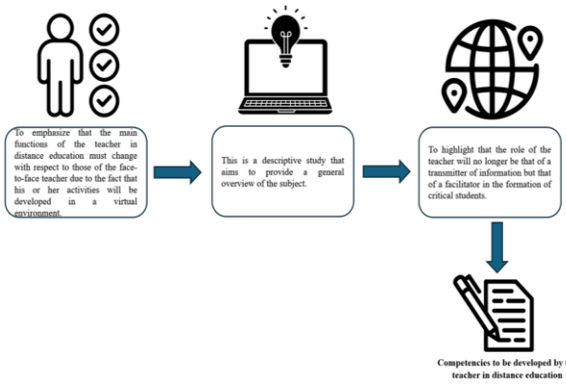
Abstract

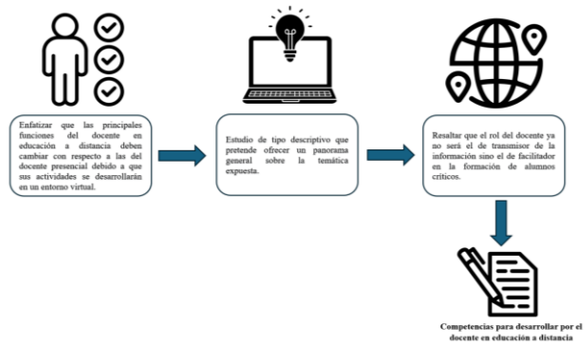
Distance education has transformed teaching and learning, requiring teachers to develop specific skills that ensure the effectiveness of the educational process in virtual environments. We would emphasize that the main functions and tasks of the teacher in distance education must change with respect to those of the face-to-face teacher because their activities will be developed in a virtual environment of the teaching-learning process, no longer having the geographical, physical and temporal limitations of traditional methods and incorporating new methodological and communication forms. Likewise, the role of the teacher will no longer be that of transmitter of information but that of facilitator in the formation of critical students, with creative thinking within a collaborative learning environment. The teacher becomes an advisor, an aid to the student when deciding which is the best way to achieve the educational objectives that have been set.



Competencies, Distance education, Facilitator

Resumen

La educación a distancia ha transformado la enseñanza y el aprendizaje, exigiendo a los docentes desarrollar competencias específicas que aseguren la efectividad del proceso educativo en entornos virtuales. Enfatizaríamos que las principales funciones y tareas del docente en educación a distancia deben cambiar con respecto a las del docente presencial debido a que sus actividades se desarrollarán en un entorno virtual del proceso de enseñanza-aprendizaje, dejando de tener las limitaciones geográficas, físicas y temporales propios de los métodos tradicionales e incorporando las nuevas formas metodológicas y de comunicación. Asimismo, el rol del docente ya no será el de transmisor de la información sino el de facilitador en la formación de alumnos críticos, con pensamiento creativo dentro de un entorno de aprendizaje colaborativo. El docente se convierte en un consejero, en una ayuda para el alumno a la hora de decidir cuál es el mejor camino para conseguir los objetivos educativos que se ha propuesto.



Competencias, Educación a distancia, Facilitador

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Introduction

Nowadays, teachers need to be trained in the use of Information and Communication Technologies (ICT) in order to obtain better results in their work or teaching practice. However, there are still teachers who do not do so, and many of them do so due to a lack of knowledge or training in the different tools, either software (the intangible part of the computer) or hardware (the tangible part of the computer). In order to integrate and use ICT efficiently and effectively, teachers need good technical training in the use of these technological tools and also didactic training that provides them with 'good pedagogical know-how' with ICT.

The incorporation and use of Information and Communication Technologies in education has modified teaching-learning practices, both in face-to-face and distance or virtual modalities. In the words of Hernández (Díaz Barriga, Hernández and Rigo, 2009), a techno-pedagogical design is necessary that allows for learning that is 'constructive of meanings and ideas, accompanied by a good dose of cognitive, metacognitive, self-regulatory and reflective-critical strategies as tools for thinking, together with collaborative learning as tools for inter-thinking and constructive dialogue' (p. 20).

Development

Due to the multiple innovative applications it has in all areas of our society, the knowledge and personal and professional use of the services provided by the Internet constitute the most relevant part of the ICT competences that trainers must have, without forgetting the rest of the basic competences that every citizen needs and other competences specific to their professional field, especially the application of these technological instruments for didactic purposes to facilitate students' learning.

To strengthen the competences of teachers in the use of ICT, focusing the work on a training and learning proposal through the reflection of practice with the intention of being a viable study option for the professional and life conditions of teachers. The incorporation of ICT in the classroom with teacher intervention.

The different technological resources, whether software or hardware, which are used as didactic materials, support or as the main tool for a class, have taken on great importance in education, but in order to have an effect in the classroom, it is necessary for the teacher to become involved in the different competences to be developed in the field of ICT. First, the term competence will be defined:

- The ability to deal effectively with a family of analogous situations by consciously mobilising multiple cognitive resources: knowledge, skills, micro-skills, information, values, attitudes, perception, evaluation and reasoning schemes, in a rapid, relevant and creative manner (Perrenoud, 2004).
- A complex know-how resulting from the integration, mobilisation and adaptation of knowledge capacities and skills (knowledge, attitudes and abilities), used effectively in situations of a common nature (Lasnier, 2000).

Competences are understood as those capacities made up of a set of knowledge, skills, attitudes and values that enable the performance of certain tasks and functions.

The development of communicative competences through the appropriation of technology should be seen as the capacity for the production, reception and interpretation of messages of different types and through different media, which can promote educational interactions, as opposed to other formative or training processes for the use of media that emphasise the mastery of devices and their potential for the circulation and use of messages produced by others (De la Rosa, 2004).

In short, and in accordance with various studies carried out in this respect (Cabero, 1999; Majó and Marqués, 2002; Tejada, 1999), in the words of Marques (2011), the ICT competences that teachers should have can be summarised as follows:

- Have a positive attitude towards ICT, an instrument of our culture that should be used and applied in many domestic and work activities.
- Be familiar with the uses of ICT in the field of education.
- Know about the use of ICT in the field of their area of knowledge.

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- Skillfully use ICT in their activities: text editor, e-mail, Internet browsing.
- Acquire the habit of planning the curriculum integrating ICT (as an instrumental means within the framework of the activities in their area of knowledge, as a didactic means, as a mediator for cognitive development).
- Propose training activities for students that consider the use of ICT.
- Evaluate the use of ICT

These competences must be developed inside and outside the classroom, as teachers are currently facing the fact that students' level of knowledge in the use of different ICT tools is surpassed.

Bernal (2011a) comments that we are living in a society that is characterised by rapid and radical changes in its development. The distance between generations is becoming increasingly closer in age groups. Cultural references and values are changing in shorter periods of time than usual. It should be borne in mind that there are still many teachers who view the use of these resources with suspicion and indifference. The origin of these negative attitudes on the part of a sector of teachers is usually to be found in one of the following circumstances:

- Poor command of ICT, due to a lack of training, which generates: fear, mistrust, helplessness, anxiety.
- Influence of social stereotypes, due to a lack of knowledge about the real contributions of ICT and their importance for society as a whole. Thus, some teachers identify with expressions such as: 'they are expensive, sophisticated and have not proven their usefulness', 'they are a fad', 'they are just another invention to sell', etcetera.
- They are reticent about their educational effects, due to a lack of knowledge of good educational practices that make the most of the advantages that ICT can bring. In this way, and perhaps only considering experiences they may know of in which these materials have been misused, some teachers believe that they dehumanise, are not useful, contribute almost nothing important, have negative effects and make educational work more difficult.
- Prejudices at work: belief that they do not compensate for the time needed for preparation, fear that they may replace teachers, etc.

Therefore, teachers must see the need and usefulness of ICT in their teaching and research work, they must discover their advantages, they must feel supported at all times, otherwise they will see it as unnecessary and not very feasible (Marques, 2011**)**.

It is an unquestionable reality today that the incorporation of ICT in society and especially in the field of education provides a great source of resources and teaching materials that significantly influence the teaching and learning of the student community. A learning system based on Information and Communication Technologies undoubtedly brings added value to the current educational system and opens the door to new educational and training paradigms. The use of ICT in the classroom provides students with a tool that is undoubtedly adapted to their current technological culture and gives them the possibility of taking more responsibility for their education, making them the protagonists of their own learning (Llorens, 2006).

Nowadays, the knowledge and information society requires new educational proposals that allow for synergy between educational and technological processes. Creativity and the use of technologies are combined to produce didactic materials that have evolved in recent years. Distance Education is an example of the methodology, strategies and teaching and learning systems that make use of ICT to manage and build knowledge between people, communities and organisations that are geographically distant and as didactic support in a face-to-face class, since different physical devices have been replaced by logical ones, such as flip charts and cardboards with PowerPoint, a computer and a projector.

Distance education is defined by its vocation to bring institutions and learners closer together. This is how it implies communication, contact and rapprochement in various senses:

- Bringing the school closer to geographically distant populations.

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- Bringing the school closer to working environments and their particular training needs.

- Bringing the school closer to the living conditions of populations whose diverse characteristics are not considered in the school as a conventional institution: adults, women, workers, indigenous people, disabled people, professionals in need of updating, migrants, etc.

- Bringing the school closer to contextualised social and professional problems, that is, starting from a vision of the educational institution as the one that is far from communities with specific problems to be solved, and which require training to reach the place. From this approach, it is not the learners who are distant from the school, but the conventional school that is distant.

In distance education, the role of the teacher is of paramount importance because he/she is the one who tutors the student throughout the learning process. There has been much speculation about the possible disappearance of this figure, or at least its disappearance, with the advance and evolution of ICT.

In order to understand why it is impossible for teachers to disappear from the educational scenario, it is necessary to remember, first of all, that education is a human process whose main purposes are the development of the potential of men and women and the incorporation of the cultural patterns of the society in which they live.

Here, the acquisition of information and knowledge is relevant, but by no means exhausts education. Those purposes defined for education are only achieved in social interaction. In this sense, although distance education responds to certain particular demands of today's societies and has evolved rapidly thanks to the development of ICTs, it does not lose its essence as a human process, nor does it move away from the purposes stated above (De la Rosa, 2004).

Therefore, the teacher's profile must respond to basic ICT training and carry out tasks and functions that are not only based on the transmission of knowledge but also on guiding students towards learning to learn, analysis, criticism and constant creativity that will enable them to develop skills and aptitudes in the use of ICT in order to be creative, enterprising and also to be involved in research processes in their field of work.

In terms of communicative competences, the most significant teaching competences for distance education are as follows:

- Communicative competences
- Technological competences
- Design competences
- Management competences

This set of competences is of great importance in the processes, but we cannot forget that there are more tools and strategies, which should help students in their training, and that this training should lead to good and optimal results on a personal and intellectual level of the individuals and to the characterisation of the qualities of educators and teachers.

Communicative competences are very broad, but in general they are those competences with which people can relate to others and to their environment.

The improvement of communication is based on three components of competence which are knowledge, skills and attitudes.

Communicative competences are classified into:

- Linguistic
- Paralinguistic
- Textual
- Kinesics
- Proxemic
- Chronetics

Linguistics is about the acquisition and development of language through a system of open articulated signs, where people relate and understand each other, from this stems the ability to think, to say things, regardless of language, because humans have the ability to communicate.

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Linguistics gives rise to the following three competences Paralinguistics, which are all those infinite additional elements that accompany language, whether oral or written, which help to complement communication. The oral elements depend on the tone and context in which the sentences are spoken, and in writing there is everything related to the signs of texts. Pragmatic competence deals with language in order to persuade and convince others, not forgetting that we communicate in order to influence other people's decisions, opinions, knowledge, preferences and attitudes.

Textual competence is the ability to create and understand written texts, where one must have technical ability in writing, communication and knowledge of the meanings of each written symbol.

The fourth competence is the Kinesic competence, which focuses on the body and all its movements, because sometimes without realising it, our gestures, postures, looks, hands, etc. are constantly trying to express something.

They are wanting to express something, then the Proxemic competence which is based on interpersonal distances, i.e. our bodies delimit to which spaces of action or not people can access and others cannot. This happens in different phases of life, both personal and public, and finally the Chronetic competence, which is about expressing the right words at the right time and in the right places, i.e. contextualisation of language (Cabezas, 2009).

In any of the modalities in which teachers work, whether face-to-face or in distance education, it is necessary and essential to train rather than inform; to ensure that students learn to learn rather than to teach them; to promote social interaction - according to circumstances and possibilities - in order to collectivise learning processes.

Technological competences are those skills needed to manage and use all the necessary technological design and development resources from a technical point of view, such as the Internet, web 1.0 and 2.0, communication tools, graphic design, handling of modern audiovisual media (sound and video) and mastery of computer systems.

It also involves knowledge of the training activity, with the aim of being able to adapt it to the type of learner, assessing its suitability in each case.

Design competences are those skills required to apply didactic and pedagogical principles in the instructional design of the sequence that forms part of the planning of the training action, with the aim of creating attractive training proposals that guide students in their learning and respond to their needs. They also refer to the ability to select the most appropriate methodology for monitoring and supervision tasks, thus maintaining up-to-date information and knowledge of the success of the training action.

Management competences are the need to possess knowledge and ability to coordinate work teams, establish priorities, identify training needs, organise and operate the human resources structure around an action (Rojas, 2011).

We would emphasise that the main functions and tasks of teachers in distance education must change with respect to those of face-to-face teachers due to the fact that their activities will be developed in a virtual environment of the teaching-learning process, ceasing to have the geographical, physical and temporal limitations of traditional methods and incorporating new methodological and communication forms.

Likewise, the role of the teacher will no longer be that of a transmitter of information but that of a facilitator in the training of critical students, with creative thinking within a collaborative learning environment, while at the same time possessing a constructivist and formative vision. The teacher becomes an advisor, a help to the student when deciding which is the best way to achieve the educational objectives that have been proposed (Perdomo, 2008).

Bernal, (2011b) comments that a teacher must be able to lead a meeting effectively, but this competence not only requires skills but also knowledge and, above all, attitudes that adequately direct the whole process, where sensitivity to various problems determines different approaches and behaviours.

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Thus, in this same line, we may run the risk of forgetting the transversal competences, focusing exclusively on those specific competences that a teacher needs at some point in the development of the profession.

Conclusion

Today's teachers should begin by recognising and understanding the generation gap that separates us from technological and scientific innovations. This perspective will allow us to recognise our fears regarding the use of new technologies, to ascertain our technical knowledge conditions in relation to the technology currently in use and to be able to carry out an in-depth self-assessment analysis in order to accurately review the paradigm in which we find ourselves.

Distance education today represents an excellent educational option as it enables the teacher to be the architect of his own knowledge, since it confronts him first of all with the decision to get rid of various myths in relation to the educational act, this modality requires the ability to make decisions, it also enables him to regulate the times of educational confrontation, It allows better time management and, above all, provides greater academic independence and, contrary to what is thought to be a relationship far removed from the proximity to the tutor or teacher, this modality overcomes it, since, given the impossibility of gestural or behavioural interpretation, the distance academic condition requires greater precision and description but provides greater personalised accompaniment, since the person is drawing his or her interlocutor thanks to the photograph of his or her ideas.

The use of technology to improve educational processes should become a necessity not only for school life, but also for a better management of everyday situations where the individual discovers technology as their best ally to resolve situations of conflict or survival, and not only as an educational possibility but also as a tool for training in one of the most important life competences.

Decision-making, a competence that comes into play from the very moment we decide to start interacting more with the technologies that are at our service to improve our lifestyle.

For this reason, the preparation of teachers in the use of technology has become an imperative necessity in order to be congruent with the current demands of life.

Conflict of interest

The authors declare that they have no conflicts of interest. They have no known competing financial interests or personal relationships that might have appeared to influence the article reported in this chapter.

Authors' contribution

Fuentes-Favila, Luis Macario: Original drafting, revising, data curation.

Mendoza-González, Nancy: Statistical analysis, revision and correction.

Molina-Vázquez, Gabriel: Spelling and editing. Ordóñez-Suárez Teresa: Proofreading and editing

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Abbreviations

ICT Information and Communication Technologies

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Basics

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