

The Professional Performance of the Teacher of Pedagogical Careers with a Technical Profile in the Integration of ICT to the Professional Pedagogical Process

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Abstract: The use of Information and Communication Technologies (ICT) is becoming increasingly evident and necessary for updating, streamlining and disseminating professional training processes. Higher education is not exempt from this situation, so its institutions must provide methodological preparation and professional development in this regard. Consequently, there is a need to develop in teachers an improvement that enables the improvement of professional performance by integrating ICT into the professional pedagogical process. The following article addresses in its generality, some of the theoretical references that support the professional performance of the professor of pedagogical careers with a technical profile in the integration of ICTs into the professional pedagogical process, from which it exposes the definition of this process in the pedagogical careers of technical profiles. It is the result of the theoretical systematization carried out on the contents around the use of technologies in the training of education professionals in specialties of this type. In this way, it proposes to the interested researcher, to reflect on the particularities of professional performance, taking into account the integration of ICT, as well as the potential that these offer for its improvement.

Keywords: Integration, Technology, Informatics, Pedagogical, Professional

1. Introduction

The production and socialization of scientific knowledge has today become a strategic activity in many societies. In this perspective the growing influence of the results of science; in their reciprocal interaction with information and communication technologies (ICT) and the changing pace of social demands that impact the world of work require that teachers who work in the educational sphere, transform their way of acting to assume new demands for training, learning and socialization aimed at achieving better results.

The United Nations Educational, Scientific and Cultural Organization (UNESCO, for its acronym in English) at the World Conference on Higher Education in 1998, stated that it has the mission of "(...) training highly qualified professionals. trained to act as responsible citizens,

competent and committed to social development." [1].

Being consistent with this approach, better prepared teachers are demanded to face changes and update content, capable of successfully training new professionals in different areas of knowledge.

Thus, ICTs offer multiple resources to strengthen teaching-learning processes and, in turn, contribute to improving teaching didactics, as they foster new ways of relating to the world and the unknown, facilitating access to different tools. and interactive resources for learning (...) [2].

Therefore (...) the use of multimedia tools is an issue that requires continuous attention, since we live in a society that is in constant contact with audiovisual media and students tend to spend more and more time studying and learning through digital media. (...) [3].

Consequently, technological development also imposes

challenges on society, given the speed with which science and technology evolve and specialize, which requires professionals to demonstrate good performance to use a set of devices within which they stand out: interactive video, computers, computer networks, analog and high-definition television, laptops, tablets, mobile phones, and others.

The usefulness of these devices allows the acquisition, production, storage, treatment, communication, recording and presentation of information (digitally), for which the university professor to whom we aspire must have knowledge, values, attitudes and be prepared to perform efficiently in the current context, where ICT acquire a marked role.

The role of the teacher as a mediator of learning is transcendental to make possible new dynamics and motivating educational processes in the classroom and in everyday contexts with the support of ICT, so that students develop skills that favor their social and cultural development in their lives. personal and group life [3].

The objective of this article is framed in reflecting on the particularities of the professional performance of the professor of pedagogical careers with a technical profile, taking into account the integration of ICT to the professional pedagogical process, as well as the potentialities that these offer for its improvement.

2. Developing

2.1. ICT in Teacher Training

In pedagogical careers with a technical profile, it is necessary to have professors who, in addition to fulfilling the tasks of the professional pedagogical process, must know how to perform in the service and production scenarios, an issue that characterizes the professional performance of these professors.

The university professor of pedagogical careers with a technical profile, from his teaching function, must know and consider in his performance the interrelationships between the advances of science and technology, the applications of technology, as well as the implications that these have in the production and services.

The role of teachers is not so much to "teach" knowledge that will have a limited validity and will always be accessible, but to help students "learn to learn" in a way that allows them to promote their cognitive and personal development through critical and applicative activities. that, taking advantage of the immense information available and the potential of ICTs, take into account their characteristics and require them to actively process the information so that they can build their own knowledge and not limit themselves to simply passively receiving-memorizing the information they receive.

The performance of teachers of pedagogical careers with a technical profile includes actions that, in addition to having a pedagogical nature, have an outlet from the practice of production and services. This means that you can solve professional problems through teaching activity, including production practice, in a way that corresponds to the

professional model and responds to the professional tasks that are imposed on training. The use of ICT is then required to develop the process that it directs, allowing the:

Characterization of the student and his group through comprehensive diagnosis, with appropriate techniques and participation of the family, the community and work activities,

- 1) creation of educational projects related to the professional profile with actions that promote the comprehensive development of the personality of the students, characterized by student leadership and where other teachers participate, as well as families and labor entities,
- 2) direction of the professional pedagogical process according to the results of the comprehensive diagnosis, in order to achieve the maximum development of individual potentialities, in correspondence with the objectives of the year,
- 3) direction of the teaching-learning process in such a way that students appropriate the knowledge and skills with an interdisciplinary approach, in a way that promotes the formation of feelings, qualities, values, convictions and ideals,
- 4) preparation of the classes. Organize and manage mediated learning situations with didactic strategies that consider the performance of teaching, research and university extension activities,
- 5) attention to diversity in group and personalized work,
- 6) structuring learning situations that consolidate the role of students,
- 7) organization and control of students' independent work in a way that stimulates individual potential development taking into account contextual variables,
- 8) use of ICTs in order to obtain information, acquire, build and disseminate knowledge in various ways and with the use of different sources,
- 9) preparation of the teaching website (the subject),
- 10)elaboration of web pages and multimedia presentations,
- 11)Promote the elaboration, use, development and conservation of the material base of study and specialized within the teaching context and the labor context.
- 12)Preparation of materials for students, choosing the materials to be used, when to do it and how to use it, taking care of the organizational aspects of the classes,
- 13)selection of the appropriate resources at all times (according to objectives and content, students, context and the teacher's own characteristics),
- 14)Motivate students in the development of activities (propose interesting activities, encourage participation in classes).
- 15)In this teaching context, it is considered pertinent to carry out the analysis of the professional performance of the professor of pedagogical careers with a technical profile from the demand for the integration of ICT that allows acquiring, improving and disseminating their specialized knowledge in both the teaching and work contexts.

The professor of pedagogical careers with a technical profile in the fulfillment of his research and improvement function, has among his tasks:

- 1) Resolution of problems that arise in daily professional practice in the educational institution and in the productive entity with the application of the tools of educational research,
- 2) research in the classroom with students, continued professional development, looking for new teaching strategies and new possibilities for using teaching materials,
- 3) planning, execution and participation in educational and technical research,
- 4) critical assessment of their professional performance to determine the needs of their improvement and improve their pedagogical practice, carrying out regular assessments of the results obtained and how to improve the teaching-learning process,
- 5) Permanently raising their level of professional preparation through self-improvement, participation in courses and other modalities of postgraduate education that allow them to fulfill their professional role and with technological advances in production and services.

With respect to the function of educational guidance, the teacher has the following tasks:

- 1) Individual and collective attention to diversity based on the comprehensive diagnosis of the group and the students,
- 2) orientation of theoretical and practical study activities, aimed at strengthening understanding, reflection, other intellectual processes and the development of feelings and values,
- 3) preparation of each student to build their life project inserted in the social project,
- 4) introduction of vocational guidance strategies in accordance with the social needs, interests and possibilities of the learners,
- 5) Establishment of adequate communication with the students and the family that allows it to create a climate of trust, respect, courtesy, constructive criticism and mutual help in attention to educational problems and production and services,
- 6) guidance for the development of expressive and communicative skills of students,
- 7) advice on the use of digital resources,
- 8) advice on the effective and efficient use of technological tools for the search and recovery of information,
- 9) advice on solving technical problems related to computer resources: configurations, viruses, program installation and software development.

The teacher as counselor, through ICT, can work with ease individually or in small groups with students, can attend to individual differences, in carrying out reasoning and search tasks, and even in problem situations related to production and services.

From these considerations about the functions of the

university professor, it is understood that, in order to integrate ICTs into the professional pedagogical process, the professor needs a good technical training on the management of these digital resources and also a didactic training that provides a good use with ICT to facilitate student learning.

In this regard, Area Moreira, M. [4] poses challenges or perspectives in which education must act in the face of the imminent integration of ICTs.

Based on this approach, pedagogical careers with a technical profile are contextualized:

- 1) Restructure the purposes and methods of teaching: new roles for the teacher, the students and the tutor of the productive entity.
- 2) Review and rethink occupational training in light of the new socio-labour demands driven by ICT.

ICTs favor the development of a creative and multicultural dialogue in educational centers, propitiating a shift in current educational models, their relationship and their global behavior before society without oversizing ICTs.

In this regard Rodríguez M., states that: "(...) the benefits that technology offers to these educational modalities can be truncated, if we forget that it must be at the service of the educational project and depends on the teacher and not the opposite case, where technology acquires greater prominence than the training action itself." [5].

Due to the peculiarities of the knowledge society associated with the incorporation of methodologies in interactive training, which take advantage of the integration of ICT, requires the need to establish a permanent innovation of training and educational models as proposed by universities, which requires a "(...) redefinition of the role of teachers, which aims to turn them into active agents in the use and exploitation of ICTs." [6]. To the idea of Casado, R., the role of the teacher is added to his role of directing the independent learning of his students, for which the use of: mail, chat, forum can be of great help. and the blogs.

In this particular space of change, which promotes educational innovation, is where the teacher must adopt roles from a different conception, and "(...) ceases to be a source of all knowledge and begins to act as a guide for students, facilitating the integration the resources and tools they need to research and develop new knowledge and skills; it begins to act as a manager of the generation of learning resources and to accentuate its role as a guide and mediator" [7].

2.2. Teacher Performance and ICT Integration

Faced with the traditionalist conception of the teacher to direct the learning of his student, there are today the new learning scenarios and the emerging educational policies, this it brings with it a new way of approaching education, so that "(...) the role of the teacher together with his teaching tasks needs to be redefined." [7].

Authors such as Conole, G. and Alevizou, P. A., suggest that adequate interaction with ICT and its mediation "(...) facilitates the transition from the roles labeled as traditional of teachers as content experts and of students as passive recipients of information, towards more open and

flexible roles.” [8].

The adoption of these roles turns the teacher into a guide and mediator of the professional pedagogical process, consisting of directing activities for learning in cognitive independence, solving problems typical of the profession (technical and pedagogical), that promote collaboration and cooperation, that participate in the development of learning resources, which control the actions of students to give timely and relevant feedback; so that students become active protagonists of their own learning. The integration of ICT allows the teacher in these new scenarios to fulfill their role during professional performance.

The different functions exposed above and the professional performance of the professor of pedagogical careers with a technical profile for the integration of ICT, project the application of educational strategies, which, according to the criteria of Marti, J. [9] is valued, as it should be. the role of the teacher as a mediator:

- 1) Be able to accept differences and get to know their students, treat them individually, getting the best out of each one of them, based on their characteristics and abilities.
- 2) Use various methodological strategies in different situations, since learning differs depending on the contents, processes or educational resources determined by interests and teaching styles.
- 3) Make use of multiple methodologies and activities, as well as a wide variety of resources, which make it possible to achieve a level of cognitive learning and abstraction, with increased creativity.
- 4) Allow students to assume their own pace of learning, keeping in mind at all times, both the starting point and the objective to be achieved.
- 5) Never separate quantitative from qualitative learning.
- 6) Reflect on one's own performance, redo what does not work, disseminate and share successful practices.

Consequently, it is necessary to emphasize that the professional performance of the professor of pedagogical careers with a technical profile in the integration of ICTs into the professional pedagogical process must correspond to social demands and with the objective of training professionals to meet the needs of students in the era digital, so that teachers can “(...)

through their personal, informal and self-management learning, as a support for the pedagogical process” achieve “in short, evolve with the classroom, learn with teaching and reflect with learning” [10].

Consequently, the professional performance of the professor of pedagogical careers with a technical profile in the integration of ICT into the professional pedagogical process is defined as: dynamic, systemic and contextualized process that the professor develops and that implies the execution of tasks typical of the profession during the development of the activity, as well as of the production and services aimed at knowledge, instrumentation and assessment of the use of digital resources with responsibility and commitment; during the performance of their duties and in

solving problems of their profession.

The challenge for the integration of digital technologies, from a techno-pedagogical vision, requires the implementation of training plans for initial teacher training that empower them to implement innovations that are truly connected to the reality in which they are taught. they give, being necessary a critical and pedagogical reflection [11].

Recognizing then the procedural nature of performance, comes from understanding that it manifests itself through stages, successive phases, where two phenomena are correlated: the transformation of the processes that the subject himself executes or directs given his professional role, which is expressed in the changes of quality that systematically have to be produced and the transformation of the subject itself. It is considered dynamic since performance is changing as man interacts in his daily activity and ICTs are in constant transformation and movement, they do not stop.

The systemic nature of professional performance as a process and as a result, expresses, from the assumed dialectical approach, the contradiction between the internal of the subject and the external of the context and essentially depends on the interaction and relationships established between knowledge, values and skills, based on previous experiences and the context in which the teacher works.

3. Conclusions

From the systematization carried out based on the object of investigation and its close correlation with the field of action, the following considerations can be reached:

- 1) The systematization of the theoretical references related to professional performance allowed to assume professional performance as a conscious pedagogical process, framed in a system of relationships, norms and procedures that must be fulfilled, for a satisfactory result, from the fulfillment of its functions of the teacher.
- 2) ICT and its integration into teaching functions is a content approached from different approaches, ranging from ICT as apparatus, to integration as a process, which allows reaffirming the necessary subordination of technological aspects to educational objectives and in consequence of teacher performance.

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