

Scientific and technological research article

How to cite: Vila Pérez, O. L., Mendes Kaluhongue, G., Natangue Tamulisekifa, F., & Téllez Veranes, T. (2026). The profesionalization of the university professor: realities and challenges. *Estrategia y Gestión Universitaria*, 14, e9162.

<https://doi.org/10.5281/zenodo.20347193>

Received: 18/05/2026

Accepted: 09/09/2026

Published: 25/09/2026

Corresponding author:



olgavp2022@gmail.com

Conflict of interest: the authors declare that they have no conflict of interest, which may have influenced the results obtained or the proposed interpretations.

Olga Lourdes Vila Pérez ¹
Universidad de Cienfuegos "Carlos Rafael Rodríguez"

<https://orcid.org/0000-0002-1385-9629>

olgavp2022@gmail.com

Cuba

Gervasio Mendes Kaluhongue ²

Instituto Superior Politécnico de Bié

<https://orcid.org/0009-0001-7095-776X>

gervasiomendes28@hotmail.com

República de Angola

Felizardo Natangue Tamulisekifa ³

Universidad Eduardo Dos Santos

<https://orcid.org/0009-0003-5574-7586>

batmanflavia@gmail.com

República de Angola

Tamara Téllez Veranes ⁴

Universidad de Ciencias Médicas de Santiago de Cuba

<https://orcid.org/0000-0002-1656-3073>

ttellezveranes@gmail.com

Cuba

The profesionalization of the university professor: realities and challenges

La profesionalización del profesor universitario: realidades y retos

A profissionalização do professor universitário: realidades e desafios

Abstract

Introduction: transformations in Higher Education, such as the adoption of Artificial Intelligence and its tools to make teaching more participatory, are highly relevant because they create a new scenario in the teaching-learning process. This situation demands competent teachers who overcome outdated practices and assume the role of guides in the learning process. **Objective:** to analyze the need for professionalization of university professors at the University of Cienfuegos, Cuba, emphasizing the challenges currently posed by Higher Education. **Method:** non-experimental, observational descriptive study. Theoretical and empirical methods were used, including the logical-historical and analytical-synthetic approaches, document analysis, and observation of training processes, especially at the undergraduate level. **Results:** some professors exhibit deficiencies in the content delivered, do not employ active teaching methods, and require greater interaction with students; consequently, they need to improve their educational practice. **Conclusion:** there is a clear need for faculty to implement active teaching methods and to adopt up-to-date tools provided by Artificial Intelligence, as well as to advance their theoretical and methodological preparation to achieve higher levels of professional performance.

Keywords: competencies, higher education, innovation, training, professionalization

Resumen

Introducción: las transformaciones en la Educación Superior como el uso de la Inteligencia Artificial y sus herramientas para hacer de la docencia una actividad más participativa son relevantes, pues despliegan un nuevo escenario en el proceso de enseñanza aprendizaje. De ahí que, se precise de un profesor competente, que supere las viejas tendencias y se incorpore como guía del proceso.



Objetivo: analizar la necesidad de la profesionalización del profesor universitario en la Universidad de Cienfuegos, Cuba, destacando los retos que hoy promueve la Educación Superior. **Método:** no experimental de tipo observacional descriptivo. Se utilizaron métodos teóricos y empíricos como el lógico- histórico, analítico-sintético, el análisis de documentos y observación de los procesos de formación, sobre todo, la de pregrado. **Resultados:** algunos profesores presentan insuficiencias en los contenidos impartidos, no utilizan métodos activos de enseñanza y precisan de una mayor interacción con los estudiantes, por lo que necesitan perfeccionar su práctica educativa. **Conclusión:** se concluye, la necesidad de que los docentes apliquen métodos activos de enseñanza y se apropien de herramientas actualizadas que provee la Inteligencia Artificial, así como, la necesidad de avanzar en la preparación teórico metodológica para alcanzar niveles superiores en esta actividad.

Palabras clave: competencias, educación superior, innovación, preparación, profesionalización

Resumo

Introdução: as transformações no Ensino Superior, como a incorporação da Inteligência Artificial e suas ferramentas para tornar o ensino mais participativo, são relevantes por configurarem um novo cenário no processo de ensino-aprendizagem. Isso exige docentes competentes que superem práticas antigas e atuem como orientadores do processo. **Objetivo:** analisar a necessidade de profissionalização do professor universitário na Universidade de Cienfuegos, Cuba, destacando os desafios que a Educação Superior impõe atualmente. **Método:** estudo não experimental, observacional e descritivo. Foram utilizados métodos teóricos e empíricos, tais como o lógico-histórico, analítico-sintético, análise de documentos e observação dos processos de formação, sobretudo de graduação. **Resultados:** alguns docentes apresentam insuficiências nos conteúdos ministrados, não utilizam métodos ativos de ensino e necessitam de maior interação com os estudantes; portanto, precisam aperfeiçoar sua prática educativa. **Conclusão:** conclui-se pela necessidade de que os docentes apliquem métodos ativos de ensino e se apropriem de ferramentas atualizadas fornecidas pela Inteligência Artificial, bem como avancem na preparação teórico-metodológica para alcançar níveis superiores nessa atividade.

Palavras-chave: competencias, ensino superior, inovação, formação, profissionalização



Introduction

Educational institutions today call for the construction of new knowledge and the acquisition of new skills to carry out teaching and learning processes effectively. A competent teaching staff is therefore essential, one grounded in understanding and creativity, capable of fostering learning environments built on dialogue and the active participation of students. Competence among university professors thus becomes a theoretical, methodological, and pedagogical tool for reaching higher goals on both the national and international stage.

The term competence is polysemic, and no consensus exists on how to define it: some authors equate it with capacity, others favor performance-based definitions, and still others regard it as a set of traits a person must possess. What is certain is that certain abilities emerge over time and are not all innate.

On this point, Piña et al. (2014) frame competencies in terms of the development of capacities such as the integration of knowledge tied to a specific field of training, one that enables innovative problem-solving through the adoption of new teaching techniques and resources available to the instructor.

Other authors emphasize the need for education professionals to develop new skills and abilities (curriculum design and transformation, new assessment approaches, the construction and deconstruction of knowledge grounded in solid training, the application of active methodologies, the capacity to foster reflective thinking, and the use of Artificial Intelligence to create engaging content, among others) along with the ongoing acquisition of knowledge suited to their specific training profile (Ballester-Miquel et al., 2026; Silva et al., 2023; Kain et al., 2024; Voogt & Roblin, 2025).

Researchers in this field hold that education professionals become more efficient and productive when they are able to adapt their classrooms to educational demands and to local and regional challenges (Valerio & Rodríguez, 2017; Prado Chaviani et al., 2020; Gómez-Velasco et al., 2025). These authors identify the core competencies of a teacher as clear student-teacher communication, empathy toward students, a motivating attitude, and the use of new terminology that students find innovative and engaging.

Building on this view, the authors of the present article add further competencies: creative capacity, resilience in the face of change, the professor's scientific outlook and engagement, the practical application of professional ethics, and digital competence, also referred to as computer literacy. This last competency is a key component of professionalization, with a direct bearing on the training of both professor and student.

The new challenges posed by information and communication technologies (ICTs) as a means of sustaining learning across educational levels, particularly during the COVID-19 period, are now widely recognized.

Authors such as Colás Bravo et al. (2019) and Barceló et al. (2024) reaffirm the need for professors to develop digital competence and to acquire new learning in the process. In line with this view, it is generally agreed that professors' mastery of computing tools and the adoption of new technological platforms and equipment

for teaching purposes pose both institutional and personal challenges, challenges that must be met if quality, innovative teaching responsive to the current context is to be achieved.

Acquiring new competencies, then, is inseparable from teacher professionalization: becoming a well-rounded professional with a meaningful impact on one's teaching, capable of adapting to social and educational change, and possessing a broad general culture (universal, national, and local) all in keeping with the professional model to which one aspires.

Within this context, the analysis of teacher professionalization takes on particular relevance for Cuba, where the training of educators has historically been a central responsibility of the State, articulated through specialized institutions devoted to pedagogical training, continuing education, and university-school linkages. The Cuban model shows strong convergence with the international conception of lifelong professional learning, insofar as it connects graduate education with professional development, research, and innovation. This article sets out to analyze the need for professionalization among university professors at the University of Cienfuegos, Cuba, highlighting the challenges that Higher Education poses today.

Definitions and prior approaches to teacher professionalization

Drawing on the sources consulted, the authors of this article regard professionalization as a social process through which an individual's skills are enhanced, making that person more competitive in his or her profession or trade. A wide range of factors shape this process, from upbringing and the formation of personal values to schooling and everything a person learns over the course of a lifetime.

Culture plays a particularly significant role in this process. The training of teachers rests on ideologies, habits, beliefs, customs, ethics, values, and patterns of behavior that vary according to the environment in which the individual operates.

Various views exist on the term professionalization. García Carrasco (1988), for instance, describes it as follows: "the professionalization of the teaching function entails satisfying certain requirements that formally and legally certify a teacher's readiness to perform his or her duties" (p. 113). This author specifies that, in their initial training, teachers must meet requirements demanded by higher education (a degree, pedagogical training, language proficiency, etc.), while their professional development must continue throughout their careers.

Other authors hold that professionalizing teaching supports new functions and tasks within universities, entailing a new kind of performance. They call for the application of additional knowledge that can support a training process without disrupting students' ways of thinking and acting, in keeping with new demands on the educational front (Montero Lago, 2007; Rojas González, 2017).

Rodríguez Veloz et al. (2020) examine the process of continuing education, underscoring the importance of preparing university professors to attend to students with disabilities entering Higher Education classrooms. These authors argue that

teacher preparation, as a general trend, must become increasingly specialized, which in turn calls for the establishment of new educational practices (Conejeros-Solar et al., 2026).

Still other authors regard teaching professionalization as the process through which teachers acquire theoretical and methodological training capable of transforming their educational practice. Among the competencies to be achieved, they also include emotional awareness, empathy, and assertive communication (Oliveira et al., 2023; Pena, 2025).

These latter competencies help strengthen the student-teacher relationship within the teaching-learning process. Understanding students' emotions and sustaining an open, supportive dialogue enables the learning of new concepts, a holistic reading of phenomena, and the application of empathy to whatever teaching activity is underway, fostering, in turn, cooperative and enriching learning.

The theoretical approaches examined here suggest that professionalization entails renewal, transformation, the generation of new knowledge, the updating of existing knowledge, and its contextualization. This responds to specific educational, social, and cultural demands and to the formulation of educational and institutional policy, while at the same time entailing an education grounded in values.

The professionalization-innovation relationship

Regarding the relationship between professionalization and innovation, researchers in the field point to the need for today's university to be contextualized and reconfigured so that it can respond to economic and social needs. The university is also tasked with producing better-prepared individuals equipped with renewed values and attitudes and a well-rounded body of knowledge (Zabalza, 2007; Alarcón Ortiz, 2016; López-Meneses et al., 2018; González-Monteagudo, 2020; Sánchez-Tarazaga et al., 2026).

In keeping with the demands of professionalization, today's professor is increasingly expected to act as an innovator. The authors of this article stress that the demands placed on research, teaching, and engagement with production and services must grow if the aim is to produce individuals who are more competent and more committed to educational processes.

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), educational innovation is:

...a deliberate, planned act of problem-solving aimed at raising the quality of student learning and moving beyond the traditional paradigm. It entails going beyond academicist knowledge and shifting from passive student learning toward a conception in which learning is understood as interaction, built collectively (2016, p. 4).

The authors of this manuscript fully endorse this view and would add that interactive learning fosters proactivity and foresight in the processes carried out within universities.

Along these lines, teacher professionalization and educational innovation

have been concerns of this global organization (UNESCO) for decades, which has long recognized the need for continuous teacher development and training, as well as for quality in the teaching-learning process itself.

Alarcón Ortiz (2016), in particular, argues that Higher Education Institutions (HEIs) must reorganize their operations and create mechanisms that shape the functions proper to the university professor's professional profile according to the context in which that professor works. It follows that the professionalization process of university professors must be systematic and ongoing in its pursuit of improvement, so that professors can guide and assess both their own training processes and those of their students.

Dimensions of the teacher professionalization process

Several dimensions of the teacher professionalization process have been identified by different researchers (Rivero et al., 2019; Moreno Hernández et al., 2020; Covarrubias León et al., 2024). Similarly, Núñez Naranjo (2021), in an analysis of the tutor-professor and his or her functions, describes four dimensions of academic tutoring: pedagogical, administrative, technological, and social.

As a contribution to the teacher professionalization process, further dimensions worth considering are proposed here. These correspond to the functions that professors working in Higher Education must fulfill; all are important and work in tandem to produce a professor with solid preparation.

The following dimensions are presented below:

- **Teaching-Methodological Dimension**

The teaching and methodological dimension is a fundamental condition for practicing the profession of professor. A professor's methodological preparation shapes his or her relationship to didactics, in which content and form become indispensable elements for delivering lessons that reach students in an engaging, enriching, and reflective way, so that the material is properly assimilated and learning is facilitated.

Quality outcomes, it is held, depend heavily on didactics, which becomes one of the professor's fundamental tools for engaging in this activity. Linares et al. (2021) emphasize that teacher professionalization, grounded in the quality of the teaching-learning process, makes it possible to achieve outcomes at the societal level.

In the Cuban case, Resolution 47 of 2022, issued by the Ministry of Higher Education, sets out the types of classes, forms of assessment, and curricular work across the various disciplines and subjects, among other elements to be further developed and put into practice.

- **Guidance Dimension**

The professor's guidance function extends across multiple domains. Professors must act as guides and facilitators of the learning process. Guidance is a competency that must first be marked by a high level of professional preparation, which is why not every professor develops this skill from the outset, it requires time,

effort, and conscious dedication. Within Cuban institutions, this competency is cultivated through the professor's daily work, particularly through the supervision of practical assignments, theses, dissertations, and other forms of degree completion (Parra Velasco, 2011; Garbizo Flores et al., 2020).

Amid the changes now reshaping teaching, the twenty-first-century professor is no longer merely a transmitter of knowledge but rather a guide and facilitator of learning processes. Fulfilling that role calls for preparation that goes beyond day-to-day work, an ongoing process of professional development that takes professors through courses, workshops, graduate programs, seminars, diploma programs, master's degrees, and doctoral training, among other pathways.

- **Research and Professional Development Dimension**

As one of the core functions of the university, research is an essential component through which students learn, while also pushing professors to become increasingly competent, to open new avenues of knowledge, to engage with new fields of study, and to master research methodology, among other demands. Baute Álvarez et al. (2020) agree that, as part of their professionalization, university professors must gain experience in production and services, since this experience prepares them to solve economic and social problems at the local level.

Molisa & Kola (2026), for their part, note that graduate education, as part of professionalization, fosters a reflective approach and generates critical exchange by democratizing knowledge production through the professor's interaction with students.

Many Higher Education professors lack formal training in education, having specialized instead in fields such as Engineering or Administrative Sciences; understanding their role as tutors, and, above all, the role students themselves must play in the tutoring process, therefore becomes especially important (Sandoval-Acosta & Reyes-Zúñiga, 2025). Barriers do arise on occasion: Ventura-Campos & Ventura-Campos (2026) point to inefficiencies in resource distribution and a shortage of specialized personnel that further constrain student inclusion and learning.

The dimensions discussed here, it should be noted, call for changes in curricula, revised study plans and course syllabi, the use of new methodological tools, and continuous professional development across the faculty. Regardless of individual preparation, universities must place particular emphasis on professional development courses that respond to current changes at the international, national, and local levels. What is needed today is a professor, and, in turn, a graduate, who understands the characteristics and needs of his or her locality well enough to address problems objectively and to connect theory with practice.

Methods and materials

This study followed a descriptive, observational, and non-experimental design. According to Hernández et al. (2014), a non-experimental study does not generate any situation; it merely observes situations that already exist. As these authors put it, "in non-experimental research the independent variables occur on

their own and cannot be manipulated; the researcher has no direct control over them, nor can he or she exert any influence, since they, like their effects, have already taken place” (p. 152).

The descriptive design was intended to capture the characteristics of the professors at the Faculty of Economic Sciences of the University of Cienfuegos, Cuba, with respect to their theoretical and methodological preparation, the delivery of course content as observed through classroom visits, and the use or non-use of interactive methods, among other elements.

Among the theoretical methods employed, the historical-logical method made it possible to develop the object of study by drawing on multiple sources for the conceptualization of professionalization and on the positions of international institutions on the subject. This method also made it possible to set out definitions of key terms such as university professor professionalization, innovation, and competencies.

The analytic-synthetic method helped identify recurring patterns in the limitations professors still face with respect to their theoretical and methodological preparation. It also made it possible to characterize the faculty examined in this study.

As for the empirical methods used, this study drew on observation. Because the subject is observed without intervention throughout the process, the results obtained reflect reality as it actually unfolds, without distortion. Participant observation was used to this end, a method that requires the researcher to become immersed in a range of activities over an extended period, observing members of the culture in their daily lives and taking part in their activities in order to gain a fuller understanding of those behaviors (Kawulich, 2005, p. 22). Following this approach, specific teaching-related activities were observed, such as methodological meetings and classroom visits, which made it possible to assess the performance of the professors making up the faculty.

Three professors also took part in the study (an official from the Vice-Rectorate for Training, a Department Head, and a Teaching Vice-Dean), and a set of indicators was observed: classroom visits, preparedness to teach the subject, communication and interaction with students, use of active teaching methods, and innovation and creativity. These indicators were drawn from the classroom-visit observation guide issued by the Vice-Deanery of Training and from a review of results from prior classroom visits to a group of professors, among whom certain difficulties had persisted.

It should be clarified that these observations were carried out over an extended period, from 2017 to 2022, during which one of the authors served as Head of the Economic Theory and International Economics Discipline and as Vice-Dean of Training at the Faculty of Economic Sciences of the University of Cienfuegos. Throughout this period, methodological sessions were held for the faculty, classroom visits were conducted, and corresponding reports were submitted to the University's Vice-Rectorate for Training, all of which provided the empirical basis for this study.

During work sessions with the faculty, specifically, in methodological

meetings, it was also possible to gauge professors' command of the Methodological Work Regulations mentioned earlier, since these sessions were designed to update professors on new teaching practices and to equip them with new tools, ensuring that teaching is carried out with the requisite competence.

Document analysis allowed for a review of the observed reality against the theoretical framework. As Arias-Odón (2023) explains, this method draws on written documents, in this case, articles, books, monographs, pamphlets, journals, theses, manuals, resolutions, regulatory documents, and dictionaries. This author further notes that document analysis can now also be carried out through technology, using texts in digital or electronic format.

This made it possible to compare the provisions of the Methodological Work Regulations (Resolution 44-2022), issued by the Ministry of Higher Education, with the actual situation of the Faculty's professors. Other documents were also considered, including the Faculty's Annual Methodological Work Plan, the methodological plans of individual Departments, course and discipline syllabi, and the guidelines issued by the Vice-Rectorate for Training.

A non-probabilistic sampling method was used to select the individuals making up the study sample. According to Parra Velasco and Vázquez Martínez (2017), this technique does not rely on random selection procedures; rather, the researcher selects the individuals to be included in the sample. The sample comprised 27 professors, 15 of whom received classroom visits and were selected purposively, as they were professors in need of improvement in their teaching practice and therefore required systematic oversight from the program head and the Department.

The remaining professors took part, without distinction, in methodological meetings held at the discipline and faculty levels. Inclusion and exclusion criteria were applied in selecting the sample (see Table 1).

Table 1

Inclusion and exclusion criteria for the study sample

Inclusion criteria	Exclusion criteria
1-Professors belonging to the faculty of the Faculty of Economic Sciences of the University of Cienfuegos.	1-Professors not belonging to the faculty of the Faculty of Economic Sciences of the University of Cienfuegos.
2-Professors who teach on a regular, systematic basis.	2- Professors who do not teach on a regular basis and instead carry out administrative duties.
3-Professors in need of improvement in their initial training and professional development.	3- Professors not in need of improvement in their initial training.
4- Professors willing to participate in the study.	4- Professors unwilling to participate in the study.

Source: Own elaboration.

Results and discussion

Table 2 shows the composition of the professors at the Faculty of Economic Sciences of the University of Cienfuegos, by teaching category.

Table 2

Faculty composition, 2022

Programs	Instructor Professor	Assistant Professor	Associate Professor	Full Professor	Trainees
Industrial Engineering	1	6	8	5	3
B.A. in Accounting and Finance	1	9	7	4	2
B.A. in Economics	2	7	8	5	2
B.A. in Economics Education	4	2	3	--	--
B.A. in Mathematics Education	--	3	5	4	--
Overall Total	8	27	31	18	7

Source: Own elaboration based on information from the Vice-Deanery of Training, 2022.

This table presents the trainee professors by program. In this case, the Economics Education and Mathematics Education programs show no novice professors at all, a situation considered one of the aspects that should be reversed. Overall, the faculty is currently aging, and younger staff are needed to sustain the training process going forward.

Table 3

Qualitative assessment of professors' competency levels

Indicators	Level of competency development			
	High	Medium	Low	Total
1-Preparedness to teach the subject	8	4	3	15
2-Communication and interaction with students	4	4	7	15

3-Use of active teaching methods	7	1	7	15
4-Innovation	6	4	3	15
5-Creativity	5	4	6	15

Source: Own elaboration based on the classroom-visit guide, Vice-Deanery of Training, Faculty of Economic Sciences, 2022.

This analysis shows that, of the 15 professors assessed, 7, representing 46.7%, fall within the low-to-medium range on the indicators shown, a group that coincides with the novice professors. Shortcomings persist in the content delivered and in the limited use of active teaching methods; the expository lecture method still predominates, even where content could instead lend itself to problem-based presentation and collaborative development.

By contrast, 8 professors, 53.3% of the sample, showed greater interaction and communication with students, stronger command of content, and, accordingly, better preparation of their subject matter.

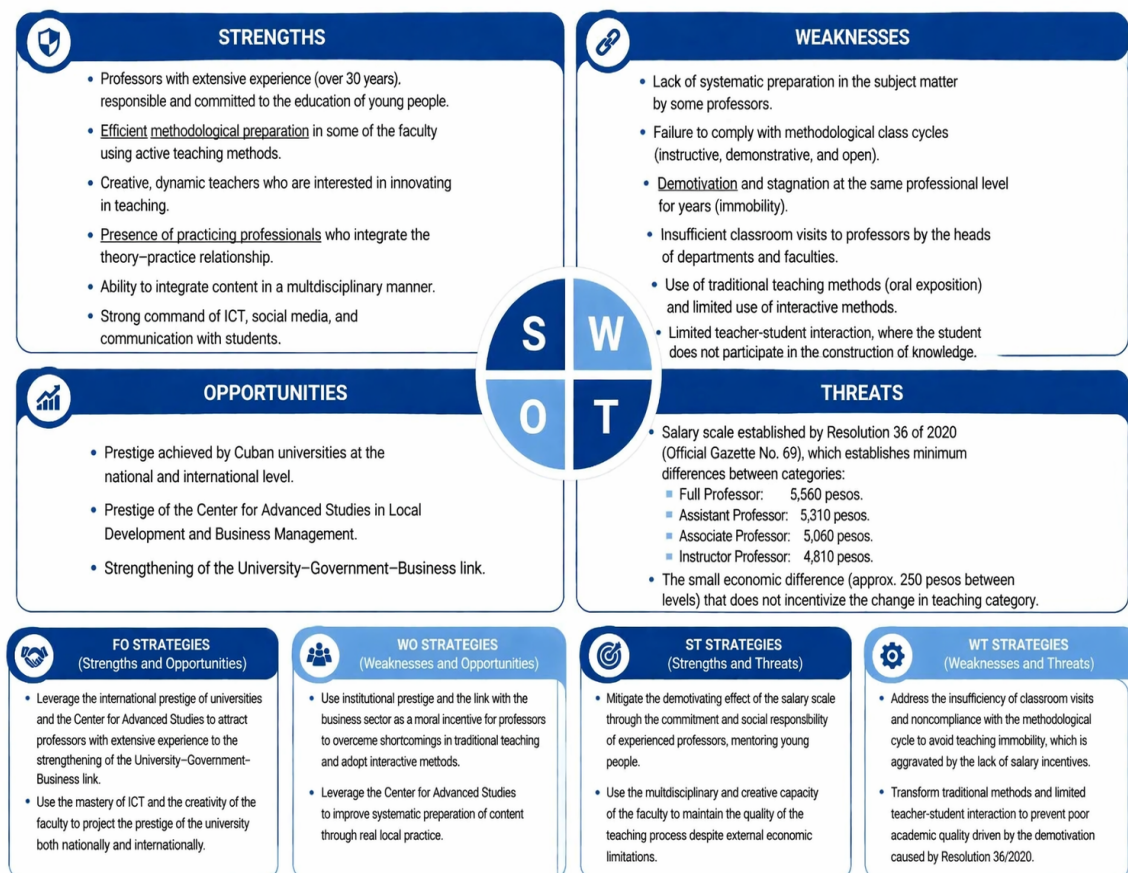
In addition, 9 professors, 60% of the sample, displayed limited motivation in their preparation, a factor that negatively affects initiative, innovation, and creativity in the classroom.

The findings obtained through direct classroom observation and document review reveal the main strengths and identify certain weaknesses in relation to the teaching-methodological dimensions discussed above; the corresponding opportunities and threats are likewise presented. These findings are set out in the SWOT matrix shown in Figure 1.

It should be noted that the elements comprising the SWOT matrix were defined on the basis of the teaching experience and opinions of this article's authors, through two rounds of brainstorming in which each aspect was rated on a scale of 1 to 5 according to its likely bearing on the analysis of teacher professionalization. The elements that make up the matrix rest on this process.

Figure 1

SWOT Matrix



Source: Own elaboration based on the Report of the Vice-Deanery of Training of the Faculty of Economic Sciences, UCf, 2022.

As Figure 1 shows, one of the weaknesses identified is that some professors remain in the same teaching category for years without feeling any incentive to pursue advancement, since the salary difference between categories is not particularly attractive, a factor that discourages some from meeting the requirements needed to move up. The Organisation for Economic Co-operation and Development [OECD] (2025), in its TALIS 2024 Report, addresses issues related to teachers' initial and ongoing motivation. Factors such as motivation to teach and commitment to the profession, the report suggests, can inform policies on teacher support and retention. It is therefore essential to implement measures that promote professors' well-being, ranging from psychological and occupational support, resources, and salary incentives, to working conditions and greater autonomy in decision-making.

The COVID-19 experience, moreover, forced professors to adopt remote and innovative forms of teaching. The interactive educational platforms used (Moodle,

primarily) brought about two essential changes:

First, professors had to prepare themselves to master ICTs and manage interactive platforms, which drove the emergence of new working methods. This yielded greater professor-student motivation, the possibility of assessing students in real time, and the acquisition of new knowledge suited to the economic and social context in which the pandemic unfolded.

Rojas Alarcón (2025) similarly emphasizes that COVID-19 accelerated professors' training in the use of technology, one of the steps a professor must take to become more competent. This researcher holds that professor training must encompass both the pedagogical and the digital dimensions, with a view to strengthening the sustainability of education in the post-pandemic period.

Second, this shift led students to interact indirectly with their professors, developing skills in locating assignments and reviewing bibliography, and engaging in independent work through the self-management of knowledge.

No training process, it is well known, is perfect for either professor or student; nonetheless, professors also possess a number of strengths, which are outlined below:

Figure 1 also shows the strengths of the faculty at the Faculty mentioned above, which include professors with more than 30 years of service who are responsible and committed to their university work. A good number of professors integrate content in a multidisciplinary way, with creativity and dynamism.

Another point worth noting is the University-Government-Enterprise link, which brings local specialists together with the University, facilitates internships, provides updates from the business sector, and supports other activities tied to the curriculum. It should be recalled that some professors join the faculty from businesses or other institutions and do not always possess sufficient methodological preparation to teach.

The findings obtained suggest that the professionalization of university professors in Cuba is a complex, ongoing, and multidimensional process that cannot be reduced to the acquisition of disciplinary knowledge or the attainment of academic rank. Professionalization requires that disciplinary knowledge be articulated with pedagogical and didactic knowledge. Along these lines, current teacher-development programs in Cuban Higher Education emphasize active learning, pedagogical design, and assessment as essential components of professional competence.

Equipping faculty groups with methodological tools is essential, particularly for the Faculty of Economic Sciences at the University of Cienfuegos, since doing so enables a participatory form of teaching in which students become active drivers of the process. Digital transformation stands out as one of the principal challenges in this respect. What is needed is not simply teaching professors to use platforms or applications, but developing a techno-pedagogical competence that allows them to decide when, how, and for what purpose to use technology in pursuit of specific learning objectives.

The United Nations Educational, Scientific and Cultural Organization

(UNESCO) and the International Labour Organization (ILO) are currently revising the 1966 Recommendation in light of ongoing changes in teaching, including artificial intelligence, digital technologies, student diversity, climate change, and the new demands placed on education systems. This revision also places emphasis on teachers' voice and participation.

UNESCO (2022) likewise, through its ICT Competency Framework for Teachers (ICT CFT), underscores the need for a tool capable of guiding the training of both in-service and pre-service teachers in the use of digital technologies at different levels. This framework is not confined to the instrumental use of ICTs; it also links technology to curriculum, assessment, pedagogy, school organization, administration, professional training, and the development of inclusive societies.

Along these lines, the professors of the Faculty of Economic Sciences must continue to pursue development and improvement in order to attain this competence. Digital professionalization needs to be contextualized and sustainable, incorporating strategies suited to low-connectivity settings as well. Cuban universities should incorporate artificial intelligence literacy into their teacher-training and educational-innovation policies, one of the prevailing trends internationally.

Among the most significant findings of this study is that limited methodological preparation among professors, and the correspondingly poor use of interactive methods, contributed to weak interaction and communication between students and professors, with direct implications for students' assimilation of course content.

Professionalization, it is argued, cannot rest solely on the individual responsibility of the professor. The University, together with its Faculties, Departments, and academic programs, must create institutional conditions that include time for teacher preparation, recognition of pedagogical innovation, mentoring for novice professors, access to resources, incentives for educational research, and mechanisms for recognizing good practice.

The Global Report on Teachers, produced by UNESCO and the International Task Force on Teachers for Education 2030 (2024), frames the transformation of the teaching profession as a matter tied to training, recruitment, support, working conditions, professional recognition, collaboration, and lifelong learning. From this standpoint, a significant conceptual shift is underway: the professor is no longer conceived solely as a transmitter of knowledge or a mere reproducer of ideas, but is instead regarded as a learning professional, an agent of social transformation, a guide, and an active participant in the construction of pedagogical knowledge.

As for professional development, its impact is greatest when it originates in concrete problems of teaching performance and allows professors to analyze, transform, and assess their own practice. It is therefore essential to work on and refine the professor's training process by articulating the various dimensions of methodological teaching work, in the professor's role as guide and tutor, and by encouraging scientific and research activity. These dimensions lead professors toward a lasting commitment to the profession, respect for students, and consistent,

ethically coherent communication in their practice.

As part of the methodology applied, document analysis covered the Methodological Work Regulations, the Faculty's Methodological Plan, the corresponding discipline-level plans, and other regulatory documents, along with the guidelines issued by the Vice-Rectorate for Training. This analysis confirmed the existence of methodological guidelines and directives governing the work of program teams and of individual disciplines and subjects; however, the methodological work cycle is not always fully completed, and systematic oversight of teaching among novice professors, especially those still in their training period, is not consistently carried out.

This points to the need for measures aimed at providing these professors with mentoring support from more experienced colleagues. Their preparation could also be strengthened through graduate-level training, particularly in Higher Education Didactics. The accumulated experience of the faculty at the Faculty of Economic Sciences, together with its international standing, constitutes an institutional resource that can contribute to training new generations of professors, provided that mechanisms are put in place to transfer that professional knowledge. Professionalization can thus be understood as an intergenerational, collective process.

Another significant finding of this study is that, upon assessing competency levels, 7 professors, 46.7% of the sample, fell within the low-to-medium range on the indicators considered (preparedness to teach the subject, creativity and innovation, professor-student interaction, and communication). This explains, at least in part, why the results obtained are not particularly encouraging. Designing and implementing training and development programs for faculty will therefore be instrumental in helping professors acquire the competencies needed to deliver quality teaching.

It should be made clear that the sample size in this study is small relative to the Faculty's total of 91 professors. The sample was purposively selected for a case study conducted specifically within the Faculty of Economic Sciences of the University of Cienfuegos. Even so, the information gathered provided a basis for refining methodological work, incorporating the dimensions studied into future plans, and achieving better outcomes in subsequent periods.

It is worth noting that applying the SWOT matrix, by identifying the strengths and weaknesses of part of the faculty, allowed the Vice-Deanery of Training to tailor its teaching-methodological work strategy, its classroom-visit plans, and its methodological-scientific sessions to the needs identified.

Another contribution of this study lies in the current challenges of professionalization it identifies, which may prove useful not only for examining and designing strategies for the professors of the Faculty in question, but also for improving Higher Education and the Cuban education system more broadly.

Current challenges in the professionalization of professors at the faculty of economic sciences

Even though the university has achieved noteworthy results comparable to

those of more developed economies, the university landscape also presents a number of challenges that will need to be overcome in the coming years. These are set out below:

1-To attain the competencies their profession demands, university professors must achieve systematic, comprehensive preparation in the subjects and disciplines they teach, and must use innovation as the variable capable of transforming traditional, linear, and unchallenging knowledge. This entails promoting proactivity and dynamism through teaching itself and staying attuned to society's emerging challenges.

One reality is beyond question: society's aspirations for professional training are reflected in the graduate's contribution to the country's economic, social, and cultural development. Within this landscape, students are trained to serve society, and it is society, accordingly, that sets the direction of their education and shapes their socialization (Garbizo Flores et al., 2020, p. 152).

It is likewise unavoidable to change the methods and approaches that lead students toward innovative thinking in addressing national and local problems. Valerio & Rodríguez (2017) argue that professors should use empathy as a tool or strategy, since it fosters greater student-professor interaction and increases motivation and comprehension of course content as part of the learning process.

2-Preparing faculties to carry out hybrid teaching. The COVID-19 pandemic has imposed new styles and forms of teaching, and mastering information and communication technology in order to engage with students has become one of the variables that must now be addressed.

Gómez et al. (2024) emphasize that education and research are areas in which Artificial Intelligence (AI) can be used to improve the teaching-learning process. Properly applied, AI can generate new proposals, support new methodologies, provide professors and students with novel tools, and make knowledge accessible to anyone who needs it.

León Morejón (2026), for his part, maintains that the ethical use of AI at any level of education requires grounding in theoretical frameworks that integrate applied ethics with theories of technology-mediated learning. Other researchers concur, arguing that digital competencies are now part of the training of future educators as a result of the adoption of Industry 4.0 technologies (Saykılı, 2019; Arshad et al., 2022; Alonso García Carrasco et al., 2024; Chaparro-Medina et al., 2025; Canoğulları & Sari, 2026). Society has thus evolved, and with it, the digitalization of information and education.

3-Preparing and updating course content is another attribute that would contribute to the integration of knowledge through a holistic approach to the subjects addressed, positively influencing the academic, occupational, and research-related dimensions for graduates entering the workforce. Montero Lago (2007) stresses the need for students to acquire new competencies through new learning experiences. Today's student, it should be noted, must not only know how to do, but must also know and act in step with social practice.

4-Learning and internalizing a new culture of innovation is a challenge for many professors. A teaching process with innovation built into it translates into stronger competencies within the education system. Students must be able to develop a range of skills, such as interpreting, interconnecting processes, questioning critically, reflecting, and building strategies and thinking skills through inter- and intradisciplinary knowledge. It is teacher professionalization, indeed, a high degree of it, that will make achieving such outcomes possible.

5-Last but by no means least is ongoing methodological preparation, which equips professors with the tools, methods, and didactic alternatives needed to perform their functions efficiently and effectively. This makes continuous faculty development essential, with graduate-level teaching playing a central role.

University extension work likewise helps professors gain firsthand knowledge of their surrounding reality, the phenomena and processes at play in their region, locality, and community, and to offer students a form of teaching attuned to the economic, political, social, cultural, and environmental changes taking place at the regional and local level.

Among the limitations of this study is that not all professors at the Faculty in question were examined and observed, only those purposively visited on the basis of criteria related to novice status (no more than two years of teaching experience) and participation in the various methodological meetings held at the discipline and faculty levels. It is proposed that future research pursue this line of study with broader representation of professors, encompassing not only this Faculty but also professors from other areas of the University.

It is likewise argued that educational institutions, the University of Cienfuegos in particular, should, as part of their strategic actions, pursue not only the training and development of professors in computing and digital content but also the improvement of their technological infrastructure, since current equipment does not meet current educational needs.

Conclusions

Professionalization proves to be an effective tool that enables professors to carry out their teaching functions and tasks while moving away from traditional, routine approaches, making teaching a more appealing and enriching endeavor. Professors' work should be aimed at facilitating comprehension and at developing competencies in both themselves and their students. The analysis conducted confirms that acquiring new competencies remains a challenge for professors at the Faculty of Economic Sciences of the University of Cienfuegos, including communication and interaction with students, empathy and active listening, resilience in the face of change, scientific-methodological knowledge, professional ethics, and initiative and innovation in the classroom. The Vice-Deanery of Training should promote preparation efforts aimed especially at novice professors. Of the 15 professors assessed through classroom visits, 9, 60% of the sample, still show shortcomings in the content they deliver, in the methodology they use, and in their level of motivation, among other issues.

As a strategic priority, the Faculty should provide sustained support for professors who still face limitations in the use of active teaching-learning methods. Efforts should focus on preparing and updating course content and, above all, on strengthening training sessions at the discipline, program, and faculty levels, as well as on assessing the overall progress achieved by the faculty over time.

The dimensions discussed here are also linked to strengthening professional development, the need to reinforce methodological and collaborative work, and the integration of teaching, research, innovation, and university extension, all of which enable professors to respond creatively to the demands of the university and of society.

The Cuban model shows strong convergence with the international conception of lifelong professional learning, and its mission should therefore be geared toward addressing the profession's emerging demands. New skills need to be developed both in professors who still rely on traditional teaching and in students themselves, skills involving the capacity to interpret, reason, reflect, critique, and reformulate, among others.

References

- Alarcón Ortiz, R. (2016). *Intervención en Conferencia Inaugural del Ministro de Educación Superior*. En: X Congreso de la Educación Superior, Universidad 2016 (19 de febrero). <https://www-cubadebate-cu.cdn.ampproject.org>
- Alonso García, S., Victoria Maldonado, J. J., Martínez Domingues, J. A., & Berral Ortiz, B. (2024). Analysis of self-perceived digital competences in future educators: A study at the University of Granada. *Journal of Technology and Science Education*, 14 (1), 4-15. <https://doi.org/10.3926/jotse.2521>
- Arias-Odón, F. (2023). Investigación documental, investigación bibliométrica y revisiones sistemáticas. *Redhecs: Revista electrónica de Humanidades, Educación y Comunicación Social*, 31(22), 9-28. <https://dialnet.unirioja.es/servlet/articulo?codigo=9489470>
- Arshad, M., Khojah, M., & Vivek. (2022). Artificial Intelligence and Big Data: The Advent of New Pedagogy in the Adaptive E-Learning System in the Higher Educational Institutions of Saudi Arabia. *Education Research International*, 1263555, 1-10. <https://doi.org/10.1155/2022/1263555>
- Ballester-Miquel, J. C., Pérez-Ruiz, P., Gisbert-Muñoz, S., & Enri-Peiró, S. (2026). The role of soft skills in workplace innovation: Leadership and problem - solving as key drivers. *Journal of Innovation & Knowledge*, 12, 100901. <https://doi.org/10.1016/j.jik.2025.100901>
- Barceló, M. A., Poveda, B., Rodríguez-Gómez, I., & López-Gómez, E. (2024). El prácticum de magisterio en tiempos de pandemia: identificando barreras y oportunidades. *Publicaciones*, 54 (1), 15-35. <https://doi.org/10.30827/publicaciones.v54i1.26362>

- Baute Álvarez, L., M. Iglesias León, M., León González J. L., & Pérez Maya, C. J. (2020). Profesionalización del docente universitario desde la solución de los problemas profesionales. *Universidad y Sociedad*, 12 (5), 9-17. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2218-36202020000500178&lng=es&tlng=es
- Canoğulları, E., & Sari, M. (2026). A digital competence training program design based on Dig Comp 2.1. *Research in Learning Technology*, 34, 1-21. <http://dx.doi.org/10.25304/rlt.v34.3848>
- Chaparro-Medina, J. E., Rincón-Rodríguez, I. C., Crespo, J. E., García-Lirios, C., Ortiz-Ortiz, E. G., Plata-Acosta, Y. I., & Zarta-Botero, M. (2025). Human Talent Management in Higher Education Institutions: Facing Challenges and Taking Advantage of Opportunities in the 4.0 Era. *Multidisciplinary Journal of Educational Research*, 15(3), 170-181. <https://doi.org/10.17583/remie.16140>
- Colás Bravo, P., Conde Jiménez, J., & Reyes de Cózar, S. (2019). El desarrollo de la competencia digital docente desde un enfoque sociocultural. *Revista Comunicar*, 61, 21-32. <https://doi.org/10.3916/C61-2019-02>
- Conejeros-Solar, M. L., Rojas-Farías, A., & Melo-Letelier, G. (2026). Prácticas educativas inclusivas en Latinoamérica: conceptualización, tipos y características. Una revisión sistemática. *Revista Complutense de Educación*, 37(2), 281-294. <https://dx.doi.org/10.5209/rced.1002981>
- Covarrubias León, G., Cruz Ponce, T. A., & Cruz Reséndiz, A. (2024). La profesionalización docente como factor de cambio. *Revista Académica*, 6-24. https://universidadyaan.mx/revista/2024/julio/especial_1/articulo1.pdf
- Garbizo Flores, N., Ordaz Hernández, M., & Lezcano Gil, A. M. (2020). El profesor universitario ante el reto de educar: su formación integral desde la Responsabilidad Social Universitaria. *REXE. Revista de Estudios y Experiencias en Educación*, 19, (40), 151-168. <https://doi.org/10.21703/rexe.20201940garbizo8>
- García Carrasco, J. (1988). La profesionalización de los profesores. *Revista de Educación* (285), 111-123. <https://educacionfpydeportes.gob.es>
- Gómez, R., Fuentes, A., & Castro, A. (2024). El uso ético y moral de la inteligencia Artificial en educación e investigación. *Ciencia Latina. Revista Científica Multidisciplinar*, 8 (5), 3243-3261. https://doi.org/10.37811/cl_rcm.v8i5.13801
- Gómez-Velasco, N. Y., Rojas Triana, M. I., & Ayala-Montoya, L. F. (2025). Análisis de competencias académicas y su relación con la satisfacción de recién graduados universitarios. Caso Colombia. *RELIEVE*, 31(1), 1-21. <http://doi.org/10.30827/relieve.v31i1.28961>
- González-Monteaquedo, J. (2020). Reivindicación de la Innovación Educativa. *Praxis Pedagógica*, 20 (26), 1-15. <https://doi.org/10.26620/uniminuto.praxis.20.26.2020.2-5>



- Hernández, R., Fernández, C., & Baptista, M. P. (2014). *Metodología de la Investigación*. Mcgraw-Hill Interamericana.
<https://uniclanet.unicla.edu.mx/assets/contenidos/292420240103233754.pdf>
- Kain, C., Koschmieder, C., Matischek-Jauk, M., & Bergner, S. (2024). Mapping the landscape: A scoping review of 21st century skills literature in secondary education. *Teaching and Teacher Education*, 151, 104739.
<https://doi.org/10.1016/j.tate.2024.104739>
- Kawulich, B. (2005). La observación participante como método de recolección de datos. *Forum Quantitative Social Research*, 6 (2), 1-23.
<https://apps.utel.edu.mx/recursos/files/r161r/w24803w/LA-observacion-participante.pdf>
- León Morejón, Y. (2026). Uso ético de inteligencia artificial en la educación. *3C TIC, Cuadernos de desarrollo aplicados a las TIC*, 48 (1), 64-77.
<https://doi.org/10.5281/zenodo.18166923>
- Linares, E. E., García, A. I., & Martínez, L. (2021). La profesionalización docente: nuevos retos para los docentes de educación superior en la UPIBI del IPN. *RIDE. Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 2(22), e019
https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-74672021000100119&lang=es
- López-Meneses, E., Cobos-Sánchez, D., Hilario Martin A., Molina-García, L., & Jáen Martínez, A. (2018). *Experiencias pedagógicas e innovación educativa. Aportaciones desde la praxis docente e investigadora*. Octaedro.
<https://octaedro.com>
- Ministerio de Educación Superior (2022). Resolución 47 del año 2022. *Reglamento del proceso docente y de dirección del trabajo para las carreras universitarias*. MES: Cuba. <http://siteal.iiep.unesco.org>
- Ministerio de Trabajo y Seguridad Social (2021). Resolución 36 del 2020. *Escala salarial en profesores universitarios*. En: Gaceta Oficial no.69 Extraordinaria de 2020. <https://www.gacetaoficial.gob.cu/es/resolucion-36-de-2020-de-ministerio-de-trabajo-y-seguridad-social>
- Molise, H., & Malose, K. (2026). Participatory Action Research as an Approach for Sustainable Post-Graduate Supervision in Higher Education. *Journal Posthumanist*, 6 (1), 197-220. <https://doi.org/10.6332/joph.v6i1.3887>
- Montero Lago, P. (2007). Desafíos para la profesionalización del nuevo rol del docente universitario. *Ensayo, Evaluación y Políticas públicas en Educación*, 15 (56), julio-septiembre, 341-350. <https://doi.org/10.1590/so104-40362007000300003>
- Moreno Hernández, O., Pérez Casillas, I., & Martínez Pérez, L. (2020). Reflexión de la práctica: la profesionalización del docente. *Revista Digital Universitaria (RDU)*, 21(5), 1-9. <http://doi.org/10.22201/cuaieed.16076079e.2020.21.5.8>

- Núñez Naranjo, A. F. (2021). Tutoría académica en la educación superior: el rol del autor académico, tutor pedagógico y del estudiante en la modalidad a distancia. *Revista Científica Retos de la Ciencia*, 5 (e), 64-75. <https://doi.org/10.53877/rc.5.e.20210915.06>.
- Oliveira, S., Faustino C. L., Rubio Vargas, A., Wongo Ngungula, E., & Diéguez Batista, R. (2023). Los modelos de profesionalización del docente universitario: un análisis comparativo. *Revista Referencia Pedagógica*, 11(1), 75-89. <https://rrp.cujae.edu.cu/index.php/rrp/article/view/329>
- Organización de Naciones Unidas para la Educación, la Ciencia y la Cultura [UNESCO] (2019). *Recomendación de la OIT-UNESCO sobre el Estatuto del Profesorado, 1966*. https://www.ilo.org/ilo-unesco-recommendation-concerning-status-teachers-1966?utm_source=chatgpt.com
- Organización de Naciones Unidas para la Educación, la Ciencia y la Cultura [UNESCO] (2022). *The ICT Competency Framework for Teachers Harnessing OER Project: digital skills development for teachers*. <https://unesdoc.unesco.org/ark:/48223/pf0000383206>
- Organización de Naciones Unidas para la Educación, la Ciencia y la Cultura [UNESCO] UNESCO & International Task Force on Teachers for Education 2030. (2024). *Global report on teachers: Addressing teacher shortages and transforming the profession*. https://www.unesco.org/en/articles/global-report-teachers-addressing-teacher-shortages-and-transforming-profession?utm_source=chatgpt.com
- Organización para la Cooperación y el Desarrollo Económico [OECD] (2025). *Teaching and Learning International Survey (TALIS) (2024). Conceptual Framework*. OECD. <https://doi.org/10.1787/7b8f85d4-en>
- Parra Velasco, L. Y., & Vázquez Martínez, M. G. (2017). *Muestreo probabilístico y no probabilístico*. Universidad del ISTMO. Campus Ixtepec. <https://www.gestiopolis.com/wp-content/uploads/2017/02/muestreo-probabilistico-no-probabilistico-guadalupe.pdf>
- Parra, K. (2011). El docente de Aula: Perspectivas y demandas en tiempos de Reformas Educativas. *Revista de Investigación*, 35, (72), 52-64. <https://ve.scielo.org/scielo.php?script=sci-arttex&pid=S1815-76962017000400010&lng=es&nrm=iso>
- Pena, M. (2025). El marco de competencias profesionales docentes o la importancia de la formación en competencias emocionales del profesorado. *Educación XX1*, 28 (2), 9-14. <https://revistas.uned.es/index.php/educacionXX1/article/view/45628/33099>
- Piña, C. N., Pez, P., & León, A. (2014). La formación del profesor universitario: un profesional en superación constante. *Revista Medisur. Cienfuegos*, 12 (1), 7. <http://www.medisur.sld.cu/index.php/medisur/article/view/2684>
- Prado Chaviani, E., González González, M., & Jiménez Valerio, B. (2020). Las competências profissionais y sus tendências fundamentais. *Alfa*



Publicaciones, 2 (1), 44-45. <https://doi.org/10.33262/ap.v2i1.23>

- Rivero Rodríguez, E., Busto Ochoa, C., Zúñiga Reyes, G. N., & Carmenate Fuentes, L. (2019). La profesionalización docente, desde la dimensión pedagógica. Una estrategia para la gestión de la calidad universitaria. *Conference Proceedings UTMACH*, 3 (1), 423-432. <https://repositorio.utmachala.edu.ec/server/api/core/bitstreams/d662122e-a2c8-4924-b38b-b922d9668e9a/content>
- Rodríguez Veloz, Y., Massani Enríquez, J. F., Brito, J. M., & Veloz Cruz, L. (2020). La superación profesional del docente universitario. Retos y actualidad. *Atenas: Revista Científico Pedagógica*, 3, (1) 51, 167-181. <https://atenas.umcc.cu/index.php/atenas/article/view/263>
- Rojas Alarcón, E. (2025). La formación docente y las aulas virtuales durante la pandemia COVID19. *RIDE. Revista Iberoamericana de Investigación para el Desarrollo Educativo*, 16 (31), 1-21 <https://doi.org/10.23913/ride.v16i31.2494>
- Rojas González, C. A. (2017). La profesionalización del docente universitario: un reto actual. *Rev. Mendeive Revista de Educación*, 15 (4), 507-522. <http://scielo.sld.cu/scielo.php?script=sci-arttext&pid=S10-1029142011000100005&lng=es&nrm=iso>
- Sánchez-Tarazaga, L., Sanahuja, A., & Manso, J. (2026). Los Agentes Educativos ante la Innovación: Un análisis de factores que condicionan su implementación. *REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 24 (2), 1-20. <https://doi.org/10.15366/reice2026.24.2.004>
- Sandoval-Acosta, J. A., & Reyes-Zúñiga, C. G. (2025). Identificación de las competencias blandas para tutores en educación superior, un estudio sistemático. *RIDE. Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 16, (31). <https://doi.org/10.23913/ride.v16i31.2497>
- Saykılı, A. (2019). Higher Education in the Digital Age: The Impact of Digital Connective Technologies. *Journal of Educational Technology and Online Learning*, 2(1), 1-15. <https://doi.org/10.31681/jetol.516971>
- Silva, D. E. S., Corrêa Sobrinho, M., & Valentim, N. M. C. (2023). Development of 21st-Century Skills and Competencies in High School Students Through the Interactive E-Books Creation. *Revista Brasileira de Informática na Educação- RBIE*, 31, 971-1004. <https://doi.org/10.1016/rbie.2023.3001>
- Valerio, G., & Rodríguez, M. C. (2017). Perfil del profesorado Universitario desde la perspectiva del estudiante. *Innovación Educativa*, 17, (74), 109-124. <https://www.scielo.org.mx/scielo.php?script=sci-arttext&pid=S1665-267320170000200109&lng=es&nrm=iso>
- Ventura-Campos, M., & Ventura-Campos, N. (2026). La inclusión educativa en perspectiva histórica: la voz del profesorado como testimonio del cambio. *Espacio, Tiempo y Educación*, 13(1), 39-57. <http://dx.doi.org/10.14516/ete.13103>



- Voogt, J., & Roblin, N. P. (2025). The Pedagogy of Skills in the 21st Century: Practices for Integrating Them into the Teaching Process. *Creative Education*, 16 (1).
<https://www.scirp.org/reference/referencespapers?referenceid=3917794>
- Zabalza, M. A. (2007). *Las competencias docentes del profesorado universitario: calidad y desarrollo profesional*. Narcea Ediciones.
<https://books.google.co.ao>

About the main author

Olga Lourdes Vila Pérez: Holds a PhD in Economic Sciences (awarded in 2012) and attained the academic rank of Associate Professor in 2014. She holds a degree in Agricultural Economics from the Marta Abreu University of Las Villas in Villa Clara Province. Currently, she is a professor and researcher at the "Carlos Rafael Rodríguez" University of Cienfuegos in Cienfuegos, Cuba, and is a member of the Center for Local Development Research and Business Management within the institution's Faculty of Economic Sciences.

Declaration of author responsibility

Olga Lourdes Vila Pérez 1: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Software, Supervision, Validation/Verification, Visualization, Writing/original draft, and Writing.

Gervasio Mendes Kaluhongue 2: Conceptualization, Data curation, Formal analysis, Investigation, Methodology.

Felizardo Natangue Tamulisekifa 3: Software, Supervision, Validation/Verification, Visualization, Writing/original draft, and Writing.

Tamara Téllez Veranes 4: Conceptualization, Data curation, Validation/Verification, Visualization, Writing/original draft, and Writing.

Special Acknowledgments:

We thank the "Carlos Rafael Rodríguez" University of Cienfuegos—and in particular the Faculty of Economic Sciences in Cuba—for their collaboration regarding the data used in this research, as well as the faculty members of that institution.

Financing:

Own resources