

ORIGINAL

## Professional development, professionalisation and successful professional performance of the Bachelor of Optometry and Opticianry

### Superación profesional, profesionalización y desempeño profesional exitoso del Licenciado en Optometría y Óptica

Ivón Yudit Martínez Valdés<sup>1</sup> , Leydelys Castillo Valdés<sup>1</sup> , Sahely Sixto Fuentes<sup>1</sup>  

<sup>1</sup>Universidad de Ciencias Médicas de Pinar del Río. Pinar del Río, Cuba.

**Cite as:** Martínez Valdés IY, Castillo Valdés L, Sixto Fuentes S. Professional development, professionalisation and successful professional performance of the Bachelor of Optometry and Opticianry. AG Salud. 2023; 1:7. <https://doi.org/10.62486/agsalud20237>

Submitted: 08-01-2023

Revised: 14-04-2023

Accepted: 07-07-2023

Published: 08-07-2023

Editor: Prof. Dr. Javier González Argote 

#### ABSTRACT

**Introduction:** Health Technology has integrated technological advances in health services, requiring professional improvement programmes to improve the performance of technologists. In the field of ophthalmology in Cuba, the quality of services depends on optometrists and opticians, and their continuous training is essential in an increasingly technological environment with a growing demand due to the increase in refractive disorders and the ageing population.

**Development:** professional development, defined as a continuous pedagogical process, is essential to maintain the quality of health services. It has been widely researched and its importance in improving the quality of services, satisfaction and social recognition of health professionals has been highlighted. In the specific case of Optometry and Optics, professional development is considered a necessary process to ensure successful performance. Several principles and distinctive features of this process are highlighted, including its systemic character, its connection with initial and postgraduate training, and its evaluation through professional performance.

**Conclusions:** the professional development of Optometry and Optics graduates is crucial to their successful performance, as it contributes to their professionalisation and the development of competencies needed in a constantly evolving eye health environment. The importance of integrating initial and continuing education, as well as assessing the impact of further education on professional performance, is highlighted. These findings underline the need for well-structured and contextualised professional development programmes to ensure the quality and effectiveness of eye care services.

**Keywords:** Professional Development; Optometry and Optics; Professional Performance; Eye Health; Health technology.

#### RESUMEN

**Introducción:** la Tecnología de la Salud ha integrado avances tecnológicos en los servicios de salud, requiriendo programas de superación profesional para mejorar el desempeño de los tecnólogos. En el campo de la Oftalmología en Cuba, la calidad de los servicios depende de optometristas y ópticos, siendo esencial su formación continua en un entorno cada vez más tecnológico y con una creciente demanda debido al aumento de trastornos refractivos y el envejecimiento poblacional.

**Desarrollo:** la superación profesional, definida como un proceso pedagógico continuo, es esencial para mantener la calidad de los servicios de salud. Se ha investigado ampliamente y se ha destacado su importancia en el mejoramiento de la calidad de los servicios, la satisfacción y el reconocimiento social de los profesionales de la salud. En el caso específico de la Optometría y la Óptica, la superación profesional se considera un proceso necesario para garantizar un desempeño exitoso. Se destacan varios principios y

rasgos distintivos de este proceso, incluyendo su carácter sistémico, su conexión con la formación inicial y postgraduada, y su evaluación a través del desempeño profesional.

**Conclusiones:** la superación profesional de los licenciados en Optometría y Óptica es crucial para su desempeño exitoso, ya que contribuye a su profesionalización y al desarrollo de competencias necesarias en un entorno de salud visual en constante evolución. Se destaca la importancia de integrar la formación inicial y continua, así como de evaluar el impacto de la superación en el desempeño profesional. Estos hallazgos subrayan la necesidad de programas de superación profesional bien estructurados y contextualizados para garantizar la calidad y eficacia de los servicios de salud visual.

**Palabras clave:** Superación Profesional; Optometría Y Óptica; Desempeño Profesional; Salud Visual; Tecnología Sanitaria.

## INTRODUCTION

The area of Health Technologies is distinguished by the introduction of advanced technologies in a general way in all health services in which technologists develop technological procedures,<sup>(1)</sup> an issue that leads it to assume as an alternative for the improvement of professional performance the development of professional improvement programs that contribute to raising the level of updating, the development of professional skills and intellectual production in any of its manifestations.

For health services, the training of technologists in academics, assistance, and research integration is becoming increasingly relevant.<sup>(2)</sup> Health teams require the collaboration and active participation of all their members in order to achieve the final objective according to the branch of medical sciences.

In the case of ophthalmology services in Cuba, whose quality depends on ensuring vision for all, optometrists and opticians play an essential role, in line with the concept of visual health as a process. In light of current science and technology, visual health represents a novel way of interpreting social needs, organizing visual health services, guiding scientific-technological activity, and training these professionals.<sup>(3)</sup>

Graduates in Optometry and Optics, in correspondence with the object of their profession (optical-optometric procedures), must be competent, updated, and committed to their professional growth. They should integrate the optical and optometric contents in correspondence with the scientific, technological, economic, socio-cultural, and ecological development in order to provide solutions to professional problems from their performance.<sup>(1)</sup>

If it is considered that visual health care is becoming more and more technological,<sup>(20)</sup> professional improvement with a view to improving the professional performance of these professionals becomes a permanent requirement for them to be able to apply technological procedures with ample opportunity for action on the problems of ocular health and visual function.<sup>(1)</sup>

On the other hand, optometric optical care is increasingly demanded due to the increase of refractive disorders associated with the excessive use of cell phones, computers, and other devices, as well as the aging population. These elements justify the need for Optometry and Optics graduates to improve their skills as a fundamental part of this work team.

From the need for the integration of optical and optometric knowledge for the execution of technological procedures, professional development must have the following characteristics: contribute to the development of common attitudes; stimulation of respect and recognition of the functions and limitations of each procedure, which inevitably leads to the personalization and contextualization of the process of professional development. All this is based on research as the essential core of any professional improvement process.<sup>(1)</sup>

However, there still needs to be more knowledge and more orientation in relation to the alternatives for professional development once the graduates in Optometry and Optics are incorporated into their jobs. Professional improvement is not conceived as a process properly planned; it is fundamentally carried out based on the use of new technologies rather than with a systemic, integrating, and developing perspective. This limits creativity in the implementation of educational, scientific-technological, and social actions, and thus, the professionalization process and the successful performance of this professional.

A study carried out in Pinar del Río showed difficulties in the coherent articulation of the initial and postgraduate training of the graduate according to the professional performance, the lack of correspondence between the contents of the planned improvement activities and the real needs of the graduates in Optometry and Optics and the absence of control of the impact of the professional improvement on the successful performance of this professional. Based on the above, the present research is carried out with the purpose of arguing the relationship between professionalization, professional development, and successful professional performance of Optometry and Optics graduates.

## DEVELOPMENT

Professional development as a theme has been investigated at international and national level by numerous authors, among them: Morles,<sup>(4)</sup> Añorga, Pérez and Valcárcel,<sup>(5)</sup> Castro,<sup>(6)</sup> Hatim and Gómez,<sup>(7)</sup> Arteaga,<sup>(8)</sup> Bernaza,<sup>(9)</sup> Castillo Estrella,<sup>(10)</sup> Trujillo, Castillo and Valcárcel,<sup>(11)</sup> Gallardo Barroso,<sup>(12,13)</sup> González de la Torre,<sup>(14)</sup> Reyes,<sup>(15)</sup> Guevara, Oropesa, Endo, Quintero, Hernández and González,<sup>(16)</sup> Sarduy and Jimenez,<sup>(17)</sup> among others. All of them agree that professional development is a necessity in the face of the rapid progress of science and technology, which should be linked to initial training and last throughout the professional's life.

In the last decade, the works reviewed on professional development in the medical sciences<sup>(18,19,20,16-18)</sup> also reflect the influence of professional development on the improvement of the quality of services, the level of satisfaction, and the social recognition of the profession, issues that position the subject as a priority for the National Health System.

Añorga defines professional improvement as a set of teaching-learning processes that enable university graduates to acquire and continuously improve the knowledge and skills required for a better performance of their responsibilities and job functions.<sup>(5)</sup>

In relation to the above definition, for other authors, the term pedagogical process is more appropriate in order not to limit professional development to teaching-learning processes since they consider that the instructive-educational, formative-developmental, and socio-individualizing functions should be taken into account.<sup>(20)</sup>

Castro Escarrá defines professional development for practicing teachers as a continuous and permanent process that develops throughout their professional lives and entails unlimited professional and human growth in the context of the social environment in which they operate. This author states that this process includes personal, professional, and social aspects, an element that substantially distinguishes his definition from others.<sup>(18)</sup>

Gallardo<sup>(13)</sup> considers that Bernaza<sup>(9)</sup> enriches the concept of improvement because he conceives it not only as a teaching-learning process but as a pedagogical process that goes beyond it, being as follows "a pedagogical process in which knowledge is renewed and resized, and the graduate learns to identify and solve the new problems of his profession, of his social practice, relying on ICT and collaborative learning."

Mena, Aguilar, Acosta, and Gato<sup>(21)</sup> assume professional development is a pedagogical process aimed at satisfying the needs of complementing, updating, and deepening the knowledge of professionals related to performance. According to these authors, this process deepens the use of research results as well as the work with scientific-technical advances from the current technological paradigms in order to generate changes and transformations in the formation of technical-professional competence, appreciable in professional performance.

Finally, in the Regulations of Graduate Education of the Republic of Cuba of the Ministry of Higher Education (MES) of 2019,<sup>(22)</sup> the objective of professional development is considered to be to contribute to the continuing education and systematic updating of university graduates, the improvement of the performance of their professional and academic activities, as well as the enrichment of their cultural heritage.

From the perspective of the medical sciences, several authors have also expressed their considerations in relation to professional development, among them:

Arteaga and Hatim consider that professional improvement, continuing education, and continuing or permanent education in health are different expressions of the development of the same process, the improvement of health personnel, with the fundamental purpose of raising the quality of the suitability and performance of the providers of health services to the population. They also add that it is present at every moment of a professional's career, is projected beyond the classroom, recognizes the educational functions exercised by other organizations, sectors, branches, and social agents, and is not limited to formal education as it includes a wide variety of experiences, even the most informal ones.<sup>(23)</sup>

For the above authors, professional development in the medical sciences is based on the following precepts:<sup>(23)</sup>

- Professional development is not an end in itself, but a means to the end of achieving the goal of better preparation of health care workers.
- The content of professional development should be directly related to the problems of professional practice.
- In its pedagogical process, it adopts the most innovative transforming, active, dynamic, flexible, and realistic strategies, linked to the world of work and the profession, integrated into health services and scientific, biomedical, medical-social, and educational research.

Arteaga and Hatim agree with the elements taken as precepts insofar as it is considered that professional development is a process and a result, that the need for it arises from the problems related to optical-optometric procedures and the alterations of the patient's visual health process and that it constitutes a process closely related to research and the professional practice of the optician-optometrist.

For Reyes,<sup>(15)</sup> professional improvement provides updating, deepening, and improvement of skills and

professional qualities in correspondence with the needs of economic, social, and cultural development of the country. This must be constant, to be gained step by step in their daily work to contribute to the quality of the work process, a fundamental objective of the work of all professionals.

In Pinar del Río, research has been carried out on professional development in the specialty of Ophthalmology and in the degree in Optometry and Optics, professions closely linked to the approach to the visual health process; its authors arrived at the following concepts:

Corrales defines the professional improvement of the specialist in Ocular Plastic Surgery as a process of theoretical-practical training that allows achieving the acquisition, updating, and improvement of the contents of Ocular Plastic Surgery to improve their professional performance.<sup>(24)</sup>

Pérez González states that professional improvement as a process in the management of patients with ophthalmologic emergencies by the Comprehensive General Practitioner of Primary Health Care allows the acquisition and continuous improvement of the contents in the management of the patient and leads to the improvement of their professional performance.<sup>(25)</sup>

Muñoz Lazo defines the professional improvement in Contact Lenses of the Optometry and Optics Graduate as a pedagogical, (...) systemic, and integrating process that, taking into account the conditions of the provincial practice, favors the comprehensive technical and professional development of the Optometry and Optics Graduate through the acquisition, updating and continuous deepening of the contents of Contact Lenses, as well as its application (...) contributing to improving their performance during the care of patients who require the service.<sup>(26)</sup>

Finally, Martínez Valdés<sup>(27)</sup> assumes the professional improvement of the graduate in Optometry and Optics as a systemic, permanent, and contextualized pedagogical process aimed at updating and perfecting the contents related to Optometry and Optics in order to achieve a successful professional performance.

From the elements presented by the different authors consulted and as a summary, we agree with Ulloa<sup>(28)</sup> in that they constitute essential features of the professional improvement process:

- Its articulation with other processes related to education, among them initial training, professionalization, research, and self-improvement.
- Its systemic, continuous, permanent integrating, axiological, transforming, and self-transforming character.
- Its purpose is development.
- Its objectives are generalizing: to diagnose, update, expand, perfect, systematize, and complete knowledge, skills, and abilities; to stimulate the production of knowledge and its practical application.
- It is evaluable through the modes of performance in professional performance.

In relation to the above, Añorga Morales<sup>(5)</sup> González de la Torre<sup>(14)</sup>, and Castro Escarrá<sup>(6)</sup>, cited by Gallardo<sup>(12)</sup>, have defined systems of principles to regulate the systems or activities of self-improvement taking into consideration their relationships with other processes. A study of these principles in terms of the process of improvement of the graduate in Optometry and Optics allowed us to assume some of them and to propose the following as principles for the process of improvement of the graduate in Optometry and Optics:

- The relationship between social relevance, objectives, motivation, and communication is important in the improvement of the Optometry and Optics graduate.
- The relationship between undergraduate, continuing education, professionalization, and professional performance of the graduate in Optometry and Optics.
- The relationship between scientific research, improvement, and professionalization of the graduate in Optometry and Optics.
- Relationship between forms, contents of self-improvement, and development of technologies in a general way.
- Interrelation between the management of continuing education, the scientific-pedagogical level of managers and teachers, and the quality of the optical-optometric care process.

Following these postulates and according to the modes of action of this professional, they would be distinctive features of the professional improvement process of the graduate in Optometry and Optics:

- Its systemic, permanent, and contextualized character is based on social, institutional, and individual demands.
- The articulation between initial and postgraduate training in terms of professional performance.
- The adequate selection of training contents, methods, and forms according to the learning needs, the scientific-technological development of Optometry and Optics, and the visual problems that arise in the population.
- The organization, planning, execution, and control of professional improvement activities by graduates in Optometry and Optics with higher scientific and teaching categories in close connection



with the optical-optometric care process.

The process of professional improvement in the degree in Optometry and Optics should start from the identification of learning needs in the professional context (Optometry offices, opticians' shops). Its different modalities (courses, training, diploma courses) should be taught in the same context if the conditions exist or depend on it. Regardless of the scenario, the approach between professional development and professional optician-optometric practice should be conceived, taking into account that on-the-job education is the fundamental form of teaching for the formation of professional skills and the development of competencies in higher medical education.

Professionalization, professional improvement process, and successful professional performance of the graduate in Optometry and Optics.

Any profession involves acting and performing actions. It manifests itself as an activity insofar as it is considered that in the profession, man interacts with the environment, adopting certain attitudes in order to solve problems.

Del Pino<sup>(29)</sup> states that the analysis of the following elements characterizes a professional:

- its theoretical-methodological mastery of the object of the profession that allows the transformation of the context of action and self-transformation.
- the ethics of the profession manifested in its performance.
- the personal and professional satisfaction for the work he/she performs.
- the identification with the profession through the formative process, where interests and professional skills necessary for the qualitative turn of the subject towards professionalism must be developed.
- the experiences that will be accumulated in the execution of different professional tasks.
- their self-awareness and self-esteem in this field, all of which will facilitate the configuration of their professional identity.

In relation to the above, Añorga<sup>(30)</sup> assumes professionalization as: "(...) a permanent professional pedagogical process that has its genesis in the initial training of the individual in a profession, which carries a mandatory continuous change at all levels implicitly, with a pattern essentially determined by the mastery of the knowledge base, proper of the specific discipline of the profession he exercises, which has a human factor that must react correctly in its confrontation with the community and advance to be able to make a convenient adjustment with the innovations of interchangeable variables that infer in a dominant and leading social environment of man(...)"

The systematization of professionalization as a process makes the design of training processes for professionals under certain practices possible in school, community, and business contexts. In this sense, points of convergence have been found among several authors in relation to the existence of several processes in initial, postgraduate, and in-service training, which constitute pathways for professionalization.<sup>(31)</sup>

Suppose this line of thought is followed for the graduate in Optometry and Optics. In that case, professionalization begins from the initial training and should contribute to the formation of professional modes of action conducive to a successful performance. It becomes a dynamic element for the formation and development of professional competencies, which are manifested precisely in the performance of this professional.

In this initial stage, the teaching-learning process (PEA) should be contextualized to the most frequent and general problems that affect visual health from Optometry and Optics, integrating cognitive, practical, and valuative activities in relation to optical-optometric procedures. The educational and developmental dimensions of the PEA should be enhanced, and education at work should be a fundamental form of organization.

It is also essential to consciously establish the proper connection between initial training and postgraduate training. Professional improvement should be conceived from the undergraduate level, based on the analysis of the curricular elements and the scientific and technological development of the profession, an issue in which the teacher's orientation and the student's motivation to solve the problems that may arise in the optical-optometric practice play a fundamental role. From the above analysis, professional improvement is considered a necessary process and an expected result, which contributes to the professionalization of the graduate in Optometry and Optics and the achievement of a successful performance.

The above analyses reveal that professional performance is dialectically linked to the fulfillment of the duties, functions, and role of the profession that an individual exercises, as well as to the demonstration of speed, accuracy, precision, and care in the process of execution.<sup>(32)</sup>

We agree with García<sup>(20)</sup> when he states that professional performance has been a permanent concern of researchers who take as an object the process of professional improvement. In this sense, emphasize that motivating health professionals to improve their performance and adopt professional improvement as a way of life is a necessity in order to satisfy the social task.

Añorga defines *professional performance* as the capacity of an individual to perform actions, duties, and obligations inherent to his/her position or professional functions required by a job. In his opinion, this capacity is expressed in the actual behavior or conduct of the worker in relation to the other tasks to be performed during the exercise of his profession. It designates what the professional actually does and not only what he knows how to do.<sup>(30)</sup>

Lago y colaboradores el desempeño profesional pedagógico del docente de la universidad médica cubana como la actuación durante el desarrollo de la actividad profesional pedagógica, que se sustenta en un aprendizaje constante, expresado en las dimensiones sociopolítica, tecnológica, pedagógica profesional, científico investigativa y de superación, que contribuye a obtener un resultado y responde a las exigencias actuales".<sup>(32)</sup>

Based on the above criteria, the successful professional performance of the optician-optometrist is assumed as the capacity of the graduate in Optometry and Optics for the execution of optical optometric procedures with speed, accuracy, and precision, with the purpose of achieving the positive transformation of the visual health process.

Successful professional performance of the graduate in Optometry and Optics implies the development of an optical-optometric care process that manages to solve the most frequent problems that arise in the different levels of care (primary, secondary, and tertiary) with creativity and critical judgment. The optician-optometrist will carry out educational, scientific-technological, and social actions in collaboration with his work team and correspondence with his responsibility for the visual health of the population.

An important issue would be the evaluation of the impact of the professional development process on the performance of graduates in optometry and optics in order to achieve greater quality and efficiency and to detect new needs that allow reorienting.

## CONCLUSIONS

The professional development of graduates in Optometry and Optics is conceived as a systemic, permanent, and contextualized pedagogical process aimed at updating and perfecting the contents related to Optometry and Optics in the function of successful professional performance, which implies the execution of optical-optometric procedures with speed, accuracy, and precision for the positive transformation of the visual health process. The process of professional improvement constitutes a way for the professionalization of the graduate in Optometry and Optics, which dynamizes their training and the development of professional competencies that are manifested precisely in their performance.

## BIBLIOGRAPHIC REFERENCES

1. Muñoz Alonso L, Barrocas Padrón J, Williams Abellé EC. El proceso de superación de la educación médica y de tecnología de la salud particularizado en Optometría y Óptica. Rev cub de Tecnología de la Salud. [Internet] 2016.; 6(4):3-13. <http://www.revtecnología.sld.cu>
2. Díaz Rodríguez IM, Zamora Peña Y, Montero Ayala O, González Fonseca JL. Desarrollo de habilidades profesionales mediante la Educación en el Trabajo en la carrera de Optometría y Óptica. Multimed.[Internet]. 2017; 22(1):114-120. <https://www.semanticsholar.org>
3. Macías Llanes ME, Figaredo Curiel F, Núñez Jover J, del Huerto Marimón ME. Los Estudios Sociales de la Ciencia y la Tecnología en la Facultad Cubana de Oftalmología. Rev Cubana Salud Pública [Internet]. 2008 Sep; 34 (3): Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S0864-34662008000300010&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-34662008000300010&lng=es)
4. Morles Sánchez V. La educación de Postgrado en el mundo: estado actual y perspectivas. Caracas: Universidad Central de Venezuela; 1990.
5. Añorga J, Pérez AM, Valcárcel N. Las formas de la educación avanzada: hacia una propuesta integral. La Habana; 1996. [s.n]
6. Castro O. "Fundamentos teóricos y metodológicos del Sistema de Superación del Personal Docente del Ministerio de Educación". Tesis de Maestría. La Habana: ISPE. J. Varona; 1997.
7. Hatim A, Gómez EL. Literatura básica. Módulo de Posgrado. [CD-ROOM]. La Habana: Maestría de Educación Médica; 2002.
8. Arteaga J, Hatim A. Educación de posgrado: estructura y procesos fundamentales. En Hatim A, Gómez EL. Literatura básica. Módulo de Posgrado. [CD-ROOM]. La Habana: Maestría de Educación Médica; 2002.

9. Bernaza GJ, Troitino DR, López ZS. La superación del profesional: mover ideas y avanzar más. Editorial Universitaria. MES. 2018. ISBN 978-959-16-3831-1 (PDF).
10. Castillo Estrella T. Un modelo para la dirección de la superación de los docentes desde la escuela secundaria básica. [Tesis Doctoral]. Pinar del Río: Instituto Superior Pedagógico Rafael María De Mendive; 2004.
11. Trujillo Saíenz JA, Castillo Estrella T, Valcárcel Izquierdo N. Modelo para la superación profesional del docente mediado por las Tecnologías de la Información y las Comunicaciones desde la Educación a Distancia. VARONA [Internet]. 2017[citado 2022 feb 22].(esp.): [apr.10p.]. Disponible en: <https://www.redalyc.org/articulo.oa?id=360657468004>
12. Gallardo E, Valcárcel N, Castillo T. Caracterización de la superación del tutor del centro de práctica en la Licenciatura en Educación Primaria en Pinar del Río. Revista Mendive. 2018; 16 (4): 497-516. Disponible en: <http://mendive.upr.edu.cu/index.php/mendiveUPR/article/view/1438>
13. Gallardo Barroso E. La superación del tutor del centro de práctica del estudiante de la licenciatura en Educación Primaria. [Tesis Doctoral]. Pinar del Río: Universidad Hermanos Saíz Montes de Oca; 2018.
14. González de la Torre G. La concepción sistémica del proceso de organización y desarrollo de la superación de los recursos humanos. [Tesis Doctoral]. La Habana: UCP “Enrique José Varona”; 1997
15. Reyes AD. Modelo de superación profesional para cirujanos generales en Cirugía Videolaparoscópica desde un enfoque por competencias. [Tesis Doctoral]. Villa Clara: Universidad Central de las Villas “Martha Abreu”; 2012.
16. Guevara T, Oropesa M, Endo JY, Quintero M, Hernández V y González. Superación Profesional en la Universidad de Ciencias Médicas de Villa Clara. Su progresión entre 2012-2014. EDUMECENTRO; 2016: 8 (2).
17. Sarduy Y, Jiménez A. La superación profesional del logopeda en implante coclear y su impacto en el desempeño profesional. Gac Méd Espirit; 2015: 17 (1).
18. Manzo Rodríguez L, Rivera Michelena N, Rodríguez Orozco AR. La educación de Posgrado y su repercusión en la formación del profesional iberoamericano. Educ Med Super [Internet]. 2006 [citado 2021 Jul 25; 20(3). Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S0864-21412006000300009](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21412006000300009)
19. González O, Mesa Carpio N, González M. La superación profesional en las universidades de ciencias médicas, tendencias y exigencias actuales. Rev EDUMECENTRO.2013; 5(3). Disponible en: [http://revedumecentro.sld.cu/index.php/edumc/article/view/232/html\\_3](http://revedumecentro.sld.cu/index.php/edumc/article/view/232/html_3)
20. García González MC. La superación profesional del tecnólogo de la salud en Laboratorio Clínico desde la integración Ciencias Básicas Biomédicas - Laboratorio. [Tesis Doctoral]. Camaguey: Universidad “Ignacio Agramontes Loynaz”; 2017.
21. Mena Lorenzo JA, Aguilar Hernández V, Acosta Iglesias A. y Gato Armas CA. Glosario mínimo de términos de la Educación Técnica y Profesional Cubana. Comisión Nacional Asesora de la ETP (MINED)- Grupo de Investigación de la ETP, Centro de Estudios de las Ciencias de la Educación. Universidad de Pinar del Río. MES. Resolución Ministerial No. 140/19. 2019.
22. Reglamento de Educación de Posgrado del Ministerio de Educación Superior. Soporte digital. 2019.
23. Arteaga J, Hatim A. Educación de posgrado: estructura y procesos fundamentales. En Hatim A, Gómez EL. Literatura básica. Módulo de Posgrado. [CD-ROOM]. La Habana: Maestría de Educación Médica; 2002.
24. Corrales Y. Estrategia para la superación del oftalmólogo en cirugía Plástica ocular. [Tesis de Maestría]. Pinar del Río: Universidad “Hermanos Saíz Montes de Oca”; 2016.
25. Pérez H. La superación del Médico General Integral en el manejo del paciente con urgencia oftalmológica en la Atención Primaria de Salud, para el mejoramiento del desempeño profesional. [Tesis de Maestría].Pinar

del Río: Universidad “Hermanos Saíz Montes de Oca”; 2016.

26. Muñoz Lazo A. Superación profesional en Lentes de Contacto del Licenciado en Optometría y Óptica de Pinar del Río. [Tesis de Maestría]. Pinar del Río: Universidad “Hermanos Saíz Montes de Oca”; 2021.

27. Martínez Valdés IY. Estrategia para la superación profesional de licenciados en Optometría y Óptica. [Tesis de Maestría]. Pinar del Río: Universidad de Ciencias Médicas; 2022.

28. Ulloa A. Superación profesional en la atención primaria de salud. [Tesis Doctoral]. La Habana: Editorial Universitaria; 2017. Disponible en: <https://tesis.reduniv.edu.cu/fetch.php?data=1684&type=pdf&id=1689&db=1>

29. Del Pino JL. La orientación profesional en los inicios de la formación superior pedagógica. Una propuesta desde el enfoque problematizador [Tesis doctoral]. La Habana, Cuba; 1998. p 30.

30. Añorga J. Glosario de términos de Educación Avanzada. La Habana: Ceneseda-ISPEJ; 2008. p.20.

31. Breijo Worosz T. Concepción pedagógica del proceso de profesionalización para los estudiantes de las carreras de la facultad de Educación Media Superior durante la formación inicial: estrategia para su implementación en la Universidad de Ciencias Pedagógicas de Pinar del Río. [Tesis doctoral]. Pinar del Río: Universidad “Hermanos Saíz Montes de Oca”; 2009.

32. Lago QM, Alea GM, Rodríguez GJ. El mejoramiento del desempeño profesional pedagógico de los docentes para la evaluación formativa. Revista Cubana de Educación Médica Superior. 2019;33(1):1-18.

## FINANCING

The authors did not receive funding for the development of this research.

## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

## AUTHORSHIP CONTRIBUTION

*Conceptualization:* Ivón Yudit Martínez Valdés, Leydelys Castillo Valdés, Sahely Sixto Fuentes.

*Research:* Ivón Yudit Martínez Valdés, Leydelys Castillo Valdés, Sahely Sixto Fuentes.

*Drafting - original draft:* Ivón Yudit Martínez Valdés, Leydelys Castillo Valdés, Sahely Sixto Fuentes.

*Writing - proofreading and editing:* Ivón Yudit Martínez Valdés, Leydelys Castillo Valdés, Sahely Sixto Fuentes.