Scientific writing: actions for the improvement of healthcare professionals in Guantamano province

Redacción científica: acciones para la superación de los profesionales de la salud en la provincia Guantánamo

Hilda Lidia Iznaga Brooks

Universidad de Ciencias Médicas de Guantánamo. Guantánamo, Cuba.
hilda.gtm@infomed.sld.cu
https://orcid.org/0009-0003-9928-8357

Lee Yang Díaz-Chieng

Universidad de Ciencias Médicas de Guantánamo. Guantánamo, Cuba.
leeyang@infomed.sld.cu
https://orcid.org/0000-0001-5501-7502

Islenis Mercedes Ramírez Pelegrín

Universidad de Ciencias Médicas de Guantánamo. Guantánamo, Cuba.
isleny@infomed.sld.cu
https://orcid.org/0000-0002-3189-9878

María del Rosario Parra Castellanos

Universidad de Ciencias Médicas de Guantánamo. Guantánamo, Cuba.
mrparra@infomed.sld.cu
https://orcid.org/0000-0002-7648-3569

Yazmín Olivarez Rojas

Hospital General Docente Dr. Agostinho Neto. Guantánamo, Cuba.
yasminolivares1604@gmail.com
https://orcid.org/0000-0003-2482-4736

wejournalreview.com
2025 • V.1 • N.2

ISSN: 3066-4217

Recibido: 25/04/2025 | **Revisado:** 30/05/2025 | **Aceptado:** 25/06/2025 | **Publicado:** 10/07/2025

Cite: Iznaga, H; Díaz-Chieng, L; Ramírez, I; Parra, M; Olivarez, Y. (2025). Scientific writing: actions for the improvement of healthcare professionals in Guantamano province. *We Journal Review*, *1*(2), 75-82. https://doi.org/10.38202/journal12.3

Abstract

Contemporary universities bear the social responsibility of addressing the demands of their era. University education emphasizes the appropriate scientific development of its professionals, enabling them to produce high-quality scientific writings and effectively disseminate knowledge and research findings. This research aims to develop a system of improvement actions for enhancing healthcare professionals' proficiency in scientific article writing. Given the insufficient mastery of publication standards for scientific article writing among healthcare professionals in Guantánamo, an exploratory descriptive study was conducted on scientific articles received by the Revista Información Científica of the University of Medical Sciences of Guantánamo, Cuba, between January 2016 and December 2019. Thirty-five authors were randomly selected and surveyed to assess their knowledge of scientific writing. Additionally, eleven specialists were interviewed to evaluate the proposed system of actions. Scientific methods, including observation, surveys, and expert judgment, were employed to address the research problem. The study revealed deficiencies such as limited knowledge regarding the chosen research topic, insufficient skills in scientific text composition, and a lack of familiarity with publication norms or guidelines. The implementation of the proposed actions fostered both personal and group motivation upon completion. The positive evaluations provided by specialists and users support the application of these actions for preparing healthcare professionals in scientific article writing.

Keywords: scientific article; professional training; scientific writing; system of actions; professional development

Resumen

Las universidades contemporáneas socialmente, son las encargadas de responder por las exigencias sociales de la época. La educación universitaria contempla el desarrollo científico adecuado para sus profesionales, con lo que pueden lograr construir escritos científicos con calidad y ser portadores del conocimiento y de los resultados investigativos. Elaborar un sistema de acciones de superación para la preparación de los profesionales de la salud en la redacción del artículo científico es objetivo de la investigación. Ante el insuficiente dominio de las normas de publicación para la redacción de artículos científicos en los profesionales de la salud en Guantánamo, se realizó una investigación de tipo exploratoria descriptiva a los artículos científicos recibidos en la Revista Información Científica de la Universidad de Ciencias Médicas de Guantánamo, Cuba, período enero 2016 – diciembre 2019. Se seleccionaron al azar 35 autores, se les aplicó una encuesta para identificar nivel de conocimientos sobre redacción científica, se entrevistaron 11 especialistas para que evaluaran el sistema de acciones propuesto. Se emplearon métodos científicos: la observación, la encuesta y criterio de especialistas que permitieron enfrentar el problema científico. Se revelaron insuficiencias como escaso conocimiento acerca del tema que se quiere investigar, insuficientes habilidades para la redacción de textos científicos y desconocimiento de las normas o directrices de publicación. La puesta en marcha de las acciones permitió observar motivación personal y grupal al culminar la misma. La valoracion ofrecida por los especialista y usuarios favorecen la aplicación de las acciones para la preparación de los profesionales de la salud en la redacción de artículo científico.

Palabras clave: artículo científico; preparación profesional; redacción científica; sistema de acciones; superación profesional.

INTRODUCTION

Addressing the topic of scientific article writing holds significant value within the Health Sciences, as it constitutes the grammatical framework for research. Consequently, contemporary universities are socially tasked with responding to the demands of the era, fostering professionals who are knowledgeable about their living reality and capable of contributing to its improvement, solving its problems, confronting its challenges, and perfecting it. University education must ensure adequate scientific development for its professionals, enabling them to produce high-quality scientific writings and serve as carriers of knowledge and research findings (Espinosa Martínez, 2011).

Therefore, for a skilled professional, mastery of the manuscript and the specific forms it takes within the realm of scientific reporting is paramount. Hence, the instruction of writing skills is a challenge that universities currently face, as proficiency in writing extends beyond education, representing an undeniable art of classification and decoding. In this regard, the deficiencies observed in university professionals' writing have consistently been a major concern, as they hinder success in academic and scientific endeavors.

Thus, to be scientifically and academically competent implies possessing a solid foundation in word usage, language, and writing proficiency. From a holistic perspective, the training of professionals is understood as a conscious process of complex nature, developing within Higher Education institutions as integral realities, across time and space. Within these institutions, social relationships are established among participants with the purpose of instructing, educating, and developing future healthcare professionals within a specific historical, social, and cultural context (Fuentes, Matos, & Montoya, 2006).

Scientific composition is based on three essential aspects: determining the issue to be communicated, where the author confronts a research deficiency that necessitates a scientific contribution for its resolution; subsequently, guiding the topic towards its intended goal, adhering to its core essence; and finally, dedicating oneself entirely to the writing process.

To identify healthcare professionals' knowledge level regarding scientific writing, a survey was administered concerning the following enigma:

What knowledge do healthcare professionals in Guantánamo possess regarding scientific writing?

The authors of this research adopt the category provided by Suárez (2015), who considers professional preparation as "... equivalent to disposition, organization, instruction, training, and development (...) which indicate the path to affirming suitability for the execution of a specific activity."

The adopted conceptualization and the results of the theoretical analysis conducted allow for defining the study variable as: healthcare professionals' knowledge level regarding scientific writing. The theoretical systematization of specialized literature enabled the identification of its dimensions and indicators.

The systematization of conducted studies and the experience acquired in editorial processes allowed the authors, upon analyzing the articles, to confirm the existence of errors across knowledge, skill, and methodological domains.

In terms of knowledge: limited understanding of the intended research topic and unfamiliarity with information search engines. In terms of skill: insufficient proficiency in producing scientific writings, leading to errors such as incorrect and excessive use of gerunds, misuse of the pronoun "que" instead of "qué" (when asking a question or emphasizing), excessive literal contrasts, and morphosyntactic difficulties (omission of conclusive characters like 's' and 'n'). And in terms of methodology: a lack of knowledge regarding publication norms or guidelines.

The analysis reveals a clear contradiction between the deficiencies in knowledge of publication standards and the insufficient mastery of skills for crafting scientific writings, set against the pressing need and interest among professionals to disseminate their research findings to the scientific community.

This contradiction leads to the following research problem: Insufficient mastery of publication standards for scientific article writing among healthcare professionals in Guantánamo. The objective is to develop professional development actions to prepare healthcare professionals in Guantánamo for scientific article writing.

METHOD

An exploratory descriptive study was conducted on scientific texts received by the Revista Información Científica of the University of Medical Sciences of Guantánamo, covering the period from January 2016 to December 2019. A simple, non-participant observation was performed using a direct observation guide of editorial activities to ascertain whether the articles adhered to the guidelines. During 2020, 35 authors were randomly selected and surveyed to identify their knowledge level regarding scientific writing. In 2021, 11 specialists were interviewed to evaluate the proposed system of actions. The specialists had to meet the following requirements:

1. More than 5 years of experience in higher education or another profession related to the studies conducted.

2. Some knowledge of scientific writing.

3. Possession of a senior teaching category.

4. Willingness to evaluate the feasibility of the proposal.

The aspects were evaluated using the following scale:

Very Adequate: Completely in agreement with the proposal.

Adequate: In agreement, but believes there are elements that could be improved.

Not Very Adequate: Disagrees with the proposed system of actions.

To fulfill the research tasks, the general methodological basis of dialectical materialism was adopted, along with the following methods: observation, survey, and expert judgment.

For the evaluation of the variable, three dimensions were considered, defined as follows:

Dimensions:

1. **Scientific Inquiry:** This dimension pertains to healthcare professionals' knowledge of scientific writing and their needs for professional development and updating on the subject.
   Indicator 1: Participation in professional development activities.

2. **Text Construction:** This dimension encompasses healthcare professionals' research activities aimed at solving problems within their respective specialties through the scientific method. This necessitates a deep understanding of research methodology, which is crucial for the scientific, technological, and environmental advancement of society.
   Indicator 1: Scientific article writing.

3. **Scientific Systematization:** This dimension links healthcare professionals' preparation with the search for scientific information, the application of publication standards, and their proficiency in crafting scientific articles.
   Indicator 1: Information retrieval.
   Indicator 2: Adherence to publication standards.
   Indicator 3: Dissemination of information.

To understand the historical evolution of preparing healthcare professionals for scientific article writing, the scientific writing preparation activities, conducted by the Provincial Center for Medical Sciences Information in Guantánamo, Cuba, were considered. Its development was examined through the following three key criteria: 1) Treatment of scientific writing content, 2) Methodological guidelines, and 3) Methods for addressing healthcare professionals' preparation in scientific article writing.

These criteria are interconnected, based on: the systematization of scientific writing content; adherence to methodological guidelines; and the approaches used to overcome difficulties professionals face in the writing process, all in line with the continuous improvement of the training system.

For preparing healthcare professionals in scientific writing, it was essential to consider three important elements: knowledge, skills, and analytical capacity demonstrated in crafting these texts.

When analyzing knowledge, the author's grasp of the subject and their ability to effectively support the arguments presented in their scientific work was primarily evaluated. Skill was also assessed, with a specific focus on proper grammar usage and adherence to the document structure required for this type of text.

RESULTS

23 (66.0%) of respondents were familiar with the term scientific writing. Regarding the composition of a scientific text, 21 (60.0%) had knowledge of it (Table 1).

Table 1.
Respondents' Knowledge of Scientific Text Composition

Parts of a Scientific Text	No.	%
Title, Author, Institution, Abstract, Keywords	5	14,3
Introduction, Methods, Results, Discussion, Conclusions, References	21	60,0
Results, Discussion, Conclusions, References, Appendices	9	25,7
Total	35	100,0

Table 2 shows the results regarding knowledge of the components of an abstract; 12 (34.2%) of respondents indicated they knew them.

Table 2.
Respondents by Components of an Abstract

Parts of an abstract	No.	%
Problem description, methods used, main findings, and most important conclusions	12	34,2
Problem description and main findings	5	14,3
Methods used and problem description	18	51,4
Total	35	100,0

Table 3 presents the results regarding how keywords are selected. Most respondents, 33 (94.3%), had an understanding of how to perform this selection.

Table 3.
Respondents' Knowledge of Keyword Selection in the Abstract

Keywords Selection	No.	%
Any word	-	-
Main words	33	94,3
The most repeated terms are selected	2	5,7
I don't know, I'm not familiar	-	-
Total	35	100,0

Table 4 illustrates the presentation of results, a core section of a scientific text. It shows that 31 (88.6%) of the respondents correctly identified how to present the results of a scientific article.

Table 4.
Respondents' Knowledge of Scientific Article Result Presentation

Presentation of Scientific Article Results	No.	%
Through tables	-	-
Through figures	-	-
Via text, tables, and figures	4	11,4
Text, tables, and figures described and related within the article body	31	88,6
Total	35	100,0

Regarding the conclusions, according to the results shown in Table 5, 11 (31.4%) of the respondents stated that conclusions are formulated by considering the objectives, methods, and results.

The survey also aimed to assess the use of guidelines for organizing references. All respondents had knowledge of at least one guideline, and 100% considered knowledge of scientific writing important.

The diagnostic assessment of scientific composition knowledge revealed that 11 (34.0%) of respondents were unfamiliar with the topic, and 14 (40.0%) reported no knowledge of scientific article composition. Nonetheless, 100% of respondents deemed knowledge of the subject important for their professional lives and for improving writing skills.

Table 5.
Respondents' Knowledge of Conclusion Formulation

Conclusion Formulation	No.	%
Objectives	7	20,0
Objectives and results	10	28,6
The results	7	20,0
Objective, methods, and results	11	31,4
Total	35	100,0

The proposed system of actions, once constructed and implemented, will guide the didactic-methodological preparation of healthcare professionals in scientific writing. Scheme 1 below illustrates the relationships established between the stages of this action system.

The analysis and interpretation of the specialists' evaluations revealed that 9 (82.0%) considered the foundational principles of the action system very adequate, while 2 (18%) deemed them adequate. The system's structure for addressing the identified problem was rated as very adequate by 8 (72.7%) specialists and adequate by 3 (27.3%). Overall, 10 (90.9%) specialists considered the proposed action system very adequate, with 1 (9.1%) rating it as adequate. Similarly, the proposed course was seen as very adequate by 9 (82.0%) specialists and adequate by 2 (18%), and the training proposal received the same assessment.

Ultimately, 100% of the specialists considered the action system's importance to be very adequate in addressing the current needs and demands of Cuban healthcare professional training.

DISCUSSION

Numerous articles address how to improve scientific writing, generally proposing and suggesting methodological actions (Gutiérrez Escobar et al., 2009; Mari Mutt, 2018). Serrano Guzmán's (2018) study yielded results similar to those of the current research.

Scientific writing should be viewed as a proactive, systemic, continuous, and planned process, addressing the specific needs of individuals and institutions. This requires motivation, responsibility, and commitment to communicating scientific results, as well as those of others. Scientific writing serves a crucial function by fostering individuals capable of receiving and promoting scientific-technical progress, cultural development, and a positive outlook on life; in essence, it strengthens individuals in their full humanity as the fundamental capital of society, which should be evident in their professional performance.

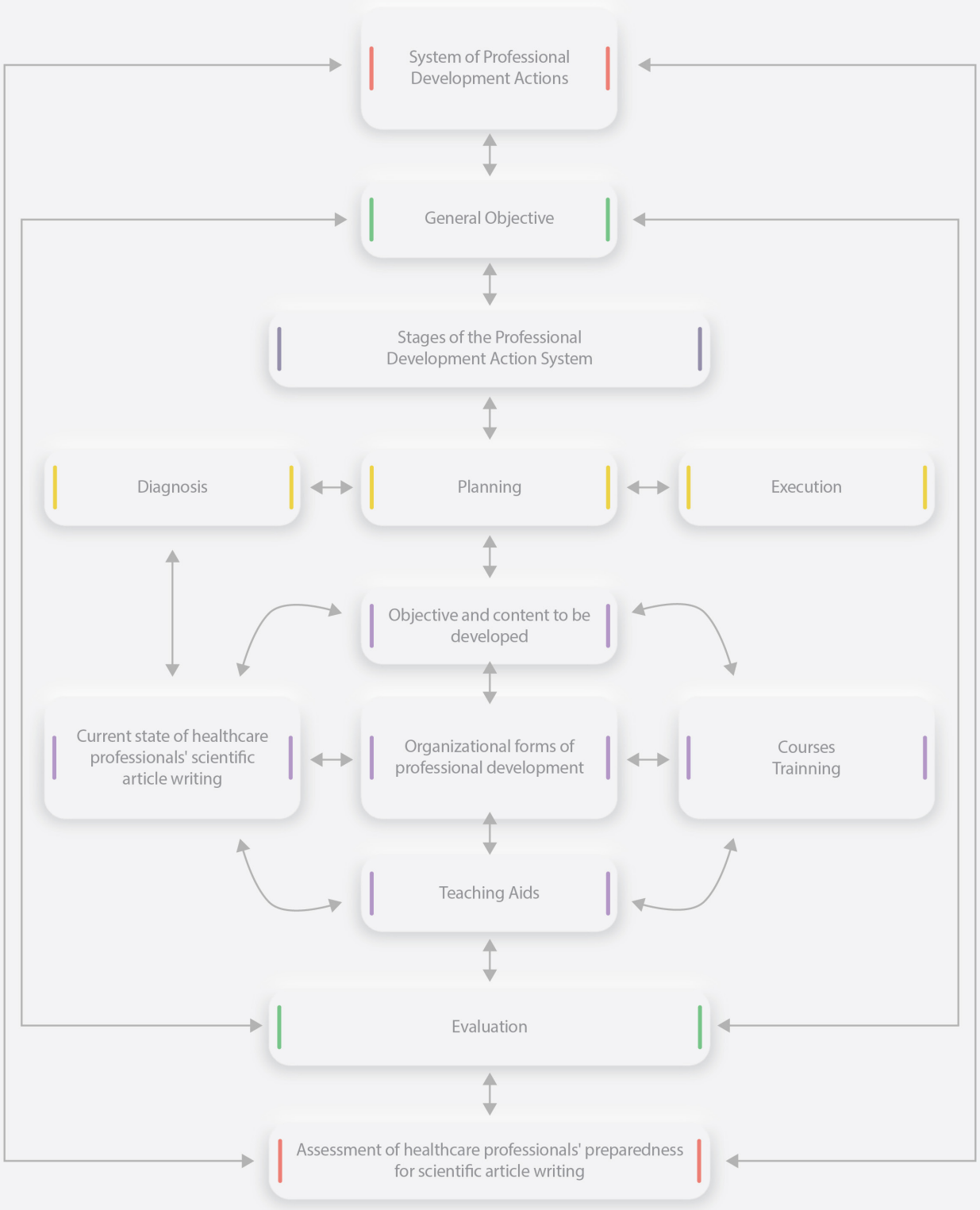
As part of professional development, the Provincial Center for Medical Sciences Information (CPICM)—a center that coordinates, promotes, and develops professional development and scientific and technical information activities for students and healthcare professionals in the territory—has been implementing the Information Literacy program since 2008. Through this program, user training courses are offered, including the preparation of professionals in scientific article writing. These courses enable the development of scientific, research, and cultural potential to ensure strong performance and achieve excellence in services. They also provide significant access for the development and stimulation of academics and researchers.

In 2017, the Revista Información Científica (RIC) began implementing the Open Journal System (OJS) platform, in line with ICT advancements. This online platform allows for greater visibility and transparency of the editorial process and, naturally, also required the provision of training courses for editorial team members, potential authors, and peer reviewers.

In Cuba, professional development, as an expression of continuous training and a path to self-improvement, is characterized by its decentralized nature and a wide variety of organizational forms that offer alternatives tailored to the conditions in which professionals carry out their work. Professional development, as a scientific-pedagogical category, is an inherent necessity in the current development process achieved in medical science universities. This topic has been explored by several researchers in the Health Sciences (Álvarez de Zayas, 1999; Añorga, 2014; Caidana & Guerra, 2011; García, Portuondo, Guzmán, 2017; García, 2018).

Consequently, training for professional activity should aim at improving performance. The term "improvement" has been widely used in scientific literature, primarily in education, where it is also known as "perfectioning." Several authors have studied this term in the educational field (Roca, 2001; Vento, 2015; Medina & Valcárcel, 2016; Maturell & Valiente, 2018; Pérez & Hernández, 2016; Artigas & Casanova, 2020; López Rengifo et al., 2025) and in other areas (Feria, Cabezas, & Morejón, 2016; Pérez & Rondón, 2017; Torres Díaz, 2008).

Therefore, training must equip professionals with the concepts, skills, and values of the profession that they lack for performance enhancement. This can be achieved through training actions and operations, building upon prior knowledge and work experience. However, this does not limit the use of alternative training methods, such as practical coaching.



Scheme 1.
Schematic Representation of the Professional Development Action System

In this regard, a system of professional development actions is proposed to prepare healthcare professionals in scientific article writing, aiming to address the existing situation in the institution. This approach also prioritizes the mental well-being of researchers, a fundamental human right crucial for personal development, enabling them to cope with normal life stress and work productively. The authors of this paper agree with Páez Moreno (2024), who states in their research that a suitable organizational environment and spiritual motivation improve the mental health of researchers.

CONCLUSIONS

A viable and relevant system of actions has been developed, as its foundations and subsystems address a current problem, strengthening healthcare professionals' preparation in scientific article writing.

Analyzing the potential of the variable under study, it is viewed from two perspectives: the process of professional preparation and the quality of the scientific text. Upon completion of the preparation, both personal and group motivation are observed. The resulting scientific texts demonstrate precision, clarity, and conciseness. This leads to the dissemination, visibility, and internationalization of the scientific text.

In developing this system of actions, topics related to ethical aspects in scientific writing, journal selection for better dissemination, and author identification tool management were not included.

Authors contributions

Hilda Lidia Iznaga Brooks: conceptualization, data curation, formal analysis, investigation, methodology, supervision, validation, writing-original draft, writing-review and editing.
Lee Yang Díaz-Chieng: formal analysis, investigation, methodology, visualization, writing-original draft, writing-review and editing.
Islenis Mercedes Ramírez Pelegrín: investigation, methodology, supervision, writing-original draft, writing-review and editing.
María del Rosario Parra Castellanos: methodology, data curation, formal analysis, writing-review and editing,
Yazmín Olivarez Rojas: investigation, validation, writing-review and editing.

REFERENCES

Álvarez de Zayas, C.M. (1999). *La escuela en la vida.* La Habana: Editorial Pueblo y Educación.
Añorga, J.A. (2014). La Educación Avanzada y el Mejoramiento Profesional y Humano. *Varona,* (58),19-31. Recuperado de: http://www.redalyc.org/articulo.oa?id=360634165003
Artigas, W. y Casanova, I. (2020). ¿Cómo redactar artículos científicos? *Orientaciones prácticas para el reporte de investigación.* En Formación de Investigadores en el Contexto Universitario. Ecuador: Universidad Técnica del Norte, pp. 131-151. Recuperado de: https://issuu.com/utnuniversity/docs/formaci_n_de_investigadores_en_el_contexto_univers
Caidana, M.A. y Guerra, M.C. (2011). La preparación de los directores de las Unidades
Educativas Básicas de Puerto Ayacucho para dirigir utilizando la computación. *Luz*, *10*(4), 1-13. Recuperado de: http://www.revistaluz.rimed.cu/index.php/por-materias/200-direccion/2683
Espinosa Martínez, I. (2011). *La comunicación científica en el quehacer educativo.* En: Evento Provincial Pedagogía 2011: Universidad de Ciencias Pedagógicas.
Feria, V.M., Cabezas, M.A. y Morejón, S.J. (2016). La gestión del desempeño del consultor económico desde un accionar científico–investigativo. *Ciencias Holguín*, *22*(4),1-11. Recuperado de: http://www.redalyc.org/html/1815/181548029006/
Fuentes, H., Matos, E. y Montoya, J. (2006). *La formación de los profesionales en la contemporaneidad. Concepción Científica Holística Configuracional en la Educación Superior.* [Tesis Doctoral, Santiago de Cuba: CEES. "Manuel F. Gran"].
García, A.M. (2018). Estrategia de superación para la preparación científico-metodológica de los metodólogos provinciales de las escuelas técnicas. *Cognosis*, *3*(1), 63-80. Recuperado de: http://revistas.utm.edu.ec/index.php/Cognosis
García, A.M., Portuondo, R. y Guzmán, R. (2017). El proceso de preparación de los supervisores de las escuelas técnicas. *Transformación*, *13*(3), 374-385. Recuperado de: http://revistas.reduc.edu.cu/index.php/transformacion/article/view/1652/pdf
Gutiérrez Escobar, M., López Fernández, R., Sánchez Ortiz, L., Yanes Seijo, R., Rodríguez
Arencibia, R. y Molina Gómez, A. (2009). Curso a distancia para la redacción de artículos científicos. *Medisur*, *7*(2), 12-17. Recuperado de: http://www.redalyc.org/articulo.oa?id=180014821002
López Rengifo, C. F., Esteban Rivera, E. R., Artigas Morales, W., y Callupe Becerra, S. F. (2025). Actitudes científicas y habilidades investigativas en estudiantes de posgrado de universidades peruanas. *Revista de Ciencias Sociales*, *31*(2), 367-384. https://doi.org/10.31876/rcs.v31i2.43773
Mari Mutt, J. (2018). Manual de Redacción Científica. Mayagüez: Universidad de Puerto Rico. Recuperado de: https://www.uprm.edu/biology/wp-content/uploads/sites/137/2018/06/Cuaderno-Redaccion-Cientifica_Mari-Mutt.pdf
Maturell, A. y Valiente, P. (2018). El mejoramiento del desempeño profesional de los directivos de centros mixtos: un modelo de su dirección. *DIDASC@LIA: Didáctica y Educación*, *9*(2), 259-276. Recuperado de: http://runachayecuador.com/refcale/index.php/didascalia/article/download/2731/1582
Medina, I. y Valcárcel, N. (2016). Superación profesional del licenciado en Enfermería para la solución de problemas en su desempeño profesional pedagógico. *Rev Cubana Enferm*, *30*(1), 1-12. Recuperado de: http://www.ems.sld.cu/index.php/ems/issue/view/25
Páez Moreno, A. E., Rios Incio, F. A., y Sánchez, M. (2024). Mental Health of Researchers: A Systematic Review. *We Journal Review*, *1*(1), 35-44. Recuperado de: https://doi.org/10.38202/journal11.5

Pérez, J.E. y Rondón, M. (2017). Sistema de preparación y superación para cuadros y reservas. *DIDASC@LIA: Didáctica y Educación*, *8*(5), 105-126. Recuperado de: http://runachayecuador.com/refcale/index.php/didascalia/article/download/1475/817

Pérez, J.M. y Hernández, O. (2016). La capacitación para el mejoramiento del desempeño profesional de los especialistas en Gestión de los Recursos Humanos de las Organizaciones Empresariales. *Mendive*, *14*(3), 213-219. Recuperado de: https://dialnet.unirioja.es/servlet/articulo?codigo=6320668

Roca, A.R. (2001). *Modelo de mejoramiento del desempeño pedagógico profesional de los docentes que laboran en la Educación Técnica y Profesional* [Tesis Doctoral]. Holguín: Universidad de Ciencias Pedagógicas José de la Luz y Caballero.

Serrano Guzmán, M.F., Pérez Ruiz, D.D., Solarte Vanegas, N.C. y Torrado Gómez, L.M. (2018). La redacción científica: herramienta para el estudiante de pregrado. *Ciencia, Docencia y Tecnología*, *29*(56), 208-223. Recuperado de: https://www.scielo.org.ar/scielo.php?pid=S1851-17162018000100009&script=sci_abstract&tlng=pt

Suárez, A.R., (2015). Aproximación al contenido de la preparación profesional para la dirección del proceso de enseñanza aprendizaje. *Didasc@lia: Didáctica y Educación*, *6*(1):205-218. Recuperado de: http://www.runachayecuador.com/refcale/index.php/didascalia/article/download/277/235

Torres Díaz, J.L. (2008). Desempeño profesional del tutor y su mejoramiento en Cuba. gestiopolis.com. Recuperado de: https://www.gestiopolis.com/desempeno-profesional-del-tutor-y-sumejoramiento-en-cuba/

Vento, R. (2015). Estrategia pedagógica para el mejoramiento del desempeño profesional del psicoterapeuta escolar. *ATENAS*, *4*(32), 335. Recuperado de: https://atenas.reduniv.edu.cu/index.php/atenas/article/view/178/335