

Original article

Training of specialists from the State Construction Inspection Office



La capacitación de los especialistas de la Oficina de Inspección Estatal de la Construcción

A capacitação dos especialistas do Escritório de Inspeção Estatal da Construção

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Received: 10/07/2025

Accepted: 7/09/2026

ABSTRACT

Training as a process of ongoing professional development is a socially important imperative for preparing human resources working in the professional field. This article addresses the need to improve the training process at the Pinar del Río State Construction Inspection Office, based on the mandate given to this professional development unit. The main objective of this work is to develop a training strategy to enhance the professional performance of the specialists at the aforementioned State Inspection Office. The general method adopted is the dialectical-materialist approach, which underpins theoretical, empirical, and statistical-mathematical methods.

Keywords: training; professional performance; specialists; training strategy.

RESUMEN

La capacitación como proceso de formación permanente es un imperativo de importancia social para la preparación de los recursos humanos que desempeñan su labor en el proceso profesional. El presente artículo está dirigido a la necesidad de perfeccionar el proceso de capacitación que se desarrolla en la Oficina de Inspección Estatal de la Construcción de Pinar del Río, a partir del cumplimiento del encargo dado a este espacio de preparación profesional. Como objetivo principal de este trabajo se propuso elaborar una estrategia de capacitación para mejorar el desempeño profesional de los especialistas de la mencionada Oficina de Inspección Estatal. Se asume como método general el dialéctico-materialista, que sustenta los métodos teóricos, empíricos y estadístico-matemáticos.

Palabras clave: capacitación; desempeño profesional; especialistas; estrategia de capacitación.

RESUMO

A capacitação, como processo de formação permanente, é um imperativo de importância social para a preparação dos recursos humanos que atuam no processo profissional. O presente artigo aborda a necessidade de aperfeiçoar o processo de capacitação desenvolvido no Escritório de Inspeção Estatal da Construção de Pinar del Río, em consonância com a missão atribuída a essa unidade de preparação profissional. O objetivo principal deste trabalho foi elaborar uma estratégia de capacitação para melhorar o desempenho profissional dos especialistas do referido Escritório de Inspeção Estatal. Adota-se como método geral o dialético-materialista, que fundamenta os métodos teóricos, empíricos e estatístico-matemáticos.

Palavras-chave: capacitação; desempenho profissional; especialistas; estratégia de capacitação.

INTRODUCTION

The current conditions in which the contemporary world lives, marked by the effects of globalization, scientific and technical advances, and the complex processes of change and transformation that take place on the economic, social, and political levels, require reforms in educational policies, since education is precisely an essential factor in the development of countries.

To face these contemporary challenges, it is essential to acquire a set of knowledge that allows us to understand, interpret and incorporate into professional practices the progress made in science and technology as the main organized sources for the production of knowledge.

Achieving this goal is a priority for every nation within its political, social, and economic strategy: the preparation and skills development of its human resources. This issue leads to the need for training for professionals in their respective fields. The social need for training is reflected in the Cuban State's interest in human resource development.

The above has required reflection on training within the framework of continuing education to achieve the desired professional performance of professionals in their area of work.

The progressive changes occurring in the Cuban economic context necessitate significant transformations in the business sector to ensure the relevance of professional services. This, in turn, demands new levels of professional competence from the workforce.

Training is geared towards achieving effective performance of human resources in production and service entities. In the sources consulted, various authors such as Añorga and Valcárcel (2004); Herrera and Horta (2016); Infante and Breijo (2017); Sánchez et al. (2021); Arronte et al. (2024); and Pérez and Gato (2024), agree on its importance, which responds to the need for professional development stemming from the transformations and aspirations of a constantly evolving society.

The social relevance of any training program lies fundamentally in the contribution of its content to solving or improving needs in light of the demands generated by the interaction between the context, at all levels, and the workplace, which is represented from the general to the specific. This interaction and the demands that arise from it are perceived as fundamental for the development of human resources.

The workplace becomes a business learning environment and illustrates how an organization establishes a system of growth and continuous improvement, designed to achieve the desired result, in a productive work environment in accordance with an increasingly competitive and global context.

This research stems from the identification of needs related to the training of specialists at the Pinar del Río State Construction Inspection Office. The exploratory study revealed limitations that, due to their nature, require a differentiated approach in their application and development within continuing education. These limitations highlight the need for training that will enable specialists to develop skills, knowledge, and values, ultimately leading to improved service and efficient professional performance.

The solution to the question "How to contribute to the training process of specialists from the State Construction Inspection Office of Pinar del Río?" is being studied, while the research objective is to develop a training strategy to improve the professional performance of specialists from the State Construction Inspection Office of Pinar del Río.

MATERIALS AND METHODS

The study was conducted at the Pinar del Río State Construction Inspection Office between November 2023 and November 2024. The study population consisted of eight specialists and two managers from the Pinar del Río State Construction Inspection Office. They intentionally comprised the sample for determining training needs, based on census criteria.

The research was based on a dialectical conception, which uses the dialectical-materialist method as its methodological foundation. A system of theoretical, empirical, and statistical-mathematical methods was employed, based on the criteria of Rodríguez and Pérez (2017).

The following theoretical methods were used:

- Analytical-synthetic: for the analysis of the sources that provide the theoretical references about the object, in the interpretation of the results derived from the initial diagnosis and in the foundation and structuring of the training strategy.
- Inductive-deductive: it was used in the study of theoretical considerations and the collection of empirical material to obtain generalizable conclusions, which allowed the development of the strategy.

- Hypothetical-deductive: to arrive at precise conclusions about the training process for the professional performance of specialists from the State Construction Inspection Office of Pinar del Río.
- Modeling: for the development of the training strategy for specialists of the State Construction Inspection Office of Pinar del Río.
- Systemic-structural-functional: was adopted to determine the components, structure and hierarchical and functional relationships of the training strategy.
- Systematization: for the interpretation, confrontation, modification and construction of theoretical-practical knowledge on training for specialists of the State Construction Inspection Office of Pinar del Río.

The following empirical methods were used:

- Documentary analysis: in the analysis of the reports of the control and advisory visits to the entities, the individual work plan of the specialists, the study of the current training program, which provided valuable information, both for the diagnosis, as well as for the development of the training strategy.
- Observation: in the direct perception of the training process, as well as in the analysis of the results obtained in the improvement of the professional performance of the specialists of the State Construction Inspection Office with the proposed strategy.
- Interview: with management staff with the aim of involving them in the investigation and learning their opinions regarding the preparation of specialists from the State Construction Inspection Office, in the planning and results of training and its impact on professional performance.
- Experimentation: in its pedagogical pre-experiment variant, as a way to evaluate the results obtained in the functions performed by managers and specialists, with the application of the proposed training strategy.

RESULTS

The application, processing, and interpretation of the data obtained after the application of the instruments yielded the following results:

- The research topic is relevant and current, as it constitutes a proposal for the improvement of the training process of specialists, enabling the improvement of professional performance,

which achieves an impact in the context of professional action, in order to ensure the policies and regulations established by the Cuban government and State in relation to the activity of constructions.

- Training is a crucial issue in the ongoing professional development process, as it provides essential knowledge, skills, and values to human resources for their sustainable professional performance in the workplace.
- There are deficiencies in the motivation of specialists towards the content of the training they receive, because, since it is not related to the problems of practice in the workplace, they do not see its usefulness and need in their training.
- The specialists show deficiencies in the identification and solution of local professional problems, linked to their job functions.
- Not all the potential that exists in the work context for the development of the training process is being used.
- Insufficient contextualization and systematicity of the actions planned in the training strategy, which would allow specialists to update and deepen the theoretical and practical content for their professional performance.

In response to the identified shortcomings, it was decided to develop a contextualized training strategy, with a systemic character, to improve the professional performance of those involved.

The determination of the proposal considered the results of the analysis of the definitions about the term strategy by different researchers from the scientific community.

Theoretical considerations regarding this concept agree that strategy refers to a plan, composed of specific, systemic and contextualized actions, based on educational objectives, to solve theoretical-practical problems in the short, medium and long term.

Thus, the strategy structure has been modeled by a set of elements based on a systems approach, to be consistent with what, in terms of scientific research, the contribution to practice means; in this sense, its design considers the following structure:

- I. Introduction. This section explains the foundations of the strategy.
- II. Diagnosis. Carried out through the application of techniques for identifying strengths and weaknesses in the implementation of the training strategy.

- III. General objective. This section specifies the desired state of the training process for specialists from the State Construction Inspection Office of Pinar del Río.
- IV. Specific actions. These are aimed at improving the training process of specialists from the State Construction Inspection Office of Pinar del Río, with emphasis on a set of actions, with their objectives and procedures to achieve them, as well as the indicators for measuring the progress achieved.
- V. Strategy evaluation. The development of the training process is evaluated according to the variables and indicators identified in the research.

The training strategy is presented below, according to the assumed structure.

I. Introduction

The training strategy presented here is based on the need to improve this process in order to enhance the professional performance of those involved in carrying out their work duties.

The strategy is based on a set of philosophical, sociological, psychological, pedagogical and didactic foundations, which constitute pillars on which the specific proposed actions are based.

In this sense, the recognition of dialectical and historical materialism as the philosophical basis of the training strategy is significant, and its methodological basis is, therefore, the theory of knowledge.

The contribution of this theory of knowledge is evident in the training process through real-world work experiences. This method outlines the strategic sequence: from immediate perception (the current state of the problem) to abstract thinking (acquisition of knowledge, attitudes, and skills development), and finally to the desired state, which is the preparation of specialists to perform their duties.

From the sociology of education, it is understood that the strategy starts from considering society as a condition for the ongoing training of professionals.

This phenomenon must be considered during the execution of the training, since it will establish active relationships with the trainers, who are responsible for putting the managers in contact with the problems of their professional actions.

The social environment conditions the training process based on the demands that the directions of the development of society place on labor entities in order to prepare subjects to perform their functions, to interact with the environment, to transform it and to transform themselves.

The training strategy considers in its psychological foundations the historical-cultural approach, where education directs development, which is expressed in the relationship established between the proposed strategy and the results in the preparation of the specialists of the State Construction Inspection Office of Pinar del Río, based on the appropriation of the contents covered.

The theory of formative learning and personal growth constitutes another important aspect, since those involved take advantage of their potential through conscious, responsible, cooperative, transformative learning, modifying reality from the training process, demonstrating their self-determination through the solution to the theoretical and practical problems of the professional process.

From a pedagogical point of view, the strategy is based on the Marxist-Leninist and Martí-inspired pedagogical concepts that underpin Cuban pedagogy, and in particular Professional Pedagogy and its Didactics, since the object of investigation is a process of training professionals.

Adapting the strategy to the real conditions of the territory, to the problems related to the functions of the specialists of the State Construction Inspection Office, acquires a special connotation to establish the link of the training process with the social context.

The strategy being developed considers the cooperative work between trainers and trainees, based on the guidance, execution and control of teaching tasks that energize the professionalization of the process itself.

II. Diagnosis

To implement the strategy, a diagnostic assessment was conducted to identify existing weaknesses and strengths, as well as to gather input from key stakeholders regarding its structure. This involved three meetings, during which group interviews were conducted with trainers from the Pinar del Río State Construction Inspection Office to inform the structuring and implementation of the training strategy.

The qualitative analysis of the applied instrument allowed us to obtain an outline of the criteria on the proposed strategy and to determine the strengths and weaknesses, whose usefulness lies in the evaluation of the results in the improvement of the professional performance of the specialists.

The main strengths identified are:

- Recognition of the need to improve the training process for specialists at the Pinar del Río State Construction Inspection Office.
- Consensus of those involved regarding the need to implement a strategy that includes specific actions, which allow the development of the training process for the improvement of professional performance.
- Motivation of managers and specialists for the implementation of the training strategy.

The main weaknesses identified are:

- Insufficient preparation of specialists to meet the demands of the training process.
- The number of spaces for exchanging professional experiences through the integration of training and service processes is limited.
- Insufficient interest from specialists to participate in training activities due to not meeting expectations regarding the theoretical and practical content required for their professional performance.

The criteria presented allow us to determine premises for structuring the strategy, which are as follows:

- It must be structured through actions that direct and energize this process.
- It should be geared towards the motivation and integration of the actors involved in the continuing education process.
- It must be characterized by being democratic, flexible and participatory, based on productive methods that stimulate creativity and cooperative work to achieve the proposed professional training objective in those involved.

III. General objective of the strategy

To contribute to the appropriation, updating and deepening of theoretical and practical content in the specialists of the State Construction Inspection Office of Pinar del Río.

IV. Specific actions

1. Course for specialists

Objective: to systematize the execution of intellectual and practical actions, from working with professional problems, that promotes the achievement of a high level of mastery of professional content in specialists, for the fulfillment of the functions of the position they perform.

2. Integrative workshops of a methodological nature

Objective: to systematize the integration of theoretical and practical content, based on the proposal of workshops that enhance its development from working with professional problems, in order to promote participation and critical and reflective debate.

3. Training seminar for trainers

Objective: to train the group of trainers in the theoretical foundations of the training process for specialists, for the implementation of specific actions.

V. Strategy evaluation

The evaluation of the training strategy is based on an analysis of the results of implementing each of the specific actions for developing the process under study. This will be done by examining the performance of the indicators identified for each of the specific actions.

To assess the presence of the indicators, a scale has been used that establishes the consideration of low, medium, high according to the values obtained:

- Low: there is a presence of the indicators identified for each specific action, less than 60% of the sample.

- Medium: presence of the indicators identified for each specific action between 60-85% of the sample.
- High: presence of the indicators identified for each specific action greater than 85% of the sample.

The indicators used are:

- Level of preparation of participants in the training process for their professional performance: Abilities of participants to solve professional problems, in accordance with the policies, regulations and processes that govern the work system.
- Level of satisfaction of trainers and trainees: Value expression of those involved, regarding the quality of the training process that is developed as part of the continuing education, based on the preparation for their professional performance.
- Level of impact of the training on the group of trainers in the development of the training process: Referring to the extent to which the results of the preparation seminar are able to satisfy the social and professional expectations of the members of the group of trainers.

DISCUSSION

Internationally, and particularly in Cuba, a primary issue to clarify is the variety of definitions and positions adopted regarding the term "training," which is used interchangeably, albeit with similar purposes: instruction, skills development, preparation, or professional development, without sufficiently exploring its specific characteristics. According to the authors, this reveals more points of convergence than divergence, due to the diverse nature of this process, which involves the needs of its beneficiaries, its main stakeholders, the settings in which it takes place, the modalities adopted, the desired outcomes, and its impacts.

Recognizing that training is a teaching and learning process constitutes a category of ongoing professional development, which takes place through pedagogical activities within the educational institution. In other words, training, by its very nature, is a pedagogical activity.

Training is a socially vital imperative that equips human resources with the skills and abilities necessary for effective performance in their professional roles. The rapid pace of societal development demands competent professionals with the attitudes and skills to ensure outstanding job performance.

Training is both a challenge and a necessity for every professional, as it allows them to raise their qualifications and update and/or deepen content related to their profession or trade in line with scientific, technical and technological advances.

In this research, based on the ideas highlighted above, it is considered that training consists of a continuous, dynamic process, where skills are acquired or developed that contribute to raising the preparation of human resources and enable the organization to move to higher stages in the learning process until it becomes an organization that learns and improves.

Training processes are always associated with change processes and, therefore, are aimed at preparing members of the organization to achieve the desired qualitatively superior state. In this sense, training must be designed based on the client's needs, and it is also on this basis that it should be measured. In other words, it is necessary to identify the scope of the training to be developed, and this must be defined in the established objectives, as its effectiveness should be focused on fulfilling a very important function: to train and educate employees in a systematic and contextualized manner. Therefore, human resource training should be a planned, constant, and ongoing process, enabling employees to acquire the necessary skills to perform their jobs well or to develop values, work styles, teamwork skills, and other relevant qualities.

The analyses carried out in this investigation made it possible to conclude that the theoretical-practical preparation of the specialists of the State Office of Construction Inspection of Pinar del Río, given the difficulties it presents, requires the implementation of a contextualized and systemic training strategy, so that it contributes to the appropriation, deepening of content and the coherent action of all those involved in the professional process.

The designed training strategy is based, from a philosophical point of view, on Lenin's theory of knowledge (1967); it considers in its psychological foundations the historical-cultural approach of Vygotsky (1981) and the theory of formative learning and personal growth of Bermúdez and Pérez (2004).

Thus, the proposed training strategy for specialists of the State Construction Inspection Office in Pinar del Río considers the considerations made by De Armas and Lorences (2004), which are assumed in this research.

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Conflict of interest

Authors declare no conflict of interests.

Authors' contribution

The authors participated in the design and writing of the article, in the search and analysis of the information contained in the consulted bibliography.



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