Science, Education and Innovations in the Context of Modern Problems
Issue 11, Vol. 8, 2025

Title of research article

The Role of Scientific Research in Developing the Management of Training Programs for Human Resources in the Municipality

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Issue web link https://imcra-az.org/archive/385-science-education-and-innovations-in-the-context-of-modern-problems-issue-11-vol-8-2025.html

Keywords scientific research, management of training programs, human resources, municipality.

Abstract
This research paper aims to study and analyze the role that scientific research can play in developing the management of training programs for human resources in the municipality, in light of contemporary developments that include the administrative, economic, social, and cultural fields, and their impact on the process of local development. Among the most important results reached is that the activation of scientific research requires adopting several mechanisms, the most important of which is activating the idea of community participation with the aim of providing real opportunities for local actors active in the field of scientific research to initiate their scientific efforts, establishing digital platforms to document and strengthen continuous communication and interaction between those managing municipal affairs and the scientific elite, in order to address development issues, including the issue of developing the management of training programs. Added to the above is also the necessity of adopting an artificial intelligence system under the supervision of actors active in the field of scientific research to contribute to rationalizing the management of training programs.

Citation. Sebiane M. (2025). The Role of Scientific Research in Developing the Management of Training Programs for Human Resources in the Municipality. *Science, Education and Innovations in the Context of Modern Problems*, 8(11), 1002–1012. https://doi.org/10.56334/sei/8.11.81

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Received: 28.03.2025 | Accepted: 12.08.2025 | Published: 05.10.2025 (available online)

Introduction:

The human resources that perform their functional activity at the level of the municipality constitute a main component in the management of local affairs, considering the nature of the tasks they have become responsible for performing, such as planning, coordinating, and implementing policies and decisions. Among the most important forms of these resources are the locally elected members and public employees. In order for these categories to perform their tasks to the fullest, training programs must be organized periodically with the aim of developing their capacities in the fields they occupy.

In light of the continuous development witnessed in administrative and technical fields, in addition to the growing requirements of the local community and their increasing flow at higher rates, the matter requires adopting more effective approaches that make it possible to develop the content of training programs, and thereby contribute to developing their outcomes at the individual and institutional level. Scientific research is one of the most important approaches that can contribute to addressing this issue, given the standards it is characterized by, which include accuracy and objectivity. From this standpoint, we raise the following problem:

Problem:

What are the most important mechanisms that must be adopted to activate the role of scientific research in developing the management of training programs for human resources in the municipality?
Sub-questions:

1. What role does the idea of community participation play in activating the role of scientific research?
2. How does the digitization system contribute to documenting

communication between those managing municipal affairs and the actors active in the field of scientific research? And what are its implications for developing the management of training programs?

3. What is the importance of activating the artificial intelligence system in the management of training programs?

Study Hypotheses:

1. The higher the level of activation of community participation, the higher the level of activation of scientific research in the management of training programs.
2. The higher the level of reliance on digital platforms, the more it enhances the level of cooperation between those managing municipal affairs and local actors active in the field of scientific research.
3. The higher the level of activation of artificial intelligence, the greater the rationalization of training programs.

Study Methodology:

In order to address the raised problem and verify the validity of the hypotheses we formulated, we attempted to adopt the descriptive and analytical method, by employing the descriptive approach, which is one of the most important methods that helps to describe and diagnose the study variables and determine the relationship between them. We also tried to employ scientific research as an approach to developing the management of training programs.

Study Objectives:

Through this study, we seek to achieve a set of objectives, the most important of which are:

1. To determine the nature of the relationship between scientific research and the process of developing the management of training programs for human resources in the municipality.
2. To determine the most important mechanisms that can be adopted to activate the role of scientific research in preparing and managing training programs for human resources in the municipality.
3. To evaluate the extent of the contribution of scientific research to developing the management of training programs for human resources in the municipality.
4. To take the initiative in presenting a scientific vision that includes the most important mechanisms that would contribute to developing the process of training human resources in the municipality in light of contemporary development challenges.

Division of the Study:

In order to determine the nature of the relationship between the study variables, and thereby address the research problem, we divided this study according to the following plan:

- First axis: The theoretical rooting of the study concepts.
- Second axis: Mechanisms for documenting communication between scientific research and the process of managing training programs.

First Axis: The Theoretical Rooting of the Study Concepts

First: Scientific Research

Scientific research constitutes one of the most important responsibilities borne by the elites and competencies active at the level of universities, institutes, and centers of a scientific and technological nature, including professors, researchers, and students at various stages. Accordingly, we will attempt below to define the general meaning of scientific research.

1. Definition of Scientific Research:

"Scientific research is a systematic, controlled, empirical and critical investigation of natural phenomena guided by theory and hypothesis about the presumed relations among such phenomena."

"Scientific research is the process of investigating natural phenomena using the scientific method for the purpose of discovering new facts and developing scientific theory."

"Scientific research also aims at the review of facts, laws and theories in view of newly discovered facts, and the practical applications of such facts, laws and theories. Therefore, scientific research is the continuous search for knowledge and understanding of reality carried out through the scientific method. Its result is scientific knowledge." Some view scientific research as: "An organized scientific activity, a way of thinking, and a method of looking into phenomena and uncovering facts, relying on objective methods in order to understand the relationship between these facts, and then deriving interpretative principles and laws."

Thuraya Malhas defines it as: "A method of discovering, exploring, developing, testing, and verifying knowledge in a precise way, with deep critique, then presenting it in a complete manner with intelligence and awareness so that it proceeds within the path of global civilization, and contributes to it in a living and comprehensive way. But if research strays from this goal, it will not be given life, and the efforts expended for it will be wasted."

Based on the definitions previously presented, an operational definition can be proposed as follows:

Scientific research is an organized process based on specific standards, including accuracy, objectivity, and the avoidance of subjectivity and randomness. This process is undertaken by the competent entities possessing the necessary qualifications in scientific fields, such as professors, researchers, and students in the three stages (Bachelor's, Master's, Doctorate), with the aim of addressing various current and future phenomena, issues, and problems, in order to achieve comprehensive sustainable development.

2. Characteristics of Scientific Research:

Scientific research is characterized by a set of features, the most important of which are:

- It begins with raising a question or a set of questions in the researcher's mind about certain life issues and matters that provoke inquiry.
- Defining the problem and formulating it in specific terms with clear and uncomplicated scientific terminology.
- Establishing a plan that directs the researcher toward finding solutions to the raised problem.
- Scientific research addresses the main problem by raising sub-problems, and the solutions to the sub-problems constitute a solution to the main problem.
- The directions of scientific research are determined by hypotheses based on clear assumptions or premises.
- Scientific research is not limited to collecting known information, data, and facts only, but also to deriving new meanings, concepts, and interpretations that may differ among researchers.
- Scientific research is characterized by periodicity, which means that solving a research problem may constitute the beginning of the emergence of new research problems, and other researchers may follow the same procedures in addressing new research and thus verify its validity, and they may also use the research results to formulate a new research problem.
- Scientific research relies on facts, not on imagination and guesswork.
- It relies on analysis and the derivation of relationships, since the human mind has a limited ability to understand and comprehend complex phenomena unless it depends on analysis to simplify those phenomena and understand the factors and relationships governing them.
- It relies on accurate measuring tools, with the aim of reaching precise results.
- The focus in scientific research is on adopting scientific methods based on objectivity and neutrality in identifying, analyzing, and addressing problems, finding appropriate, convincing, and legitimate scientific evidence and presenting it with honesty and integrity, as well as mental and scientific openness and a

sincere willingness to accept other opinions. Added to the above is also determining the purpose and goal of the research and combining theory and practice in addressing the raised research problem.

Second: Training Programs

In order to know and understand the general meaning of training programs, it is necessary to understand the meaning of training, which we will address in the following steps:

1. Training:
   Edwin Flippo defines it as: "... the process of increasing the knowledge and skills of an employee to perform a specific job."

Michel Armstrong defines it as: "... the systematic development of the knowledge, skills, and attitudes required by an individual to perform a specific task or job appropriately."

It can also be defined as: "A planned process of modifying behavior, knowledge, or skill through learning experiences to achieve effective performance in an activity or a set of activities. Its purpose, in the case of work, is to develop the individual's capabilities and meet the current and future needs of the organization."

Thus, training can be described as an organized process that enables employees and workers to learn and acquire new knowledge, skills, and behaviors that qualify them to deliver distinguished job performance characterized by quality and high efficiency, thereby contributing to enabling the institution to improve its performance and ability to respond to current and future development challenges.

2. Guide to Managing Training Programs:

There are a set of methodological rules that must be followed during the preparation and management of any training program, which usually include four methodological rules defined as follows:

2-1. Identifying Training Needs:

This is a basic step in preparing and managing training programs, because of its significant impact on the efficiency of training programs and the effectiveness of training policies in improving the performance of the individual and the institution. For this reason, it is classified as the first and most important stage in developing the workforce.

2-2. Planning and Designing Training Programs:

This is the process that connects the training needs and the objectives that must be achieved through the training program, and links the methods, resources, and training topics together in an organized manner.

2-3. **Implementing Training Programs:**

This is the process in which the outputs of the training needs assessment and the planning and design process are translated from the theoretical level to the practical level.

2-4. Evaluating Training Programs:

According to Goldstein, training evaluation is the systematic collection of data and information related to the success of training programs.
The model of Donald L. Kirkpatrick is one of the most important models adopted in evaluating training programs, as this model focuses on four levels: the level of reaction, the level of learning, the level of behavior, and the level of overall results achieved by the organization.

Third: Human Resources in the Municipality

1. The Municipality:

It is one of the most important administrative bodies reflected by the local administration system. It thus represents one of the forms of administrative organization in the state, undertaking a set of powers and duties, which makes it responsible for efficiently managing its facilities, and obligated to strive to achieve its legitimate purposes.

Therefore, it can be concluded from the above that the municipality is one of the outputs of the administrative reform policies in the state, aimed at reducing the burdens and responsibilities of central bodies, in order to bring the administration closer to the citizen. This contributes to speeding up the response to citizens' needs. Thus, the municipality has become responsible for improving and developing public service and the process of local development.

2. Human Resources Active in the Municipality:

In order for the municipality to perform its assigned tasks, it must have qualified human resources to perform a set of functions that have become within the jurisdiction of the municipality. The municipality often has diverse human resources, due to several reasons, the most important of which is that the municipality is an administrative body for activating the local administration system.

Among the elements of local administration is the possession of legal personality, which is the legal basis that distinguishes it from administrative centralization. This truth was confirmed by the French jurist Georges Vedel, who said: "Legal personality is the natural result of the establishment of decentralization and for the protection of its legal interests."

However, possessing legal personality is not sufficient to embody the idea of local administration; there must be elected local bodies that supervise the management of public affairs of local populations on their behalf. This idea comes from the premise that since it is impossible for all residents of regions or countries to directly manage their public affairs themselves, it is necessary that those elected on their behalf carry out that task. Thus, elections are the basic method by which local councils representing the will of the regional public legal personality are formed. This is considered by many researchers to be the essence of local administration.

From this, it can be concluded that the elected members constitute one of the most important human resources active in the municipality and often take on the task of managing local affairs.

In light of the accelerating and endless diversity of local community needs, this has led to the development of the functions undertaken by the municipality in many administrative, economic, social, and cultural fields. These functions require planning and implementation by qualified public employees, including administrators, engineers, and technicians. This category is referred to as local employees.

John Stuart Mill provided a definition describing local employees as follows: "They constitute the permanent force of governmental interests. Those who do not change with political changes but remain in their positions to assist the elected body with their experience and traditions, placing at its disposal their knowledge of technical performance methods, and carrying out the details of work under its general supervision..."

In addition to the above, the municipality includes other categories within its human resources. Among these categories are the professional workers, who constitute the group responsible for technical tasks such as maintenance, as well as tasks related to hygiene, public cleanliness, and urban planning. Alongside this, the municipality may resort to contracting experts and consultants in order to benefit from their expertise in the process of local development. This group forms a vital element within the municipality's human resources, due to the knowledge, skills, and behaviors they possess which are consistent with contemporary developments.

Axis Two:
Mechanisms for Strengthening Communication and Interaction Between Scientific Research and the Management of Training Programs

What is meant by strengthening communication is providing the appropriate environment that enhances continuous communication and interaction between the actors operating at the level of universities, institutes, research centers, and laboratories—professors, researchers, and students—and the actors operating at the level of the municipality and its affiliated institutions—elected members and local employees. This is for the purpose of studying and analyzing development issues concerning the municipality, including the issue of developing the capacities of its human resources through the preparation and management of training programs according to objective standards that are consistent with the nature of contemporary developments.

Therefore, we will attempt to present a proposed scientific conception for strengthening communication between scientific research and the management of training programs as follows:

First: Activating the Idea of Community Participation in the Municipality

The current and future development challenges cannot be faced or responded to by the municipality in isolation from the active parties within the local community, particularly the scientific elites active in the field of scientific research. Hence, it has become necessary to activate the idea of community participation as an approach to respond to developmental challenges and to manage local affairs in a manner that meets the needs of the local community.

Community participation is considered one of the pillars of the new concept of the state, which adopts what is called "governance" or "societal governance." This refers to the political, economic, and social practice of state authorities, aimed at managing state affairs across all fields and levels. It reflects the mechanisms and procedures of the various institutions of the state, with the aim of enabling citizens to express their opinions, practice their rights, and fulfill their obligations.

Thus, activating the idea of participation—considered one of the components of governance or societal governance—requires providing opportunities to all qualified individuals and groups of the local community, in accordance with the law, enabling them to express their opinions and participate in preparing, implementing, monitoring, and supervising local plans and projects, either directly or indirectly. This is in order to achieve political, economic, and social development, thereby improving the quality of life for local residents and meeting their needs fairly, without harming national interests through regional disparity conflicts.

The local actors active in the field of scientific research are among the most important actors whose capacities should be relied upon in managing local affairs. This is because they are closely connected to the developments occurring in administrative, technological, economic, social, and cultural fields globally, especially in advanced countries pioneering in local governance. Moreover, these actors focus on handling issues in their field of specialization with objectivity and avoiding subjectivity, which results in accurate recommendations and findings that can be implemented in reality.

Since the beginning of the 21st century, the development process has been measured by the level of investment in minds, as confirmed by the thinker *Mehdi El-Mandjra* through his vision that "the real capital that is not subject to decay is the type of minds being shaped, and the quality of people who are genuinely trained."

Therefore, it is very important to provide opportunities for actors in the field of scientific research to participate in the management of municipal affairs, including the aspect related to the management of training programs for its human resources, which is the cornerstone for preparing competent individuals capable of delivering outstanding performance.

Speaking of the importance of scientific research in managing municipal affairs, Professor *Adel Khudair Al-Kubaisi* explained, through his intervention entitled *"Aspects of Shortcomings and Deficiencies in Theses and Dissertations Regarding Development Problems and Challenges: Causes and Remedies"* during the scientific forum at the College of Graduate Studies at Naif University for Security Sciences in Riyadh, that "scientific research contributes to identifying the needs of comprehensive and sustainable development, addressing its problems, anticipating its challenges, providing its requirements, weighing its options, introducing its theories, distributing its expertise, and sustaining its resources. Since man is both the goal and means of development, research and studies must give him priority and subject him to study and analysis in all his forms, conditions, and activities."

The emphasis on the importance of involving local actors in the field of scientific research did not come out of nowhere. Rather, it stems from the growing global attention to several issues closely linked to development, chief among them the role of universities and scientific research centers in managing the process of local development. These have become the tools through which this process is rationalized, given that universities and research centers serve as consultative centers, think tanks, and knowledge banks. They conduct scientific studies aimed at monitoring reality and defining future features for all.

Moreover, scientific research is no longer an academic luxury practiced by a group of researchers isolated in ivory towers. Rather, its essence is now measured by the effective role it plays in the development of contemporary human societies, regardless of their rank on the ladder of civilizational progress. No two disagree on the importance of scientific research in opening the way for creativity and excellence among individuals and peoples of these societies, and in equipping them with the ability to acquire the foundations of growth on sound principles.

On another note, allowing local actors to participate in managing local affairs requires re-engineering the level of competence of municipal human resources, especially elected members in the form of presidents of municipal popular assemblies, since they represent the authority supervising administrative leadership within the municipality. This is intended to enable them to know, understand, and activate the idea of involving actors in scientific research as an approach to studying and addressing issues related to local development. This requires organizing periodic training programs for local administrative leaders, including themes on the idea of community participation and its importance in rationalizing the management of local development. It also requires encouraging professors, researchers, and university graduates, especially youth, to run for local elections, as they are the group knowledgeable about modern approaches in managing local development, including the approach of community participation.

As for local actors, they must bear their responsibility, which lies in striving to present initiatives that would enhance the municipality's performance. This requires preparing theoretical and applied scientific research consistent with contemporary developments and applicable to the local environment.

Second: Electronic Platforms and Their Role in Enhancing Means of Communication and Continuous Cooperation Between Actors in Scientific Research and Those Managing Municipal Affairs

Activating the community participation approach at the municipal level is a necessary orientation to provide real opportunities for local actors in the field of scientific research to enrich the management of local affairs, including the aspect related to managing training programs, with the scientific knowledge, skills, and expertise they possess. However, it is also necessary to support this approach with other approaches of a technological nature, as they provide the appropriate foundation for strengthening communication and continuous interaction between the municipality and local actors.
Therefore, it is very important to establish electronic platforms to enhance the role of scientific research in developing the management of training programs. As an initial conception, the main elements that these platforms should contain can be presented as follows:

1. **At the level of participants in the digital platforms:**

The digital platform should serve as a space for continuous communication between the municipality's human resources—specifically elected members, public employees, and professional workers—and local actors active in the field of scientific research—specifically university professors, researchers, PhD students, and experts in capacity-building and development. It is very important to subscribe to the platform by opening a professional electronic account and attaching all personal, academic, and professional information of the participants.

2. **At the level of activities to be addressed through the digital platforms**:

The scientific conception of creating a digital platform to strengthen communication and interaction between the municipality and local actors in the field of scientific research generally aims to address development issues based on objective and precise standards, in order to reach the highest levels of quality and rationality in providing public services and managing local development.
There is no doubt that developing human resource capacities is a key factor in enhancing performance levels. However, developing capacities requires preparing and managing training programs according to precise and objective standards. Therefore, among the most important activities to be considered when addressing development issues through digital platforms are all aspects related to training programs: identifying training needs, planning and design, implementation, and evaluation. These four stages constitute the basic starting point for any capacity development process. The main elements to focus on can be outlined as follows:

2-1. Job description:

Relying on scientific methods in preparing job descriptions helps achieve accurate and clear results. A scientifically based job description makes it possible to determine the qualifications required for each position, thereby facilitating the measurement of training needs. This process should be carried out in coordination between the municipality and actors in scientific research. Undoubtedly, adopting digital platforms will enhance the proper management of this developmental task.

2-2. Adopting periodic field studies for training program management:

It is very important to rely on digital platforms in conducting periodic field studies every quarter, semester, or year, by preparing electronic questionnaires and distributing them through the platform to the target sample. This aims to collect the necessary information and data to achieve a number of objectives, most importantly evaluating the performance level of individuals, groups, and the municipality as a whole. At the same time, it is essential to emphasize the importance of these field studies in enabling the development of individual and institutional capacities, with the aim of attracting as many human resources as possible to participate in such important studies.
In addition, the results of the evaluation must be used as a starting point for future studies such as scientific articles, national and international conferences, academic training research projects, and doctoral projects. This helps achieve the following benefits:

2-2-1. At the level of identifying training needs:

- Identifying strengths and weaknesses in performance and the main problems that may hinder performance improvement and development at the level of municipal human resources, organizational structures, and departments managing municipal affairs, as well as at the level of the municipality as a whole.

- Determining whether improving and developing performance in the municipality requires nominating its human resources for training.
- Identifying the organizations and departments that need to nominate their human resources for training.

2-2-2. At the level of planning and implementing training programs:

- Identifying the groups in need of training programs (elected members, public employees, professional workers).
- Identifying the level of capacities to be developed among the trainees, generally consisting of three levels: knowledge, skills, and behaviors.
- Determining the type of training program (internal at the municipal level, external at the level of local, regional, or central training institutions, or external at the level of international training institutions).
- Defining the time frame of the training program—whether developing the capacities of municipal human resources requires a long-term or short-term program.
- Specifying the subjects and content of the training program, the training methods to be adopted during the program, the type of trainers supervising the training sessions, as well as the budget to be prepared for participation in the training program.
- Proposing leading institutions in the field of capacity-building and development that are distinguished by successful experiences in fields that have become part of the municipality's responsibilities, which helps achieve positive feedback at the level of performance.

2-2-3. At the level of evaluating the outputs of training programs:

Evaluating training programs is one of the most important stages that must be observed to determine the effectiveness and efficiency of the program in enabling trainees to develop their knowledge, skills, and behaviors, and the impact of this on their individual performance as well as the performance of their institution as a whole. Therefore, it is very important to take into account the results of field studies adopted through digital platforms in order to reach the following conclusions:

- Determining levels of reaction, learning, behavior, and overall results achieved at the level of organizations and departments whose human resources participated in training programs.
- Determining whether the training program should continue.
- Identifying needs related to improving and developing the training program.
- Ensuring learning.
- Rationalizing the impact of the training process.
- Determining a training program that is aligned with the organization's goals (aligning training with the objectives the municipality seeks to achieve).
- Identifying methods and mechanisms that make the training program contribute to improving and developing the knowledge, skills, and behaviors of the trainees.
- Comparing the cost and return of the training process.
- Identifying strengths and weaknesses in the training program.
- Assessing whether the trainees have benefited from the training process.
- Enabling the future marketing of training programs.
- Preparing a background for decision-making.
- Monitoring the quality of the training process.
- Determining whether the training program justifies the approved cost or budget.
- Acquiring the ability to make informed decisions, such as stopping ineffective training programs and expanding effective ones.
- Determining the effectiveness of the various components of the training program, such as program content, facilities, methods, equipment and supplies, trainers, and the training schedule.
- Identifying the number and type of employees likely to participate in future training programs.
- Gaining practical insight to design more effective future training programs.
- Determining the degree of alignment of the training program with training needs and its ability to cover them.
- Assessing the extent to which trainees apply the acquired knowledge, skills, or behaviors to their job performance.

Third: Activating the Artificial Intelligence System

Recent developments in deep learning have produced artificial intelligence systems capable of matching or even surpassing human intelligence in certain core functions. However, reaching the level of "general artificial intelligence," or the level that enables machines to perform the full range of cognitive tasks that the human mind can accomplish, still requires decades. Nonetheless, many machine learning systems have already been developed for specific commercial uses, with highly diverse applications. They are capable of providing customer service, managing logistics, monitoring factory equipment, rationalizing energy consumption, and analyzing medical records. The McKinsey Global Institute (MGI) confirmed in recent research that machine learning technologies are widely applicable across almost all industries.
Therefore, adopting an artificial intelligence system in the management of training programs would contribute to rationalizing this process. This requires adopting several measures to consolidate this orientation, foremost among them activating the role of scientific research as a basic entry point into this process, given that artificial intelligence is one of the recent outputs reflected by scientific research in the field of science and technology.
Accordingly, understanding and knowing the general meaning of artificial intelligence, the ability to control its different models, and the proper application of these in various fields, including the field of training program management, requires the presence of highly competent actors in scientific research. The availability of these actors will help achieve several advantages, the most important of which is the development of new artificial intelligence models in the areas of identifying training needs, planning and designing training programs, implementing training programs, and evaluating training programs.

Conclusion:

At the conclusion of this study, it can be said that scientific research has become one of the important approaches that should be adopted to rationalize the management of training programs for human resources in the municipality. This is based on the fact that scientific research contributes to aligning training programs with the current and future developments in administrative, economic, social, and cultural fields. Therefore, it is necessary to provide an appropriate environment that attracts active stakeholders in the field of scientific research to take the initiative in presenting modern studies, in order to contribute to the development and rationalization of local affairs management, particularly the management of training programs, which constitute the cornerstone for improving and developing the performance of municipalities.
We have reached a set of findings and recommendations, the most important of which can be summarized as follows:
Acknowledgements: no
Conflict of interest: no

1- Findings:

- The management of training programs for human resources in the municipality cannot be developed without the involvement of local actors active in the field of scientific research.
- Community participation is among the main approaches that help activate the role of scientific research in developing the municipality's capacities.
- Digital platforms are among the most important tools that help document and strengthen continuous communication and interaction between those managing municipal affairs and the actors active in scientific research, which contributes to achieving several outcomes related to developing training program management, most notably:
    - The ability to conduct periodic evaluation of municipal performance levels according to scientific standards.
    - Providing scientific mechanisms that help collect the necessary information and data to identify the training needs of municipal human resources.
    - The ability to plan, design, and implement training programs in a way that responds to the needs of the municipality and the local community.
    - The ability to evaluate the outputs of training programs according to scientific standards, which helps identify strengths and weaknesses, and consequently propose solutions that enhance the quality of training programs.
    - Artificial intelligence represents one of the most important outcomes of scientific research that should be adopted to rationalize the management of training programs.

2- Recommendations:

Among the most important recommendations that can contribute to the development of training program management, particularly at the level of Algeria in particular and the Arab countries in general, are the following:

- It is very important that those responsible for managing municipal affairs, especially administrative leaders, possess extensive knowledge and awareness of the importance of involving local actors, foremost among them the scientific elite, in addressing the present and future issues of local administration, including the issue of developing and rationalizing the management of training programs for local human resources.
- It is highly important to provide the necessary incentives for the scientific elite, especially young people, to run for membership in elected local councils, given that the scientific elite often rely on research in addressing development issues.
- Modern mechanisms should be adopted to document and strengthen continuous communication and interaction between municipal managers and actors active in the field of scientific research, primarily through the establishment of smart digital platforms.
- Serious and extensive attention should be given to the field of artificial intelligence in scientific research, with the aim of acquiring the ability to activate it in rationalizing training program management.
- It is very important to conclude international cooperation agreements with leading institutions in the field of scientific research, in order to enable local actors active in this field to understand and become familiar with the latest scientific research developments, particularly modern artificial intelligence models, thereby acquiring expertise that qualifies them to contribute to the preparation of training programs that respond to contemporary developments.
- Material and moral support should be provided to local actors active in scientific research to encourage them to produce scientific efforts that enhance the efficiency and quality of training programs.

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