

# MENDIVE



## REVISTA DE EDUCACIÓN

*Translated from the original in Spanish*

### The methodological work, a look from the postgraduate academic programs

#### El trabajo metodológico, una mirada desde los programas académicos de posgrados

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#### ABSTRACT

The article deals with an analysis that allows demonstrating from the pedagogical foundations of the pedagogical and didactic relations of the postgraduate academic programs, their modalities, as well as the methodological work and the characteristics and roles of the teachers who participate in it, Likewise, it specializes in the necessary improvement in Education Sciences that

allows the creation of a profile of competences that can professionalize the teacher in the area of education. The work is aimed at optimizing the quality and relevance of methodological work in its two dimensions: teaching and scientific, by looking for solutions that, from the management with a pedagogical and didactic approach, allow the use of the shortest time of university graduates who enroll the graduate with the consequent process of the increase of the productivity in the work and a better social impact with transforming character of the formative process, that in turn realize like teachers in exercise the future graduates of this type of programs.

**Keywords:** methodological work; pedagogical and didactic management; training process.

#### RESUMEN

En el artículo se aborda un análisis que permite demostrar desde los fundamentos pedagógicos de las relaciones de carácter pedagógico y didáctico de los programas académicos de posgrado, sus modalidades, así como el trabajo metodológico y las características y roles de los docentes que en él participan, así mismo se particulariza en la necesaria superación en Ciencias de la Educación que posibilita la conformación de un perfil de competencias que pueden profesionalizar al docente en el área de la educación. El trabajo va dirigido a optimizar la calidad y pertinencia del trabajo metodológico en sus dos dimensiones: docente y científica, al buscar soluciones que desde la gestión con enfoque pedagógico y didáctico permitan el empleo del menor tiempo de los graduados universitarios que matriculan el posgrado con el consecuente proceso del incremento de la productividad en el

trabajo y un mejor impacto social con carácter transformador del proceso formativo, que a su vez realizan como docentes en ejercicio los futuros graduados de este tipo de programas.

**Palabras clave:** trabajo metodológico; gestión pedagógica y didáctica; proceso formativo.

## INTRODUCTION

In the historical course of humanity, educational levels have emerged as a result of a socio-historical conditioning and in line with the social and human needs of each era and each concrete reality. This has contributed to humanity a cultural heritage of incalculable dimensions, which day by day acquires greater product scope to the vertiginous development of the technical scientific revolution and the knowledge society. (Almuiñas and Galarza, 2015)

However, they are still insufficient to process all the knowledge accumulated by humanity and all the knowledge that is produced today in the world at speeds and in increasing and increasing volumes. Hence the educational system has had and has to continually expand and diversify, in response to the increasingly pressing need of formal postgraduate studies.

Postgraduate education, seen from its pedagogical management has been characterized by different behaviors in the countries, where the prevailing political system and the lack of political will to treat educational problems are some of the influential factors. The characteristics and trends common to the whole set of

systems are: their accelerated growth and diversification, their increasing differentiation with respect to professional education; the extension of the duration of their studies, their stratification in levels, and the adoption of the training of scientific researchers as their main purpose. (Bernaza, 2015)

The analysis of the pedagogical and didactic management of the postgraduate course has been a recurring research topic in many university spaces and in recent years, it has increased as quality certification and accreditation processes are consolidated and although it has been studied, by several Authors, postgraduate problems in this regard, the reality is that many of their teachers still do not consider it as pedagogical processes in themselves, despite recognizing that this is a formative process, therefore not many investigations conducted, are directed, especially in Cuba, to deepen this aspect in the graduate programs.

Similarly, from the international point of view organizations such as the UN, UNESCO and AUIP intend from their policies the development of quality training throughout life. In this regard, the 2030 Agenda, based on its objectives of sustainable development, recognizes lifelong education based on the relationship between undergraduate, preparation for employment and postgraduate. (ECLAC, 2019) Cuba has not been oblivious to this conception and, since undergraduate; it has been working on the improvement of curricula, which has demanded pedagogical and didactic research to support its improvement. However, and taking into account the characteristics of the graduate, and in particular of the academic postgraduate course, a pedagogical management that allows articulating the relationship between

undergraduate-preparation for postgraduate employment, as well as the relationships between different curricular and collective levels is evident Pedagogical of the own graduate. (Páez et al, 2017)

«The graduate because of its social impact has a high current relationship with the creation of science and technology. Postgraduate studies constitute an important component of the dominant atmosphere in our time.»  
(Morles, Nuñez and Alvarez, 1996).

When analyzing the common factor, as an essential element present in each component: man, the social character of the contradiction between the need to reach higher levels of scientific and technological development as a condition of his own and particular sustainable social development is evident. and the insufficient articulation of coherently structured policies and models for the formation of highly qualified human resources, with a base in pedagogy as a science that studies the process of formation of man. (Addine, 2004) (Bernaza and Lee, 2015) (Garzón, Portuondo and Suárez, 2016)

In this regard, Nuñez Jover (1996) states: «... postgraduate studies have a relevant role in the scientific culture of any country and in the articulation of that subculture with the global social culture, on the one hand, and on the other with the scientific culture universal. I argue that this is essential for social development. »

The postgraduate and especially the academic postgraduate allow the training of scientists and researchers with a high qualification and prepared for scientific

creation and technological innovation, as well as for the creative transfer of universal scientific and technological knowledge, which should be characterized by a culture of Science and technology. In this process, due to their formative nature, not only the objects of the sciences and the advances associated with them influence, but also that other subjects and institutions that promote development and increasingly high levels of permanent formation participate. (MES, 2004)

Based on the above and as part of preliminary analyzes carried out at the University of Pinar del Río, the work presented is aimed at optimizing the quality and relevance of methodological work in its two dimensions: teaching and scientific, when looking for solutions that from management with a pedagogical and didactic approach allow the use of the shortest time of university graduates who enroll in the postgraduate course with the consequent process of increasing productivity at work and a better social impact with a transforming nature of the training process, which in turn perform as future teachers graduates of this type of programs; since it has been possible to verify that the academic postgraduate programs have presented inadequacies in their pedagogical management and, consequently, in their impact, reflecting that:

- The actions to prepare the pedagogical groups of the academic postgraduate course, in accordance with the needs associated with the programs, are asystematic.
- The management of the academic postgraduate course focuses mainly on the administrative aspects of the programs, leaving aside the internal relations of the

programs and the articulation with others.

- The curricular relations do not always respond to the activity of lines and research projects as the articulating axis of the postgraduate and research.
- Which implies the resizing of the pedagogical management of graduate academic programs at the University of Pinar del Río?

## MATERIAL AND METHOD

The research is carried out taking as a methodological platform the materialistic dialectic method, which served as a starting point for the use of other methods. The study was carried out based on the academic programs of the Center for Educational Sciences Studies (CECE) in the period between 2010 and 2017. To this end, theoretical (historical-logical) and empirical methods were applied (the interview, the survey and the documentary review) that from a population of 32 members of the academic committees and 83 members of the master's and doctorate cloisters, a sample of 12 members of the Academic Committees and 25 members of the cloisters was selected, In the case of the directors, five executives of the academic programs were intentionally selected, the Postgraduate Directorate of the University and the Postgraduate Directorate of the Ministry of Higher Education.

## RESULTS AND DISCUSSION

### Postgraduate methodological work, a look from its management

Postgraduate management, throughout history, has been marked by the characteristics of their contexts, while the graduate responds to national development plans, the responsibility of academies in advanced educational training, scientific activity as an essential function. (Gilimas, Díaz and Páez, 2016)

In this sense, Morles (1996) identifies five postgraduate models at an international level that have as common elements a high academic demand, scientific research as an essential purpose, the tendency to a greater connection with the demands of the productive sector and the growing need of high specialization by postgraduates.

Contrary to the above, the development of the postgraduate course in Latin America has a more recent appearance and its development has been marked by the interests of certain sectors or people. However, it is noteworthy the role of countries such as Cuba (with different characteristics and which will have a particular analysis in this research), Brazil, Mexico, Colombia and Venezuela, which promote the development of postgraduate activity. The characteristics of the postgraduate course in Latin America have common points with the dominant models worldwide (Duque and Diosa, 2014) (Henríquez, 2018), however there are elements that characterize it and therefore influence that recognition is not achieved at the international level:

- Non-existence of coherent national postgraduate systems.

- Economically very expensive activity.
- Social impact of research very low in the region.
- Low demand for the productive and services sector.
- High schooling, predominance of the manual and the exam.
- Uneven quality levels.

From the previous analysis, a group of trends that have marked postgraduate education at an international level are identified:

- Recognition of the role of the graduate in the policies of scientific and technological development.
- Accelerated growth of postgraduate activity.
- Restructuring of postgraduate curricula based on industrial, business and technological demands.
- Greater government control, establishment of advanced study systems and international standardization of degrees.
- Perhaps the most interesting trend is the one that refers to the incorporation of the educational innovations in graduate education. The university, and this has been faithfully accompanied by the postgraduate - and particularly the university professor historically has been characterized by their resistance to change. »The university - someone has said - is the school that has the wisest professors and the worst teachers» It seems that this is changing and that university students in the world are willing not only to accept but also to promote transformations. (Cruz, 2014)

In line with the trends identified above and especially with regard to pedagogical research in postgraduate education, research by theorists has been developed internationally. In Cuba, the Advanced Education Theory of Dr. Julia Añorga Morales and her followers stands out, becoming an alternative educational paradigm for the professional improvement of labor and community resources from provoking in the participating human beings this educational paradigm, increased motivation, independence in acting and thinking, creative activity, collective consciousness, responsibility with the knowledge and the skills acquired; generating conscious potentials of human growth to transform reality, making possible the elevation of professionalism, cooperative ethical behavior and personal and social satisfaction. (Añorga, 2003).

Other research internationally, UK Research Council, 2001, Nyquist, 2002, Montesinos et al., 2003; European Higher Education Area, 2005; Palacio, 2005; Park, 2005; Green and Powell, 2005; IESALC, 2008; Walker et al., 2008; Pulido San Román, 2009; BOE, 2011; Chiang, 2012; Pellegrino and Hilton, 2012; Barber et al., 2013, cited by Cruz (2014), allow to identify where the postgraduate transformations are heading:

- The schemes of organization and operation of the groups that have the responsibility of postgraduate training.
- The competences that students have to appropriate and demonstrate.
- The way of managing and conceiving knowledge management.

- The way to address uncertainty and complexity.
- The use of ICT.
- Teaching and learning strategies.

All of the above, together with the challenges of postgraduate education today, lead to the identification of the need for pedagogical management of postgraduate academic programs (specialty, master's and doctorate) that takes into account not only the contents, scope and processes of quality, but that it has in its center the relations that exist between them as part of the permanent formation, the role of the actors that participate in the process and the relations of interdependence within each program.

In this regard, in educational institutions, the role of management is increasingly revealed as a necessity to face the problems of our time and achieve the objectives of education, leading to high levels of efficiency and effectiveness through academic excellence, everything which conditions its importance in the current reality. (Milan, 2017). This implies, therefore, that in the postgraduate training all the participating actors carry out processes of organization, planning, execution and control; attending to the roles they develop.

This is also conditioned by the differences between the pedagogical process of undergraduate and postgraduate. Given the various training and development processes that occur in its development, not only the teaching-learning process, but also complex processes of high degree of autonomy and creativity, such as research, innovation, artistic creation and professionalization, in particular the specialized one, just to mention the most frequent ones. The teaching-learning process, unlike what some authors

propose, is not the only one and does not always play a hegemonic role in postgraduate education.

The teaching-learning process, especially in academic training (master's, specialty and doctorate), is based on these processes of high degree of autonomy and creativity, revolves around them, organized through various organizational forms relevant to this process. (Díaz, 2000) (Bernaza, 2015). These processes in their development need the competences of subjects (teachers, tutors, cloisters, academic committees and the student himself) so that the training is of quality. (Molina and González, 2019) They also demand appropriate scenarios for their execution.

«However, and although postgraduate education includes very varied forms and in them the weight of scientific activity can vary, at least in terms of masters and doctorates, it is essential to articulate them to groups and lines of research or intellectual production: only in this way we can train qualified resources for cultural and human development»  
(Nuñez, 1996)

### **Methodological work in postgraduate academic programs**

Pedagogical management, based on methodological work should start as a strategy of the existence of a need or problem, being in this case its starting point. Thus it is assumed that it is necessary to establish from the current needs and perspectives of the mission of the University the foundations of the

process of training professionals through teaching and learning.

The establishment of these bases will, in turn, provide a solution to the science-profession contradiction throughout each career, taking into account the model of the professional proposed, in connection with the mission and need of the university, in order to determine the most appropriate actions for the realization of learning that allows to establish the increase of teaching activity with society and its cultural heritage in relation to the learning and behavioral changes desired in these future professionals. When developing this work, the system of disciplines and subjects that contain, on the one hand the profession and the problems inherent to the educational activity, and on the other the sciences that deeply and essentially explain the object of the professional in an abstract and partial way is determined according to their scientific research.

The problem that must be solved by the methodological work of the educational teaching process in the institutions of Higher Education is to draw up the strategy that allows the teaching-learning process to be executed through the teaching activity, in the training of the professional. Hence, its object of work is the educational teaching process based on teaching as a branch of Pedagogy.

According to its link with this social environment, which in a broad way is to contribute to the fact that professionals who graduate from universities are really capable people, with adequate technical training and with consequent ethical conscience and can efficiently and in a balanced way lead society and its processes, the objective of methodological work appears as the final result that is aspired to achieve to meet the social need

is to optimize the educational teaching process in the university to achieve efficiency, effectiveness and effectiveness in the process of training professionals through teaching and learning through didactics management.

The content of the methodological work is then the Didactics, which helps to shape the methodology of the educational process in the university. The relation of the objective of the methodological work with its content helps us to clarify that, the methodological work is a didactic management process, because with this content they can be applied to the educational teaching process supported by the Didactics, the functions of the scientific direction of the processes.

These relationships help us to apply Patt Williams's approaches to the dimensions in which the direction of the processes is given, which although we do not take in its entirety, but use part of its terminology, they help us see that in the methodological work of the educational teaching process is given a technological dimension whose foundation is given by the Didactics and an administrative dimension whose basis is the existence in it of certain management functions that are implicit in that management process and that is in correspondence, with its social responsibility .

The objective and the content of the methodological work establish a dialectical relationship that gives us the basis to focus the methods of the methodological work of the educational teaching process, because this is where we find the relationship of the subjects that intervene with its content in the Search to achieve the goal. This constitutes a component that determines how its development is operationalized in an affective relationship of the subjects that

interact here with the content of the methodological activity.

Therefore, the method to develop this work in the educational teaching process, in connection with the content, based on motivation, pleasure, interests that correspond to this and its passage through the personality of the subjects involved here, may condition that the objective is met and the social problem or need that generates it is solved.

The method then gives us the affective approach of this process, so it is necessary to classify that if the educational teaching process occurs as a result of the social relationships established between the subjects involved, teachers and students, work The methodological method of this process should not and cannot correspond only to teachers even if they carry the greatest weight in some way. In these methods of methodological work, the role of leadership, the human factors involved, decision making, the communication process and global management are observed.

This analysis is based on the objective and subjective nature of methodological work in this process. The objective seen from the object educational I process with its laws, principles, components and relationships, where didactic science provides the technological element that supports this process. This science provides even the support of interrelation with other underlying sciences that give interdisciplinary and other disciplinary approaches to its direction such as psychology and philosophy, sociology, cybernetics and pedagogy itself. View the didactic from the objective element of the methodological, conceptual and theoretical work shows us that from its essence it can be occupied (using humanist categories from other fields,

with methods that are structured and developed in a specific field), to provide it to develop the way of acting of the teacher and the students, of the studies on teaching strategies, of the comparisons of alternative programming designs, of work on evaluation of learning and of the institutional management itself and in all cases, of establishing the relationship between theory and pedagogical action and between the explanation and prescription of this process and, above all, of the systemic nature of the process itself through its own components. This basic and essential influence on the methodological work of teaching because of the nature of the educational process is what we call the technological dimension.

For its part in the analysis of the subjective methodological work we observe the need for the intention, creativity, experience, the initiative of the subjects involved here to apply the functions of scientific management to the particular characteristics of the educational teaching process.

In the dialectical relationship of the objective and the subjective in the methodological work, the administrative dimension of the process that corresponds to the development of management functions such as planning, organization, regulation and control of the latter appears at its different levels, and taking into account the available human resources, on the basis of the laws of the didactics that occur in the teaching-learning process, it in many cases contradicts the technological dimension because those who coordinate the methodological work do not assume the existence, in many cases of these two dimensions, spontaneously subscribing to one of them or in other cases the methodological work focuses on a purely administrative work without a fully technological basis.



The truth is that, since these two dimensions exist in the methodological work it is necessary, despite the differences between them, according to the functions that each one fulfills, to look for its complement, because the real thing is that there can be no methodological work in the educational teaching process without both being complementary. Although when establishing the relationship of the objective and the subjective, the methodological work acquires true value and effectiveness, because when the subjective is based on the objective, it forms with it a logical unit oriented to a specific purpose, in this case the training of professionals.

The methodological work seen between these two dimensions and from the analysis of its components and relationships allows us to synthesize that in it there are properly didactic functions such as instruction and education, constituting this its sustenance and element that is the object of management, but These technological functions must be carried out through a process that implies the planning, organization, execution and control of the educational teaching process to achieve adequate professional training. This analysis allows us to delimit, that although it is true, the methodological work is basically based on the technological dimension, it cannot be ignored that it underlies an administrative dimension without which it is not possible to coordinate or manage the Didactics.

From the components and their relationships, functions and underlying principles of methodological work dynamics and the movement of this and it allows us to achieve a definition of these terms of its concept.

The methodological work in the educational teaching process is the didactic management process, which in its development solves the contradiction between the technological and administrative dimension, and allows the subjects involved in it, to optimize and achieve the training objectives proposed in the curriculum, with a minimum of available resources, interacting based on its systemic nature and the laws of Didactics, providing the strategy to follow in teaching and learning.

In this conceptualization, when calling the methodological work as a didactic management process, it refers to the fact that in itself this is developed as a succession of stages, to meet the training objective proposed by the educational teaching process, giving it a solution through its actions to the social problem that generates the formation of capable men, with high scientific-technical level and with consequent ethical conscience. In the sequences of stages in which methodological work takes place, the educational teaching process object is transformed to achieve its optimization, which is its objective.

The analysis that from the pedagogical and didactic point of view, has been carried out of methodological work, has a resizing in postgraduate training, while there is a growing need for the establishment of interdisciplinary relationships that allow projecting the needs of methodological work in the programs of Postgraduate academic training based on the experiences achieved and the problems present in each of the areas.

The postgraduate course, although from the conceptual point of view it has varied due to its historical development, depending on the time and the

circumstances that affect it, it has been a process of educational teaching that enhances the development process in the capacity of research, including aspects of science and technology, being more systemic, deep and creative than the undergraduate. This last aspect is further enhanced by the improvement of the Cuban Higher Education that has been moving towards the E curricula that, as an essential characteristic, reduce the time of the undergraduate courses in a year, which consequently implies that the postgraduate training that guarantees training for and throughout life.

For all the above, for the development of methodological work in the postgraduate course it is important to start from two essential questions: What is taught and how is it taught in the postgraduate course?

The main characteristics of the methodological work in the postgraduate course are given by:

- It is an essential method to direct the training process.
- It is carried out at all structural and curricular levels.
- It is developed by all pedagogical cadres regardless of the type of program.
- The objective will be aimed at the assimilation and application by managers and teachers of the methodology of advanced teaching and learning of each program.

This allows us to solve the contradiction between the general foundations of postgraduate teaching and the particularities of each type of program. In this regard the group of teachers, tutors and research groups has the task of:

- To establish the relation line of investigation-project-task of investigation of the trainee.
- Establish the interacting link between the general objectives of the program and the trainees.
- Capture expectations, needs and interests and intervene in the academic feedback process.
- Orient the research to the lines and projects of the program.

It is in these groups that constitute the fundamental cell of the methodological work in the postgraduate where all the formative influences of the teachers are summarized, all the didactic relationships between: the program, the areas of training, the research methodology are concretized and materialized. the integrative core discipline and personal training as well as specific research-related graduate.

Taking into account these characteristics and the identification of the levels of methodological work in the postgraduate:

### Steering levels

- National Postgraduate Office.
- Private addresses for large academic programs. (COPEP)
- Postgraduate Management of University Institutions.
- Faculties and / or Study Centers.

### Structural levels

- Postgraduate Program or Program Collective.
- Collective of Blocks or Areas.

- Collective of the tutorial activity.

It implies that the program or program group has as its objective the optimization of the educational teaching process from the general training profile based on the didactics of the postgraduate training model, which leads to establishing relationships between the training model, the teaching process and the curriculum adapted to the territorial possibilities and needs and between the model and the areas and of these with the blocks, as well as the latter with the integrating discipline that in the postgraduate academic programs becomes the Research Methodology, therefore becoming the rector of the methodological work of the groups.

This leads us to state that in the group of blocks, the content to be treated in the methodological work is given by the interdisciplinary relationships established between the academic and the research and between the disciplines, modules and the main integrating discipline (research methodology).

At the same time, the group of tutors, who not necessarily being part of the Academic Committees, does not always carry out systematic methodological work, constitutes one of the main pillars of the process, as long as it establishes the line of investigation-project-task of research establishes the link between the interacting overall program objectives and trainees captures expectations, needs and interests that intervenes in the process of academic feedback and guides research lines and projects of the program. This allows the group of tutors to become the fundamental cell of the methodological work of the postgraduate taking into account that, through them all the formative influences of the teachers

are summarized, all the didactic relationships between: the program, are concretized and materialized. The areas of training, the IPR and the personal training of the trainee and the research-postgraduate relationship are specified.

The work carried out by the group of tutors in the framework of methodological work implies the management of pedagogical knowledge, the explicit expression of pedagogical knowledge (Páez, 2012) is given by:

- Theoretical knowledge: it allows teachers and pedagogical groups to identify educational phenomena and distance themselves from them, observing them with analytical tools to interpret and explain them, generating educational theories about their global functioning.
- Practical knowledge: it makes it possible to know how to act educationally, that is, how to act to empower the person and society, how to act to transmit values. In short, the pedagogue knows how to modify the existing reality on the basis of an intentional project and in accordance with a specific moral option.
- Critical-reflexive knowledge of the theoretical model and the ethical model, which bases the educational practice; It is also a critical reflection on the pedagogical method, to reduce the false, incoherence, the dogmatic, the reductionist, the simplistic.

Considering the above, the learning process permitting the passage of individual learning knowledge to organizational, part of the educational activity aware that performs the teacher or tutor and is based on their self

- preparation and in the preparation of I course taught within the program. This individual activity allows the teacher, from a process of internalization, to appropriate data, information, values, experience, know-how and other elements that allow shaping the individual pedagogical knowledge of the subject.

Once these elements are executed at the individual level and expressed in any form of pedagogical knowledge (theoretical, practical or reflexive critic), they are able to share and socialize in the pedagogical collective through communicative actions, which reflect the coherent set of actions that have given results in their context, that have become good practices and that yield similar results. When a best practice is determined, this should be a heterogeneous set of new or innovative terms or theories, or simply pedagogical practices that were already used, but which had not been applied or were not at all efficient. By implementing the best pedagogical practices proposed once their results have been evaluated, improvements in training processes can be accelerated.

The participation of other managers of pedagogical knowledge in the process of contextualization of the transmitted individual knowledge, allows the development of collaborative pedagogical practices, that is, the participation of a collective in the management of pedagogical knowledge, it values knowledge as it is built on a shared vision of the object of study, where each one makes his contributions based on responding to a collective objective. (Páez, 2012)

The attainment of collective knowledge implies the development of creative actions that raise the scope of pedagogical knowledge and encourage it to be

differentiated from the value bases that preceded it and therefore cause the development of innovative pedagogical proposals. The generalization and institutionalization of the pedagogical knowledge proposed from the innovation will then become organizational pedagogical knowledge, adding to the value bases of the pedagogical knowledge of the university and becoming as an element for decision-making in the transformation of the training processes. (Páez, Díaz, Meléndez, 2016)

In this process of organizational learning, they can appear at times jumps or setbacks, which even when they seem to delay or stop the progress in learning, actually enhance the knowledge that is reached. The above is expressed in the following figure in which the different moments in the organizational learning process are appreciated and how the pedagogical knowledge when reaching this level, feeds the entire learning process. (Páez and Díaz, 2017)

It is possible to reach this pedagogical knowledge and the materialization of its expressions from the relationship established between the managers, the sources and the lines of pedagogical knowledge, a relationship that constitutes the basis for the management of pedagogical knowledge in the university.

The first element of the relationship (lines of pedagogical knowledge) arises and responds to the influence they have on the university and its development, the challenges and perspectives of Higher Education (Gacel, 2017), the strategic direction of the organization itself and the training needs of professionals who study postgraduate academic programs.

The integration of the previous elements, allows defining a group of lines of knowledge which are constituted as objects of study. These general lines, in turn, are broken down into sub-lines and unique pedagogical knowledge, which allows the adaptation of general and particular knowledge in each of the pedagogical groups and the construction of a pedagogical culture of the organization.

The development of each of the lines of pedagogical knowledge occurs within the framework of the formative processes and their sub processes, in them the pedagogical knowledge is evidenced in the theoretical, practical and critical-reflexive orders. These are expressed in the development of methodological work, pedagogical research and the academic and scientific postgraduate degree for pedagogical improvement.

The methodological work (Díaz, 1998), is the didactic management process, which in its development solves the contradiction between the administrative and technological dimension in university teaching and allows optimizing and achieving the proposed objectives with the minimum available resources, interacting through the systemic nature of the educational teaching process and the laws of Didactics. It is specified in the development with quality of the educational teaching process, in the preparation of teaching means and in the preparation of teachers and subjects.

In the development of methodological work in any of its forms, it can be clearly seen how teamwork is vitally important for the professional training process and the rest of the training processes. This is influenced by aspects such as the heterogeneity of the members of the

pedagogical groups and research groups, given by teaching experience, teaching or scientific categories and by the level of expertise in disciplines or sciences.

The result of the development of the methodological work, translates into tactical and operational pedagogical knowledge, while enabling immediate decisions to be made in the development of the educational teaching process, which can then form the basis for the pedagogical research of greater scope.

On the other hand, the postgraduate degree of pedagogical character responds to the training and improvement needs of the teaching staff (López, 2013). The typology of the post degree includes courses, diplomas, specialties, masters and doctorates. The courses and diplomas provide teachers with practical methods and tools for the improvement of the educational process they lead, while the masters and doctorates, with a broader profile towards the Sciences of Education, form the basis of the scientific innovation of the Teachers Each one of them, taking into account their particularities, allows teachers to develop competencies to assume independently and creatively the training processes of Higher Education.

In turn, pedagogical research is the expression of the research activity of teachers in relation to the process of training professionals and Higher Education in general, is based on theoretical contributions from Pedagogy and other sciences in Higher Education, research in the classroom and the practical improvement of the training process and is expressed through the development of methodological scientific work, research projects, research that respond to masters

and doctorates and in the work of research groups.

The result of pedagogical research is constituted in prospective pedagogical knowledge and materializes in different ways, among which are:

- New pedagogical models for Higher Education.
- Renewal of teaching methods.
- Improvement of the curriculum process.
- Structuring the process of training professionals with scientific character.
- Scientific elaboration of teaching materials.
- Improvement of training processes.

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- Improvement of training processes.

In the development of the methodological work, the results of the pedagogical research materialize and the competences reached by the teachers are expressed through the pedagogical and didactic improvement. In the same way, this

constitutes one of the supports for pedagogical research and from it the needs of pedagogical and didactic improvement are based. Likewise, the pedagogical-post-pedagogical research relationship occurs in two directions, once the development of pedagogical research directs the post-academic degree, which is understood from the fact that the master's and doctoral research works constitute part of Pedagogical research projects. On the other hand, the postgraduate degree in any of its typologies, forms competences in teachers that allow it to transform the training processes through scientific-pedagogical innovation.

All of the above is expressed in the lines of methodological work and is materialized through the forms of the postgraduate methodological work listed below:

- Methodological Meeting
- Methodological class
- Open Class
- Workshops
- Reflection seminars
- Analysis and discussion of research in the postgraduate.
- Collaborative work and thesis workshops.
- Systematic self-evaluation processes, external evaluation and accreditation.

In their analysis, these forms are resized in the postgraduate course, also attending to the teaching and scientific categories of the professors who participate in the academic postgraduate courses. However, the last of the ways (processes of self-systematic evaluation, external evaluation and accreditation) are listed deserves an individual analysis as it allows the objective of the process control and constitutes a starting point to

take up improvement plans as a catalyst of process.

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