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# The role of the Municipal University Center of Mantua in the management of local development

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El rol del Centro Universitario Municipal de Mantua en la gestión del desarrollo local

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### O papel do Centro Universitário Municipal de Mântua na gestão do desenvolvimento local

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#### ABSTRACT

The Municipal University Centers represent an important strength for municipal governments in the training of professionals, in the training of their officials and reserves, in the management of knowledge, science and innovation, as well as in advisory and capacity building for the elaboration of development strategies and programs, among other activities. The Ministry of Higher Education has prioritized in its work objectives the impact of integrated university processes on economic and social development at the local level, consolidating the university as a strategic ally of governments in the management of local development. The objective of this article is: To substantiate the role of the Mantua Municipal University Center in the management of local development of the municipality, based on the results obtained in the 2022 school year. In the research, the dialectical-materialist method was used as a general method, and theoretical, empirical and statistical methods derived



from it. In this sense, the results obtained were an analysis of the main scopes derived from the processes of training, research and extension, from the perspective of local development, where the interrelation between the university center and local development stands out as that which prepares the individual to be able to improve his relationship with the natural environment, changing the way of thinking and acting.

Keywords: Municipal University Center; local development; university processes.

#### RESUMEN

Los Centros Universitarios Municipales representan una importante fortaleza para los gobiernos municipales en la formación de profesionales, en la capacitación a sus cuadros y reservas, en la gestión del conocimiento, la ciencia y la innovación, así como en la asesoría y creación de capacidades para la elaboración de las estrategias y programas de desarrollo entre otras actividades. El Ministerio de Educación Superior ha priorizado en sus objetivos de trabajo el impacto de los procesos universitarios integrados sobre el desarrollo económico y social a nivel local, consolidando a la universidad como aliado estratégico de los gobiernos en la gestión del desarrollo local. El objetivo de este artículo es: Fundamentar el rol del Centro Universitario Municipal de Mantua en la gestión del desarrollo local del municipio, a partir de los resultados obtenidos en el curso escolar 2022. En la investigación, se utilizó como método general, el dialéctico-materialista y derivados de él métodos teóricos, empíricos y estadísticos. En tal sentido, como resultados se obtuvo un análisis de los principales alcances derivados de los procesos de formación, investigación y extensión, desde la perspectiva del desarrollo local, donde se destaca la interrelación centro universitario-desarrollo local como aquel que prepara al individuo para que sea capaz de mejorar su relación con el entorno natural, cambiando la forma de pensar y actuar.

Palabras clave: Centro Universitario Municipal; desarrollo local; procesos universitarios.

#### RESUMO

Os Centros Universitários Municipais representam uma importante força para os governos municipais na formação de profissionais, na capacitação de seus quadros e reservas, na gestão do conhecimento, da ciência e da inovação, bem como na consultoria e capacitação para a elaboração de estratégias e programas de desenvolvimento, entre outras atividades. O Ministério da Educação Superior priorizou em seus objetivos de trabalho o impacto dos processos universitários integrados no desenvolvimento econômico e social em nível local, consolidando a universidade como aliada estratégica dos governos na gestão do desenvolvimento local. O objetivo deste artigo é: comprovar o papel do Centro Universitário Municipal de Mântua na gestão do desenvolvimento local do município, com base nos resultados obtidos no ano letivo de 2022. Na pesquisa, foi utilizado o método dialético-materialista como método geral, e métodos teóricos, empíricos e estatísticos derivados dele. Nesse sentido, os resultados obtidos foram uma análise dos principais alcances derivados dos processos de formação, pesquisa e extensão, sob a perspectiva do desenvolvimento local, onde se destaca a inter-relação entre o centro universitário e o desenvolvimento local como aquele que prepara o indivíduo para poder melhorar sua relação com o ambiente natural, mudando sua forma de pensar e agir.

Palavras-chave: Centro Universitário Municipal; desenvolvimento local; processos universitários.

## INTRODUCTION

The Municipal University Center-Government integration is one of the great challenges faced in current times where globalization processes diversify intervention scenarios, increasing the complexity of problems, demanding interdisciplinary and transdisciplinary strategic actions with holistic thinking in their interpretation for the transformation of the environment towards local development. The Municipal University Center (Cum in Spanish), as part of its social responsibility with the territory, has a fundamental role directed towards the management of knowledge, the formation of capacities and competences and of an education for development with direct or indirect incidence, towards the rest of the social actors involved in the processes of development at contextual level, in its diverse dimensions.

Scientific knowledge is indispensable to determine the development possibilities of any municipality, province and country; it allows the identification of endogenous development resources and the targeting of exogenous resources. It was not until the beginning of the last decade that universities began to project themselves in favor of local development. The need for trained personnel is now recognized. In this sense, the Cum plays a key role in the economic recovery of the country and the solution of social problems.

Local development is one of the latent topics on the agendas of the current university context, thus revitalizing the function of the Cum in its link with society and its involvement in the processes of development at the local level, thus confirming what has been proposed since the reform of higher education in 1962, which defines the connection between the university and development as a central and permanent theme (Núñez Jover, 2006, p. 23); a function that crosses all areas of performance, training, research and extension, which demonstrates the link between these and science, innovation and technology as engines of growth in terms of economic and social problems at local scale.

The local is a relative concept that refers to the identitary, particular, own, but, at the same time, it is universal, total, since there exist in it, exogenous symbols. The local space could become a scenario of cooperation and solidarity that allows the union of the inhabitants in search of solutions to the problems that affect the community and contribute to the valuation of endogenous resources and the creation of a sense of belonging and identification with the locality.

For the Cuban context, understanding local development is linked to two important historical moments: the crisis of the 1990s and the ongoing process of updating the economic-social model that began in 2007, being confirmed in 2011 with the approval of the Party's Economic and Social Policy Guidelines and the Economic and Social Development Plan until 2030 (Muñoz Campos et al., 2018). This crisis impacted all aspects of the country's economic, social and environmental life, but its most dramatic expression occurred at the local scale: the municipality.

Among the Cuban authors who worked in the process of conceptual theoretical reconstruction on local development as an alternative for the country, based on the foundations of the existing mode of production, is Carlos Lazo Vento (2002, p. 7) who defines local development as:

"A process that activates the economy and dynamizes local society, which through the fundamental use of endogenous resources existing in a given territory, is able to stimulate and promote its economic growth, thus creating employment and wealth and putting these in function of improving the quality of life and the satisfaction of the ever-growing needs of local communities. It is a process through which local governments establish initiatives and promote efficient and effective economic activities in coordination with all political and social agents headed by the Party, in joint projects that decisively influence the productive sector, encouraging them with the main purpose of redesigning the socio-economic structure of the territory, in order

to move from primary levels to secondary, tertiary or quaternary levels of development and thus increase the productive values, management efficiency and social effectiveness".

From this conception, it is therefore necessary to have knowledge of the endogenous resources available in the territory to be used for its development, as well as the government's capacity to lead and manage these resources.

Local development is given, then, in this framework, as a micro space to mobilize endogenous energies and potentialities, define development strategies and promote creative, self-sufficient activities, with local resources, creating synergies, seeking possible external support, factors, the latter essential to sustainable development policies (González Pérez et al., 2016).

The role of the municipal government in the development of its territorial space is decisive and significant, based on the need to strengthen alliances related to governance and community participation that generate sustainable development associated with an increase in the quality of life. In addition, that it optimizes the management for the development in function of the municipality, based on the fact that the strategic factor of change constitutes the management of knowledge as a process of transformation towards the sustainability of food security and sovereignty of natural resources and local human development, through the indicators of monitoring and evaluation of the (stability and change) sustainability of the strategic ecosystems of the territory.

It is precisely at this level where the Cum plays a leading role as a manager of science and innovation in the territory, with the capacity to bring together the large number of professionals from different branches of science who have been preparing over the years, which facilitates an integrated and comprehensive response to local problems. Among its priorities are the linking of substantive processes articulated to the needs of local development, the training of professionals, the training of the actors of the economic and social development of the territory; in particular, the directors of the municipal governments so that they can generate processes of participatory construction that materialize in the formulation and implementation of sustainable and inclusive municipal development strategies.

As Coraggio (2002) states: "local development requires the development of the university and vice versa. This implies a complexification of the universities' mission and their articulation as a factor in

the constitution and integration of local actors for development and as a mediator of the scientific knowledge required for democratic and sustainable local development".

University knowledge is committed to development in all its dimensions, with the purpose of advancing towards a knowledge-based development model, which has been called "new development". The purpose is not to enhance knowledge capacity, but rather that the production of knowledge in universities should lead to development.

In the municipality, the role of the Cum is revitalized day by day, in its relationship with the Government. It becomes an important entity for the improvement, not only of the officials who lead the economic and social life of the territory, but also makes synergy with other factors to contribute to the development of strategies and other programs carried out by the different institutions. Regarding the contribution of the Cum to local development and the university-society link, Díaz-Canel Bermúdez et al. (2020, p. 372) state that there are Municipal University Centers in practically all the municipalities of the country and universities in all the provincial capitals. The Ministry of Higher Education has a strategy to strengthen the link between Higher Education and local development and in many municipalities, there are growing links between governments, universities, Cum, enterprises and other actors.

Since its inception, Cum has served not only for the preparation of human resources who will be in charge of local development, but has also contributed to follow up that qualified force that in the labor centers contribute with their knowledge to the development of human capital and are an important pillar in the efforts of the territory for local development. An example of this is the postgraduate programs and the training of government officials and reserves, in which hundreds of them have been trained over the years. Today, great importance is given to their training as part of the strategy followed in the municipalities to make science and innovation a pillar for government management.

An important contribution in which the government is working together with the government are the local innovation systems. In agreement with the introduction of these systems, Núñez Jover et al. (2017) express: "it allows arguing the connection between knowledge, innovation and local development and strengthens the role of Higher Education in that development".

In this way, policies that articulate the work with local actors are supported, namely government, cooperatives and different state sectors, as well as entrepreneurs, among others "(...) strongly

connected with national and foreign actors, capable of providing knowledge, technologies, financing and other inputs for local development" (Núñez Jover et al., 2017).

An example of this is the Network of University Management of Knowledge and Innovation for Development of the Ministry of Higher Education, the Municipal University Centers and the links with other networks and programs that exist in the country, linked to local development, especially the Articulated Platform for Integral Territorial Development that "(...) as a framework program, offers an articulated development platform that promotes decentralization processes, strengthening local and territorial capacities for planning, development management and multilevel articulation" (Gorgoy Lugo & Torres Paez, 2019).

It is therefore important to highlight the role played by the Cum as part of these networks to promote capacity building at the local level and its relationship with social actors in order to move towards the prosperous and sustainable development that the country demands. Another important element is integrated community work. For Garbizo Flores et al. (2020), achieving this relationship constitutes:

"A challenge that reveals the university social responsibility, it is given by the need to promote a harmonious relationship between the university and the community as a key element that favors the educational process, from the design of actions that enhance the effective social participation of students and teachers in projects, strategies and programs that contribute to the solution of community problems with the active participation of the community, from the community".

This article presents the experiences of the Cum of Mantua in synergy with the municipal government to contribute to local development. The objective is: To substantiate the role of the Mantua Municipal University Center in the management of local development of the municipality, based on the results obtained in the 2022 school year.

The Mantua Cum, in its development and consolidation, constitutes an important potential at the local level to respond to the social and economic needs of the territory through research, innovation and technology transfer. It is significant to demonstrate how, from each of the university processes, actions are carried out to achieve this goal. The assessment of these results allows the work done so far to be improved, taking into account weaknesses, threats, strengths and opportunities. It also

constitutes a model for other municipal university centers in terms of goals set, results obtained and the relationship between Government-Cum-Municipality.

## MATERIALS AND METHODS

Throughout the research the dialectical-materialist method was assumed as a general method, since it constitutes the methodological basis that defines the use of general scientific methods, which raises as a principle the assumption of knowledge from the general to the particular and vice versa. In addition, it allows deriving from it a system of theoretical, empirical and statistical methods.

The theoretical methods used were:

Analysis-synthesis: to establish the essential relationships between the actions carried out by each of the areas of Cum of Mantua, as a function of local development.

Induction-deduction: to determine the elements that have constituted regularities during the development of actions that contribute to local development, from the Cum of Mantua.

The empirical method used was:

Document analysis: to make an assessment of the curricula, training agenda, science and technology balance report, municipal development strategy in terms of local development.

As a statistical method, the following was used:

Descriptive statistics: to process the information regarding the actions carried out in the Cum of Mantua, as a function of local development.

The selection of theoretical, empirical and statistical methods pointed to the eminently qualitative nature of the phenomenon under study, which did not rule out the unity between qualitative and quantitative in the processing of the information.

### **RESULTS AND DISCUSSION**

Local development demands people with a high level of preparation, who are able to manage knowledge and innovation and apply it in a creative way in the current socioeconomic context where it is demanded that the government itself, in relation to the Cum, applies science with an innovative spirit.

The participation of the Cum has a decisive influence on the training of professionals and their insertion in society, interacting with the community from the point of view of civic responsibility as a value associated with professional performance. Through the processes of training, research and extension, an attitude of social transformation is favored, based on local development. The Cum should become the main ally of the government, in the management of local development, with relevant integration of university processes, in collaboration with the headquarters, according to the Municipal Development Strategy (EDM in Spanish) and the programs associated with it. In this sense, the Cum of Mantua in the 2022 school course has played a significant role for its direct impact from the university processes in the local development of the municipality.

### Local development from the formative process in Cum of Mantua

The Cum of Mantua led a local management system for the training of professionals. It managed a basic group of university tasks and Higher Education programs for the Bachelor's Degree in Elementary Education and the Bachelor's Degree in Preschool Education. The Bachelor's Degree in Elementary Education had an enrollment of 66 students, 25 in the 4-year variant and 41 in the 5-year variant. The Bachelor's Degree in Preschool Education had an enrollment of 43 students; of these, only four are in the 4-year variant of Study Plan E and the remaining 39 are studying the 5-year variant. In Cum, it was also coordinated the attention to 28 students from the central headquarters, inserted in the municipality of the Bachelor's degrees in: Chemistry, Physics, Biology, Mathematics, Elementary, Marxism Leninism and History, Foreign Language and Art Education.

In the formative process, the need to contribute, from the professional work, to local development was taken into account. The transmission of knowledge, skills and values was carried out as a result of solving professional problems in an innovative and creative way, with a high social commitment, from an ethics of the profession based on the principles of contemporary Cuban society. In this way, it contributed to guarantee the quality, relevance and sustainability of the demands of the EDM, in the training of the undergraduate professional.

On the other hand, in the curriculum, within the adaptations of the Study Plan of the Bachelor's Degree in Elementary Education for the course by encounters in the two variants in force as of the 2020-2021 school year, a new program was inserted: Science Technology and Society Studies, which students will receive in the 4th year of the course. The subject contributes to the formation of a critical, responsible and proactive attitude in the graduate, in view of the economic, social and ecological implications of the process of generation and application of scientific knowledge and technological innovations with which he/she will be closely related in the performance of his/her professional life.

In postgraduate training, the Cum participated in the local management system of human potential, through the strategic direction of a municipal training system, to meet the demands for improvement, postgraduate training and capacity building in the lines of economic and social development that impact on the effective management of the EDM, Local Development Projects and other projects associated with various local development programs.

The Mantua Cum carried out 18 advisory and training tasks, of which 15 involved officials and reserves of the management and governance teams in the strategic management of local development. These tasks contributed to a better elaboration, implementation and evaluation of the EDM. Among the topics of the activities carried out were: management techniques and skills; food sovereignty law, methodology for its implementation, among others.

### Local development from the research process in the Cum of Mantua

The students' lines of research were derived from the bank of problems of the educational institution in which they were inserted. The scientific solutions proposed contributed to the improvement of the educational practice from the strategic line: Strengthening of the municipal identity and cultural development of the EDM. Particularly, in the case of the Bachelor's Degree in Primary Education, four students presented their culmination exercise in the diploma work modality. One of these researches had as its theme: Environmental education from extracurricular activities in fourth grade students. This research responded directly to the strategic line: Improvement of the environmental conditions established by the EDM, since the activities derived from it were aimed at forming positive environmental behaviors in primary school children, making them aware of the environmental problems of the locality so that they can directly influence the social factors and the surrounding environment, through the subject of the World in which we live.

The university center has its own project to contribute to the strengthening of the integrated management of the EDM, based on the creation of capacities to achieve integrative and innovative styles and methods that are used from the government scheme to plan the development of the municipality. The project team, made up of ten professionals and five undergraduate and graduate students, began to promote the processes of production, dissemination and use of knowledge aimed at the creation of a local management system that incorporates the strategic perspective of an integral vision of the municipality's development into the government's work system, contributing diverse technologies, essentially social and of participation and popular control to strengthen its institutionality.

The project contributes directly to specific objective 5 of the National Science, Technology and Innovation Plan. Its results will also contribute to the fulfillment of specific objectives 1, 3, 6, 7 and 8 and consequently with the related results and impacts.

The Cum of Mantua actively participated with its own communication strategy, in projects of informatization of the local society, digital transformation, online government and communication for development, based on the EDM. Institutional profiles were created on networks such as Facebook (http://www.facebook.com/profile.php?id=100069703448356) and Twitter: @Cum\_Mantua. In addition, we collaborated directly in the communication project led by the Municipal Government, since news of interest on Higher Education were communicated through the Mantua Portal (https://www.mantuadecuba.gob.cu).

### Local development from the extensionist process in Cum of Mantua

Promoting and disseminating culture and contributing to the implementation of a sociocultural development management system, in integration with the local socioeconomic life, was one of the tasks carried out by Cum of Mantua in the 2022 course. Participation in outreach and training activities, linked to the community in terms of EDM, with emphasis on scientific culture and care for the elderly, were highlighted.

In this process, the existence of a University Chair for the Elderly (Cuam in Spanish) was positively highlighted. The enrollment projection for this course was 12 students and with the joint work of the

political and mass organizations and the different agencies, it was possible to increase and graduate a group of 17 students. The work developed by the teaching staff deserved provincial and national recognition. It was recently awarded the provincial prize Marta María Bermúdez Castro (individual and collective) granted by the Association of Pedagogues of Cuba to the most outstanding teachers of Cuam and the national prize Gloria Guerra Menchero (individual and collective) for 20 uninterrupted years of continuous and systematic work of Cuam.

The Cum promoted culture, physical activity and sports in the university community and the communities of the territory. The students of the different careers that developed the work component in the municipality participated in community work aimed at caring for the families of children affected by Hurricane Ian, in literary gatherings on the life and work of Antonio Maceo, cleaning of pots and monuments, in cultural, recreational and sports activities developed by the National Institute of Sports, Physical Education and Recreation and the house of culture, in the vulnerable community 26 de Julio.

Ninety-eight percent of Cum students participated in tasks of economic and social impact, including: support for the food program, tasks related to their profession, volunteer work called by the municipal government and the Young Communist Union to support the development of the agricultural program and recovery activities in other municipalities after Hurricane Ian, cleaning and beautification of neighborhoods and residential communities, called by the Committees for the Defense of the Revolution and the Federation of Cuban Women.

A total of 27.3% of students from the second to the penultimate year were included in the R&D&i projects developed by the Cum. 18.5% of the students joined student scientific work groups, who presented their research to the report of the Integrated Management of the Municipal Development Strategy project, led by the Cum. They dealt with the following strategic lines: Strengthening of municipal identity and cultural development and Risk management, environment and renewable energy.

In addition, two summer courses were offered at the Cum in order to develop a comprehensive general culture: Dance Workshops, History of the locality.

The Cum of Mantua, together with the government, continued to improve its work to strengthen its management and as the main entity in the transmission of knowledge. According to Díaz-Canel Bermúdez et al. (2020, p. 370): "Government management, supported by science and innovation,

aimed at facing the great challenges the country faces, seeks to strengthen decision-making at all levels and in all areas with the support of expert knowledge, while allowing experts to find more expeditious ways to advance their proposals".

The contribution of Cum of Mantua and its impact on local development grew and was consolidated to the extent that it was an important pillar in the promotion of the economic and social development of the territory and the management of a stronger government, which in synergy with the university leads to the EDM and the sustainable development goals until 2030, managing to integrate all local stakeholders in pursuit of their development.

There is agreement with Hernández Medina (2012) when referring to the role that the Cum should play in the management of knowledge and innovation when he points out that municipal university centers should act in the context of the municipality as managers of knowledge and innovation and, to fulfill this role, they should minimize the threats and enhance the opportunities that arise in the municipal environment based on the transformations in higher education and seeking quality, efficiency and economic rationality. In addition, they contribute to local development by identifying problems, promoting needs-oriented training, connecting knowledge to social needs, collaborating in the management of knowledge that will facilitate solutions and forming values in all local actors.

Another important area in which progress was made and where the Cum's role grew is the role played by graduates and their impact on local development.

The results of the Cum of Mantua, in relation to local development, demonstrate the improvement of the teacher staff in this regard. The scope achieved goes beyond the framework of the institution, taking into account the university processes themselves. The contents (knowledge, procedures and values) and professional problems are linked from the classroom to the needs of the municipality. The research of students and teachers is oriented to satisfy the demands of the locality and a correspondence is established between the lines of research and the strategic lines. Students have also been protagonists of extension activities that contribute to local development. The postgraduate courses taught at Cum have strengthened the Government-Cum-Municipality relationship and have strengthened knowledge management.

However, despite the results obtained, limitations were also identified that have become pending goals for the teacher staff of Cum of Mantua. Among them, participation in the Ministry of Science, Technology and Environment awards for community innovation and innovation for local development.

The strengthening of the Cum teacher staff by profiles of the EDM strategic lines was another aspect to be considered for the next academic course, since most of the professors are graduates of pedagogical careers.

In general terms, the importance of the work carried out by Cum in terms of local development, as reflected in this research, has been a guide for the institution itself. The actions developed allowed for novel results that demonstrate the quality of Higher Education in Mantua and how it responds to the needs of the locality. The management of the university processes developed at Cum of Mantua, during the 2022 academic year, can serve as a model for other municipal university centers that, with similar conditions and purposes, aspire to establish a profitable link between the university and local development.

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#### **Conflict of interest**

Authors declare that they have no conflicts of interest.

#### **Authors' contribution**

*Belkis Moreno Corrales and Elina Pulido Acanda* designed the study, analyzed the data, elaborated the draft and made a critical revision of the article with important contributions to its intellectual content.

*Ramón González Calero and Bercalina Malagón Cáceres* were involved in the collection, analysis and interpretation of the data, as well as in the preparation of the draft.

All the authors reviewed the writing of the manuscript and approve the version finally submitted.



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