

Original article



The career guidance process for local development in mixed centers

El proceso de orientación profesional para el desarrollo local en los centros mixtos

O processo de orientação profissional para o desenvolvimento local em centros mistos

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ABSTRACT

Local development in Cuba faces particular challenges that require career guidance strategies adapted to its socio-political and economic context. In this regard, since 2023, the province of Pinar del Río has been implementing a new model for managing access to higher education, with the aim of contributing to local development in the municipalities. A study conducted in secondary education in the municipality of Sandino, specifically at the Hermanos Lazo Mixed Center, identified as a social problem that the career guidance process is not aimed at shaping students' expectations, interests, aspirations, and career plans in relation to the careers necessary for the local development of the municipality and the province. The objective of this article is to propose a pedagogical strategy that contributes to the development of the career guidance process for local development among students

at the Hermanos Lazo Mixed Center in the municipality of Sandino, Pinar del Río. To this end, theoretical methods were used, such as historical and logical analysis, analysis and synthesis, induction and deduction, the systems approach, and modeling; and empirical methods, such as documentary analysis, observation, interviews, surveys, and methodological triangulation. The proposed strategy highlights as a novel element the joint work between the Municipal Administrative Council, local institutions and companies, and the mixed center, through the municipality's multidisciplinary working group, in the development of actions that are integrated into the institutional project and the center's educational strategy.

Keywords: career guidance; local development; joint center.

RESUMEN

El desarrollo local en Cuba enfrenta particularidades que requieren estrategias de orientación profesional adaptadas a su contexto sociopolítico y económico. En este sentido, la provincia de Pinar del Río implementa, desde el año 2023, un nuevo modelo de gestión del acceso a la Educación Superior, cuyo objetivo es contribuir al desarrollo local en los municipios. Un estudio realizado en la educación media del municipio Sandino, específicamente en el Centro Mixto Hermanos Lazo, permitió identificar como problema social que el proceso de orientación profesional no está dirigido a la formación de expectativas, intereses, aspiraciones y proyectos de vida profesional en los estudiantes, en relación con las carreras necesarias para el desarrollo local del municipio y la provincia. El objetivo de este artículo es proponer una estrategia pedagógica que contribuya al desarrollo del proceso de orientación profesional para el desarrollo local en los estudiantes del Centro Mixto Hermanos Lazo en el municipio Sandino, Pinar del Río. Para ello, se utilizaron métodos teóricos como: el análisis histórico y lógico, el análisis y síntesis, la inducción y deducción, el enfoque de sistema y la modelación; y métodos empíricos como: el análisis documental, la observación, la entrevista, la encuesta y la triangulación metodológica. La estrategia propuesta destaca como elemento novedoso el trabajo conjunto entre el Consejo de Administración Municipal, las instituciones y empresas del territorio, y el centro mixto, desde el grupo multidisciplinario de trabajo del municipio, en el desarrollo de acciones que se integran al proyecto institucional y a la estrategia educativa del centro.

Palabras clave: orientación profesional; desarrollo local; centro mixto.

RESUMO

O desenvolvimento local em Cuba enfrenta desafios únicos que exigem estratégias de orientação profissional adaptadas ao seu contexto sociopolítico e econômico. Nesse sentido, a província de Pinar del Río vem implementando, desde 2023, um novo modelo de gestão do acesso ao ensino superior, com o objetivo de contribuir para o desenvolvimento local em seus municípios. Um estudo realizado no ensino médio do município de Sandino, especificamente no Centro Misto Hermanos Lazo, identificou um problema social: o processo de orientação profissional não está voltado para fomentar as expectativas, os interesses, as aspirações e os planos de vida profissional dos alunos relacionados às carreiras necessárias para o desenvolvimento local do município e da província. O objetivo deste artigo é propor uma estratégia pedagógica que contribua para o desenvolvimento do processo de orientação profissional para o desenvolvimento local entre os alunos do Centro Misto Hermanos Lazo, no município de Sandino, Pinar del Río. Para tanto, foram utilizados métodos teóricos como análise histórico-lógica, análise e síntese, indução e dedução, pensamento sistêmico e modelagem, e métodos empíricos como análise documental, observação, entrevistas, questionários e triangulação metodológica. A estratégia proposta destaca, como elemento inovador, o trabalho colaborativo entre o Conselho de Administração Municipal, as instituições e empresas locais e o centro misto, por meio do grupo de trabalho multidisciplinar do município, no desenvolvimento de ações integradas ao projeto institucional e à estratégia educativa do centro.

Palavras-chave: orientação profissional; desenvolvimento local, centro misto.

INTRODUCTION

The 2030 Agenda and its 17 Sustainable Development Goals set out the main priorities for nations, defining three fundamental dimensions: economic, social, and environmental. In Cuba, these priorities are contextualized within the Local Development Strengthening Program, which is implemented at the national, provincial, and municipal levels. Within this framework, municipal development strategies and programs constitute the fundamental scenario for planning short-, medium-, and long-term actions aimed at meeting the needs of the territory, raising the quality of life, and ensuring sustainability.

From this perspective, we share the criteria of Torres Paez *et al.* (2018), who define local development as:

A process of social construction and structural change that, from an innovative territorial environment led by local governments, develops capacities to manage public policies, strategies, programs, and projects aimed at harnessing endogenous and exogenous resources, promoting economic, social, natural, and political-institutional transformations in localities on a sustainable basis, with active and leading citizen participation, in order to improve the quality of life of the population.

In the guidelines (14, 91, 92, and 94) of the Economic and Social Policy of the Party and the Revolution for the period 2021-2026, updated at the 8th Congress of the Communist Party of Cuba (PCC, 2021), the need to advance in the strategic management of local development is proposed, strengthening the municipality as a fundamental entity with the necessary autonomy. In this regard, it is crucial to raise the quality and rigor of the teaching process in all educational subsystems, in line with the transformations currently taking place in Cuban schools. It is essential that enrollment in the different specialties and degree programs be aligned with the National Economic and Social Development Plan until 2030, as well as with provincial and municipal development strategies.

Agencies, production and service entities, political, student, and mass organizations, and the family, as a fundamental agency, must guarantee, in conjunction with educational institutions, a process of career guidance from an early age. This process should promote recognition of the work of skilled workers, mid-level technicians, and university graduates, and their importance for territorial development.

Educational institutions must recognize the link between the career guidance process and the need to train competent personnel for the management of local development in municipalities. This requires the training of human resources with different levels of specialization, professionals trained at different educational levels, who can enter the labor market according to the level of complexity and offer an integrated response to local needs. In this educational process, schools must ensure that the actions carried out with students are aligned with the demands of local development.

The Third Improvement of the Cuban Educational System pays special attention to the continuity of studies, reinforcing the idea of providing students with broad knowledge related to the various professions and trades they may pursue in the future. This approach not only seeks to prepare them

professionally, but also to foster their motivation and interests, which will allow for a self-determined and h y career choice, with an impact on the quality of income and the response to the demands of territorial development.

Educational institutions are responsible for directing the career guidance process, organized and developed in an integrated manner with socializing agents and agencies, to prepare students for working life and respond to the demands of local development. To this end, actions must be implemented that promote career choices based on students' personal interests, in line with the needs of the territories, in the economic-productive, political-social, and educational-cultural dimensions.

Milá Valdés (2023) and Capó Márquez *et al.* (2024) emphasize the need for career guidance actions to be developed systematically in the final grades of basic secondary and pre-university education, in order to motivate students towards different professions and achieve better quality in their entry into and stability in the workforce.

As the main socializing agency, schools have a commitment to educate students in all dimensions. One of their fundamental tasks is to promote a guidance process that brings students closer to knowledge of professions, their characteristics, and their social mission. This process must be continuous, systemic, and carried out in collaboration with families, the community, and other socializing agencies, in both urban and rural contexts.

This educational objective becomes even more relevant when linked to a national development strategy. In Cuba, the government promotes a Science and Innovation-Based Government Management System, whose purpose, according to Díaz-Canel Bermúdez (2021), is to strengthen the role of scientific and innovative activity in order to find creative solutions to the country's problems. This system is embodied in development strategies and programs at the provincial and municipal levels.

In this context, the human component becomes a key factor. The work of teachers and the school network is crucial in mobilizing the resources and means that enable students to prepare for their future careers. In this way, career guidance in schools becomes a strategic pillar for training the innovative workforce needed for regional development.

It is necessary to ensure the training of graduates that the Science, Technology, and Innovation System requires at the undergraduate, graduate, and advanced technical university levels. It is also essential to expand training in innovation policy and management at these levels, strengthen technical and professional education processes, and promote the social appropriation of knowledge by the population. The social- y context demands a career guidance process that meets these expectations and contributes to the training of professionals who will ensure local development.

According to Miranda Pérez *et al.* (2022), career guidance in schools should encompass the following components: teaching, extracurricular, and after-school, contributing to strengthening students' motivational training toward the professions necessary for the management of the economic-productive, political-social, and educational-cultural development of the locality, in accordance with social and individual needs and potential.

In order to plan the career guidance process, teachers must have a thorough understanding of the demographic, economic, and social characteristics of the municipality, province, and country, in order to project the professions necessary for the management of local development in each work period. It is important to strengthen the link between the Ministry of Education and the Ministry of Labor and Social Security, which facilitates knowledge of workforce demands and strategic priorities at the national, provincial, and municipal levels.

Teachers must also be aware of provincial and municipal education development programs, which project educational policies and involve all stakeholders. The career guidance process must be closely linked to the municipal education development program, ensuring that the work system meets the objectives set for each stage.

Career guidance, as a process that takes place in schools, should strengthen partnerships with the various socializing agents and agencies involved in it, thus forming a multidisciplinary working group composed of: officials from the education and economy departments of the Communist Party of Cuba and the Administrative Council; officials from Labor and Social Security, Physical Planning, and the Ministry of Labor; Sociologists; the head of the Provincial Admissions Commission and the admissions commissions of the Higher Education Centers in the territory; officials from the Ministry of Education (Technical and Vocational Education and Pre-University Education) and from universities, in order to exert a direct influence on students.

This process must involve the active participation of families, who play a fundamental role in career guidance. However, as Grey Iribar and Bell Speck (2024) point out, families often show a certain insensitivity to the territorialization of careers and their ranking according to the needs of the territory.

For Cabrera González and Ruiz Gutiérrez (2023), career guidance should be a process of progressively inclining the student's personality towards different careers, where knowledge, skills, abilities, and values are developed, enabling the emergence of professional, personal, and social motives and interests, carried out by the school, with the support of the community, the family, and political and mass organizations. In this regard, they define it as "the process of educational influences of an anticipatory nature, pedagogically organized and directed by the school with the participation of community factors, with the aim of helping students to consciously define the continuity of their studies in terms of choosing a profession."

The criteria of these authors are shared, which allows to consider that the career guidance process is multifactorial, involving different agents and socializing agencies, with the school bearing the ultimate responsibility. The school must be in charge of coordinating and directing the system of influences that acts on students. In addition, certain premises must be met, which are understood as initial assumptions that serve as the basis for successfully developing the process.

Delgado Fernández *et al.* (2024) report that career guidance has accompanied human beings since ancient times, influenced by social changes, but responding to the work and ideas of the individual about professions. To a lesser extent, it has been planned and organized based on the local development needs of municipalities and/or provinces.

An interesting study was conducted by Pedroso Fabré *et al.* (2024) on workforce management in relation to local development, which states that "The current process of workforce management at the municipal level does not favor the development of training plans for graduates or the definition of local public policies associated with this process."

These authors recognize the role of the Ministry of Education and the Ministry of Higher Education in assessing current training by level (higher, mid-level technical, and skilled labor) and by career or specialty, in decision-making, and in developing short-, medium-, and long-term actions. However, the work that educational institutions must carry out in terms of career guidance for students in the fields and professions that are necessary for local development management is not visualized.

The Third Improvement of the Education System recognizes mixed centers as educational institutions in municipalities that bring together different educational levels in the same space and time, where career guidance actions must be integrated into the educational process in a coherent manner, with students as key participants.

Studies by Barceló Riverón and Doimeadios Martínez (2020) affirm that mixed centers are institutions with different educational levels and a single administration, responsible for planning, coordinating, and integrating educational and assurance processes, "with the participation and involvement of educational actors, consideration of the particularities of each education, and the influences of the social context for the fulfillment of the center's social mission."

Mixed schools are complex educational institutions due to their structure and diversification, as they contain more than one educational subsystem, with students at different levels of psychological development. For these reasons, career guidance work must be characterized by its systemic and systematic approach in the cooperative action of all those involved in the process, an issue that is currently demanded by society, families, children, adolescents, and young people as part of the continuity of study and the demands of local development.

A fact-perceptual study carried out in the exploratory stage of this research, at the Hermanos Lazo Mixed Center in the municipality of Sandino, identified as a social problem that the career guidance process carried out at the mixed center is not aimed at shaping students' expectations, interests, aspirations, and professional life projects, for the careers that are necessary for the local development of the municipality and the province, an aspect that contradicts the main policies implemented in the territory and the new model for managing admission to higher education.

In confirming the existence of the social problem, based on the use of empirical research methods such as observation, applied in different teaching and complementary activities (extracurricular and after-school) and interviews with students, teachers, and administrators, possible causes were identified, such as:

- The school model for mixed centers (basic secondary and pre-university) is not defined, where general and grade-level objectives are identified.
- The career guidance actions conceived by the institutional educational project only take into account the functioning of interest groups and work with monitors.
- The actions taken to improve and methodological work in this regard are not sufficient.

- The career guidance process, from its planning and organization throughout the year, is not designed in line with the training of the professionals needed by the municipality to manage its local development.
- There are theoretical gaps related to the career guidance process in line with local development needs.

The analysis of the empirical methods applied at this stage and the opinions of the interviewees show that all the causes influence the existence of the social problem; however, as a trend, the main cause identified is related to the shortcomings of the career guidance process carried out at the Hermanos Lazo Mixed Center in the municipality of Sandino, as it does not correspond to the needs of local development.

The aim of this article is to propose a pedagogical strategy that contributes to the development of the career guidance process for local development among students at the Hermanos Lazo Mixed Center in the municipality of Sandino, Pinar del Río.

MATERIALS AND METHODS

This is a descriptive study in which the dialectical-materialist method was used as the general method, as it allows for the study of career guidance for local development in mixed centers as a process, with its components and dialectical relationships. In addition, it facilitated the use of other research methods, such as:

Theoretical methods

- Historical-logical analysis: to reveal the historical evolution of the process of career guidance for local development in mixed centers, as well as its background and current trends.
- Analysis and synthesis: in the study of the bibliography related to the object of study and during the processing of the diagnostic instruments; in addition to being useful for the interpretation and preparation of the research report.
- Induction-deduction: to extract regularities, particularly those related to the theoretical and methodological requirements necessary for the design and development of the career guidance process, as well as to determine the conclusions.
- Modeling: to shape the pedagogical strategy.

Empirical level methods

- Observation: used in all stages of the research process to evaluate the variable to be transformed.
- Survey of students and family members.
- Interviews with teachers and administrators: to ascertain the current status of the career guidance process for local development in mixed centers.

The study was conducted at the Hermanos Lazo Mixed Center in the municipality of Sandino, Pinar del Río, during the 2023-2024 academic year. A study group was formed consisting of 456 students and their families, as well as 47 teachers and 11 administrators from the junior high and pre-university levels.

RESULTS AND DISCUSSION

The following procedure was followed to diagnose the initial state of the variable to be transformed:

- Definition and operationalization of the variable to be transformed.
- Selection of the study group.
- Development and application of the instruments used to determine the initial state of the variable.
- Analysis of the results of the methodological triangulation, grouped into strengths and weaknesses.

The variable to be transformed is the career guidance process for local development in mixed centers, which is defined in this article as the system of educational influences in which different agents and socializing agencies intervene. Its objective is to provide students with the necessary knowledge about the professions that are essential for the management of local development in the territory and to achieve an emotional connection with them. In this way, it is hoped that, when the time comes, students will be able to choose one of these careers in a self-determined manner, based on their personal interests and motivations, in order to begin their training and subsequent professional performance.

Three dimensions were determined for the study of the variable to be transformed:

Dimension 1. System of educational influences

Defined as the system of social and pedagogical influences that guides the development of actions during the educational process in the mixed center, with the aim of enabling students to acquire knowledge related to professions, particularly those necessary for local development management.

Dimension 2. Cognitive

Defined as knowledge related to different professions, especially those necessary for local development, which allows students to identify emotionally with them and adopt a positive attitude towards their future career choice.

Dimension 3. Affective-attitudinal

Defined as the affective link between students and the careers necessary for the local development of the municipality and the province, which reflects a personal sense of these careers, based on knowledge of their essential characteristics. This denotes a willingness to choose one of these professions, considering it meaningful.

Once the variable and its dimensions were determined, its indicators were identified to facilitate measurement. These indicators were taken into account in the development of the instruments used to apply the empirical methods during the diagnostic stage.

Results of the empirical diagnosis of the career guidance process for local development in the mixed centers of the municipality of Sandino

Based on the individual analysis of the methods presented, methodological triangulation was carried out with the aim of discovering possible coincidences and discrepancies that would facilitate reaching more complete conclusions regarding the indicators and dimensions evaluated in each instrument.

No discrepancies were identified in the results obtained during the study. The analysis of the coincidences made it possible to identify a group of regularities that were grouped into strengths and weaknesses, which are presented below.

Strengths identified

- There is an institutional educational project and an educational strategy for each grade, contextualized to each group, with the potential to implement career guidance actions for local development.
- The general objectives and methodological guidelines for the educational levels and grades recognize the need to develop the career guidance process for students.
- There is a notable relationship between the management of the mixed center and municipal officials linked to local development in the territory.
- Municipal development programs reflect the need to train professionals who are essential for the local development of the municipality.

Weaknesses identified

- The career guidance actions conceived in the annual plans only take into account the functioning of interest groups and work with monitors.
- Activities that strengthen vocational training and career guidance for students are unsystematic, both in the curricular and extracurricular dimensions.
- There are shortcomings in the integration of families and local institutions in the school's activities aimed at vocational training and career guidance for students.
- The link between the mixed center and the municipal Local Development Group, as well as the development strategy and programs, is weak. This means that career guidance activities are not in line with the training of the professionals that the municipality needs for its local development.
- There is no school model for mixed centers (for general secondary education, with continuous educational levels) that establishes guidelines for career guidance work as general objectives.
- There are theoretical shortcomings related to the management of the career guidance process in line with local development needs.

The results obtained indicate that there are shortcomings in the career guidance process for local development in the mixed schools of the municipality of Sandino, which highlights the need for changes to be made to the institutional educational project and educational strategy.

Pedagogical strategy of the career guidance process for local development in mixed centers

This article adopts the definition of pedagogical strategy offered by Valle Lima (2012), who conceives it as: "(...) the set of sequential and interrelated actions that, starting from an initial state and considering the proposed objectives, allows for the conscious and intentional (schooled or unschooled) direction and organization of the comprehensive training of new generations." This author's criteria on the structural components of the strategy are adopted as a scientific result, defining them as: mission, general objective, characterization of the object, stages and actions, forms of implementation, and forms of evaluation.

Mission of the pedagogical strategy

To improve the career guidance process in mixed centers, so as to contribute to the development of students' interests, motivations, and professional life projects toward those careers that are necessary for local development management.

General objective of the pedagogical strategy

To develop a system of strategic actions that contributes to the improvement of the career guidance process for local development among students in mixed schools in the municipality of Sandino, in Pinar del Río.

Characterization of the career guidance process for local development in mixed centers

It is essential to integrate philosophical, pedagogical, sociological, and psychological foundations, which are essential elements in relation to the object of study.

From a philosophical point of view, the dialectical-materialist method is assumed, a theory that underpins this research and is closely related to the roots of Cuban philosophical thought. It is based on the principles of the Philosophy of Education, which addresses issues related to the educability of human beings, education as a general category, and why and for what purpose humans are educated. This allows us to understand the development of career guidance in students as a process that varies over time, adjusting to social needs and territorial demands.

A revolutionary pedagogy is assumed, not only because it has been developed in a country undergoing social revolution, but also because, in its conception, the transformative nature of science and its close link to educational reality are present, allowing it to be enriched by taking practice as its starting point and criterion of truth.

This pedagogy is based on a dialectical-materialist conception, which allows for education within a scientific conception of the world and the development of the student's personality, based on a historical-cultural approach.

The proposed pedagogical strategy is generally based on the categories of pedagogy, its principles, and laws, which contribute to the vocational training, aspirations, interests, and life projects of students, in accordance with current needs. This is achieved through the cooperative work of teachers in the grade groups, local institutions, and the municipal government, which is primarily responsible for implementing the science and innovation-based government management system and, with it, local development.

From the perspective of the sociology of education, the importance of social relations within the context of the mixed center is recognized, fundamentally the aspirations, interests, and professional life projects of students. The career guidance process takes place through the educational process, in which the teacher plays a transcendental role in enabling students to present themselves for a self-determined professional selection.

The career guidance process for local development is a social phenomenon that requires coherent action by the school in conjunction with other socializing agencies and the role of teachers in grade-level groups as catalysts for other educational influences, while shaping the student's personality.

From a psychological perspective, the pedagogical strategy is based on the laws of human psychological development (Dynamic Law of Development or Social Situation of Development; Law of Psychic Development as a Mediated Product; Zone of Proximal Development), which allow us to understand that the process of career guidance for local development is a relationship of support provided by administrators, the grade group, the educational project, and the institutional project, with the aim of achieving a self-determined selection that responds to the psychological content of the personality and the needs of local territorial development.

The strategy is inserted in the social context of mixed centers of continuous educational levels, basic secondary and pre-university, fundamental stages for students who intend to continue their studies in technical and professional or university education. The transition through this educational institution should provide the necessary tools so that, when the time comes to choose a career at the end of ninth or twelfth grade, students are prepared to make a self-determined choice, as the study of the profession becomes the fundamental activity, and this requires the effort of all those involved.

In order to guide the career guidance process in the mixed center, it is essential to integrate the objectives and content of the different educational levels present in these centers in a cohesive manner, taking into account their particularities and taking advantage of their potential to overcome the tendency towards fragmentation in management, which limits the exploitation of potential and the optimization of results.

Managers, teachers, educational psychologists, families, and society as a whole play an essential role in the career guidance process for local development. A widely discussed element is the need to take into account a set of guidelines or postulates of cooperative learning, which is based on the synergy between cooperative learning and interactive groups (teachers, students, families, and the community), based on the five fundamental elements of cooperative learning: positive interdependence, social interaction, social and collaborative skills, individual responsibility, and group processing.

The demands placed on the management of mixed center require the preparation of administrators and the participation of the educational community in the processes that take place within them. In this sense, integrated management in mixed centers makes a significant contribution to the projection of the center's educational work, in order to achieve unity of influence among educational actors in various settings.

The system of principles governing the pedagogical strategy consists of:

- Principle of the personal nature of career guidance.
- The principle of the problematizing nature of the career guidance process, in line with local development needs.
- The principle of the procedural, systemic, and systematic nature of career guidance.

- The principle of unity between learning opportunities and personal experience, leading to the development of vocational training, interests, and motivations for those professions that are necessary for local development management.
- Principle of the integration of career guidance, in line with local development needs, as part of the educational process.
- Principle of the group nature of the career guidance process in the mixed center.

The career guidance process for local development in mixed centers is divided into the following stages.

First stage. Diagnosis of the initial situation

This stage is the starting point for carrying out the corresponding actions. Its objective is to diagnose the initial state of the career guidance process for local development in the mixed centers of the municipality of Sandino, in Pinar del Río.

The diagnosis as a means of gathering information is structured in two stages:

1. The analysis of the bibliography and regulatory documents related to the career guidance process that contributes to the development of aspirations, interests, and motivations for those professions that are necessary for local development management.
2. The diagnosis of the career guidance process for local development among students in mixed centers, identifying strengths and weaknesses.

Actions

1. Review of the bibliographic references corresponding to career guidance, with an emphasis on local development in students at mixed schools.
2. At school: analysis of documents, such as the programs for each grade, methodological guidelines, faculty meeting minutes, institutional project, group project; to ascertain how career guidance for local development and existing potential are addressed in terms of planning and human resources.
3. In municipal governments: analysis of the municipal development strategy and its programs, with an emphasis on the education sector, to ascertain the actions planned to meet the

demand for labor and its possible solution in the short, medium, and long term, based on the link with the mixed centers in the territory.

4. Analysis of the demand for labor by career or specialty in municipal institutions and companies (skilled workers, mid-level technicians, senior university technicians, and university professionals) for the five-year period.
5. Conducting interviews with teachers and administrators to determine the main limitations they may face in directing the career guidance process at the mixed center, in line with local development needs.
6. Preparation of a report with the diagnosis of the career guidance process for local development in the students of the selected sample, according to the dimensions and indicators of the study variable, using methods such as observation, surveys, and interviews.
7. Study of the results obtained in the diagnosis independently and integrated using the methodological triangulation method.

Responsible: director of the mixed center.

Executed by: teacher responsible for grades.

Date: September-October.

Resources: paper, pencil, designed instruments.

Participants: administrators, teachers, students, families, community agents.

Second stage. Planning the career guidance process for local development

The objective of this stage is to plan a system of actions that contributes to the implementation of the career guidance process for local development in the mixed centers of the municipality of Sandino, in Pinar del Río.

The planning stage was structured in two phases.

First step: planning actions to identify the professions needed for local development management in the municipality.

Actions

1. Presentation to the Municipal Administrative Council of the municipality under analysis on the importance of the career guidance process for the training of the human resources necessary for local development management at the municipal level.
2. Exchange with members of the municipality's local development group and coordinators of the municipality's development programs to identify the main limitations in terms of the availability of professionals (skilled workers, mid-level technicians, senior university technicians, and university professionals).
3. Formation of a multidisciplinary working group in the municipality, composed of: The Municipal Administration Council, Labor and Social Security, Physical Planning, members of the municipality's General Directorate of Education (deputy directors, heads of Technical and Vocational Education, representative of the Municipal University Center), among others deemed necessary.
4. Definition of the main careers and professions necessary for local development management, with the aim of promoting their training in the last five years, based on the cooperative action of the municipality's multidisciplinary working group.

Responsible: director of the joint center.

Executed by: teacher responsible for grades.

Date: September-November.

Resources: paper, pencil, computer.

Participants: Administrators, teachers, students, families, community agents.

Second step: planning actions to guide the local development process in the mixed centers of the municipality of Sandino, in Pinar del Río.

Actions

1. Planning of grade-level group meetings to list the problems detected in the diagnosis and analyze them.

2. Design of a system of methodological activities for teachers in the grade-level collective on managing the local development career guidance process.
3. Assessment of the general willingness of the participants in the grade collective to declare their respective responsibilities in carrying out the actions.
4. Determination of the main content and topics to be addressed during the career guidance process for local development in the mixed center.
5. Proposal of adjustments that teachers consider necessary for the development and refinement of the implementation stage of the pedagogical strategy for the development of career guidance based on local development.
6. Design a career guidance program for local development in mixed centers that integrates the work of schools, families, communities, local businesses and institutions, and government.
7. Establishment of a system of career guidance activities for local development, designed on the basis of the mixed center's institutional project, where networking is planned and the following are specified: title, objective, type of activity, guidance method/technique, methodological guidelines, and evaluation; this involves the cooperative action of teachers from the grade group and socializing agents and agencies.

Responsible: director of the joint center.

Executed by: teacher responsible for grades.

Date: September-November.

Resources: paper, pencil, computer.

Participants: administrators, teachers, students, families, community agents.

Third stage. Implementation of planned actions

The objective of this stage is to implement the system of actions developed in the planning stage, in order to contribute to the development of the career guidance process for local development among students in mixed schools in the municipality of Sandino.

First step: preparation of the necessary conditions for the implementation of the system of actions based on the results of the diagnosis.

Actions

1. Communication to teachers and school administrators about the results obtained during the initial diagnostic stage (strengths and weaknesses).
2. Share with grade-level teachers and administrators the results obtained in the exchange with the Municipal Administrative Council and the Multidisciplinary Working Group on the need for professionals for local development.
3. Presentation to teachers by grade level of the structure, components, and actions of the proposed pedagogical strategy, for their collective refinement and assessment of its possible implementation in the educational practice of mixed centers.
4. Implementation of a system of activities to prepare teachers in the grade groups to lead the career guidance process for local development:
 - Methodological meeting: the career guidance process in mixed schools.
 - Methodological workshop: particularities of the career guidance process for local development in mixed schools.

Responsible: director of the mixed school.

Executed by: principal and teacher responsible for grades.

Date: October-December.

Resources: paper, pencil, computer.

Participants: administrators, teachers, students, families, community agents.

Second step: implementation of the system of activities designed in action seven of the pedagogical strategy planning stage, using guidance methods and techniques and participatory techniques, led by the teachers of the grade groups.

This stage seeks to enrich the institutional projects of the mixed centers in the municipality of Sandino.

Actions

1. Identification (in conjunction with the Provincial Admission Commission) of the real possibilities of the territory for the training of professionals, in accordance with local development needs and the situation presented by demand.
2. Identification (in conjunction with the multidisciplinary group) of the professions necessary for local development management, based on defined development strategies and their programs.
3. Identification (in conjunction with the degree collective) of the topics that should make up a system of activities that contributes to the process of professional guidance for local development in students at mixed centers in the municipality of Sandino.
4. Development of a system of career guidance activities for local development, conceived from the institutional project of the mixed center, where the following are stated: title, objective, type of activity, guidance method/technique, methodological guidelines, and evaluation; involving the cooperative action of the teachers of the grade collective, as well as other agents and socializing agencies.

Responsible: director of the mixed school.

Executed by: principal and teacher responsible for grades.

Date: December-May.

Resources: paper, pencil, computer.

Participants: administrators, teachers, students, families, community agents.

Fourth stage. Evaluation of actions taken

The objective of this stage is to evaluate the results of the application of the pedagogical strategy of career guidance for local development in mixed centers, throughout the process or at a specific moment.

Partial objectives

- To verify the level achieved with the implementation of the actions planned in the previous stages of the pedagogical strategy.
- Characterize the final status of the career guidance process for local development among students at co-educational schools in the municipality of Sandino.
- Characterize the final status of the interests, aspirations, motivations, and life projects of students in mixed-gender schools in relation to the careers that are necessary for local development.
- Redesign the pedagogical strategy, considering the difficulties detected during the process.

To achieve the objectives of this stage, the following actions must be taken.

1. Analysis of the results of the strategy's implementation (apply tools to compare the results obtained with the diagnosis, specifying achievements and difficulties).
2. Assessment of the final status (compile all the information, taking stock of the positive and negative elements recorded, and assess their causes to determine those that constitute regularities).
3. Redesign of the pedagogical strategy (propose new actions that allow for further development of those stages deemed necessary).

Responsible: director of the mixed center.

Executed by: principal and teacher responsible for grades.

Date: May-July.

Resources: paper, pencil, computer.

Participants: administrators, teachers, students, families, community members.

It is advisable to compile the information obtained through the proposed channels or others deemed necessary, taking stock of the positive and negative elements recorded and assessing their causes, in order to determine those that constitute regularities due to their level of incidence. The results obtained in the final report should also be communicated to all stakeholders. Based on the feedback, new actions will be planned to further develop those stages deemed necessary. For the

implementation of the planned actions, those responsible for their organization and execution will be determined, as well as the duration, date, and participants.

Career guidance for local development in mixed centers is a crucial tool for those seeking to contribute to local development in a meaningful way. Beyond helping students find their vocation, it should also focus on identifying concrete opportunities in the community for their professional future and linking personal interests with the needs of the environment. In this sense, it coincides with the criteria of Álvarez Velázquez *et al.* (2021), who recognize the importance of human resources training as a fundamental tool for promoting the economic and social development of the territory.

Understanding the local context requires an analysis of the predominant economic sectors, cultural traditions, and the most pressing social issues. This analysis allows for the identification of development niches and priority areas for intervention.

It is necessary to promote collaboration between mixed centers, other educational institutions in the territory, companies, social organizations, and municipal governments during the career guidance process, with the aim of strengthening strategic alliances that enable the training of human resources in line with local development. The municipal development strategy, its programs, and local development projects can accelerate local training and employment by adapting the training offer and the job plan to the real demands of the territory. Efficient career guidance must ensure that projects arise from the bottom up, with local roots and a sense of belonging, creating bridges between the personal future and the collective destiny.

The study of theoretical references showed that the career guidance process has been a topic of analysis at the national level, highlighting the presence of different approaches in general secondary education, aimed primarily at developing students' vocation for the different careers on offer. However, the career guidance process for local development based on the needs of the territory is a less addressed topic.

The use of materials and methods revealed shortcomings in the career guidance process for local development at the Hermanos Lazo Joint Center in the municipality of Sandino, in Pinar del Río, which led to the development of a structured strategy based on joint work with the Municipal Administration Council, methodological work at the degree level, and the inclusion of activities as part of the institutional project and educational strategy.

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Conflict of interest

Authors declare that they have no conflicts of interest.

Authors' contribution

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



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