

Original article




Professional guidance towards the specialty of Library Science at the Polytechnic Center Rigoberto Fuentes Pérez

La orientación profesional hacia la especialidad de Bibliotecología en el Centro Politécnico Rigoberto Fuentes Pérez

Orientação profissional para a especialidade de Biblioteconomia no Centro Politécnico Rigoberto Fuentes Pérez

Daymelis Migens Hernández¹  0009-0000-4744-5195  daymelis.migens@upr.edu.cu

Vadim Aguilar Hernández²  0000-0003-2690-6380  vadim.aguilar@upr.edu.cu

Benito Bravo Echevarría²  0000-0002-1395-1855  benito.bravo@upr.edu.cu

¹ Polytechnic Center "Rigoberto Fuentes Pérez". Pinar del Río, Cuba.

² University of Pinar del Río "Hermanos Saíz Montes de Oca". Pinar del Río, Cuba.

Received: 25/02/2025

Accepted: 16/10/2025

ABSTRACT

Career guidance is one of the most crucial issues in Technical and Vocational Education. The objective of this article is to characterize the current state of the career guidance process for first-year students specializing in Library Science, through a descriptive study. This study employed theoretical, empirical, and statistical-mathematical methods, such as the historical-logical approach, the systems approach, modeling, analysis and synthesis, document analysis, observation, surveys, interviews, and, from descriptive statistics, percentage analysis. Furthermore, the methodological triangulation technique was used, allowing for a diagnosis of the educational reality, based on the general methodological framework of scientific knowledge, the dialectical materialist method. The diagnostic

study was conducted with a population of Library Science students, professors, and administrators, all from the Rigoberto Fuentes Pérez Polytechnic Center. This work made it possible to determine a group of strengths and weaknesses that characterize the current state of the professional guidance process of the teachers who carry out this activity in said center.

Keywords: characterization; polytechnic center; career guidance; teachers.

RESUMEN

La orientación profesional es uno de los problemas trascendentales de la Educación Técnica y Profesional. El objetivo del presente artículo es caracterizar el estado actual del proceso de orientación profesional en los alumnos de primer año de la especialidad de Bibliotecología, mediante un estudio descriptivo, en el cual se emplearon métodos teóricos, empíricos y estadísticos-matemáticos, tales como: el histórico-lógico, el enfoque sistémico, la modelación, el análisis y síntesis, el análisis documental, la observación, la encuesta, la entrevista y, desde la estadística descriptiva, el análisis porcentual. Además, se utilizó la técnica de triangulación metodológica, lo que permitió el diagnóstico de la realidad educativa, tomando como base metodológica general del conocimiento científico el método dialéctico materialista. Para el desarrollo del diagnóstico, se trabajó con una población de estudiantes de la especialidad de Bibliotecología, profesores y directivos, todos del Centro Politécnico Rigoberto Fuentes Pérez. El presente trabajo permitió determinar un grupo de fortalezas y debilidades que caracterizan el estado actual del proceso de orientación profesional de los profesores que realizan esta actividad en dicho centro.

Palabras clave: caracterización; centro politécnico; orientación profesional; profesores.

RESUMO

A orientação profissional é uma das questões mais cruciais no Ensino Técnico e Profissional. O objetivo deste artigo é caracterizar o estado atual do processo de orientação profissional para alunos do primeiro ano do curso de Biblioteconomia, por meio de um estudo descritivo. Este estudo empregou métodos teóricos, empíricos e estatístico-matemáticos, como a abordagem histórico-lógica, a abordagem sistêmica, a modelagem, a análise e síntese, a análise documental, a observação, os questionários, as entrevistas e, a partir da estatística descritiva, a análise percentual.

Além disso, utilizou-se a técnica de triangulação metodológica, permitindo um diagnóstico da realidade educacional, com base no arcabouço metodológico geral do conhecimento científico, o método materialista dialético. O estudo diagnóstico foi realizado com uma população de alunos, professores e administradores de Biblioteconomia, todos do Centro Politécnico Rigoberto Fuentes Pérez. Este estudo identificou um conjunto de pontos fortes e fracos que caracterizam o estado atual do processo de orientação profissional para docentes do Centro Politécnico.

Palavras-chave: caracterização; centro politécnico; orientação profissional; docentes.

INTRODUCTION

The orientation towards technical and professional specializations has been one of the most debated issues in recent years. Generally, most countries in the world now include this topic as a priority element of their educational systems. To this end, they utilize institutes, professorships, laboratories, research centers, and guidance services, whose main objective is to identify the causes of and provide solutions to the shortcomings that this important area presents for contemporary society.

Society needs hardworking individuals who consciously participate in its development, and to this end, it demands that Technical and Vocational Education and Training (TVET) provide a skilled and high-quality workforce. In this sense, it is a primary task to "guarantee every human being a profession that allows them to be self-sufficient throughout their life, through work they know how to do and that is useful to others" (Milá et al., 2022). Consequently, providing guidance and preparation for work and technical specializations becomes, from the earliest ages, a priority that education cannot ignore.

Current Cuban curricular conceptions are based on the premise of providing in-depth guidance from the earliest grades of schooling. Thus, during primary and secondary education, significant guidance work should be carried out with the purpose of: "(...) facilitating the choice of technical specialty, based on the needs for skilled labor in the territory and taking into account the particularities of the students' personalities and interests, by their essence, aims and objectives" (Hernández, 2020).

In this sense, upon completing their secondary education, students should have knowledge and a certain degree of awareness regarding the specializations they choose to contribute to the development of society through work that will shape their lives. That is, during their adolescence,

students should be properly guided toward their professional future. Thus, for students, entering Technical and Vocational Education (TVE) with an understanding of their chosen specialization and its socioeconomic importance to the country should be a process that begins at a very young age. The essential goal should be to develop reflective, active, critical, and independent students, with a love and respect for work, and with a mindset of producers rather than consumers.

Polytechnic Centers need to design and implement career guidance strategies, leveraging the resources offered by the school, the community, the family, and local workplaces. This need stems from a lack of understanding regarding the specialization (in this case, Library Science) and its graduate profile. It is important to consider the student's age during the guidance process, because although these topics can be addressed at earlier stages, strictly professional content reaches its peak during pre-adolescence and adolescence, when individuals truly become aware of their professional role. It is at this time that they ask themselves: What do I want to be? How can I achieve it? Who can help me?

According to Delgado and Mosqueda (2024), career guidance is an important area of research that has gained particular interest in the country since the triumph of the Revolution. School is where students spend the most time and receive the greatest number of educational influences. From an early age, both teachers and the curriculum should foster in children an interest in work and professions that are useful both to themselves and to society. In this way, when students enter vocational and technical education (VTE), they should already know what they are going to study.

However, guidance toward technical and professional specializations does not end with the decision to enroll in polytechnic schools; it must continue once the student is at the educational institution. This reinforces objectives and content related to the process that were not sufficiently assimilated in previous stages. The polytechnic school, therefore, constitutes an excellent space for strengthening career orientation, specifically within the workplace.

Numerous researchers have explored this topic from various perspectives, including: Castellanos, Baute, and Chang (2020); Velázquez and Hernández (2020); Crespo, Santamaría, and Hernández (2021); Dillon, Rojas, Lara, and Freire (2022); Pérez (2022); Condori (2023); Farfán (2023); Silva, Caballero, and Alonso (2023); Bardina and García (2023); Vélaz de Medrano, González, and Otero (2023); and Delgado and Mosqueda (2024), among others. They all agree on the importance and

necessity of developing career guidance programs from an early age to ensure students choose a profession after completing secondary and pre-university studies.

However, the initial exploration conducted with first-year Library Science students at the Rigoberto Fuentes Pérez Polytechnic Center in Pinar del Río, using a set of instruments (document analysis, observation, surveys, interviews, and the researcher's own observations), revealed shortcomings in the career guidance process. This process lacks a systemic and contextualized approach to the Library Science specialization, which limits the students' ability to leverage their potential for future professional development.

Therefore, the objective of this work is to characterize the current state of the professional orientation process in first-year students of the Library Science specialty, which will allow for the reorganization of said professional orientation process.

MATERIALS AND METHODS

To achieve the proposed objective, a descriptive diagnostic study was conducted during the 2023-2024 academic year. The selected population consisted of 16 students majoring in Library Science, eight professors, and five administrators, all from the Rigoberto Fuentes Pérez Polytechnic Center. The research is methodologically based on the scientific knowledge of the dialectical-materialist method. A system of theoretical, empirical, and statistical-mathematical methods was employed, following the criteria of Hernández, Fernández, and Baptista (2014), which allowed for an understanding of the current state of the career guidance process for the teachers who provide this service at the Rigoberto Fuentes Pérez Polytechnic Center.

Theoretical methods

1. Historical and logical: it was used for the study of normative documents related to the career guidance process.
2. Systems approach: This was applied throughout the research process to determine the structural elements that make up the professional guidance process of teachers who teach the specialty of Library Science, in order to establish the relationships between its components and contents.
3. Modeling method: allowed the necessary abstractions to be made and the process followed for the professional guidance of students specializing in Library Science to be substantiated.

4. Analysis and synthesis: Throughout the research process, these logical operations of thought were used, as well as induction and deduction, which made it possible to provide arguments, both of the whole and of its parts.

Empirical methods

1. Document analysis: This included the Polytechnic Center's current strategy for developing career guidance, the guided documents issued by the Ministry of Education (MINED), the Polytechnic Center's interest group program, and statistical data on student interest in Library Science over the past five years. This analysis provided authentic and reliable information for the research.
2. Observation: It was applied to the actions developed by the students according to the options provided by the school, the family and the community towards the specialty of Library Science.
3. Interview: It was applied to the managers, in order to verify the effectiveness of the professional orientation process towards the specialty of Library Science, from the perspective of those who assume the direction of this process in the different instances of methodological work.

Statistical-mathematical methods

1. Descriptive statistics: within this method, percentage calculation was used to determine the behavior of each indicator measured by the instruments, which allowed the interpretation, summarization and presentation of the processed information through tables.

All the results obtained were subjected to the triangulation technique, which allowed the information obtained through various sources to be compared, based on the criteria issued by the managers and teachers.

RESULTS

The application of the aforementioned instruments had the main purpose of characterizing the current state of the professional orientation process of students towards the specialty of Library Science.

A five-point scale was used to measure the indicators, with the following categories to assess the presence of the indicators:

- Low: if the indicators identified for each strategic action are present in less than 60% of the sample.
- Medium: presence of the indicators identified for each strategic action between 60% and 85% of the sample.
- High: Presence of the indicators identified for each strategic action greater than 85% of the sample.

Taking into account the study of a group of authors cited above who worked on the topic of guidance in different contexts, we assume in this research that professional guidance towards the specialty of Library Science is: that influence of teachers on students, based on the transmission and facilitation of learning about theoretical and practical content of the different activities carried out by a graduate of the specialty of Library Science, intentionally worked on the basis of knowledge experienced by the students, in such a way that it allows them to become aware and freely choose a profession necessary in the personal and social order.

The given definition allowed us to determine three dimensions: cognitive, procedural, and attitudinal (Table 1).

- Cognitive dimension: refers to the knowledge that the student possesses about the content of the technical specialties.
- Procedural dimension: defined as a system of skills that guarantees the appropriate selection of the chosen specialty for professional performance.
- Attitudinal dimension: defined as a system of values that indicate the manifestations of their behavior in professional performance.

Table 1. Dimensions and indicators

Dimensions	Indicators
Dimension 1. Cognitive	1.1 Student's level of knowledge about the profile of the Library Science specialty.
	1.2 Level of knowledge that the student possesses about the places where they can work once they graduate from these specialties and the activities they can perform
	1.3 Level of knowledge of the content that makes up the future profession
Dimension 2. Procedural	2.1 Level of identification of the most in-demand technical specialties
	2.2 Level of performance of elementary manual operations
	2.3 Level of mastery of working with some tools
Dimension 3. Attitudinal	3.1 State of motivation that is demonstrated by the study of the specialty of Library Science.
	3.2 State of creativity achieved for the selection of the Library Science specialty.
	3.3 State of interest achieved for incorporation into the study of the specialty of Library Science.

Results of the guide for document analysis

Normative documents such as departmental meeting minutes, lesson plans, and curricula were analyzed to determine how career guidance is implemented. These analyses revealed problems stemming from the following shortcomings:

- The career guidance process lacks a systemic and contextualized character.
- The actions planned in the Polytechnic Center's strategy do not foster a connection between students and the Library Science specialty.
- The potential of community-based employment entities with a high potential of technicians within their workforce is not being utilized.

Guide for observing activities

Objective: to observe how career guidance work is developed in the different activities (Table 2).

Table 2. Development of career guidance work

Indicators to observe	SW	NSO	SOAV
Student's level of knowledge regarding the profile of technical specialties			
Level of knowledge that the student possesses about the places where they can work once they graduate from these specialties and the activities they can perform.			
Level of knowledge of the content that makes up the future profession.			
Level of identification of the most in-demand technical specialties.			
Level of performance of basic manual operations.			
Level of proficiency in working with some tools.			
State of motivation shown by the study of technical specialties.			
State of creativity achieved for the selection of technical specialties			
State of interest for incorporation into the study of technical specialties.			

Legend: Observed (SO), Not Observed (NSO), Sometimes Observed (SOAV)

Interpretation of the results of classroom observation

It was found that the main problems detected were:

1. Students have insufficient information about the history of the Library Science specialty.
2. The guidance provided by both specialist and general education teachers towards the profession they are studying is insufficient.
3. The school does not have a clear plan for the work to be done regarding the professional orientation of the Library Science specialty.

4. Insufficient conception of the organization of the process based on the combination of teaching, extra-teaching and extracurricular activities related to the specialty of Library Science.

Interview guide for managers

Objective: to verify the effectiveness of the professional orientation process towards the specialty of Library Science at the Rigoberto Fuentes Pérez Polytechnic Center, from the perspective of those who assume the direction of this process in the different instances of methodological work.

1. What is the significance of the Intermediate Technician stage in the vocational training of first-year students? Why?
2. How do you conceive the process of professional orientation towards the specialty of Library Science from the experience of the institution you lead?
3. What is the outcome of this process, from the methodological work system of the body you lead?
4. What is your opinion regarding the effectiveness of the career guidance process towards the Library Science specialty for these students, based on the experience of the institution you lead?
5. In your opinion, what actions are essential for the future selection of this specialty?
6. How do you assess the preparation of first-year students with regard to orientation towards this specialty?

The following are noted as positive aspects:

- The importance of Polytechnic Centers in the professional guidance process towards different specialties.
- This process, within the methodological work system of the different instances, is not a priority and is carried out from an atomized conception by the teachers.
- Students at the Polytechnic Center must prepare for this specialty through various extracurricular activities.
- The potential offered by community employment entities is not being utilized.
- From the interpretation of the elements provided by the managers, it is understood that the direction of this process does not respond to a conception of the professional guidance process of a systemic, integrative and contextualized nature, aimed at the training and development of professional motivations.

Methodological triangulation of the results obtained

By applying the methodological triangulation technique, it has been possible to observe, in general terms, that the process of professional orientation towards the field of Library Science presents the following regularities. This demonstrates the following **strengths**:

- Recognition of the need to strengthen the professional guidance process for students specializing in Library Science.
- Motivation for the projection of the work to be carried out in the professional orientation of the specialty of Library Science.

However, students also face **limitations**, such as:

- Insufficient theoretical and methodological preparation of the teaching staff, which would allow students to meet the demands of this training process.
- Lack of awareness of the community's potential to bring students closer to trades and professions.
- Students have insufficient information about the history of the Library Science specialty.

Based on all of the above, the indicators, dimensions and variables are evaluated using the following criteria (Table 3).

Table 3. Evaluation of indicators, dimensions and dependent variable

Indicators	Assessment	Dimensions	Assessment	Variable	Assessment
1.1	Half	I	Low		
1.2	Low				
1.3	Low				
2.1	Low	II	Low	Dependent	Low
2.2	Low				
2.2	Low	III	Low		
3.1	Low				
3.2	Low				
3.3	Low				

DISCUSSION

The analysis of the results shows that, when characterizing the current state of the career guidance process for first-year Library Science students, several shortcomings are present, especially due to a faculty that takes few specific actions. Likewise, weaknesses are evident in the planning of the career guidance process.

Delgado and Mosqueda (2024) argue that: "Career guidance takes place throughout a person's life, beginning in early childhood and not ending with the student's graduation from a professional center, but extending into the early years of professional life. It is systematically reinforced and continues throughout the training in the chosen career, being conceived as part of the process of educating the individual's personality, preparing them for responsible professional training and performance" (p. 2).

The rapid changes in technologies, processes, and societies, which are constantly adapting to the times, mean that career guidance must help individuals plan their own strategies for facing any situation. This definition highlights career guidance as a support process aimed at developing the professional identity of individuals at all ages and at all stages of their education, without neglecting preparation for adult life in general. It is individualized, continuous, and progressive, geared toward personal, educational, vocational, and professional fulfillment.

Analyzing this definition reveals the following requirements:

- It frames the process within the stage of preparation for young people and the objective of professional self-determination.
- It is integrated into the educational process through the system of social and pedagogical influences.
- It has an individualized character.
- It considers the needs and abilities of each young person.

According to Velázquez and Hernández (2020): "one of the main problems in career guidance has to do with how it is conceptualized and implemented in professional practice" (p. 13). Researcher Condori (2023) refers to career guidance as a process of helping individuals choose a profession and prepare themselves adequately to perform a specific job, whether technical or professional, by integrating personal aspirations with social needs.

From a theoretical standpoint, career guidance has been the subject of numerous studies from diverse perspectives. Both its definition and its functions have evolved throughout history. Generally speaking, it constitutes technical and professional support, although with varying nuances and approaches depending on the era. Some disciplines and researchers identify career counselors as specialists in psychometric or psychotechnical assessment; others consider teachers to be trained to address aspects of personal, social, and vocational development. Despite these theoretical and methodological differences, career guidance has focused on two essential themes: career choice and professional motivation as a determining factor in the quality of that choice.

Researchers Silva, Caballero, and Alonso (2023) consider that: "(...) career guidance is based on the active and regulatory role of the individual, in accordance with the development of their personality. Higher-level motivational factors, such as ideals, self-esteem, and professional intentions, constitute the representation of the personal meaning that the profession acquires for the individual. The professional motive, then, becomes the guiding principle of behavior." In this sense, it is about facilitating training for active life and expanding the impact on the individual's lifelong learning. The focus should be on the individual receiving guidance, preparing them for self-reflection, self-knowledge, and self-guidance, with the help of the other socializing agents and agencies (teacher, school, family, and community) that facilitate the career guidance process.

In conclusion, the diagnostic results confirm the main causes of the problems identified in this research. These findings justify the need to develop a new proposal to address the issues related to career guidance in Library Science at the Rigoberto Fuentes Pérez Polytechnic Center.

REFERENCES

- Bardina Torres, M. I., & García Ruiz, J. (2023). El enfoque profesional pedagógico de la clase en la universidad: la prevención de la deserción escolar. *Revista Cubana De Educación Superior*, 41(2), 249-261. <https://revistas.uh.cu/rces/article/view/1189>
- Castellanos Rodríguez, R., Baute Rosales, M., & Chang Ramírez, J. A. (2020). Orígenes, desarrollo histórico y tendencias de la orientación profesional. *Universidad y Sociedad*, 12(5), 269-278. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2218-36202020000500269&lng=es&tlng=es

- Condori, F. (2023). Relevancia de la orientación profesional. *Revista de Psicología*, (29), 95-108.
http://www.scielo.org.bo/scielo.php?script=sci_arttext&pid=S2223-30322023000100095
- Crespo, R., Santamaría, D., & Hernández, I. (2021). La orientación profesional vocacional pedagógica y las tecnologías educativas en la educación superior cubana. *Conrado*, 17(80), 68-77. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1990-86442021000300068
- Delgado, A., & Mosqueda, E. (2024). Evolución histórica del proceso de orientación profesional y su impacto en Cuba. *Varona*, (79).
http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1992-82382024000100021
- Dillon, F., Rojas, D., Lara, E., & Freire, I. (2022). Vocational and professional guidance as an alternative in the choice of university careers. *Revista Cátedra*, 6(1).
<https://revistas.utm.edu.ec/index.php/Catedra/article/view/4109>
- Farfán, E. (2023). Análisis histórico de la elección vocacional como concepto. *Revista Cognosis*, 8(2), 15-26. <https://revistacognosis.uta.edu.ec/index.php/Cognosis/article/view/720>
- Milá, R. Ceregido, R., & Aulet O. (2022) La orientación profesional en la motivación hacia las especialidades de la Educación Técnica y Profesional. *Varona*.
<http://revistas.ucpejv.edu.cu/index.php/rVar/article/view/1934>
- Pérez, A. (2022). La orientación educativa universitaria en Cuba: situación actual en la formación no pedagógica. *Conrado*, 18(89), 75-86.
http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1990-86442022000600075
- Silva, A., Caballero, H. I., & Alonso, E. (2023). Estrategia pedagógica para potenciar el desarrollo de intereses profesionales pedagógicos en los estudiantes Maestros Primarios. *Revista Científica Pedagógica Atenas*, (61), e11293, 1-13.
<https://atenas.reduc.edu.cu/index.php/atenas/article/view/11293>
- Vélaz de Medrano, C., González, A., & Otero, A. (2023). Análisis comparado del modelo de organización de los servicios de orientación profesional en el contexto europeo. *Revista Española de Orientación y Psicopedagogía*, 34(2), 29-46.
<https://revistas.uned.es/index.php/reop/article/view/38065>

Velázquez, K., & Hernández, L. (2020). La formación vocacional y orientación profesional pedagógica: prioridad en las Escuelas Pedagógicas. *LUZ*, 19(3), 131-140.

<https://www.redalyc.org/articulo.oa?id=589165783012>

Conflict of interest

Authors declare no conflict of interests.

Authors' contribution

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



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License