

Trends in the evaluation of the participation of the Cuban business system in the training of a qualified workforce

Tendencias de la evaluación de la participación del sistema empresarial cubano en la formación de fuerza de trabajo calificada

Tendências na avaliação da participação do sistema empresarial cubano na formação de mão de obra qualificada

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Abstract

The research presented is part of the research project: Professional training in teaching production centers in Las Tunas, Cuba. Its objective is to determine the trends in the evaluation of the participation of the business system in the training of a qualified mid-level workforce. For its development, the historical-logical method was applied, which allowed the description, analysis, characterization and evolution of the participation process. The main results are the historical trends of the process of participation of the Cuban business system in the training process, which have great originality as they collect testimonies from teachers and methodologists of Technical and Professional Education who have been protagonists of this process in the period under investigation and theoretical and methodological insufficiencies of great importance for the improvement of this educational level are revealed.

Keywords: Trends; evaluation; participation; training; company

Resumen

La investigación que se presenta forma parte del proyecto de investigación: Formación profesional en los centros de producción docente en Las Tunas, Cuba. Tiene como objetivo determinar de las tendencias de la evaluación de la participación del sistema empresarial en la formación de fuerza de trabajo calificada de nivel medio. Para su desarrollo se aplicó el método histórico-lógico, el mismo permitió hacer la descripción, análisis, caracterización y evolución del proceso de participación. Como principales resultados se arriba a las tendencias históricas del proceso de participación del sistema empresarial cubano en el proceso de formación, las que tiene gran originalidad en tanto recogen testimonios de docentes y metodólogos de la Educación Técnicas y Profesional que han sido protagonistas de este proceso en el período que se investiga y se revelan insuficiencias teóricas y metodológicas de gran importancia para el perfeccionamiento de este nivel educativo.

Palabras clave: Tendencias; evaluación; participación; formación; empresa.

Resumo

A pesquisa apresentada faz parte do projeto de pesquisa: Formação profissional em centros de produção docente em Las Tunas, Cuba. Seu objetivo é determinar as tendências na avaliação da participação do sistema empresarial na formação de mão de obra qualificada de nível médio. Para o seu desenvolvimento foi aplicado o método histórico-lógico, que permitiu a descrição, análise, caracterização e evolução do processo de participação. Os principais resultados são as tendências históricas do processo de participação do sistema empresarial cubano no processo formativo, que possuem grande originalidade ao coletar depoimentos de professores e metodólogos da Educação Técnica e Profissional que

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foram protagonistas deste processo no período sob investigação e revelam-se insuficiências teóricas e metodológicas de grande importância para a melhoria deste nível educacional.

Palavras-chave: Tendências; avaliação; participação; treinamento; empresa

Introduction

According to Miari, the history of training a qualified workforce dates back to February 23, 1818, when the first school organized in Cuba for Technical and Professional Education emerged (which at that time was not called that), it was the Nautical School of Rule and later the Havana School of Machinery was created, which began operating on July 4, 1845 (Miari, 1982).

On November 19, 1854, by order of the Civil Government of the Island, the Industrial Schools were created, so on that date it is considered that this type of education was born. These schools arose to respond to the need of that time when the sugar industry was increasing and developing.

In 1889, a report was submitted whose objective was aimed at modifying and expanding the studies of the Arts and Crafts schools in Havana so that they could offer education in line with centers analogous to those in Spain and France. In this course, the classical degrees were put into practice and, for the first time in Cuba, the name of Industrial Technical Education was established for the middle and higher degrees.

With the triumph of the Revolution in 1959, great prominence was attributed to Technical and Professional Education, it was given the task of training a qualified workforce to be able to comply with the development plans carried out by the Revolution in power. Centers dedicated to the training of skilled workers and middle technicians were opened throughout the country. In the First Congress of the Communist Party of Cuba, its purpose, principles and objectives were defined: purpose: "...to train the new generations and all the people in the scientific conception of the world, that is, that of dialectical and historical materialism; develop in all their human fullness the intellectual, physical and spiritual capacities of the individual and foster, in them, elevated feelings and aesthetic tastes; convert communist ideopolitical and moral principles into personal convictions and habits of daily conduct..." Communist Party of Cuba (1978. p 369). In addition, the social mandate for this type of teaching was established by stating: "Technical and Professional Education has the function of providing the country's economy with the qualified mid-level workforce that it requires for its development in the different branches of education." production and services. Communist Party of Cuba (1978. p 394).

Among the fundamental economic objectives for the five-year period 1981-1985, approved by the Second Congress of the Communist Party of Cuba (PCC, 1981), and ratified in subsequent congresses up to the V, are the increase in the efficiency of global production, the maximum use of

natural and labor resources, raw materials, and energy, among others, as well as obtaining high rates of work productivity. (Documents of the II, III, IV and V Congress of the PCC).

According to Moráquez, “(...) from this it follows that to achieve these fundamental economic and technological objectives, the qualified workforce of average technicians and competent qualified workers who work and will work in the future in the productive entities of the country must be prepared. Therefore, it is necessary that the industrial polytechnic schools can receive feedback from these entities regarding the quality with which they are graduating the average technicians and qualified workers, with the technical and human quality that our society demands for these times, or what which is the same: evaluate the external efficiency of industrial polytechnics.” Moráquez (2001. p 27).

It is precisely at this moment where the first evaluation process is located in the process of training a qualified workforce from the polytechnic school - business system link, except that its objective was aimed at the company issuing evaluative criteria on the quality of the graduates from polytechnic schools, without taking into account the evaluation of the participation of the business system.

Which allows us to identify the following scientific problem: How to improve the evaluation of the participation of the business system in the training of the qualified mid-level workforce? For its solution, the objective is: to determine the trends in the evaluation of the participation of the business system in the training of a qualified mid-level workforce.

Materials and methods

In the research process, the historical-logical method was applied, it allowed the description, analysis, characterization and evolution of the process of participation of the business system in the formation of a qualified mid-level workforce. Its procedures allowed the identification of the periodization criterion, based on this criterion the indicators were finalized; In consequence with the indicators and the main historical milestones, two stages are determined. The characterization of the indicators in each of the stages revealed the main characteristics of each stage, the trends and conclusion.

Results and discussion

In the study of the historical evolution and the division of the stages, it is consistent with the following periodization criterion: transformations that occurred in the conception, the evaluation of the participation of the business system in the process of training a qualified workforce, for which that the following indicators were taken into account:

1. Conception of the participation of the business system in the process of training a qualified workforce.

2. Content of the evaluation of the participation of the business system in the training of a qualified workforce.
3. Types of evaluation used in the process of training a qualified workforce in the business context (strategies, instruments and evaluation techniques).

In consequence of the previous indicators, the following stages are determined:

First stage, from 1981 to 2007. Organization of practical teaching and start of the evaluation process from the polytechnic school – company link.

Ángel La Rosa Guerrero, provincial methodologist of the ETP in Las Tunas, with 45 years of experience, states: that at this stage the organizations had to deliver an evaluation of the quality of the graduates, to a commission directed by the Communist Party of Cuba and the Ministry of Labor and Social Security was in charge of collecting the criteria issued by the organizations, what happened is that this is not aimed at transforming and perfecting the training process from the participation of the company.

On July 22, 1985, ministerial resolution no. 327/85 Regulation of practical teaching for Technical and Professional Education centers, in which the modalities of practical teaching are defined, three of them are developed with the participation of the company: pre-professional practices, production practices and practices to obtain job qualifications. In addition, the objectives towards which practical teaching is directed are defined; among them: link, relate and familiarize students with the real conditions of the production and application of new technologies; Instill and develop in students a love of work, respect and love for the working class, as well as interest in knowledge of the revolutionary and labor traditions of our people; prepare the student for the corresponding job qualification; develop in students correct habits of work discipline and work protection and hygiene. The business context plays a fundamental role in meeting these objectives.

In this period, insertion agreements are established with production, service or research centers, which reflect the responsibilities that both parties assume, the attention that will be provided to the students by each of the parties, the name and functions of colleagues who are responsible for each activity on both sides.

In the linkage plan with production and service centers, it was guaranteed that students would develop practical activities that complement their professional training or those that are not possible with the study material base available at the polytechnic school and technical personnel were required. that would serve each student.

Also, control began to be applied to the development of pre-professional practices that were developed in companies. This control was organized and planned from the polytechnic school, with the advice of the Municipal Directorates of Education and the person most responsible was the director of the school.

The school teacher, within his duties, was in charge of executing this control; which was aimed at: controlling and evaluating compliance with the work plan of each student, guiding and controlling the preparation of the final report of the practice, ensuring strict compliance with occupational protection and hygiene regulations, checking compliance with the agreement established between the polytechnic school and the production, service or research centers and inform the Director, Teaching Assistant Director of Practical Teaching and Production, the Head of the Teaching Department or the Head of the Work Study Teaching Department of the school.

In these functions of the teacher, evidently an evaluation was made of the development of pre-professional practices that included the participation of the members of the company who participated in the training process, but it was not developed with the intention of evaluating performance or knowledge. their participation, but rather it was intended for the development of the students and there were no indicators or instruments of inquiry to be applied, it was done on the basis of the exchange with the students and technicians who have been designated to serve them, the teacher's criteria and it was established in the school-company agreements.

The ways to control the development of pre-professional practices were defined, which were: systematic control carried out by the technician who cares for the student, systematic visits made by the responsible teacher to each student, meetings to analyze the development of pre-professional practice, evaluation of students, control visits by the management of the polytechnic school to the places where the students are located and offices of members of the Board of Directors with the responsible teachers; none of them aimed at evaluating the company's participation in the training process, although assessments were made of compliance with the established agreement.

In 1988, Ministerial Resolution 232 appeared, which put into effect a new structure of specialties of Technical and Professional Education, from which study plans with a broad occupational profile were developed, which were characterized by the increase of practical activities, which enables better professional training of students. For these practical activities, the maximum technological use of the workshops, laboratories, polygons, field areas and other facilities of the polytechnic school was required and at the same time, these required a more effective connection of the students to the company.

To comply with the above, the RM appears. 595/88, which promotes the development of practical

activity in school; which goes so far as to consider enabling night hours in the workshops, creating or adapting premises, both inside and outside the polytechnic school, for carrying out practical activities. This reduces the company's participation in the process of training a qualified workforce; although the company is responsible for delivering to the school part of the material resources necessary for the development of the practical activity.

María Peña Area, provincial methodologist of the ETP, with 37 years of experience, points out that in this period the polytechnic school-business link appears with another design and another vision, although this evaluation of the participation of the business system has not yet been achieved.

Subsequently, from 2004 to 2008, training was applied under the concept of the Technical Bachelor, which implies an increase in general training subjects and a reduction in specific subjects of specialties. Priority is given to practical teaching, first and second, in the workshops of the polytechnic school and the third and fourth year in the company, in accordance with the characteristics of each territory and specialty. This implies a reduction in the insertion of students into the company, the attached classrooms are recognized and the internships in the third year adopt the name of work internships.

Starting with the 2006-2007 academic year, new study plans are proposed in RM 81/2006 and which include students who were in training since the 2004/2005 academic year. The subjects appear in three groups; They are: general and basic training, which in a group of related specialties a common core was applied in which they received the same programs and teleclasses as the Pre-University level; basic vocational training and specific vocational training. Among its main objectives is the possibility of continuing university studies. (Cuba, MINED, R/M 81, 2006, p.27).

According to the testimony of Eugenio Rodríguez Osorio, provincial methodologist of the ETP in Las Tunas, with 48 years of experience; The conception of the evaluation was maintained by the practical teaching groups of the polytechnic school, directed by the deputy director of practical teaching and the teachers in charge of caring for the students inserted in the companies. The objective of this evaluation was reduced to controlling student attendance, compliance with the training guide and evaluating student learning. The form used for this evaluation was in exchange with the company tutors during the professor's visits to the practice.

Subsequently, circular letter No. 11/2006 from the Secretary of the Council of Ministers and its Executive Committee was issued, which aimed to continue the joint efforts that had been made by the agencies of the Central Administration of the State and the Councils. of the Administration of Popular Power, aimed at the preservation of work-study. For the implementation of these

indications, Circular Letter 684 is issued, dated May 26, 2006 from the Minister of Education, in which it refers to the need for compliance, control and monitoring of the process of job placement of students in companies. .

From this moment on, the polytechnic school - company agreements were established as the governing document of the joint work, which allowed the systematic control of their compliance and the period June - August of each year was established for their signing between both parties. Specialists from the companies were incorporated into teaching as professors attached to the polytechnic school, the tutors to assist the students in the companies were defined, who had to be the workers with the most experience in the work performed and were taken into account. this activity in the evaluation of their performance based on the opinion of the students, in addition to the fact that its methodological preparation for the development of the tutoring was the responsibility of the polytechnic school.

The methods used for this control were: monthly exchanges with students and tutors from the companies to obtain information about the students' preparation, main difficulties and concerns; Compliance with Circular 11/2006 was evaluated bimonthly in the Boards of Directors of each Company and a report containing the following elements: need for a mid-level workforce; declared places; number of students inserted; number of students evaluated in practice by categories B, R or M; number of graduated students who received tickets to remain in Education and number of students who make up the special technical reserve. The previous elements show that this evaluation remained in the control of statistical data, without delving into the participation of companies in the training process.

Main characteristics of the stage:

1. The conception of the participation of the business system in the process of training a qualified workforce was conceived to meet the needs of material and technological resources of the polytechnic centers, with a notable reduction with the application of the Technical Bachelor training plan.
2. The content of the evaluation was limited to the evaluation of the quality of the graduates that the organizations delivered to a commission directed by the Communist Party of Cuba and the Ministry of Labor and Social Security and to the control of student attendance, compliance with the training guide, evaluation of student learning and checking compliance with the established agreement between the polytechnic school and the company.
3. The teacher carried out systematic controls on work practice, organized and planned from the polytechnic school, with the advice of the Municipal Directorates of Education and the person

most responsible was the director of the polytechnic school; no indicators or instruments of inquiry were defined to be applied, it was done on the basis of the exchange with students and tutors, the teacher's criteria and what was established in the polytechnic school - company agreements.

Second stage, from 2007 to 2023. Emergence of the Provincial Management Position as a space for evaluating the polytechnic school - company link.

The agreements of the Executive Committee of the Council of Ministers, dated January 17, 2008, are aimed at establishing the responsibility of the organizations with the training of the qualified workforce, essentially to the demand for enrollment by specialties, material resources and specialists necessary to develop the process in the polytechnic school. Without explaining the means of control of these responsibilities.

According to the testimony of Mario Morales García, Head of the ETP department in the province of Las Tunas, with 50 years of experience at this educational level, he states that: at this stage the Provincial Management Position arises; as a space to evaluate, with the representatives of the organizations and the directors of the polytechnic school, compliance with the polytechnic school - company agreements, but no methodology or indicators are defined that would allow evaluating the participation of the business system in the training of the qualified workforce.

In 2013, Ministerial Resolution No. 254 modifies the Practical Teaching Regulations in force since 1985 to the new conditions existing in the polytechnic school, based on the transformations that are carried out in the Technical and Professional Education Subsystem, the changes that in the development economic and social events that are occurring in the country and strengthening the participation of the business system in the vocational training process; approves and puts into force the "Regulations for the planning, organization, development and control of practical teaching in Technical and Professional Education teaching centers and in production or service entities", on an experimental basis, in the courses school years 2013-2014 and 2014-2015.

In correspondence with these modifications; The teaching-learning process is evaluated in the attached classrooms, at the polytechnic school level, from compliance with the following conditions: material conditions to satisfy the needs of vocational training, fulfillment of the objectives of vocational training, level of preparation of the students. specialists or teachers in front of the classroom and level of preparation of the students, manifest in the "know-how". The evaluation that was developed from observation to the process and dispatch with managers, without having specific routes defined, and its content was focused on compliance with what was established in said resolution. It was systematically developed in the teaching departments, in the

Board of Directors and in the balances to be carried out with the organizations in correspondence with what was established in the agreements.

On October 8, 2019, Decree No. 364 of the Council of Ministers is issued, "On the Training and Development of the Qualified Workforce", the purpose of which is to establish the scope of responsibilities of the bodies, the Central Administration of the State, the national entities, the provincial and municipal administrations of the People's Power, the business system and forms of non-state management, in vocational training, professional guidance and the training and development of the qualified workforce , as well as matters concerning the constitution and functions of the National Commission and the provincial and municipal groups of Vocational Training and Professional Guidance (2019, p 2).

Referring to the training and development of the qualified workforce, it establishes that: "Higher level vocational training constitutes a set of systematized learning modalities that aims to provide socio-labor preparation and introduction to the world of work up to high specialization." ; It is developed fundamentally in educational institutions, with the participation of the bodies, the agencies of the Central Administration of the State, the national entities, the provincial and municipal administrations of the People's Power, the business system, the family and the entire society as a whole. , in order to train competent professionals committed to the social project that is being consolidated in the country" Decree No. 364 of the Council of the Council of Ministers (2019, p 3).

In addition, it refers to the responsibility of the Ministry of Education to establish the standards for the selection of specialists who serve as teachers, instructors and tutors who participate with students in the different modalities of vocational training and to coordinate with the organizations the improvement of this personnel, as well as establishing, together with the rest of the administration bodies, Central of the State, the requirements to certify the entities in which the training of professionals at the medium and higher levels, professional development and training is carried out. postgraduate academic, as well as science, technology and innovation.

Also, it is the responsibility of the Ministry of Education to provide methodological advice and control matters related to the link between polytechnic schools and companies, aimed at the training and development of qualified workers and mid-level professionals.

The business system must participate in the preparation and development of study plans and programs, as well as in student scientific activities of a local and national nature; establish agreements with polytechnic schools for the development and assurance of activities carried out based on the training of the qualified workforce; ensure the insertion activities of students in work

practice and in preparation for employment; guarantees the use of company specialists as instructors, teachers and tutors; plan inputs, raw materials, means of work, safety and health at work, as well as specialized ones to be used by students, develop socio-productive projects in conjunction with the different educational levels; provide criteria to training organizations on the quality of graduates; maintain the introduction of new technologies in the productive and service sector with their use in the training of professionals by areas of knowledge; and participate in the technical preparation and updating of teachers and specialists to ensure the preparation stage for employment.

In accordance with Decree No. 364 of the Council of Ministers on December 4, 2019, the Regulation of the responsibility of entities in the training and development of the qualified workforce at the middle level of the Ministry of Education is approved. This resolution ratifies the participation of the business system in the training of the qualified workforce, beginning with the request to the Ministry of Education, the opening or closing of specialties for the training of a qualified mid-level workforce, as a whole. with the bodies, agencies of the Central Administration of the State and national entities, for which they consider the planning of material and human resources, in correspondence with the National Plan for Economic and Social Development, in the medium and long terms.

Subsequently, Ministerial Resolution 119 of 2022 is approved, Regulation for the planning, organization, development and control of practical teaching in Technical and Professional Education teaching centers and in production or service entities, which is the one currently in force. The conception of the process of training a qualified workforce in the business context is resized, from the fulfillment of the agreements the Company participates in the planning of the practices and in the presentation of the students in the business context. The tutor is the main driver of the students' professional training. Due to its influence on the student, it is very important to work with great rigor in its selection and preparation.

To control the agreements, management positions are developed at the polytechnic school and company level, led by representatives of both institutions, with the aim of analyzing the specific actions that are carried out to guarantee compliance with the work agreements, in In particular, the assurance of practical teaching plans, the operation of the attached classrooms, the participation of specialists as teachers, compliance with the study programs and material assurance, as well as the attention to students during practices in the companies, the existing difficulties are analyzed and solutions are proposed by the top leaders. In addition, close communication is maintained between the directors of the polytechnic schools and the companies, carrying out visits to the corresponding

companies, in particular, points are included in the management councils for the assessment of joint work with the presence of the directors of the companies. and professional guidance actions are organized in teaching groups.

Management positions are also developed at the provincial level, with the aim of controlling the behavior of joint activities and monitoring the agreements made to guarantee the commitments made by both parties based on the preparation of students with the required quality and Periodic dispatches are made between the representatives designated by both parties, with the aim of executing and following up on the agreements made in management positions and seeking solutions to any difficulties that arise. It is proposed to include in the Provincial Administration Councils, at the request of the provincial education directorates, the balance of the joint work with the territorial organizations, where the results of the work, the existing difficulties are analyzed and the actions or measures for their resolution are projected. solution, based on raising the quality of the training of qualified workforce in the territories.

From control to compliance with agreements, the participation of the business system in the training of the qualified workforce is evaluated from the evaluation of compliance with responsibilities in each productive entity. But this evaluation remains in the order of the evaluative criteria made by the professor of the polytechnic school who attends the practice, from observation to the process or the criteria issued by the students and workers, without having instruments for obtaining data that corroborate a assessment.

On the other hand, the deputy directors of vocational training and production carry out control of the agreements signed with the companies, this is aimed at controlling the human and material resources that the company must provide for the development of the training process, but without reaching to be a process of evaluating the participation of the business system.

The previous analysis allows us to say that the control of the development of the participation of the business system in the process of training the qualified workforce is carried out through the following means: systematic visits that must be carried out by the teacher who attends the group; control visits carried out by the directors of the polytechnic school; offices of the management of the polytechnic school with the teachers who control the students; evaluative cuts to analyze and evaluate the development of practices; methodological exchange meetings between the professors of the polytechnic school and the company tutors who care for the students; systematic control and evaluation carried out by the tutor to the student; control in the practical teaching and production groups, management and technical councils and in management positions with the management of the companies based on the commitments made in the work agreements.

The content of these evaluations is the control of the teaching-learning process of the students, the material resources necessary for the development of the training process, the improvement needs of the tutors, company specialists and teachers of the polytechnic school, but that still do not allow a comprehensive evaluation of the participation of the business system.

Main characteristics of the stage:

1. The conception of the participation of the business system in the process of training a qualified workforce is resized, starting from establishing the responsibility of the organizations in this process and declaring the tutor as the main driver of the professional training of students.
2. The evaluation was limited to compliance with the polytechnic school - company agreements and the teaching-learning process began to be evaluated in the attached classrooms.
3. The Provincial Management Post emerged and at the level of polytechnic school and specialties, as a space for evaluation, with the representatives of the organizations and the directors of the polytechnic school; based on the criteria of observation of the process, offices and debates; without having defined specific paths and its content was focused on compliance with the provisions of the resolutions that govern this process and compliance with the polytechnic school - company agreement, without defining a methodology or indicators that would allow evaluating the participation of the business system. in the training of the qualified workforce.

The analysis of the stages, based on the most significant facts and aspects, allows us to establish the following trends:

1. The conception of the participation of the business system in the process of training a qualified workforce went from being reduced to meeting the needs of material and technological resources of the polytechnic school to its resizing, based on establishing the responsibility of the organisms in this process without ever conceiving its evaluation.
2. The content of the evaluation of the participation of the business system in the training of a qualified workforce consisted of the Company as an evaluator of the quality of the graduates and the polytechnic school, evaluating the attendance of the students, compliance with the training guide, the evaluation of learning and checking compliance with the polytechnic school - company agreement, to the joint evaluation of compliance with the polytechnic school - company agreements and the teaching-learning process in the attached

classrooms, without taking into account the participation of the business system as content of the evaluation.

3. The types of evaluation used in the process of training a qualified workforce in the business context moved from the systematic controls of the polytechnic school teacher to labor and pre-professional practice, based on the exchange with students and tutors, their criteria when checking what is established in the polytechnic school – company agreements; until the emergence of the Provincial, Municipal Management Position and at the level of polytechnic school and specialties, as a space to evaluate with the representatives of the organizations and directors of the polytechnic school; based on the criteria of observation of the process, offices and debates; without defining a methodology or indicators that allow obtaining characterizing and evaluative data.

Conclusions

In conclusion, the need to conceive the evaluation of the participation of the business system in the formation of a qualified workforce as a process that produces, characterizes and evaluates information is corroborated; which allows improving the evaluation process of the participation of the business system in the training of a qualified workforce.

References

- Miari, A (1982). *Organización y metodología de la enseñanza práctica*. Pueblo y Educación.
- Ministerio de Educación (1985, 22 julio). Resolución Ministerial No. 327. *Reglamento de enseñanza práctica para los centros de la Educación Técnica y Profesional*. Pueblo y Educación.
- Ministerio de Educación (1988, 26 junio) Resolución Ministerial No. 232. Nueva estructura de especialidades de la Educación Técnica y Profesional.
- Ministerio de Educación (2006, 28 abril). Necesidad del cumplimiento, control y seguimiento al proceso de inserción laboral de los estudiantes en las empresas. *Circular 684*.
- Ministerio de Educación (2013, 19 noviembre). *Resolución Ministerial No. 254. Reglamento para la planificación, organización, desarrollo y control de la enseñanza práctica en los centros docentes de la Educación Técnica y Profesional y en las entidades de la producción o los servicios*.
- Ministerio de Educación (2022, 9 junio). Resolución Ministerial No. 119. *Reglamento para la planificación, organización, desarrollo y control de la enseñanza práctica en los centros docentes de la Educación Técnica y Profesional y en las entidades de la producción o los servicios, que es la que está vigente en la actualidad*.

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qualificada*

Moráguez, I. A. (2001). *Propuesta de indicadores para evaluar la eficiencia externa de las escuelas politécnicas industriales de la provincia de Holguín*. [Tesis de Maestría, Instituto Pedagógico Latinoamericano y Caribeño]

Partido Comunista de Cuba (1978). *Primer Congreso del Partido Comunista de Cuba. Tesis y resoluciones*. Ciencias Sociales.

Partido Comunista de Cuba (1981). *II Congreso del Partido Comunista de Cuba*. Política, 1981.

Conflicto de intereses

Los autores declaran que no existe conflicto de intereses

Declaración de contribución de autoría

Yuranny Leyva Pérez: Conceptualización: Conceptualización, Investigación, Metodología, Administración del proyecto, Adquisición de fondos, Validación, Visualización, Redacción de borrador original.

Lien Barly Rodríguez: Investigación, Metodología, Curación de datos, Análisis formal, Recursos, Supervisión.

Pedro Valiente Sandó: Metodología, Visualización, Recursos, Curación de datos, Redacción.