

MENDIVE

REVISTA DE EDUCACIÓN

Translated from the original in Spanish

The learning of the student of the Technical and Professional Education in the labor context. Methods and procedures

Aprendizaje del estudiante de Educación Técnica y Profesional en el contexto laboral. Métodos y procedimientos

Aprendizagem dos alunos da Educação Técnica e Profissional em contexto de trabalho. Métodos e procedimentos

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Received: April 15th, 2021.

Approved: June 22nd, 2021.

ABSTRACT

The Cuban pattern of Technical Education and Professional shared school labor polytechnic-entity that it bases the formation of the middle level professionals at the present time, demand of a revision of their didactic-methodological projection of the formative process, as long as the labor context wins more protagonism every day in the process of teaching learning. The present article had as objective to propose a system of didactic procedures that potentiate the method of the formation in the professional-productive activity, assumed in the Pattern of the Dynamics of the teaching-learning process in the labor Practice in the entities of the production and the services. The investigation assumed a mixed focus of descriptive character. Theoretical methods were used as: the analytic-synthetic one, the inductive-deductive one, the hermeneutic-dialectical one, the systemic-structural-functional one, the holistic-dialectical one, as well as the content analysis. Inside the empiric ones they highlighted the survey to educators (professors of the schools and specialists of the labor entities) and the observation of educational activities in the labor context. As a fundamental result it was possible to present a proposal of system of didactic procedures that strengthen and make more effective the method proposed during the development of the labor Practice.

Keywords: labor context; student of the Technical and Professional Education; practical work; process of teaching learning in the Technical and Professional Education.

RESUMEN

El modelo cubano de Educación Técnica y Profesional compartida escuela politécnica-entidad laboral, que fundamenta la formación de los profesionales de nivel medio en la actualidad, demanda de una revisión de su proyección didáctico-metodológica del proceso formativo, en tanto el contexto laboral gana más protagonismo cada día en el Proceso de Enseñanza-Aprendizaje. El presente artículo tuvo como objetivo proponer un sistema de procedimientos didácticos que potencien el método de la formación en la actividad profesional-productiva, asumido en el Modelo de la Dinámica del Proceso de Enseñanza-Aprendizaje en la Práctica Laboral en las entidades de la producción y los servicios. La investigación asumió un enfoque mixto de carácter descriptivo. Se utilizaron métodos teóricos como: el analítico-sintético, el inductivo-deductivo, el hermenéutico-dialéctico, el sistémico-estructural-funcional, el holístico-dialéctico, así como el análisis de contenido. Dentro de los empíricos destacaron la encuesta a educadores (profesores de las escuelas y especialistas de las entidades laborales) y la observación de actividades docentes en el contexto laboral. Como resultado fundamental se logró presentar una propuesta de un sistema de procedimientos didácticos que fortalecen y hacen más efectivo el método propuesto durante el desarrollo de la Práctica Laboral.

Palabras clave: contexto laboral; Educación Técnica y Profesional; Práctica Laboral; Proceso de Enseñanza-Aprendizaje.

RESUMO

O modelo cubano de Educação Técnica e Profissional compartilhada escola-trabalho politécnico, que hoje fundamenta a formação de profissionais de nível médio, exige uma revisão de sua projeção didático-metodológica do processo formativo, pois o contexto

laboral ganha cada dia mais protagonismo. no Processo de Ensino-Aprendizagem. El presente artículo tuvo como objetivo proponer un sistema de procedimientos didácticos que potencien el método de la formación en la actividad profesional-productiva, asumido en el Modelo de la Dinámica del Proceso de Enseñanza-Aprendizaje en la Práctica Laboral en las entidades de la producción y os serviços. A pesquisa teve uma abordagem descritiva mista. Foram utilizados métodos teóricos como: analítico-sintético, inductivo-deductivo, hermenéutico-dialéctico, sistémico-estructural-funcional, holístico-dialéctico, além da análise de conteúdo. Dentre os empíricos, destacaram-se o levantamento com educadores (professores e especialistas de entidades sindicais) e a observação da atividade docente em contexto de trabalho. Como resultado fundamental, foi possível apresentar uma proposta de sistema de procedimientos didácticos que fortalece e torna o método proposto mais eficaz durante o desenvolvimento da Prática de Trabalho.

Palavras-chave: contexto de emprego; Educação Técnica e Profissional; Prática de Trabalho; Processo de ensino-aprendizagem.

INTRODUCTION

The way of teaching and learning at any educational level in Cuba and in the world is being studied more and more every day from different positions in Social Sciences ; One should not forget that teaching and learning constitute essential categories for the Teaching and , therefore , of Pedagogy. Thus, many of the scientific problems of Pedagogical and Psychological Sciences point to how people learn (Mena, Moreno and Yturria, 2019).

In particular, this issue continues to be a matter core in the Cuban Technical and Vocational Education (ETP). To train a competent mid-level professional, a producer worker as required by society and its labor market, goes through learning the professional content that they can develop (Mena and Mena, 2020); hence the complexity and urgency that the subject entails.

However, in the current conditions of socio-economic development on a world scale, it is very complex, even for the education systems that are better supported economically, to train professionals without the shared support of the polytechnic school and the labor entities [Ministry of Education (MINED, 2016); Council of Ministers, 2019]. Although until now the pedagogical professional processes that are developed in the polytechnic school have been defended, those that are developed in both contexts in a shared way are more important (Mena, Aguilar and Mena, 2019).

In the case of Cuba, after the triumph of the Revolution in 1959 it is conceived, gradually, the impact of labor institutions in training of mid-level professional. Thus, in different ways and not always according to the social and labor demands, the student of the ETP has been linked to the production process and service in the laborer context, understood as "The scenario in labor entities, state or self-employed, where there is a close interrelation of educators and students of the specialty and of these with the environment, through individual and collective pedagogical activities that facilitate the comprehensive technical-professional development of professionals in training" (Mena, 2016, p. 14).

However, it was not until the 1990s, with the beginning of the Special Period, that a true awareness began to emerge

about the role of the labor entity in the ETP process, nuanced by the human and material insufficiencies that affected to the polytechnic schools (Mena, Aguilar and Mena, op. cit.). As a result of the crisis, part of the process of practical teaching, it began gradually to be held in the stage production with the participation of business professionals as teachers (with attached classrooms and labor practices). It is to say, the traditional guardian of the labor entity increased its training functions now as a teacher (at school or in work organization) in the Teaching-Learning Process (PEA) of the ETP.

On the other hand, the conditions of the productive processes and services are novel if one aspires to the development of a practical teaching class, which until now was pre-conceived for the stability of the teaching workshops of the polytechnic schools. As a result, the traditional organizational forms for the development of the curriculum in the classroom conditions of the school, entered into dialectical contradiction with the new contents that from then on characterized the ETP process under conditions of production and services; With this, the didactic conception of the practical teaching class also comes into contradiction, to the point that for Abreu and Soler (2015) a new field of ETP Didactics is being discovered.

Based on these changes conditioned by the economic and social reordering of the country, the MINED (2014) establishes a system of practical teaching modalities in labor entities, which go through the entire initial training cycle, both for the specialties of Skilled Worker as a Medium Technician.

Similarly, the new model, characterized by the shared formation polytechnic school entity work, put research challenges in Professional Pedagogy and scientific results began to appear offering explanations to the new

phenomenon; some of them are listed below. Acosta (2012) proposes a new conception of the process of practical teaching in workshops teaching - productive labor entities, including new ideas and starting points (early); Aguilar and Mena (2015) also offers a new way of conceiving the learning evaluation during labor and pre professional practices (labor insertion) of the students.

Meanwhile Jimenez, Milanez and Moreno (2017) provide a new didactic methodology meaning to the dynamics of the process of appropriation of the contents from the solution of professional problem situations, from actions of investigative character in the formative contexts of the school and the labor entity. Likewise, Aguilar (2018) proposes a model on the dynamics of the PEA of the ETP, which enhances the process of appropriation and transfer of the contents in the solution of professional problems, thereby revealing the qualities that emerge from the integrative logic of the PEA during the Labor Practice.

As a necessary way for management of the educational process, without interfering with the dynamics of the production process, and the latest model, it assumes the method of training in professional productive activity. This training method, the result of an experiment in complementary classrooms, conducted by researchers from the Center for the Study of ETP, University of Pedagogical Sciences "Rafael María de Mendive" of Pinar de Rio (cited in Mena, Moreno, Yturria and Mena, 2019), proposes a necessary path for the direction of the pedagogical process without interfering in the dynamics of the production process.

The issue has also been studied outside of Cuba. At the international level, the contributions of Flores, Fuentes and Mujica

(2016); Shulman (2016); Moreno, Terás and Gougoulakis (2018), just to mention three cases that address the role of the business context in the training of future professionals; However, they conceive the process from the traditional didactics without deepening the contextualization of its components during the production and services process.

As can be seen, there are emerging proposals from the science offering explanations in the methodological didactic, order the PEA of the ETP in labor entities. However, as regularity, the previous authors consider insufficient the theoretical contributions focused on the dynamics of the process, especially with regard to ways and procedures that consider their objectives and particularities to achieve the professional training of the ETP student.

As a consequence, the situation of the development of these teaching activities in the productive and service context still presents difficulties. Proof of this are the results of the follow-up to the facto-perceptible diagnosis on the behavior of the PEA of the ETP in the labor context, carried out in the provinces of Granma and Pinar del Río during the last four years. These results reveal, among others, the following shortcomings:

- Poor motivation and understanding for students about the professional contents is, essential in confronting and solving situations and problems that characterize the labor context of their specialties.
- Insufficiencies in the integration of basic and professional content by students, during the confrontation and solution of production and service problems, from the simplest to the most complex.

- Insufficiencies of a didactic-methodological order in the coherent actions of teachers, specialists-instructors and tutors for the direction of the PEA of the ETP in process in the labor context.
- Traditional conception of the practical teaching class that brings with it an insufficient didactic-methodological structuring of the training process, based on the interrelationship between the didactic components in the conditions of the production process and services.

The results of the study envisioned affectations in the Dynamic of the PEA of the ETP in the employment context, concept defined by Aguilar (2018) as a process by which educators, from its integrated actions, cooperate with the student in the production process as a space of meaning and meaning, through the use of didactic procedures that respond to the method of training in professional-productive action, thereby achieving that the student appropriates and transfers the professional content in the solution of professional problems, in the permanent interrelation between motivation, understanding and technical-professional performance.

These shortcomings, due to the ineffectiveness of methods and singular teaching procedures required as expression of this dynamic, leading to a theoretical reanalysis of the referred dynamics to, based on the need for new teaching - theoretical and methodological references in the integration and contextualization of methods and procedures.

Recent research carried out in the Granma province, related to the dynamics of the PEA of Labor Practice, in which the method of training in productive professional activity is

assumed, evidenced the need to continue the investigative work based on the enrichment of this method, from the identification of training procedures that make it more affective.

Hence, the aim of this article is specified from the following objective: to propose a system of didactic procedures that enhance the method of training in professional-productive activity, assumed in the dynamics of the PEA during the development of the Labor Practice in the entities of production and services.

MATERIALS AND METHODS

The research was the result of collaboration between the Granma and Pinar del Río provinces; assumes a descriptive and a mixed approach as a general guideline and dialectics-materialist, which is configured from the use of general methods of science that allow direct it, among which are theoretical methods as the an Analytic-synthetic, inductive-deductive, the hermeneutic-dialectic, the systemic-structural-functional, the holistic-dialectic and content analysis.

Among the empirical ones, the survey of educators (school teachers and specialists from labor entities) and the observation of 28 teaching activities in the work context stand out. The following indicators were taken into account:

- Correspondence between the didactic structures of the practical lessons with the logic of the production process.
- Productivity of didactic procedures used to achieve motivation, understanding and performance in the dynamics of the process.

- Organizational forms used during the process.
- The work with the professional content taking into accounts the variables and conditions inherent in the work context.
- Ways used for evaluation based on the indicators of the practical teaching class.

They were used as backdrops three Polytechnics Institutes of Granma Province and two in the province of Pinar Rio, as well as six business entities of their love industrial branch of both territories. In addition, we worked with 60 teachers, of them 28 specialist instructors and tutors labor organizations with over 15 years of experience in vocational training midlevel schooled and 10 years of experience at least in the direction of learning in the ETP, specifically in the employment context.

RESULTS

The study began with the theoretical review (content analysis) of two essential results according to the objectives of this article, given the need for their knowledge by educators, based on the behavior of its components in the socio-labor conditions in which it had place the investigation.

Accordingly, it was analyzed the *training Model dynamics PEA work practice in the ETP* (Aguilar, 2018). This model is considered as a theoretical construction, simplified and holistic in nature, with a representation of those essential characteristics of the aforementioned process, which allow discovering and studying the dialectical relationships between the appropriation and transfer of professional content in the solution of professional problems, mediated by didactic procedures that

respond to the method of training in professional-productive action, in which the integrated nature of educators stands out, in order to favor the integral technical-professional development of the ETP student for the solution of professional problems in the working practice.

Taking into account the criteria, the model includes two dimensions: appropriation of professional content and transfer of professional content in the solution of professional problems.

In the first dimension, the configurations of the teaching and productive intentionality of the practical activity and the educator-student cooperation, synthesized in the technical-professional motivation and understanding, affect the first dimension.

In the second dimension, the technical-professional understanding and performance configurations have an impact, which constitute a synthesis of the dialectical relationships that are established between the configurations: integration of professional content and its consolidation in the solution of professional problems. The technical and professional understanding becomes a revitalizing cell of the process modeled and it is based on the technical and professional motivation.

According to the model, the interrelationships between dimensions of the interacting dialectically as an expression of the movement between the configurations that identify the dynamics of the PEA in Labor Practice amounts qualitatively higher levels of organization and development (figure 1).

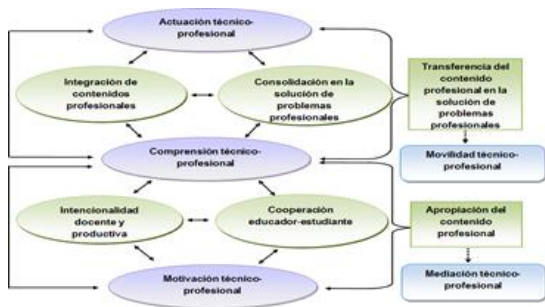


Fig. 1- Graphic representation of the dynamics model of the PEA in the Labor Practice in the ETP

The dialectical relations manifested between the dimensions of the model reveals as essential regularity the logic integrated systematization of the PEA in Labor Practice, which energizes the dialectical relations between motivation, understanding and vocational constructive acting, as processes that synthesize modeling.

From the analysis it can be understood that the appropriation of professional content arises as a result of the dialectical relations between the configurations intentionality educational and productive practice activity, the teacher-student cooperation, summarized in motivation and vocational understanding. As a result, the transference of the professional contents solving professional problems is a result of the dialectical relationships between the professional content integration and consolidation in solving professional problems, synthesized in understanding and technical performance.

Having analyzed the essence of the model, we proceeded to study of the *training productive professional activity* method, which energizes the PEA during the development of the Labor Practice. According to researchers from the ETP Study Center of the ancient University of Pedagogical Sciences of Pinar del Río (cited by Mena, Moreno, Yturria and Mena, 2019), the structure of

the method includes five essential components and a system of actions (component II) that allow guiding the PEA in the conditions of the production process and services. They are:

I. Determination of the objective of each activity (linked to the purpose outlined with the teaching activity in the labor entity).

II. The actions to (common to the process of knowledge, increasing complexity given the conditions of the production process).

1. Determination of the previous knowledge that students have to face professional problems (of simple, medium and high complexity) in each activity.

2. Determination of the conditions for the development of teaching tasks during practical activities in the productive context, which included: technological requirements of the problem to be solved; the technical documentation the existed technical - economic indicators; safety and hygiene standards, as well as tools and devices necessary and available for the job.

3. Analysis and prior reflection of the information obtained in the previous actions (collectively with the students on the possible steps to follow and possible solutions to offer to each problem).

4. Execution of the productive- training activities, from the confrontation and solution of the corresponding professional problem (demonstration of the activities to be carried out by the teacher and/or the specialist instructor; distribution and establishment of the rotation by the existing jobs in the workshop; collective reflections during work, evacuation of difficulties).

5. Analysis and final collective assessment of the activity carried out (individual results and general balance based on criteria: of each student, of the group and of the educators).

In addition, you add a sixth related action,

6. Operationalization of the procedures that streamline the method (related with planning, operations or forms that facilitate the execution of the method).

III. The means to be used (made up of the elements of the job, the company's teaching workshop and the productive-pedagogical scenario in general and their professional problems).

IV. Object on which the action falls (content of the professional activity to be carried out).

V. The final result (associated with the solution given by the student to the professional problem addressed; the particular contribution of that solution to the student's training process; the contribution of the student as a worker to the social order of the labor entity, as well as development and training technical and professional skills that must be achieved as a result of each activity and process).

Once analyzed the results of the model and the projection of the method, during the preparation of the teaching, it was begun the lifting information with the application of the instruments declared.

It was found that, both in the preparation and in the development of each activity, the components of the structure of the proposed method were taken into account, according to the conditions of each scenario. As regularity, the greatest difficulties were related to the use of the

procedures. The results of the application of the instruments were the following:

- Both in the application of the survey to educators and in the observation of teaching activities, in 100 % of the cases there is evidence of a lack of correspondence between the didactic structure of the class and the logic of the production process, despite the fact that the general method applied facilitates the dynamics of the process. Generally, the didactic structure is followed according to work experiences in schools, leading to the use of usual procedures, which affects the decrease in productivity of the method and of the dynamics of the PEA.
- In 89 % (25) of the activities, the organizational forms used during the process do not correspond to the traditional ones of the school, since different problems are faced in the object of work. As regularity, students are distributed individually, by duets or trios in different positions in which they faced different problems. As a consequence, it became necessary to establish a job rotation; also, the class time was around eight hours, which exceeds the traditional time scheduled for school. These conditions made it necessary to carry out general analyzes at the beginning of each day, related to the work carried out on the previous day and with the work that would be carried out on that day.

100 % (60) of the educators assure that the determination of the procedures that the method used in effect depends on the characteristics and the state of the work to be carried out, as well as the complexity of the problem to be faced in each activity.

In 71.4 % (20) of the activities observed, it was observed that the work with the professional content does not follow a development adjusted to the projection foreseen in the school programs. All teachers (100 %) consider that the solution of real and immediate problems requires students to be creative and integrate content and possess knowledge that in some cases they have not yet mastered, so it is necessary to carry out certain explanations and demonstrations about them, both in the initial phase and during the execution of the activities.

As a consequence of the aforementioned shortcomings, both in all the activities observed (28) and in the teachers' criteria (60), the routes used for evaluation should match the indicators of the practical teaching class with the economic technical indicators of the productive activity carried out. This influences the ways of organizing the evaluation adjusted to the time, moment and quality required in each case, among other essential indicators.

Finally, all the educators surveyed weigh the use of the training method in productive professional activity; however, they ensure that its success and effectiveness is the systematic selection and use of the system procedures to be used in each activity to be performed.

In accordance with the relationships revealed in the modeling, and as part of the internal structure of the mentioned method, as well as the need for its contextualization for the student's learning of ETP in the work context, it is expressed, from a theoretical perspective, the system of didactic procedures resulting from the study carried out.

System of didactic procedures

The proposed didactic procedures enable the correct use of the training method in

professional-productive activity in the dynamics of the PEA in Labor Practice; In addition, they lead the ETP student to an active, responsible and transformative position in solving professional problems in the work context. The essential objective of the system of procedures is to contribute to the effectiveness of the method; and in that way, educator's influence that the student ETP could appropriate and transfer the professional content in solving professional problems.

The procedures proposed is based in a logical - dialectic sequence and become in teaching activities developed in the cooperation between educators and students of the ETP. In this regard, there should not be understood as rigid and predetermined steps, but as dynamic and flexible systems of construction that does not underestimate the possibilities of adaptation and enrichment in practice teaching, according to the context in which the teaching activity takes place.

The procedures system helps to its understanding, explanation and interpretation of the method as well as its further response to the relations established in the proposed model. Moreover, the procedures effect on the method to establish a relationship with other components of the teaching process.

The didactic procedures proposed as part of the system are the following:

1. Dialogue and collective reflection on the activity -productive professional: it allows the exchange of ideas among educators, actors in mediating vocational, and student, mainly in the introductory phase to solving professional problems. Conducive to the professor and specialist instructor, ask questions and provide answers intended to make the student familiar, motivate, understand and mobilize their resources personological in solving

professional problems, from conditions in the employment context and objectives of the activity, as part of the process of appropriation and transfer of professional content.

It facilitates, in addition, the teacher with the specialist-instructor and / or guardian, finds the knowledge, skills and professional values that the student possesses and must transfer to undertake the professional-productive action. This allows organizing job rotation, which is largely an expression of cooperation between educators and students. The procedure improves the intentionality of the professional-productive activities, which affects the motivation of students, from the recognition of their potential to act and learn in the existing conditions in the labor context. It facilitates, in addition, integration consolidation and transfer of professional content for their performance, which requires a technical professional-mobility in solving professional problems.

2. Show-Demonstration-Observation -Essay of the productive professional action:

It facilitates educators the demonstration of actions and operations for the student face and solve professional problems, under the terms of the context and without compromising the production process, according to the principle subordination- adaptation of the pedagogical process to the production process (Acosta, 2012). This implies taking into account the teaching and productive intentionality of the process. The student, as part of their interests and motivations, observed the demonstration of the teacher, specialist-instructor or tutor and with the cooperation of these, imitates or repeats the actions and practice operations, which facilitates understanding the the path (s) to follow to solve the professional problem

and in turn appropriate the professional content.

This procedure is developed, basically, in the introductory phase to the solution of the professional problem (regardless of its degree of complexity); although it is applicable throughout the process. It allows the student to periodically observe and imitate the professional-productive actions and operations that the specialist-instructor or the tutor perform during their performance; as well as integrating, consolidating the professional content and regulating their technical-professional performance, to the extent that said content is mobilized and transferred in the solution of professional problems of different degrees of complexity.

3. Independent work in the activity - productive professional:

promotes the independence of the student of the ETP to solve the problem with sufficient professional motivation and vocational understanding regarding the process. It admits that the teacher and the specialist-instructor, through tours and clarification of doubts, cooperate with the student without limiting their autonomy and creativity, in correspondence with the difficulties they present when solving the professional problem.

On the other hand, it facilitates job rotation, as a guarantee for the appropriation of professional content and its transfer in the solution of diverse and complex professional problems by the student, expression of constructive technical-professional performance, supported by integration and consolidation of professional content. In addition, it favors the technical-professional mobility of the ETP student, as well as an adequate and gradual reduction of the technical-professional mediation (system of influences) of the educators.

4. **Participatory assessment-productive professional action:**

It facilitates educators assess individual and collective results of the work done during the confrontation and solving professional problems, taking into account the self-assessment, peer assessment and hetero evaluation; thus, the student, by learning about their achievements and difficulties during the process, reinforces their motivation and understanding, which has a direct impact on comprehensive technical and professional development. It also allows influencing intentionally and in a cooperative way, so that the colleagues improve their technical-professional performance. In this sense, it favors the evaluation of the appropriation and transfer of professional content in the solution of professional problems.

The system procedures, as part of the method of training in the professional-productive activity, allows the student of the ETP during the PEA in Labor and dynamic Practice to appropriate and transfer the professional content of the solution of problems in the work context.

DISCUSSION

The theoretical research results in relation to the ETP of the ETP in the labor context are gaining strength in Cuba, mainly during the last 15 years. In this direction, various components of the process have been addressed, especially those related to methods and procedures. This continues to be an issue that generates controversy and, at the same time, recently unravels the need for its study and improvement.

According to the study carried out by Aguilar (2018), among the scientific results systematized in recent years with implications in the PEA of the ETP that is

developed in the Labor Practice, the following can be cited:

- *The contextual training method*, in order to ensure the development of the dynamics of the professional training process based on professional competencies of the mid-level technicians of the Industrial Branch (Forgas, 2008).
- *The method of deepening the agronomic content*, with the aim of promoting the dynamics of the PEA of the professional-basic subjects, in order to stimulate the development of the learning of the contents in this specialty of the ETP, according to the logic of agricultural production processes (Sosa, 2012).
- *Method of productive cooperation*, in order to express the structure, route and logic to continue for the Mid Technician in Electronics extends complements and achieves greater strength in the integration of the contents of the profession from space business training (Fernández, 2015).
- *The parallel simulation method*, based on achieving the dynamics of the PEA in the subject Execution of Works in the Mid Technician in Civil Construction (Lorente, 2017).

In all cases, Aguilar refers in his study (op. Cit.), Procedural systems that facilitate the execution of each method are proposed.

Among these results there is an evident similarity (Mena, Aguilar and Mena, 2019). The proposals are aimed at solving situations and professional problems from the production process entities, as well as treatment to certain professional content in a subject or technical specialty with the recognition of technological methods, given the

conditions in the aforementioned contexts.

However, the study of these proposals does not sufficiently record the cooperative work between the main personal components of the process (teacher, students, specialist-instructor, tutor, the group and the worker collective). The possibility of reflecting, experimenting, seeking solutions and correcting errors during the solution of professional problems with different degrees of complexity is also not clearly appreciated. All this in function of achieving in the student a creative and independent thinking from a conception of the dynamics of the process of appropriation and transfer of professional content during productive activity, in correspondence with the diversity that characterizes the PEA that takes place in the work context.

The method of training in the professional-productive activity, assumed in this research, has into account the domain of previous content by students as a condition to mobilize the creative capacities depending on the transformation of the object of work materialized in solved professional problems. The Dynamic as of the PEA in the labor entity involves, in addition, the analysis and the permanent reflection (individual and collective), the cooperation between educators and students, as well as a final result cash that expresses the integral technical-Professional development attained by the student during the activity.

The arguments raised are important to favor the appropriation of the professional content in the PEA in the Labor Practice, expressed in capacity with students to achieve transfer professional content in solving professional problems with varying degrees of complexity, from the adequate didactic incidence of educators.

However, the effectiveness of the method of training productive professional activity will depend on the efficient and rational selection and work with the necessary procedures; although the method relates to the objectives, the procedures does it with the conditions under which the process develops (León and Menendez cited by Abreu and Soler, 2015). In this regard, it is understood that the procedures that make up the method of training in the professional-productive activity must respond, with due accuracy, the characteristics of the employment context.

In the European context, Shulman (2016) shares a group of actions as valid procedures for learning in the work entity, among which are: the preliminary orientation of the teacher on the activity to be carried out; student observation, guided by the teacher; the imitation or repetition of actions and operations by the student guided by the teacher; trial and error practiced in certain situations that do not affect the production and service process; questions and answers from the teacher to the student and vice versa; listen, observe, take notes and give feedback; observation-conversation-reflection; explanation and the help of the teacher, other more advantaged colleagues or the working group, schematize-draw- graph given situations, recreation of virtual environments of certain operations of the process, simulation through ICT, computer games, among others.

However, more than a list of possible procedures to be used by the teacher and the instructor specialist during the execution of a productive pedagogical activity in the work entity, a detailed study of various and varied factors is required. These include the form, the educators involved, the characteristics of the jobs, the purpose of the activity, as well as the resources and training requirements, the objectives

pursued and the moment of the PEA in the production process in which these can be used.

In addition, although components initially conceived as features of the method assumed it corresponds to the characteristics of the employment context, the new system of proposed procedures contributes to the dynamics of the PEA from a perspective that consider a network of relations expressed in the modeling described above. Hence, the referred procedures involving, among other things, as essential regularity, the integrative logic of systematization of the PEA in the Labor Practice, which energizes the dialectical relations between motivation, understanding and vocational acting by the student ETP, as synthesis processes in modeling.

The system procedures, fosters addition, permanent dialogue, collective reflection, show-watching-test, independent work and evaluation of professional-productive activities to solving professional problems.

What is approached in the article does not deny the necessary relationship that is established between the method of training in professional-productive activity and its procedures, with the rest of the didactic components of the process (professional problem, objective, content, means of teaching- learning, forms of organization of activity and assessment of learning). On the contrary, the rest of the educational components justify the functionality of the method. The method is weighted because it is the didactic component that points to the dynamics of the process with the help of its procedures, based on the relationships expressed in the model that assumes it.

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Conflict of interest:

Authors declare not to have any conflicts of interest.

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Yudiel Eduardo Aguilar Blanco: Conception of the idea (60 %), coordination of authorship (80 %), general advice on the topic addressed (30 %), literature search and review (50 %), preparation of instruments (80 %), application of instruments (50 %), compilation of the information resulting from the applied instruments (40 %), statistical analysis (40 %), preparation of tables, graphs and images (40 %), preparation of databases (70 %), writing of the original (first version) (70 %), revision and final version of the article (20 %), correction of the article (20 %), revision of the applied bibliographic norm (10 %).

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