



Original article

Methodology for the formation of scientific-research skills, from the Integrative Task

Metodología para la formación de habilidades científico-investigativas, desde la Tarea Integradora

Metodologia para a formação de habilidades de pesquisa científica, a partir da Tarefa de Integração

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ABSTRACT

The scientific-technical development of professionals is a demand of today's global society. The current Cuban Technical and Professional Education demands the training of workers with scientific-investigative skills to solve socio-labor problems and transform reality. Such is the case of the students of the Technical Intermediate Specialty in Social Work, which entails a high scientific rigor, since they must act as promoters, mobilizers, mediators, facilitators and coordinators of actions that contribute to the solution of social problems. Therefore, this article aimed to propose a methodology that enhances the development of scientific-investigative skills in first-year students of the Technical Intermediate Specialty in Social Work of the Polytechnic Center "Rigoberto Fuentes Pérez", in Pinar del Río. In the research, dialectical and historical materialism was adopted as an investigative approach and philosophical basis, which allowed the use of theoretical methods such as: the historical and logical, the system approach, modeling, analysis and synthesis; empirical methods such as: documentary analysis, interviews, surveys, scientific observation, pedagogical pre-experiment; and the use of descriptive statistics, which revealed a set of shortcomings that demonstrated the need to develop a methodology that enhances the preparation of teachers and managers for the development of scientific-research skills in students from the first academic year, whose dynamic center is the subject Integrating Task. It was found that this is an effective and efficient alternative, which can be extended to other specialties.

Keywords: scientific-research skills; methodology; integrative task; social work.

RESUMEN

El desarrollo científico-técnico de los profesionales constituye un reclamo de la sociedad global actual. La Educación Técnica y Profesional cubana actual reclama la formación de trabajadores dotados de habilidades científico-investigativas para solucionar problemas sociolaborales y transformar la realidad. Tal es el caso de los estudiantes de la especialidad Técnico Medio en Trabajo Social, que encierra un alto rigor científico, ya que deben desempeñarse como promotores, movilizadores, mediadores, facilitadores y coordinadores de acciones que contribuyan a la solución de los problemas sociales. Por ello, este artículo tuvo como objetivo proponer una metodología que potencie la formación de habilidades científico-investigativas en los estudiantes de primer año de la especialidad Técnico Medio en Trabajo Social del Centro Politécnico "Rigoberto Fuentes Pérez", de Pinar del Río. En la investigación se adoptó como enfoque investigativo y base filosófica el materialismo dialéctico e histórico, lo que permitió el empleo de métodos teóricos como: el histórico y lógico, el enfoque de sistema, la modelación, el análisis y la síntesis; empíricos como: análisis documental, entrevista, encuesta, la observación científica, preexperimento pedagógico; y el uso de la estadística descriptiva que arrojaron un grupo de insuficiencias que evidenciaron la necesidad de elaborar una metodología que potencia la preparación de los profesores y directivos para la formación de las habilidades científico-investigativas en los estudiantes desde el primer año académico, cuyo centro dinamizador es la asignatura Tarea Integradora. Se pudo constatar que esta es una alternativa efectiva y eficaz, que puede hacerse extensible a otras especialidades.

Palabras clave: habilidades científico-investigativas; metodología; tarea integradora; trabajo social.

RESUMO

O desenvolvimento técnico-científico dos profissionais é uma demanda da sociedade global atual. A atual Educação Técnica e Profissional cubana exige a formação de trabalhadores dotados de habilidades de pesquisa científica para resolver problemas sociolaborais e transformar a realidade. Esse é o caso dos alunos da especialidade de Serviço Social, que envolve um alto grau de rigor científico, pois devem atuar como promotores, mobilizadores, mediadores, facilitadores e coordenadores de ações que contribuam para a solução de problemas sociais. Por esse motivo, o objetivo deste artigo foi propor uma metodologia que promova a formação de habilidades de pesquisa científica nos alunos do primeiro ano da especialidade de Serviço Social do Centro Politécnico "Rigoberto Fuentes Pérez", em Pinar del Río. Na pesquisa, o materialismo dialético e histórico foi adotado como abordagem de pesquisa e base filosófica, o que permitiu o uso de métodos teóricos como: o histórico e lógico, a abordagem sistêmica, a modelagem, a análise e a síntese; métodos empíricos como: análise documental, entrevista, levantamento, observação científica, pré-experimento pedagógico; e o uso da estatística descritiva, que revelou um conjunto de insuficiências que mostraram a necessidade de desenvolver uma metodologia que potencialize a preparação de professores e gestores para a formação de habilidades de investigação científica nos alunos do primeiro ano acadêmico, cujo centro dinamizador é a disciplina Tarefa Integradora. Constatou-se que essa é uma alternativa eficaz e eficiente, que pode ser estendida a outras especialidades.

Palavras-chave: habilidades de pesquisa científica; metodologia; tarefa integradora; serviço social.

INTRODUCTION

The training of competent students, capable of facing current challenges, is a current demand. In this task, the training and development of research skills will allow the promotion of all human potential, which implies learning about knowledge, skills, habits, attitudes and values, in accordance with the permanent changes in the socio-labor environment worldwide (Salazar *et al.*, 2019).

In the Cuban context, attention to the human being is essential, which is why Technical and Professional Education has been tasked, since 2015, with training students in the specialty of Middle Technician in Social Work, who are competent, capable of performing as promoters, coordinators and interveners of Social Work, where it is essential to carry out research and intervention at the same time.

Research for this specialty is of vital importance, in order to achieve the promotion of equity and social, political and economic justice in different historical-cultural contexts, as well as the production and appropriation of scientific knowledge; scientific-research skills that are formed from the integration of classes, scientific work and work practices, as essential components in the formation of the professional performance model (López *et al.*, 2017).

Scientific-research skills become evident when students participate in projects that allow the exploration, projection, execution, analysis and socialization of results in scientific events, as well as in the exchange of experiences in workshops, the preparation of reports and dissemination of knowledge (Muñoz *et al.*, 2017).

The formation of these skills allows the development of new theoretical knowledge that supports the relevance of the intervention as an expression of the application of the theoretical system to social reality, which in turn would generate new knowledge determined and proved in practice, from the effective use of science and technology (Carretero, 2019).

In this sense, the need to train comprehensive social workers is recognized, capable of identifying, facing and solving the problems and situations that identify the object of their profession, characterized by permanent change. This requires new qualities in their professional preparation and demands changes in training systems for work; as long as this professional produces interventions that do not separate the theoretical dimension from the practice, nor the know-how of doing (Scarpino & Bertona, 2021).

Khaerudin agree with *et al.* (2023); Rojas *et al.* (2021) among others, agree that research for the future of social workers is essential because it encourages and determines learning, based on discovery; it seeks to generate in the student an attitude of permanent inquiry, which allows him to create the bases for the construction and development of investigative capacities, an aspect that makes it possible to strengthen scientific, social, cognitive and communicative skills, among others.

In the case of Technical and Professional Education, the process of training scientific-research skills is strengthened by the conception of the Integrating Task, which essential objective is to contribute to general and comprehensive cultural training, vocational training and professional guidance, as well as to the development or deepening of students' professional skills, through the integration of academic, work and research components, based on the solution of professional problems in production, services or the center.

It is carried out in the 1st and 2nd years of studies and provides an integrated basis for the professional objectives and skills, reflected in the professional model, as well as the development of the content specific to the basic and specific vocational training subjects.

It pursues the following fundamental objectives:

- To contribute to the formation of a general and comprehensive culture.

- To consolidate vocational training and professional guidance in students.
- To deepen students' professional skills by integrating the instructional, work and research components, based on the solution of professional problems in production, services or the teaching center.
- To promote the development of socio-communicative skills, active, independent and creative thinking in students.
- To contribute to strengthening values.
- To demonstrate, through a practical activity, mastery of the professional skills established for the current year.

This is carried out in the educational institution or in the production or service entities linked to the center, which meet the conditions that allow the integration of all or part of the planned objectives, depending on the topics selected and the complexity of the year of study.

It is developed throughout the course and is evaluated based on the presentation of a theoretical-practical work that is advised by a teacher of the technical subjects or a specialist in production and/or services. This shows the need to develop scientific-research skills in students to develop the work with the required quality.

Expósito *et al.* (2023) report that the Integrative Task constitutes one of the essential ways used to integrate professional content in the context of Technical and Vocational Education. This modality of practical teaching aims to provide an integrated outlet for the professional objectives and skills reflected in the professional model, as well as the development of the content of the basic and specific vocational training subjects.

The Integrating Task must facilitate the integration (interdisciplinarity) and transfer of knowledge and skills in solving the main problems of the profession, in a context of permanent integration between the polytechnic school and the labor entities; a quality highlighted in the curriculum of the specialty,

which requires the conception of a training process that integrates the academic, labor and research components.

However, in Technical and Professional Education this organizational form has not yet reached its true dimension and importance as an integrative subject, since it lacks its interdisciplinary and integrative quality (Aguilar & Mena, 2022).

The Integrating Task has not yet achieved the true combination of knowledge in the training and development of skills, since the cooperative work among all the subjects of the academic year is still insufficient (Rodríguez *et al.*, 2022). Therefore, the planning, development and control of the Integrating Task must be mediated by departmental and interdepartmental methodological work, since research training is the responsibility of all professors, specialists and work entity tutors.

In relation to these criteria, the results of the exploratory study carried out showed a group of deficiencies in the factoperceptual order, which indicate deficiencies in the mastery of the investigative component by students of the Technical Intermediate specialty in Social Work.

Students graduate with problems in the construction and application of methods, techniques and instruments for searching and processing information; deficiencies in the problematization of professional reality that limits them in carrying out research designs, specially those related to the formulation of scientific problems, objectives and hypothetical thinking; as well as insufficient mastery of scientific-research skills during the development of the Integrative Task, among others.

In reference to the teachers, the research itself revealed other problems such as: the lack of adequate didactic treatment of the research process, evidenced by a weak theoretical-methodological orientation for the students; the lack of preparation as specialists and tutors of the work entity that influences the lack of

precision of the methodological-research requirements of the research project, as well as the quality of the orientation and evaluation of the process.

These deficiencies show the lack of comprehensive preparation with which these students graduate from Technical and Professional Education, given their limited capacity to investigate socio-labor problems, to find their causes and to provide the required solutions according to the moment and context in which they work. Therefore, this article emphasizes showing the importance of a methodology that enhances the process of training scientific-investigative skills in first-year students of the Technical Intermediate Specialty in Social Work from the Integrative Task.

This is a proposal that, through its stages and methodological procedures, enhances the preparation of teachers, specialists and tutors, as well as students of this specialty for the efficient and effective development of the process of training scientific-research skills at this educational level.

MATERIALS AND METHODS

The research was carried out in the Technical Intermediate Specialty in Social Work at the Polytechnic Center "Rigoberto Fuentes Pérez" in Pinar del Río. The study included three directors, ten professors, five specialists and tutors from the social-labor entities and fifteen first-year students of the specialty.

Materialism was adopted as the research approach and philosophical basis, which made it possible to operate with its laws, categories and principles, based on the use of a system of theoretical, empirical and mathematical-statistical methods for the diagnosis of the object of study.

Theoretical methods

Historical and logical analysis allowed to know the historical evolution of the object and the field and the tendency of its behavior in the province of Pinar del Río, the system approach for the study of the object of research, its components and relationships, and its new qualities; as well as to organize the structure of the proposal developed, with a systemic and comprehensive character.

The Modeling allowed the research object to be represented in an abstract way, for the construction of its theoretical framework, in addition to the development of the proposed methodology and its practical materialization.

Throughout the research process, analytical, synthetic and inductive methods were present, which made it possible to provide arguments for the whole and its parts and to reflect the objective logic of the process under study.

Empirical methods

Document analysis was used to study documents (study plan, course syllabus, lesson plans), which provided information on the shortcomings of scientific-student work since its conception.

The interview to professors from the polytechnic center, specialists and tutors from socio-laboral entities to further verify the current, intermediate and final state of the scientific problem.

The survey to first-year students of the Technical Intermediate Specialty in Social Work, to contrast information from the main sources.

Scientific observation was carried out during teaching activities in which first-year students of the Technical Intermediate Specialty in Social Work participated.

The criteria of users, to verify the theoretical viability of the methodology.

The pedagogical pre-experiment, based on a partial application to assess its practical viability.

Mathematical-statistical methods

It was used Descriptive statistics, to analyze the behavior of the variable throughout the process, as well as the relationships between indicators and dimensions, based on the use of percentage analysis, tables and graphs that collect the data obtained and allow the analysis of the research results.

RESULTS

The theoretical analysis carried out allowed us to identify the leading role of the Integrative Task as the main subject in the comprehensive professional training of the Intermediate Technician in Social Work, given its interdisciplinary nature.

In the analysis of the program of this subject it was possible to corroborate that no methodological actions are required for the formation of scientific-research skills.

The study plan of the specialty highlights the investigative nature of this and the need to achieve a combination between the academic, labor and investigative components of its professional training, from intradisciplinary, interdisciplinary and transdisciplinary approaches; which will allow the appropriation of scientific-investigative skills for the identification and solution of problems specific to the profession.

However, in 55% of the reviewed work practice guides, the intention of indicating integrative tasks that guide students towards the problematization of reality, from the use of scientific-investigative skills, from the maximum use of the work and investigative component for the solution of professional problems, is not visible.

It is, therefore, necessary for teachers to resort to exhaustive interdepartmental methodological work, from the Integrative Task, which allows students to assimilate the content and methods of theoretical and practical cognitive activity; in addition to linking them to research projects, both from the polytechnic center and from the social-labor entities, from the first year of studies.

In the interviews, surveys and observations carried out, the following indicators were measured:

- Functioning of interdepartmental methodological work for the development of scientific-research skills.
- Role of the Integrative Task as an integrative subject.
- Appropriation of scientific-research skills for the identification and solution of professional problems.

The analysis determined the need to develop a methodology for the development of scientific-research skills in first-year students of the Middle Technician in Social Work specialty, from the Integrative Task; in order to enhance investigative work and the appropriation of knowledge with a holistic vision, for the solution of professional problems.

Methodology to potentiate the formation of scientific-researching skills in the first-year students of the Middle Technician in Social Work specialty, from the Integrative Task

For the implementation of the proposed methodology, three stages were conceived with their respective methodological procedures.

Stage I. Preparation

Objective: to prepare methodological activities for the development of scientific-research skills in first-year students of the Technical Intermediate Degree in Social Work, from the Integrative Task.

Methodological procedures:

1. Methodological meeting with the managers, teachers, specialists and tutors of the first year of the polytechnic center and the labor entity to raise awareness of the new methodological proposal for the process of training scientific-research skills.
2. Planning and conducting a methodological-instructive class, in the first session of the course, to explain to the professors, specialists and tutors of the first year of this specialty, how to give an outlet to the formation of scientific-investigative skills from their subjects; this will give an integrative character to said process.
3. Developing a workshop to explain students from the first year of the Technical Intermediate Degree in Social Work the importance of scientific-research skills for their profession
4. Developing a system of workshops to train teachers, specialists and tutors with the comprehensive didactic concept, to form scientific-investigative skills, from the Integrative Task. Workshop topics:
 - The process of developing scientific-research skills as basic professional skills. Its importance for the specialty of Middle Technician in Social Work.
 - The components of an integrative teaching-learning process of Technical and Professional Education for the development of scientific-research skills, from the Integrative Task. Its contextualization in the Polytechnic Center "Rigoberto Fuentes Pérez".
 - Working on the development of scientific-research skills through the integration of all subjects of the academic year, from the Integrating Task.
 - The Integrative Task as an effective way to develop scientific-research skills, starting with the completion of the research project of the year, from the integration of the academic, work and research components.
5. Preparation and delivery of a brochure containing methodological guidelines for teachers, specialists, tutors and students, necessary for the development of scientific-research skills in first-year students of the Intermediate Technician in Social Work specialty; which includes the conception of the professional problems of the year and the integrated work of all subjects, from the Integrative Task.
6. Analysis of the professional model of the Middle Technician in Social Work specialty to establish the following curricular adjustments:
 - Determination of professional problems and basic professional skills (i.e., scientific-research skills), based on the modes and spheres of professional action, for the 1st year of the specialty of Intermediate Technician in Social Work, to make its derivation from the academic, labor and investigative components.
 - Gradual derivation of professional problems and training objectives from the curriculum of the specialty Technical Intermediate in Social Work and the 1st year to formulate the professional problems and objectives of the subject Integrative Task.
 - Establishing the content of the Integrating Task subject, from the invariants of knowledge, skills, values and attitudes, from the integration of the contents of all the subjects of the year.
 - First-year students of the Technical Intermediate Degree in Social Work, with an integrative character.
 - Consideration as personal components of the teaching-learning process of all actors in the

different training scenarios (Polytechnic Center-work entity-community), and all with an active role.

7. Planning of teaching activities, from the Integrating Task, based on the collaboration of all the teachers, specialists and tutors of the 1st year of the Medium Technician in Social Work specialty. Once a month (year groups).
8. Planning open and demonstrative classes for the Integrative Task, which illustrate to teachers, specialists, tutors and first-year students of the Middle Technician in Social Work specialty how the development of scientific-research skills contributes to their professional modes of action.
9. Preparation of the bases for the scientific-pedagogical day of the Polytechnic Center "Rigoberto Fuentes Pérez", where the experiences of teachers, specialists, tutors and first-year students of the Technical Intermediate in Social Work specialty will be socialized, in relation to the formation of scientific-research skills from an integral conception, from the presentation of research reports, oriented in the Integrative Task.

Stage II. Execution

Objective: to implement activities for the development of scientific-research skills in first-year students of the Technical Intermediate Specialty in Social Work, from the Integrative Task.

Procedures:

1. Execution of teaching activities at the polytechnic center and socio-labor entities, guided by the Integrative Task, for the development of scientific-research skills.

For the *introduction*: in addition to the greeting and feedback on the content, it must include the presentation of the professional problem and to specify the training objective.

In development: it is proposed to start from the professional problem to meet the planned training objective, through the deployment of integrative teaching tasks, where the contents of the other subjects of the year are integrated.

The *conclusions* summarize the content worked on and assess the fulfillment of the intended objective, in terms of learning and teaching. It is proposed to use evaluation techniques specific to social sciences, in order to familiarize students with their professional modes of action.

To work with the content of the formation of scientific-research skills, it is recommended:

To define what scientific-research skills training is from the content of all subjects of the year to contribute to the correct completion of the research project of the year.

Set the following content:

Knowledge system:

- The development of scientific-research skills and their role in the Cuban educational system. Its importance.
- Social problems, their manifestations in the community.
- Working with information sources.
- The research design.
- Development of research work.
- The scientific method. Its importance in social research.
- Methods and means necessary for social research.
- Evaluation and communication of results.

Skill system:

- To explain the importance of developing scientific-research skills for future performance in their profession.
- To justify the importance of diagnosing and proposing solution strategies for social problems that arise in the community.
- Problematising educational reality.

Value system: responsibility in carrying out research tasks, honesty and professional and research ethics, and the level of belonging to the profession.

Work with the teaching task, as a basic form of organization of the process of formation of scientific-investigative skills, which goes through three phases, namely: orientation, execution and control, Guidance is recommended, which prepares the first-year student for learning the skill of problematizing reality, and must ensure that the student is clear about what he or she is going to do, how he or she is going to do it, as well as why and what he or she is going to do it for. This is a key moment for working on learning strategies, which will allow the appropriation of the contents of said skill.

The following are suggested as teaching tasks:

- Observe and describe community reality, using the methods and techniques acquired in practical subjects.
- Compare the observed reality with the learning content studied in other subjects of the year.
- Make summaries of what was observed in the community.

Execution allows doing everything planned in the previous phase. The student begins to take ownership of the contents of the ability to problematize reality. It is essential that the teachers of the year, the specialists, tutors and the teacher of the Integrative Task, monitor and evaluate the development of the students.

The following are suggested as teaching tasks:

- Identify social problems in the community.
- Conduct bibliographic searches on the identified social problems.
- To justify the social problems of the community, by establishing the weaknesses and strengths for their possible solution.
- Raise scientific problems.

- Prepare and present the research report.

Monitoring will allow assessments to be made of what was planned during the orientation and what was done during the execution. It will provide the possibility of making assessments of the learning and correcting the faults detected in it. It focuses on both the process and the result of the learning and teaching process.

The use of self-assessment, co-assessment and hetero-assessment is proposed, so that the student feels the protagonist of his/her progress in the training process.

2. Conducting demonstration and open classes for the Integrative Task, which illustrate to teachers, specialists, tutors and first-year students of the Middle Technician in Social Work specialty, how the development of scientific-research skills contributes to their professional modes of action.

The polytechnic center, the work entity and the community, which are their main contexts of professional activity, will be used as classroom spaces.

Investigative teaching tasks will be directed towards problematizing reality in the community context, so that students visualize the importance of scientific-investigative skills for their profession.

3. Development of a methodological workshop to socialize the experiences of teachers, specialists and tutors, of the first year of the Technical Intermediate in Social Work specialty, in the process of training scientific-research skills, from the Integrative Task.

4. Conducting a scientific-pedagogical conference at the Polytechnic Center "Rigoberto Fuentes Pérez", to share the experiences acquired in the process of training scientific-research skills, from the Integrative Task.

5. Execution of methodological activities, by cycles (every three months), to systematize,

consolidate and correct possible failures in the implementation of the process of training scientific-research skills in first-year students of the Technical Intermediate Degree in Social Work, from the Integrative Task.

Stage III. Evaluation

Objectives: To evaluate the effectiveness of the process of training scientific-research skills in first-year students of the Technical Intermediate Specialty in Social Work, from the Integrative Task.

Procedures:

1. Carrying out visits to teaching activities at the Polytechnic Center, the labor entity, the community and the department groups, to check how the contents related to the training of scientific-research skills are delivered from all the subjects of the first year of the Medium Technician in Social Work specialty. It is recommended to apply the Positive, Negative and Interesting (PNI) technique at the end of each activity. At the end of each action, the person who directs it, will evaluate the fulfillment of the objective through the PNI technique. The evaluations that are made must focus on the continuous improvements of the process of formation of scientific-investigative skills, from the Integrative Task.
2. First-year students of the Middle Technician in Social Work specialty, from the Integrative Task.
3. Student assessment through self-assessment, peer-assessment and hetero-assessment in teaching activities, to evaluate the learning of scientific-research skills, so that the student is the protagonist of his or her own progress and considers the assessment as a moment of interaction and communication that will contribute to the development of his or her personality.

4. Evaluation of the presentation and discussion of research projects guided by the Integrative Task, with the purpose of verifying the effectiveness of the process of training scientific-research skills in first-year students of the Technical Intermediate Degree in Social Work, with an integrative character.
5. Conducting interviews with teachers, specialists, tutors and students involved in the process of developing scientific-research skills, from the Integrative Task.

The system of actions planned for this stage will be implemented from stage I, which will guarantee the systemic nature of the evaluation as a process and the assessment of the fulfillment of partial and final objectives as a result.

To assess the feasibility of the proposed methodology, the user criterion method was used. The use of this method made it possible to obtain the necessary considerations that justify the relevance and feasibility of applying this methodology to the current conditions of the process of training scientific-research skills in first-year students of the Technical Intermediate Specialty in Social Work, both in its theoretical conception and in its application in practice.

DISCUSSION

The process of developing scientific-research skills in Technical and Vocational Education should be characterized by the integration of all subjects of the academic year, by transversalizing the academic, labor and investigative components of their professional training.

In this regard, Rojas *et al.* (2021) recognize that, in order to conduct research, it is necessary to acquire certain scientific-research skills or abilities, even from schools, to encourage analysis, synthesis, reflection and interpretation, prediction, in the educational context. Although

it is considered that this also occurs in the work environment.

Choque (2021) suggests that these skills are intended to obtain knowledge and to solve scientific, philosophical or empirical-technical problems, and are developed through a process that allows students to improve their studies and establish contact with socio-professional reality.

In addition, it raises the need to prepare students in the field of research, being the central support for the mediation of social work, because their professional intervention depends on research studies.

The social worker must embrace training, social intervention and research as fields of action that are part of professional intervention as a whole (Scarpino & Bertona, 2021).

In order to achieve this objective, these professionals must possess scientific-research skills that allow them to solve professional problems, based on the development of socio-educational research and the use of the scientific method (Khaerudin *et al.*, 2023).

In this sense, a comprehensive general training process is required to equip these professionals to be able to intervene and support in the different social problems they will face in their working life. To make diagnoses or complete investigations, mastery of research is essential.

In this regard, López *et al.* (2017) suggest that the Integrative Task is particularly important in responding to the increasingly complex problems of society. Decision-making based on scientific grounds takes on a special significance, as it enables the appropriation of scientific-research skills that constitute the transversal axis in their training for research and links practice and theoretical reflection, from critical, interpretive and transformational analysis.

According to these authors, the Integrative Task includes the contents of all the subjects of the specialty; once they are dialectically assimilated

in their cognitive structure, they enable the student to apply them in their practical activity.

Based on the criteria of the aforementioned authors and after carrying out the research, it is considered that in order to achieve an effective process of training of scientific-research skills in first-year students of the specialty of Middle Technician in Social Work, a cooperative methodological work is required among all subjects, conceived from a system of interdisciplinary activities with an integrative, systemic and contextualized character that, in each year of studies, achieves the concurrence of the educational influences of all teachers, specialists and tutors, where the Integrating Task works in a dynamic way.

Based on the results obtained, it was possible to confirm that there is a need to prepare students in the field of research, since it constitutes an essential support for the intervention of Social Work. The professional modes of action of social workers depend, to a large extent, on research studies and the preparation, mastery and application of research, so that they can fully develop their professional life.

The Integrating Task, as its name indicates, must direct the planning, orientation, correction, reorientation and evaluation of the process of training scientific-research skills in first-year students, with the participation of all agents and agencies that direct professional training in Technical and Vocational Education.

Therefore, it is vitally important to develop scientific-research skills in students of this specialty from the first academic year. This is why the proposed methodology is innovative because it enhances the development of these skills from the conception of the process, with an integral character, at the center of which is the Integrative Task as a subject that cross-cuts the academic, work and research components.

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