

# MENDIVE



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## Bibliographic brochure for the comprehensive training of students in the Automotive Mechanics specialty

### Folleto bibliográfico para la formación integral de los estudiantes de la especialidad Mecánica Automotriz

### Folheto bibliográfico para a formação integral de alunos na especialidade de Mecânica Automotiva

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#### ABSTRACT

This article takes into account the diagnosis made to the students of the Automotive Mechanics specialty in their comprehensive training through the course Citizen Preparation for Defense, at the Polytechnic Center "Primero de mayo" in Pinar del Río. Whose objective is to design a bibliographic brochure to improve comprehensive training from the Citizen Preparation for Defense course with a conscious, contextualized and systemic approach? It is based on the dialectical-materialist philosophy, using methods of the theoretical level such as analysis and synthesis, historical-logical, induction-deduction and modeling. As methods of the empirical level, observation, document review, interview; in addition, the methodological triangulation technique was used. For information processing; Descriptive statistics were used to calculate the mean. The use of teaching aids in the subject Citizen Preparation for Defense allowed a greater link between theory and practice and a faster way of updating the subject's bibliography; the teaching medium proposed is an essential way to develop knowledge, skills and values in the comprehensive training of middle technicians.

**Keywords:** comprehensive training; civic preparation; teaching aids.

#### RESUMEN

El presente artículo tiene en cuenta el diagnóstico realizado a los estudiantes de la especialidad Mecánica Automotriz en su formación integral a través de la asignatura Preparación Ciudadana para la Defensa, en el Centro Politécnico "Primero de Mayo" de Pinar del Río. El objetivo es diseñar un folleto bibliográfico para mejorar la formación integral desde la asignatura Preparación Ciudadana para la Defensa con un enfoque consciente, contextualizado y sistémico. Se sustenta en la filosofía dialéctico-materialista, utilizando

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métodos del nivel teórico como el análisis-síntesis, histórico-lógico, inducción-deducción y la modelación. Como métodos del nivel empírico fueron empleados: la observación, la revisión de documentos, entrevista; además, se utilizó la técnica de triangulación metodológica. Para el procesamiento de la información fue utilizada, de la estadística descriptiva, el cálculo de la media. La utilización de medios de enseñanza en la asignatura Preparación Ciudadana para la Defensa permitió una mayor vinculación de la teoría con la práctica y una forma más rápida de actualización de la bibliografía de la asignatura; el medio de enseñanza propuesto se constituye en una vía imprescindible para desarrollar los conocimientos, habilidades y valores en la formación integral de los técnicos medios.

**Palabras clave:** formación integra; preparación ciudadana; medios de enseñanza.

#### RESUMO

Este artigo leva em consideração o diagnóstico feito aos estudantes da especialidade Mecânica Automotiva em sua formação integral por meio do curso Preparação Cidadã para a Defesa, no Centro Politécnico "Primero de Mayo" em Pinar del Río. O objetivo é elaborar uma brochura bibliográfica para aprimorar a formação integral do curso de Preparação do Cidadão para a Defesa com uma abordagem consciente, contextualizada e sistêmica. Baseia-se na filosofia dialético-materialista, utilizando métodos de nível teórico como análise-síntese, histórico-lógico, indução-dedução e modelagem. Como métodos do nível empírico foram utilizados: observação, revisão documental, entrevista; Além disso, foi utilizada a técnica metodológica de triangulação. Para o processamento das informações, foi utilizado o cálculo da média a partir da estatística descritiva. A utilização de material didático na

disciplina de Preparação do Cidadão para a Defesa permitiu uma maior articulação entre a teoria e a prática e uma forma mais rápida de atualização da bibliografia da disciplina; O meio de ensino proposto é um meio essencial para o desenvolvimento de conhecimentos, habilidades e valores na formação integral de técnicos médio.

**Palavras-chave:** formação integral; preparação do cidadão; material didático.

#### INTRODUCTION

In the current moments that the country is experiencing, Technical and Professional Education (ETP) has assumed with great responsibility the mission of scientifically directing the comprehensive training of middle-level technicians and qualified workers for work in correspondence with its economic and social development, through the integration of educational institutions with productive and service entities, committed to the values and principles that characterize our social system.

The course Citizen Preparation for Defense provides the student of the Automotive Mechanics specialty with the basic elements in the formation of values and modes of action, the rights and duties of citizens, feelings of love for the Homeland, Cuba and the traditions of our people. in the conservation of the socialism, aesthetic education, protection of the Environment; In addition, it establishes interdisciplinary links and creatively uses means and methods of study and scientific research, especially information and communication technologies as a means of learning and work tools, in correspondence with the teacher's

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preparation and the individual peculiarities of the students.

An approach to the subject of training in professional activity reveals that it has been of interest to the scientific community in recent years. It can be ensured, then, that the existing conceptions on the subject of training are broad. From different approaches, the concept of training was introduced by Hans-Georg Gadamer from the discussion on the methodological status of Human Sciences versus Natural Sciences; A fundamental concept that in the 18th century made it possible to understand the epistemological discussion between one and the other sciences. Formation is "the greatest thought of the 18th century", it is "ascent to humanity", it is a "process by which culture is acquired, and this culture itself as the personal heritage of the cultured man" (Gadamer, cited in Alarcón *et al.*, 2019); that is to say, development of man as man. In other words, it is the specifically human way of shaping the natural dispositions and capacities of man (Alarcón *et al.*, 2019).

From different approaches, a group of authors such as González (2016), Ferrer (2016), Benítez and Mena (2016), Alfonso (2016), Ducci (1990) and Mena, JA, and Mena, JL (2020) consider training as a subjective process that has a greater scope than the learning of a profession or the training for the learning of some techniques. Through the formation, the person makes a permanent transformation itself, in order to reach maturity of his spiritual and physical capabilities, so that thanks to harmonious work achieved, develop, manage, motivate the activity developed, lead a way of life that is satisfactory for her and from which she contributes - according to her own possibilities - to the construction of the world to which she belongs.

Development involves an idea of the future, of applying knowledge in the long term; the teaching aids not only should be facilitators of learning resources at school, but should also become an object of knowledge for students.

Citizen training is a type of education aimed at comprehensive training that includes the knowledge, capacities, skills, feelings, values, habits and standards of conduct that moral, legal, aesthetic and environmental education require as part of the training process of the conscience of the commitment of each citizen year (a) towards the family, the country and with itself.

With that purpose, it teaches the political, economic and social rights and duties contemplated in the Constitution of the Republic of Cuba (2019), promotes the observance of Socialist Legality as a guarantee of the improvement of social relations, the strengthening of spaces for social coexistence and the care and protection of the Environment.

In every teaching process, the media are configured as one of the essential elements of said process. González (1990), Ríos (2006), Piñera and Cueto (2017) have as points of agreement that nowadays it is impossible for a teacher to develop his teaching exclusively using the oral word and his gestures. Even, in classes that could be considered more traditional, slate and books are an integral and necessary part of them.

Students of the specialty car mechanics in the subject Citizenship Education for Defense, at the Polytechnic Center "Primero de mayo" of Pinar de Rio, should be able to characterize the social situation of the country determined by repeated changes and greater demands, taking into account that in Cuban society changes are taking place in the economic and social model, which have an effect on the students

themselves, and this affects them, as well as other social contexts: school, family, personal, community and socio-political .

It is Identified that the teaching - student learning in the subject Citizenship Education for Defense, in the "Primero de mayo" Polytechnic School of Pinar de Rio, presents weaknesses in their training, which demonstrates the need for change, in search of the solution of the same.

To solve to the problem it is established as objective: to design a brochure for improving bibliographic comprehensive training from the subject Citizen Preparedness for Defense with conscious approach, contextualized and systemic.

## MATERIALS AND METHODS

The research had an explanatory character and assumed the dialectical - materialist method provided by the Marxist - Leninist philosophy, which allowed revealing the causal relationships of this object of study. We worked with a population made up of 28 students from the Automotive Mechanics specialty in the Citizen Training for Defense course at the "Primero de Mayo" Polytechnic Center in Pinar del Río, where the following research methods are specified.

Theoretical methods used:

*Analysis and synthesis:* is used in the study of different authors criteria on the subject in question, to clarify the factors that affect the use of the medium of instruction for comprehensive training of students specializing Automotive Mechanics, through of the subject Citizen Preparation for Defense.

*Historic logic:* for the deepening of the existing theory on the use of teaching

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aids for comprehensive training of students of the specialty Automotive Mechanics; as well as for the analysis of the different positions and tendencies on the subject in the historical evolution, until its treatment at present.

*Induction and deduction:* to know the reality in the unity of the general, the particular and the singular, as well as to reach conclusions about the importance of the use of teaching aids for the integral formation of students

It is used for the preparation of teaching aids for comprehensive training of students specializing Automotive Mechanics in order to promote Citizen Preparedness for Defense.

The empirical methods used were:

*Observation:* Used in classes for the course Citizen Preparation for Defense to verify the use by teachers of teaching aids and motivation of the students

*Document review:* it was applied in the consultation and analysis of normative documents such as: study plan of Automotive Mechanics, Program of the Citizen Preparation for Defense subject; in addition, the teachers' lesson plans were reviewed to see the guidance students receive regarding the use of the textbook.

*Interviews:* to the students of the subject, taking into account the motivation for it, the actuality of the subjects taught, the relationship of theory with practice.

*Survey:* to the teachers who teach the subject, to assess the coherence, relevance and affordability of the teaching medium developed.

The methodological triangulation technique was also used to search and

find the points of agreement in the results of the applied instruments.

Descriptive statistics techniques such as the calculation of the mode and the mean were used to process the information.

## RESULTS

The methodological triangulation of the study results shows coincidences between the information provided by the applied instruments. This made it possible to determine the regularities emanating from the points of agreement, identifying them as strengths that can contribute to solving the problem and weaknesses to which solutions should be offered, in order to achieve the development of teaching aids to improve comprehensive training and learning content of the subject Citizenship Education Defense.

### The strengths found were:

1. Good interaction between students and teachers is highlighted, which would facilitate comprehensive content training.
2. The motivation of the students for the subject is highlighted, despite the existence of deficiencies in the integral formation of the contents and the lack of bibliographic sources.
3. It is recognized, by part of the faculty, deficiencies, to the inability to access at school for preparing the bibliography latest in several thematic of the subject.

### The weaknesses identified were:

1. Inconsistency in the fulfillment of the objectives outlined in the classes, due to the fact that there is no bibliographic

source for this subject that supports the contents.

2. A group of transformations in the Cuban social model is not yet in the textbooks of the subject, but they are scattered in different sources, which makes it difficult to find them in the comprehensive training of the Citizen Training for Defense subject.

3. Lack of teaching aids that allow adequate comprehensive training of the subject's contents.

4. Low level in knowledge, skills and attitudes, determines from the actions and procedures of professional performance.

Based on these results, a bibliographic brochure was prepared for the comprehensive training of students in the Automotive Mechanics specialty, through the course Citizen Preparation for Defense.

The Bibliographic pamphlet, within the teaching profession, allowed to organize and group, but not in an anarchic way, but from certain regularities observed.

It can be concluded that brochures are all those independent publications, generally unbound, that tend to have few pages and that deal with one or more specific topics (plural thematic), which are contextually related. These publications can be individual or serial; In other words, they can be designed separately as long as the themes are also presented in this same sense. Its format, size, extension and theme can be diverse. The origin and the authors of the same can also be varied, from individualized officials depending on the needs of the school, territory or education, as generalized for the entire country.

Precisely, this is the solution proposed in response to the problem of research. The brochure is plural - thematic, as it regards various issues related to the Citizen Training for Defense, specifically matters relating to the Legal Preparation, Patriotic Preparation and Civil Defense preparation. It is not very long, since it consists of 100 pages. The topics to be discussed are related in a systemic way responding to the updated syllabus of the subject's study plan. The proposed bibliographic brochure is, in general, flexible, since it can be updated and enriched according to the technological advances that arise from now on. The medium in question can be based in a general way from the point of view:

**Philosophical:** it is based on the materialist dialectic, especially the theory of the constant development of processes and phenomena in their interaction with work partners. Thus, the bibliographic brochure collects the existing advances in the kinetic-technical order and gives the possibility of constantly updating itself, taking into account the social transformations that occur in Cuba.

**Sociological:** given the socio-occupational nature of the contents contained in the bibliographic brochure. It allows educating from the classroom about the different transformations that occur in Cuba, as well as the relationships that are established between social entities and educational agencies.

**Psychological:** by reflecting the socio-occupational culture of the specialty as a product of life and social activity ; the role of activity and communication, the unity of the affective and the cognitive in the formation of the personality of the future technical average is taken into account . Within human learning, the greatest interrelation with the outside

world occurs through the visual organ, that is, the sensorial-perceptual mechanism of sight. Therefore, the use of the pamphlet literature facilitates the utilization optimal of our sensorial mechanisms s, achieving greater memory retention of learned knowledge, contributing not only to make more durable learned knowledge, but to increase motivation for teaching and by the subject in particular, helping the formation of the student's personality. The brochure acts as an instrument of mediation between the socio-occupational experience and the professional in training.

**Pedagogical:** by sustaining that the teaching made possible by the bibliographic brochure precedes the development of the personality of the average technician, as a result of the appropriation of the professional contents necessary for their future professional performance. The adequate balance between words and images facilitates the processes of development of thought in general and in particular in the pedagogical process; without sensations, perceptions and representations there is no development of thought. That is why the importance of imparting knowledge not only on the basis of the word, but also on visual

representations. The bibliographic brochure allows increasing the effectiveness of the student guaranteeing a higher quality teaching, a greater number of programs and better results. It allows rationalizing the effort of the teacher and the students, providing a better use of the workforce.

In addition, the proposed bibliographic brochure fulfills certain functions, including:

### **The didactic function**

The bibliographic brochure as a teaching medium makes it possible to determine its characteristics or functions that, with

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an integrating nature, provide the necessary conditions for the initiation, externally, of cognitive actions.

The first didactic function of the bibliographic brochure is to facilitate the specific action that expresses the objective. If in the pedagogical process the objective is essential, general and supposes an action, this action, with the content is displayed and with the method it is developed, only when the bibliographic brochure concretizes and mediates the relationship between the subject and its object of study. The pamphlet literature must be used not only to describe the action to the student, but to be also executed

It is the didactic function of the bibliographic brochure to satisfy, as far as possible, the contradictory essence of the pedagogical process; that is to say, the fundamental contradiction between what is already appropriate by the students and the new demands: its flexibility is what has to favor the transition from one objective level to a higher one.

The choice and design of the bibliographic brochure implies the adjustment between the code and the language of the teaching medium, with the nature or complexity of the content, and the level of the students: not the other way around. The bibliographic brochure, with its variables and attributes, must be made to correspond with the specific objectives of the content, methods and procedures. Thus the didactic function is fulfilled.

The didactic function is fulfilled when the bibliographic brochure carries clear, understandable messages, easily manipulated by students and absent of verbal stereotypes; fluent, in a direct style, free from gimmicks and in full respect of grammatical, syntactic and aesthetic rules.

## **The gnoseological function**

The teaching aids assume a gnoseological function when they favor, together with the appropriation of the content, the assimilation of the procedures of the activity itself, and are not limited as in traditional pedagogy to the successive expression of verbal abstractions in relation to a sensory image of the object of study. The future school will have to model with the means cognitive structures that train man to orient himself in life and not mere information. In its epistemological function: the medium, from the logic of knowledge, has to contribute to the acquisition by students of the inductive ways of creating essential models and representations. Compulsive and reinforce cognitive structures, it is possible when the brochure has divergent references lends itself to the comparison and elaboration of conclusions, determination of regularities, or requires reflections, judgments and deductive generalizations that train the student, as required in the search and mastery of the particular, or to find in the diverse, each essence.

## **Psychological Function**

In the pedagogical practice, the method used by teachers is often inflexible, coercive and, sometimes tax. The student-teaching medium relationship must overcome this burden of the school and satisfy the interests of those for whom it is conceived. That is where the psychological function of the media begins. An educational professional must strive to arouse, through the media, the interests that the subject requires in the activity he or she develops. Not ignoring the particularities of students with different abilities and motivations implies the humanization of a process that has to be provided with more participatory means and free of any mechanical standardization that slows or inhibits their psychological function.

Bibliographic brochure, as a teaching tool, allows it to be meeting, in a more effective way, the goals set in each of the classes. So therefore this medium enables intertwine, both subjects (students) as its object of study (various forms of food preservation at industrial way). Of course, this mediation is established through communication, which as a pedagogical criterion has as a psychological basis that of establishing the relationship between activity and communication.

The way to organize and structure the bibliographic brochure, as well as its design and the selection of content, facilitate student understanding. In this sense, the proposed bibliographic brochure is the bearer of a soft, docile, understandable knowledge, easy to manipulate by the student and free from complex explanations with scientific basis, from far-fetched words. It has, in addition, respect deep to grammatical rules, syntactic and aesthetic of the mother tongue.

### **General characteristics of the bibliographic brochure**

- Its didactic value depends entirely on the systematic use that the teacher makes.
- They are operable by teachers and basically by the students themselves, they have the peculiarity that students do not adopt a passive position, but can and should act on them.
- It allows a high degree of objectivity of teaching.
- It enables independent work for students.
- Allows prolonged attention of students.

Considering each of the main topics: Legal Preparation, Patriotic Preparation, Civil Defense Preparation, as part of the syllabus Citizen Preparedness for Defense is that planned and flames

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design or bibliographic brochure. To do this, follow the following structure:

**Overall objective:** contribute to the development of values, habits, skills and acquiring professional content of the subject of Citizen Preparedness for Defense students specializing in Auto Mechanics of the "Primero de mayo" School.

### **Specific objectives:**

1. Contribute to the comprehensive training of the specialty of Automotive Mechanics from the Citizen Preparation for Defense course.
2. Develop a culture for Citizen Preparation for Defense in the professional performance of each student of the Automotive Mechanics specialty.

It is essential to point out that the bibliographic brochure that was prepared is not a closed teaching medium, but is open to incorporating all the changes that occur in the contents of the subject.

The bibliographic pamphlet that will improve the training of the basic contents of the subject of the Citizen Preparedness for Defense, in order to facilitate the professional performance in students specializing in automotive mechanics, was developed in the research process.

It is structured as follows:

1. Presentation of the bibliographic brochure: the title of the bibliographic brochure, the full name of the author, the name of the province and the year in which it was made is reflected.

2. Guidance for teachers: it is important to clarify some methodological requirements for the proper use of the bibliographic brochure in later years, regarding the handling of the



headings. The importance of establishing interdisciplinary relationships with other technical subjects of the specialty and the possibility of creating synergies between these subjects, addressing individual issues that were not addressed and deepening others .

3. Index: each one of these structural elements will be organized by an index, which will refer to the page where it will begin to deepen.

4. Brief introduction to the topics to be discussed: at the beginning of each topic, a short summary of the topic to be discussed in each section will be given, which will be deepened in the body of the section in question.

5. The general objectives of the bibliographic brochure: It is necessary to be clear on what the objectives to be taken into account for subsequent compliance during the implementation of the pamphlet literature.

6. Topics, with content according to the subject program: this is the main part of the bibliographic brochure. The topics will be organized in epigraphs and, in some cases, slides will be placed that will allow the student to better understand the basic contents and their association with work practice.

7. Sections of interest to students: in each heading there will be sections in which students will find data of interest, historical facts related to the Citizen Preparation for Defense, curiosities, biographical data of scholars of this specialty, Cuban and foreign scientists , and did you know that ..., among others.

8. Bibliography: the bibliography will have a summary of the materials that were used to design the bibliographic brochure, as well as internet sites and other references of interest, for a more in-depth investigation of each of the topics.

## DISCUSSION

To begin the analysis, it is appropriate to review some definitions given by various researchers on teaching aids, in a general way and, in particular, in relation to the bibliographic brochure.

González *et al.* (1990) referred to the teaching aids as: "all the components of the teaching - educational process that act as material support to the methods in order to achieve the stated objectives. They have an integrating nature, so they are an essential part of the process of acquiring knowledge, habits, skills and convictions that we cannot do without".

Roda and Beltrán (2000) argue that the teaching aids encompass all the material means of nature and society, which are necessary to carry out the tasks of instruction and education in school; therefore, they have to be used within the framework of teaching.

Gonzalez (2002) understood as a concept of teaching aids, the concrete, observable and manageable resources that facilitate communication between teacher and student, who make more objective information education and technical dispositive that is used in the process of teaching to convey information, self- study, entertainment, and control.

According to Ríos *et al.* (2006), the teaching aids are the source of historical knowledge that constitutes material support for the methods.

The definitions that have been given to the bibliographic brochure are based, first, on aspects related to the teaching aids themselves, although that term is sometimes not mentioned; example of that, the one that appears in the dictionary of the Royal Spanish Academy (2018), which considers that the brochures

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are linked to books, and perhaps more used by educators. A bibliographic booklet can be written more quickly, it can be printed in larger quantities, and since it usually has a limited number of pages, it may receive fewer defaults than a book. Pamphlets of this nature can be highly influential and serve a large readership per unit. A booklet is an unbound book (that is, without a binding or hard cover). It can consist of a single sheet of paper that is printed on both sides and folded in half, in thirds, or in quarters (called a booklet), or it can consist of a few pages that are folded in half and saddle stapled on the fold to make a simple book. Ríos *et al.* (2006) has also defined a brochure as a "notebook, magazine, monograph, monothematic printed material and it is presented in small extensions" (p.5).

These definitions allow to include in them all the resources that serve the teaching - educational process, not only the visual or sound media, it includes real objects, textbooks, complementary materials, and all those material resources that support the teacher's job. Therefore, it can be assumed that to the extent that knowledge is presented to the subjects through multiple sensory stimulations, the effects of the teaching aids will be more noticeable and significant.

There are different types of teaching aids, so it is not a question of bypassing or downplaying the rest of the media; However, due to the relationship it has with the theme of this article, textbooks or printed materials will be addressed, of which the bibliographic brochure is part.

Printed materials are the means of direct perception that transmit information through written language, printed by means of machines. These media are intended, in the first instance, for the transmission of written information, although they may be

accompanied by diagrams, images or drawings that complement them. If they are compared with the other means of direct perception, it can be affirmed that they are the most used by the teacher and the students inside and outside the classroom, in all phases of the teaching-educational process, for the appropriation of new knowledge, consolidation, exercise, application; even at the time of evaluation, this constitutes the fundamental characteristic of this group of teaching aids.

Examples of printed materials are the textbooks of the different subjects; dictionaries; catalogs; classic works of Marxist-Leninist philosophy, natural sciences, literature, art or others; reproductions of historical documents; brochures; workbooks and exercise books for the different subjects; newspapers and magazines; guides elaborated by the groups of teachers; methodological guidelines for course work, research of practical classes and seminars; chronologies, synchronous tables, card holders, files and others.

In order to study in greater detail the didactic possibilities of printed materials, we take into account what was stated by González *et al.* (1990) when raises these are divided into three groups on the basis who made them - to - the extent of its production and its broad application.

**First group.** They are prepared by higher bodies: Ministry of Higher Education (MES) and National Ministry of Education (MINED) whose edition is national in nature; they are used by all students of a certain grade, level and type of teaching. This is the case of textbooks, workbooks, among others.

**Second group.** It refers to those that are prepared by the groups of teachers for their educational center, whose reproduction and use is limited, given the particularities of the

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type of teaching, the needs of the subjects and the characteristics of the students, among other issues. Brochures are included in this group.

**Third group.** They are those that on the basis of printed models must be completed or filled out by the students and contribute to the formation of skills for independent and investigative work.

Printed materials are means of direct perception, since they are used in the classroom and do not require technical resources for their use. These media have specific characteristics within which the following are noted:

- Their didactic value depends entirely on the use that the teacher makes of them.
- They are operable by teachers and, basically, by the students themselves.
- They allow a high degree of objectivity of teaching.
- They enable the student's independent work.
- They allow for prolonged student attention.
- Its construction is generally inexpensive and simple.

The textbook will be complemented with the bibliographic brochure, both becoming the main means of teaching and education, which will meet the requirements to achieve the levels of knowledge, skills and habits required by the students and that are formulated in the objectives. These fulfill support functions such as:

- Curricular decision making.
- Teaching strategy planning.
- Scientific explanations.
- Autonomous acquisition of knowledge in an orderly and systematic way by the student.
- Helps the student in the exercise, review and deepening of the knowledge acquired.

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- Promotion of conceptual change in students.

### **The bibliographic brochure as a scientific - investigative result**

The bibliographic brochure enters into the classification of printed materials. This medium is intended primarily for written transmission and may be accompanied, in turn, by diagrams, images or drawings that complement it.

If we compare it with the other means of direct perception, it can be affirmed that it is the most used by the teacher and the students, inside and outside the classroom and in all phases of the teaching-educational process, to appropriate new knowledge, consolidations, exercise, application and even in the moments of the evaluation.

In addition, with the possibility offered computing today, the prospectus can be updated whenever necessary easily, because it is more susceptible to changes and modifications; it can also be worked on directly.

### **Skills that allow the development of the bibliographic brochure:**

- Logical thinking skills.
- Work skills with the source (bibliographic brochure).
- Communication skills.

### **Habilities of logical thinking**

*Analyze:* discompose, determine the boundaries of the object and study every delimited part.

*Synthesize:* compare parts and links to discover, develop conclusions about the integrity of the whole.

*Determine:* to analyze the object, compare its parts with each other, discover the fundamental, the stable of

the whole, leveling the links between the essential features.

*Characterize:* select the elements that typify it and distinguish it from other objects.

*Identify:* establish the relationship of the object with a fact, concept or law of the acquaintances.

*Classify:* choose the object or the criteria for ordering the elements.

*Generalize:* select the essential traits, properties or links common to all the elements.

*Observe:* Fix traits and characteristics of the observed object do in relation to the target.

*Describe:* reproduce the characteristics of the object observed in relation to the target.

*Assess:* and make value judgments about the object that characterizes it.

*Reason:* finding the inference relation between the premises through the term means, reaching conclusions.

*Interpret:* finding the logic of relations and elements that appear in the target or interpret information.

*Relate:* determining the links of one object to another from the selected criteria.

### **Bibliographic Booklet Job Skills**

*Reading Presentation:* to perform the subject of the book; this requires analyzing index charter, annotations, read introduction, ideas, concepts, etc.

*Familiarization reading:* in it the general idea of the subject is required to read the

paragraphs, make every new topic in your own words.

*Reading Study:* determining the most general ideas of content, each subsystem importance sort, classify the different types d and content for their theoretical, empirical, methodological or scientific evaluative.

*Reading:* It is an important element to improve spelling and, this being an essential element to obtain it, is that the brochure bibliographic permit and increase orthographic improvement to learners by the value of Encouragement of photographic-Reproductive memory of the humans.

### **Communication skills**

It consists of making summaries of the fundamental contents of a part of the bibliographic brochure, specifying its location, which makes it possible to clearly distinguish one subject from another.

*Taking notes:* to end the information to determine and write down what is related to the objectives and other activities that are guided by the teacher.

*Summarize:* classify the fundamental ideas according to their importance, which respond to the outlined objective, specifying them in the form of paragraphs, diagrams, summaries and synoptic tables.

The students of the Automotive Mechanics career recognize the contributions that the bibliographic brochure has provided, positively transforming the theoretical and procedural aspects in their comprehensive training, as they show agreement on how the topics discussed respond to a systemic and contextualized conception of the training process that exists between the school and the labor entity, which allows

them to integrate and apply these to various situations in the labor context.

From these relationships, self-development of students working with the bibliographic brochure is not only conceived from the essential understanding of the content treated, but also as to proceed to a systematic and widespread interpretation, as a motivational process and regulating its formation of permanent training that enhances comprehensive training for students in the Automotive Mechanics specialty. For this it is considered applicable to all students receiving the course of Citizen Preparedness for Defense.

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#### **Conflict of interest:**

Authors declare not to have any conflicts of interest.

#### **Authors' Contribution:**

*Anarella Soto Lazo:* Concepción de la idea, asesoramiento general por la temática abordada, búsqueda y revisión de literatura, traducción de términos o información obtenida, confección de instrumentos, aplicación de instrumentos, recopilación de la información resultado de los instrumentos aplicados, análisis estadístico, confección de tablas, gráficos e imágenes, confección de base de datos, redacción del original (primera versión), revisión y versión final del artículo, corrección del artículo, revisión de la norma bibliográfica aplicada.

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