

## Sustainable local development in the "E" syllabus diagnostic conception

### El desarrollo local sostenible en la concepción del diagnóstico del Plan de Estudio "E"

### O desenvolvimento local sustentável na concepção do diagnóstico do Plano de Estudo "E"

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## ABSTRACT

The continuous improvement of the quality of professional training, aimed at sustainable local development, is one of the social tasks of the contemporary university. Consequently, Higher Education institutions need to diagnose the management of the training processes they develop. This article intends to offer a conception for the diagnosis of the management of the implementation of the "E" syllabuses, in the University of Pinar del Río "Hermanos Saíz Montes de Oca", that reassesses the sustainable local development in the initial professional formation and guarantees the real knowledge about this process with truthful and sufficient information, that allows redirecting it according to the fulfillment of the established purposes. The methods used were the documentary analysis and the Vigotskian methodology of the complex units of analysis that allowed to establish the main relations and components of this process. As a result, the study variable was defined and five dimensions were identified: institutional, administrative, pedagogical, community and methodological, with the corresponding indicators. The methods proposed for carrying out the diagnosis were documentary



analysis, observation, survey, interview and pedagogical test to be measured with a two-level scale: satisfactory and unsatisfactory. This conception of the diagnosis of the management of the "E" syllabus is an effective tool to improve the quality of university professional formation in Cuba, which is particularly relevant in times when they demand curricular flexibility, essentiality of contents, self-learning and impact on local development with sustainability criteria.

**Keywords:** sustainable local development; diagnosis; management; syllabus

## RESUMEN

La mejora continua de la calidad de la formación profesional, dirigida al desarrollo local sostenible, es uno de los encargos sociales de la universidad contemporánea. Consecuentemente, las instituciones de Educación Superior precisan diagnosticar la gestión de los procesos formativos que desarrollan. Este artículo pretende ofrecer una concepción para el diagnóstico de la gestión de la implementación de los planes de estudio "E", en la Universidad de Pinar del Río "Hermanos Saíz Montes de Oca", que resigne el desarrollo local sostenible en la formación profesional inicial y garantice el conocimiento real sobre este proceso con información veraz y suficiente, que permita redireccionarlo en función del cumplimiento de los fines establecidos. Los métodos empleados fueron el análisis documental y la metodología vigotskiana de las unidades complejas de análisis que permitieron establecer las principales relaciones y componentes de este proceso. Como resultado, se definió la variable de estudio y se identificaron cinco dimensiones: institucional, administrativa, pedagógica, comunitaria y metodológica, con los correspondientes indicadores. Los métodos propuestos para la realización del diagnóstico fueron el análisis documental, observación, encuesta, entrevista y prueba pedagógica para ser medidos con una escala de dos niveles: satisfactorio y no satisfactorio. Esta concepción del diagnóstico de la gestión del plan de estudio "E" es una herramienta eficaz para mejorar la calidad de la formación profesional universitaria en Cuba, que resulta particularmente relevante en tiempos en que demandan flexibilidad curricular, esencialidad de los contenidos, autoaprendizaje y el impacto en el desarrollo local con criterios de sostenibilidad.

**Palabras clave:** desarrollo local sostenible; diagnóstico; gestión; plan de estudios

## RESUMO

A melhoria contínua da qualidade da formação profissional, destinada ao desenvolvimento local sustentável, é uma das tarefas sociais da universidade contemporânea. Consequentemente, as instituições de ensino superior precisam de diagnosticar a gestão dos processos de formação que desenvolvem. Este artigo pretende oferecer uma concepção para o diagnóstico da gestão da implementação dos currículos "E", na Universidade de Pinar del Río "Hermanos Saíz Montes de Oca", que ressignifica o desenvolvimento local sustentável na formação profissional inicial e garante o conhecimento real deste processo com informação verdadeira e suficiente, o que permite redirecioná-lo de acordo com o cumprimento dos propósitos estabelecidos. Os métodos

utilizados foram a análise documental e a metodologia vigotskiana das unidades de análise complexas que permitiram o estabelecimento das principais relações e componentes deste processo. Como resultado, a variável de estudo foi definida e foram identificadas cinco dimensões: institucional, administrativa, pedagógica, comunitária e metodológica, com os indicadores correspondentes. Os métodos propostos para a realização do diagnóstico foram análise documental, observação, inquérito, entrevista e teste pedagógico a ser medido a dois níveis: satisfatório e insatisfatório. Esta concepção do diagnóstico da gestão curricular "E" é uma ferramenta eficaz para melhorar a qualidade da formação profissional universitária em Cuba, particularmente relevante em tempos que exigem flexibilidade curricular, essencialidade de conteúdos, autoaprendizagem e impacto no desenvolvimento local com critérios de sustentabilidade.

**Palavras-chave:** desenvolvimento local sustentável; diagnóstico; gestão; plano de estudo

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## INTRODUCTION

The continuous improvement of the quality of professional training, aimed at sustainable local development, is one of the social tasks of the contemporary university. Horruitiner (2006, p. 18) defines the term training in Higher Education as: the substantive process developed in the universities, with the objective of preparing the student integrally in a certain university career and includes both undergraduate (or graduate, as they are called in some countries) and graduate studies.

In this sense, as stated by Cala and Breijo (2020), the purpose of Higher Education in Cuba is "(...) to maintain a model of modern, humanistic, universalized, scientific, technological, innovative university, integrated to society and deeply committed to the construction of a prosperous and sustainable socialism".

Thus, the integral management of the processes of professional training is of strategic importance due to the contributions to the fulfillment of the mission of the university in Cuba: the formation of competent professionals committed to their social task, capable of providing solutions in an innovative and creative way to the problems of the profession in the basic link, which become social problems. Hence the need to implement diagnostic tools to obtain truthful and sufficient information on the quality of training management, in pursuit of the continuous improvement of substantive university processes.

One of the most relevant manifestations of the university-society relationship, a link that determines the character and direction of professional training, is the contribution of Higher Education institutions (hereinafter HEI) to territorial development, particularly in terms of knowledge and technologies, as demanded by the Economic and Social Policy Guidelines and the National Plan for Economic and Social Development until 2030.

In consideration of these requirements, the definition of local development by Torres et al. (2018) is assumed, which surpasses other previous approaches and conceptions by understanding development on a sustainable basis, among other aspects, by saying that it constitutes a:

Process of social construction and structural change that, from an innovative territorial environment and led by local governments, develops capacities to manage public policies, strategies, programs and projects aimed at taking advantage of endogenous and exogenous resources, promoting economic, social, natural and political-institutional transformations in localities on a sustainable basis, with active and leading citizen participation, in order to raise the population's quality of life.

Seen in this way, in conceiving professional training in terms of sustainable local development, it implies, according to Garbizo, Ordaz and Lezcano (2020, p. 101) "(...) developing a training process that harmonizes a technical qualification of excellence and a socially responsible action, which allows the future university graduate to contribute to the transformations that the local demands with a criterion of sustainability.

This is why studies on the relationship between university-sustainable local development have experienced an important increase, since this conception of social development can only be devised, managed and carried out by human beings prepared for such purposes.

In Latin America, Coraggio (2015), as well as Martins and Cassiolato (2016) address the necessary redefinition of policies, social and economic models and the development of a popular economy of solidarity from the local level. From Ecuador, Molina, Domacin, Cruz and Borroto (2016) offer alternatives for the expansion of knowledge and practices that relate HEI with their environment, to meet the needs of public institutions, educational, civil and business organizations, in order to contribute to solving local, regional and national problems. At the same time, in Mexico, Peña (2017) shares the formative experience in an academic program of sustainable development in the Intercultural University of Chiapas.

In Cuba, the vision of local development in relation to the role of the HEI and professional training, in particular, has experienced significant transformations from which important scientific, theoretical and practical results have emerged. Núñez (2017) systematizes many of the results obtained during the years 2015 and 2016, which cover the joint work of 12 universities, including the University of Pinar del Río (UPR) "Hermanos Saíz Montes de Oca" and the Ministry of Higher Education (MES) as a governing body. The research directions provide, from the theoretical point of view, conceptual frameworks, models and methodologies, theories on innovation systems, theories on socio-technical networks and social technologies, theories on networks and knowledge flows, among other aspects. In addition, concepts such as knowledge management and innovation are addressed, adapted to the particularities of local development and incorporated into the country's management and public policies (Núñez Jover et al., 2017).

The introduction of the Local Innovation Systems (LIS) "allows to argue the connection between knowledge, innovation and local development and strengthens the role of

higher education in that development" (Núñez Jover et al., 2017, p. 4). Thus, policies are supported that articulate the work with local actors, such as government, cooperatives and different state sectors, as well as enterprising, among others "(...) strongly connected with national and foreign actors, capable of providing knowledge, technologies, financing and other inputs for local development" (Núñez Jover et al., 2017, p. 4). An example of this is the Network of University Management of Knowledge and Innovation for Development (Gucid) of the MES, the Municipal University Centers and the links with other networks and programs that exist in the country, especially those linked to local development, the Articulated Platform for Integral Territorial Development (Padit) which "(...) as a framework program, offers an articulated development platform that promotes processes of decentralization, strengthening of local and territorial capacities for planning, development management and multilevel articulation" (Gorgoy Lugo & Torres Páez, 2019, p. 32).

Research on sustainable local development, the role of HEI and vocational training have had the greatest impact on postgraduate and continuing education. The transformations occurred in the models of university-development-local articulation, show the movement of an extensionist vision towards a new epistemology in which "Universities can contribute to encourage the local projection of knowledge and innovation, expanding their capacity to promote human welfare in the territories" (Núñez Jover & Alcazar Quiñones, 2016, p. 195).

However, in the initial training of professionals, the panorama is different. The results of the documentary analysis of the "E" syllabus (MES, 2016), in force in Cuba, reveal the absence of the term "local development", at least in an explicit way. This lack causes theoretical and methodological inconsistencies in the essences of this formation, as knowledge management and innovation for sustainable local development is an essential task "(...) in the formation of competent professionals, identified with the problems of the local environment and a way of acting, oriented to change and transformation" (Garbizo Flores et al., 2020, p. 101).

It is legitimate to ask, then, is it possible to contribute to sustainable local development, to transform the environment in the economic, social, institutional and natural dimensions, without forming and developing knowledge, skills, capacities, aptitudes and values to generate transformative thinking from the beginning of professional training?

In this regard, at the international level, some contributions are reported aimed at redesigning syllabuses in terms of local development (Hernández Chacón, 2017) and local vocational training, oriented towards local development as an evaluation criterion for training quality (Bonifacio Mavungo et al., 2019), which are very much in line with the positions held in this article.

In Cuba, Díaz Duque (2015) makes an important contribution when identifying the sustainability demands for engineering and specifying the key aspects in engineers' education to contribute to the sustainable development of society. Meanwhile, Martín and Vargas (2018) provide a procedure that allows the updating of the demand of qualified work force by the employers of the municipality, according to the local

development, which implies a training aimed at solving the problems of local development.

Other thematic lines cover the impact of university graduates on local development, knowledge management and innovation in the practical application of local development initiatives by HEI and the formation of knowledge, skills and abilities to generate transformative thinking by the Municipal University Centers (Pineda Machado et al., 2019; Rojas Murillo & García González, 2018). Meanwhile, Garbizo et al. (2020, p. 108) propose teaching-methodological actions to "(...) integrate knowledge, skills and values related to local development with the student's socio-professional context to solve problems in an innovative and creative way".

The findings obtained in the analyses carried out reveal the need to consider sustainable local development, in the initial stage of vocational training, from the university - society relationship and, derived from it, the vocational training-local development relationship, which must be explicitly reflected in the syllabuses, curriculum designs and included in the dimensions and indicators to evaluate the quality of vocational training.

Thus, the objective of this work is to offer a concept for the diagnosis of the management of the implementation of the "E" syllabuses in the UPR, which resignifies the sustainable local development in the initial professional training and guarantees the real knowledge about this process, with truthful, pertinent and sufficient information, which allows redirecting it according to the fulfillment of the established purposes.

## **MATERIALS AND METHODS**

For the determination of the theoretical foundations, the operational definition of the variable, as well as the identification of the dimensions and indicators derived from it, there were used as main methods:

- The documentary analysis for the examination of the regulations for the elaboration of "E" syllabus, as well as other documents that, at the University of Pinar de Río, govern the management of the formation of professionals and for the determination of the main theoretical references.
- The Vigotskian methodology of complex units of analysis for the study of the whole, through the analysis of a specific unit and, in turn, the study of the particular without losing sight of the whole.

## **RESULTS AND DISCUSSION**

The integration of the methods used allowed, first of all, to determine the general foundations of the conception for the diagnosis of the "E" syllabus management at the UPR, which considers the philosophy of education, the sociology of education and the

historical-cultural approach of L. S. Vygotsky and his followers. Other foundations are in the theory of professional training; developmental teaching, which conceives the process focused on individuals as social agents; management theory, higher education didactics, which conceives the teaching-learning process properly organized, directed and executed to achieve professional training, postgraduate didactics and professional pedagogy.

Given the curricular conception of the "E" syllabus, based on self-learning and self-management of information for professional training, in terms of sustainable local development, strategies and learning styles for learning to learn, developing creativity and innovation were taken into account, as well as the role that access and handling of ICT and communication in foreign languages play in all this. The Agenda 2030, with its objectives for Sustainable Development, became a roadmap for training action.

Secondly, from these budgets, units of analysis were identified, understood, each one of them as the component of an object or process, which is valued in order to deepen as part and gain understanding of the whole. From general and essential relationships, complex units were derived, related to subordinate relationships and simple analysis units, related to management components of the implementation of the "E" syllabus in the UPR.

- Analysis units
  - General relationship: University-Society
  - Essential Relationship: Career-Business
- Complex units of analysis
  - Subordinate relationships
    - Methodological work-Professional training
    - Initial training-Preparation for employment-Postgraduate
    - Vocational training-Sustainable local development
- Simple units of analysis
  - Components
    - Professional's model
    - Teaching process plan
    - Discipline and subject programs
    - Preparation of the subjects
    - Academic year
    - Teaching and learning process
    - Pre-professional activity of the students
    - Career strategies and projects
    - Preparation for employment
    - Postgraduate
    - Methodological work
  - Processes
    - Initial training
    - Shared training
    - Teaching-learning process
    - Self-learning
    - Determination of essential content

- Local sustainable development
- Preparation for employment
- Postgraduate
- Methodological work

Thirdly, the methodology used made it possible to synthesize the essences identified in the operational definition of the study variable, **management process of the implementation of "E" syllabus at the University of Pinar del Río "Hermanos Saíz Montes de Oca"**, which refers to the establishment of strategies for the management of human, material and economic resources, as well as technical, time, safety and hygiene processes and information control, with a vision of the formation of professionals that responds to national social needs, The UPR has a methodological work conception, verticalized from the institution to the faculties, that is transversalized in the career, the groups of disciplines, subjects, and year, which favors the preparation of academic structures to achieve efficient training processes in order to guarantee the implementation of the curricular design of the "E" syllabuses.

Finally, the following dimensions and indicators of the management process for the implementation of "E" syllabus at the UPR were identified.

## Dimensions

**I. Institutional.** It refers to the identification of the forms, how the members of the management structures are organized for the good functioning of the implementation of the "E" syllabus in the UPR and considers the training of professionals who contribute to the sustainable local development. This dimension offers a framework for the systematization and analysis of the actions referred to those structural aspects that, in the UPR, give account of a style of operation, which allows to take right decisions.

- 1.1. Level of establishment of the theoretical guidelines (social, pedagogical and didactic) that rule the curricular conception of the "E" syllabuses of the careers at the UPR and consider the formation of professionals that contribute to the sustainable local development.
- 1.2. Level of establishment of the working groups that advise the implementation of the "E" syllabuses in the UPR.
- 1.3. Level of establishment of academic groups (career groups, year groups, discipline groups, and subject groups) for the implementation of "E" syllabuses at the UPR.
- 1.4. Level of establishment of official communication channels among academic groups for the implementation of "E" syllabuses at the UPR.
- 1.5. Level of establishment of adequate time periods and spaces for the implementation of the "E" syllabuses in the UPR.

**II. Administrative.** Refers to the establishment of strategies for the management of human resources (academic groups), material, economic, technical processes, time, safety and hygiene and control of information related to the implementation of the "E" syllabuses in the careers of the UPR and consider the formation of professionals who contribute to sustainable local development.

- 2.1. Level of establishment of the economic and financial resources for the implementation of the "E" syllabuses in the UPR careers.
- 2.2. Level of establishment of the functions of each of the academic groups involved in the implementation of the "E" syllabuses in the UPR careers.
- 2.3. Level of the performance evaluation of each of the academic groups involved in the implementation of the "E" syllabuses in the UPR careers.

**III. Pedagogical.** It refers to the conception of professional training that responds to national, territorial and local social needs that determines the implementation of the "E" syllabuses in the UPR careers and considers the training of professionals that contributes to sustainable local development.

- 3.1. Level of establishment of curricular designs with a wide profile, which form competent professionals for the state and non-state labor market in each career of the UPR, which consider objectives and contents referred to sustainable local development.
- 3.2. Level of establishment of undergraduate contents that do not go beyond the objective of training professionals with a broad profile and, consequently, conceive postgraduate training that considers the socioeconomic, territorial and national needs.
- 3.3. Level of establishment of three types of curricular content (basic, own and optional/elective) that allow the permanent updating of the career plan and its adaptation to the country's needs, to the local sustainable development, to the improvement of the faculty and to the students' interests.
- 3.4. Level of establishment of own curricular contents (own curriculum) directed to satisfy specific needs of the local development that typify the professional formation in the career and in the UPR.
- 3.5. Level of establishment of optional and elective curricular content (elective/elective curriculum) that responds to the interests of the students and complements their integral formation.
- 3.6. Level of establishment of those fundamental contents for the achievement of the objectives foreseen in the career, considering the invariants of knowledge and assuring an adequate logical and pedagogical sequence of them.
- 3.7. Level of establishment of a theory of formation that promotes the unity of the instructional, educational and developmental, from a process of teaching-learning developer who integrates the academic, labor, research and extensionist.
- 3.8. Level of establishment of a teaching style that favors the self-management of learning, focused on learning to learn in order to identify and solve the professional problems of each career, through forms of teaching organization that guarantee professional training in terms of sustainable development, from the budgets of this plan.
- 3.9. Level of establishment of a training process, focused on the student's learning, according to the preparation for the labour market, which considers the needs of sustainable local development, with emphasis on the correct use of the mother tongue, the learning of the English language and a wide and generalized use of the ICTs.
- 3.10. Level of establishment of the evaluative component with a qualitative and formative character, through non-traditional forms of evaluation and that

guarantees the knowledge of the students about the criteria used to evaluate their performance.

- 3.11. Level of establishment of integrative exams that allow students to demonstrate the level of development of professional skills and, consequently, the way of acting in the exercise of the profession, established in the base link, with emphasis on objectives and contents associated with sustainable local development.
- 3.12. Level of establishment of a type of evaluation of the completion of studies that allows the student to demonstrate mastery of the modes of action necessary for the exercise of the profession in the base link, with emphasis on objectives and content associated with local sustainable development.
- 3.13. Level of establishment of the science-profession link through intra-, inter- and transdisciplinary approaches for the identification and solution of problems specific to the profession and the development of modes of professional action, contextualized in the needs of sustainable local development.
- 3.14. Level of establishment of a training process that prepares management and academic structures for the implementation of a comprehensive, competent training, adjusted to the needs and demands of sustainable local development.
- 3.15. Level of establishment of a conception of the methodological work in the structures of the base level, that favors the preparation of the academic structures for the implementation of the guidelines established in this plan.

**IV. Communitarian.** It refers to the way in which UPR careers are related to the community of which it is part (agencies, state organizations, and non-state sector), knowing, understanding their conditions and meeting their needs and demands, becoming agents of sustainable local development.

- 4.1. Level of establishment of strategies and projects that harmoniously consider the dimensions of sustainable local development: socio-cultural, economic-productive, environmental and institutional in the careers of the UPR.
- 4.2. Level of establishment of a knowledge policy in the career, essential to identify endogenous resources, development potential and attract exogenous resources through projects that promote strategic alliances between social actors (local governments, agencies, state organizations and the non-state sector).
- 4.3. Level of establishment of links with employer organizations for the management of human potential required in each career, as well as for participation in the processes of curriculum design, training and learning evaluation in the academic, labor, research and extension fields, which considers the initial training of professionals for sustainable local development.
- 4.4. Level of establishment of projects and training programs that allow the flow of knowledge, science, technology and human talent that the territories need through networking with provincial, national and even international institutions.
- 4.5. Level of establishment of mechanisms to produce synergies and interactions that promote consistent modes of action by all actors in the race as agents that promote knowledge and link it to development (implementation of an integrated knowledge policy), based on sustainable local development.

**V. Methodological.** It refers to a conception of methodological work from the institution, the career, the groups of disciplines, subjects and year, which promotes the preparation of academic structures in which the different forms are integrated to achieve efficient training processes, to ensure the implementation of the curricular conception of the plans "E", from the established guidelines and that considers the professional training for sustainable local development.

- 5.1. Level of establishment of a projection of methodological work from the career, the groups of disciplines, subjects and year, aimed at ensuring the implementation of the curricular concept with a broad profile and the guidelines established in the basic link for the training of competent professionals for the state and non-state labor market, based on sustainable local development.
- 5.2. Level of correspondence of the planning of the forms and types of the methodological work with the needs of the teachers to face the curriculum and the programs they teach.
- 5.3. Level of correspondence of the model's methodological indications with the programs of disciplines, based on the established guidelines
- 5.4. Level of establishment of a conception of methodological work in the career that integrates the different forms to achieve efficient formative processes, considering the professional problems as a starting point in the formation of the professional, in contexts of sustainable local development.
- 5.5. Level at which the methodological work of the career guarantees the establishment of the three types of curricular content (base, own and optional/elective) that allow the permanent updating of the career syllabus and its adaptation to the needs of the country, to local sustainable development, to the improvement of the faculty and to the interests of the students.
- 5.6. Level in which the methodological work of the career guarantees the determination of the contents that should be essentially dealt with in the initial training of professionals with a broad profile, considering the invariants of knowledge and ensuring an adequate logical and pedagogical sequence of them, in function of a training for sustainable development.
- 5.7. Level in which the methodological work of the career guarantees the establishment of own curricular contents (own curriculum), aimed at satisfying specific needs of national, territorial and community development, which reveals the typicalities of professional training in the career and in the UPR.
- 5.8. Level in which the methodological work of the career guarantees the determination of the contents that must be dealt with in the postgraduate course, considering the national, territorial and community socioeconomic needs.
- 5.9. Level in which the methodological work of the career guarantees the establishment of optional and elective curricular contents (optional/elective curriculum) that respond to the interests of the students and complement their integral formation.
- 5.10. Level at which the projection of the methodological work in the career guarantees the preparation for employment in the state and non-state labor market of future professionals with a broad profile to contribute to sustainable local development.
- 5.11. Level at which the methodological work of the career guarantees preparation for shared training (university-organization)
- 5.12. Level in which the projection of the methodological work in the career favors the implementation of a training theory that promotes the unity of the instructional, educational and developmental, from a developer teaching-learning process that

integrates the academic, labor, research and extensionist, in terms of sustainable local development.

- 5.13. Level in which the methodological work conceived in the career favors pedagogical and didactic practices that promote self-management of learning, centered on learning to learn in order to identify and solve professional problems in function of preparation for the labor market, in contexts of sustainable local development.
- 5.14. The level at which the methodological work conceived in the career guarantees the correct use of the mother tongue, the learning of the English language and a wide and generalized use of ICTs to develop modes of professional performance in function of sustainable local development.
- 5.15. Level in which the methodological work conceived in the career guarantees the implementation of an evaluative component with a qualitative and formative character, through non-traditional forms of evaluation and that guarantees the knowledge of the students about the criteria used to evaluate their performance.
- 5.16. Level of correspondence of the content of the methodological work with the dimensions of local development and the implementation of an integrated knowledge policy.
- 5.17. Level of correspondence of the content of the methodological work with the needs of the students so that they can satisfy the requirements of the curriculum and the programs.

The following methods are proposed for the evaluation of the dimensions and indicators:

- Documentary analysis
- Observation
- Survey
- Interview
- Pedagogical test

To measure the dimensions and indicators, the following decision rules are suggested:

- To evaluate the indicators
  - satisfactory, if the indicator is between 60 and 100% of the possibilities
  - a little satisfactory, if the indicator is between 31% and 59% of the possibilities
  - unsatisfactory, if the indicator is between 0 and 30% of the possibilities
- To evaluate the dimensions
  - satisfactory: 60% or more of the indicators evaluated as satisfactory
  - unsatisfactory: less than 60% of the indicators evaluated as satisfactory

The conception of the diagnosis of the management of the implementation of "E" syllabuses integrates the substantive processes that take place in the initial stage of professional training and puts in the sight of the university community and other agents related to it, an element that, although it does not appear explicitly in the governing documents of the MES, is in the essence of professional training at a global level and in the Cuban political and socioeconomic guidelines, the sustainable local development, as one of the transversal axes of the study variable, present in all the proposed dimensions.

This theoretical-methodological position harmonizes with Díaz Duque (2016) for whom the problems of sustainability constitute the solid and essential base on which the different substantive processes of the university are raised, in a harmonic way: the formation of the professional, scientific research, postgraduate education and university extension, in the search and implementation of sustainability in Cuban society.

Unlike the usual validation processes in the HEI before and after the integration of universities, the conception of management diagnosis for the implementation of "E" syllabus, with emphasis on local development, has a strong base in the theory of management, which is why it covers the integrality of the formation process, that is, institutional, administrative, pedagogical, communitarian and methodological, with indicators that measure relationships, processes and pertinent and relevant objects.

In this sense, the management of professionals as agents of sustainable local development is considered in order to contribute to the "(...) process of articulation between local actors (...) from the state to the non-state actors (...) through the consolidation of networks (which) allows the achievement of policies, programs and projects that promote the achievement of the proposed objectives" (Flores Lóriga et al., 2017) from the initial stage of professional training.

Similarly, the methods suggested for the realization of the diagnosis, documentary analysis, observation, survey, interview and pedagogical test, allow to obtain updated and truthful information that allows to identify strengths, weaknesses, opportunities and threats to redirect the process where and when necessary, with an appropriate measurement scale.

There were important coincidences with previous studies that relate initial training to local development, for example, Bonifacio et al. (2019) who foresee that:

The contribution to local development from the process of training professionals will have future impacts and consequences, expressed in changes for the locality and for the local university itself; therefore, university directors need a strategic, proactive attitude. In order to contribute to this attitude, the results of the evaluation should be expressed as strengths, weaknesses, threats and opportunities, in such a way that the evaluation carried out constitutes the prelude to a process of strategic planning that contributes to the improvement of the management cycle and the capacity for change of both institutions: the university and the locality.

The authors themselves also recognize that the evaluation of the management of the professional training process in local universities has an important basis in the use of the criterion of orientation towards local development, which transverses the dimensions of evaluation of the process, in this case of evaluation and accreditation of local HEI and allows value judgments to increase the relevance and future development of such institutions (Bonifacio Mavungo et al., 2019).

We also agree with Garbizo et al. (2020) who recognize the need for the work of the pedagogical collective to be based on premises such as the conception of local development as a multidimensional, integrating and transdisciplinary process; the link between local development and the way of acting professionally and the potentialities of the substantive processes (teaching, research and university extension) to help rethink the local, although the scope of the proposal is limited to the teaching-methodological work of the pedagogical collectives.

This way, the conception of diagnosis that is presented can be implemented as an effective tool in the HEI, with the purpose of sustaining continuous processes of improvement of the quality of university professional formation in Cuba, in times in which the curricular flexibility, the essentiality of the contents, the self-learning and the impact on local development have great relevance. In these and other elements, it is emphasized the methodological dimension, which requires the institutional accompaniment from a transversal vision.

Finally, it is important to note, in the words of Henríquez Guajardo (2018, p. 9) in reference to the strategic role of higher education in Latin America and the Caribbean, that:

The promotion of sustainability as an organizational culture of educational systems and HEI (...) enshrines openness to socialization as a normative principle. The university institution must go to society and carry in itself innovation as a principle, entrepreneurship as a practice and social coexistence with critical and interdisciplinary thinking as a product. In this way, the duty to be social is guaranteed, the guarantees of a commitment that must be expressed in the context with ethical formation, with the construction and dissemination of knowledge, with the new relationships between the HEI and its environment, with social relevance.

This can only be achieved from a conception of training committed to sustainable local development, which is a pending task in the initial professional training in Cuban HEI.

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### **Conflict of interest:**

Authors declare not to have any conflict of interest.

### **Authors' contribution:**

The authors have participated in the writing of the paper and the analysis of the documents.



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