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A Theoretical-Practical Framework for the Internationalization of Doctoral Programs

Un marco teórico-práctico para la internacionalización de los programas de doctorado

Um quadro teórico-prático para a internacionalização dos programas de doutoramento

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ABSTRACT

The internationalization of doctoral programs is a relatively recent phenomenon, where first world countries exhibit the best results in the training of graduates. This contrasts with the incipient results of the few developing countries that have implemented this policy, mainly due to lack of resources and experience. This work aims to establish a theoretical-practical framework for the process of internationalization of doctoral programs, in pursuit of improving the quality and relevance of the profile of its graduates. The research used the dialectical paradigm, for which theoretical and empirical methods were used, among which are: analysis and synthesis, induction and deduction, documentary analysis, and interviews with specialists who have lived experiences in this regard. The constructs internationalization, internationalization of postgraduate and research, and internationalization of doctoral programs were systematized, which made it possible to establish a theoretical-practical framework on the internationalization of doctoral programs. A set of strategic actions is offered that makes it possible to internationalize doctoral programs and, consequently, improve the quality and relevance of graduates.

Keywords: doctoral programs; theoretical-practical framework; university internationalization.

RESUMEN

La internacionalización de los programas de doctorado es un fenómeno relativamente reciente, en el que los países del primer mundo exhiben los mejores resultados en la formación de los egresados. Esto contrasta con los resultados incipientes de los pocos países en vías de desarrollo que tienen implementada esta política, en lo fundamental, por carencias de recursos y de experiencias. Este trabajo tiene como objetivo establecer un marco teórico-práctico para el proceso de internacionalización de los

programas de doctorado, en pos del mejoramiento de la calidad y pertinencia del perfil de sus egresados. La investigación utilizó el paradigma dialéctico, para lo que se emplearon métodos teóricos y empíricos, entre los que figuran: el análisis y la síntesis, la inducción y la deducción, el análisis documental y las entrevistas con especialistas que han vivido experiencias al respecto. Se sistematizaron los constructos internacionalización, internacionalización del posgrado y de la investigación e internacionalización de los programas de doctorado, los que permitieron establecer un marco teórico-práctico acerca de la internacionalización de los programas de doctorado. Se ofrece un conjunto de acciones estratégicas que permite internacionalizar los programas de doctorado y, consecuentemente, mejorar la calidad y pertinencia de los egresados.

Palabras claves: internacionalización universitaria; marco teórico-práctico; programas de doctorado.

RESUMO

A internacionalização dos programas de doutoramento é um fenómeno relativamente recente, com os países do primeiro mundo a apresentarem os melhores resultados na formação de licenciados. Isto contrasta com os resultados incipientes dos poucos países em desenvolvimento que implementaram esta política, principalmente devido à falta de recursos e experiência. O objectivo deste documento é estabelecer um quadro teórico e prático para o processo de internacionalização dos programas de doutoramento, a fim de melhorar a qualidade e a relevância do perfil dos seus licenciados. A investigação utilizou o paradigma dialéctico, empregando métodos teóricos e empíricos, incluindo: análise e síntese, indução e dedução, análise documental e entrevistas com especialistas que tenham tido experiência nesta área. A internacionalização das construções, a

internacionalização dos estudos de pós-graduação e investigação, e a internacionalização dos programas de doutoramento foram sistematizadas, o que permitiu estabelecer um quadro teórico e prático para a internacionalização dos programas de doutoramento. É oferecido um conjunto de acções estratégicas para internacionalizar os programas de doutoramento e, consequentemente, para melhorar a qualidade e a relevância dos licenciados.

Palavras-chave: internacionalização universitária; enquadramento teórico-práctico; programas de doutoramento.

INTRODUCTION

Higher Education Institutions (HEIs), national governments and regional and international organizations are giving greater priority to the international dimension of Higher Education, in order to respond to some of the challenges created by globalization; therefore, facilitating access to international Higher Education and research for university students, regardless of their training or country of origin, constitutes a challenge for the strengthening, knowledge and innovation of their countries (Gacel-Ávila *et al.*, 2005, pp. 1-3).

The strategic nature of the internationalization of processes in HEIs has led to its inclusion in the agendas of various international and regional events. Among the most significant are: the Regional Conference on Higher Education for Latin America and the Caribbean, in Havana (CRESALC, 1996); the Regional Conference on Higher Education, in Cartagena (CRES 2008); the Second World Conference on Higher Education, held at the UNESCO headquarters in Paris, in July 2009 and; recently, the Regional Conference on Higher

Education in Córdoba (CRES 2018), in which the idea of continuing to promote south-south and north-south relations was ratified, as an effective way to contribute to the development of Higher Education in the region.

The strategic nature of the internationalization of processes in HEIs implied their inclusion in the 2030 Agenda for sustainable development. Objective 4, referring to quality education, raises with respect to Higher Education:

Ensure equal access for all men and women to quality technical, vocational and higher education, including university education, and substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially the least developed countries and small island developing States (United Nations (UN), 2018, p. 21).

The internationalization of doctoral programs is framed, mainly, in the processes of internationalization of postgraduate training and research, to which government policies, regional and international organizations and the authorities of Higher Education institutions global, regional and country levels allocate human, financial, economic, technological and time resources to improve their quality and, consequently, the quality of graduates.

The analyzes carried out in these events show the concerns of governments, international agencies and organizations and of HEIs themselves in implementing policies and strategies that allow the development of an international culture, to face the challenges of globalization and, in particular,

, the need to interweave in the knowledge society, for the sake of an inclusive and quality Higher Education for all.

The policies and agreements adopted in these events have been focused on minimizing the gaps between developed countries, developing countries and small island states.

The internationalization of doctoral programs is a complex, multifaceted, controversial, changing and challenging process, given the movement towards a knowledge society and economy, the development of computer and communication technology, greater mobility of people, capital, ideas, knowledge and technology, greater emphasis on the market economy and changes in governance, facing the consequences of these processes reflected in greater demand for Higher Education, diversity of providers, new types of certifications and qualifications, levels and types of assurance of quality and accreditation, prevalence of private investment over public, new forms of academic and administrative societies, greater brain drain and recovery, mobility initiatives and more international competition and innovation in the market approach (Moreno & Balanta, 2014 ; Díaz-Canel *et al.*, 2020).

The arguments discussed above lead to the need to delve into theoretical and practical aspects of the internationalization of doctoral programs, in order to consider the international, regional and local experiences and challenges in managing the programs of national institutions.

The objective of the work is to establish a theoretical-practical framework for the internationalization process of doctoral programs, in pursuit of improving the quality and relevance of the profile of its graduates.

The search and processing of information related to the internationalization of doctoral

programs was based on the dialectical research paradigm and was supported by theoretical and empirical methods.

This work is a result of the sectoral research project *Improvement of doctoral training and its contribution to development*, led by the University of Pinar del Río "Hermanos Saíz Montes de Oca", with the participation of the Universities of Cienfuegos and Oriente.

MATERIALS AND METHODS

The establishment of a theoretical-practical framework for the process of internationalization of doctoral programs, in pursuit of improving the quality and relevance of the profile of its graduates, requires a comprehensive look to penetrate its essence; that is why a dialectical research paradigm was used that was supported by a set of theoretical and practical methods.

The selection of theoretical and practical methods pointed to the eminently qualitative nature of the phenomenon under study, which did not rule out the unity between qualitative and quantitative, and vice versa, in information processing.

Among the theoretical methods used are analysis and synthesis, induction and deduction, and documentary analysis that allowed us to delve into the essence of the internationalization process of doctoral programs at the international, regional, and local levels.

On the other hand, the interviews with academic directors and specialists from the doctoral training programs of the Universities of Pinar del Río, Cienfuegos and Oriente complemented the results of the documentary analysis, to reach theoretical and practical conclusions about the investigated process.

The fact that this theoretical and practical exploration is embedded in a sectoral research project, related to the improvement of doctoral training and its contribution to development, led by the University of Pinar del Río "Hermanos Saíz Montes de Oca", with the participation of the Universities of Cienfuegos and Oriente, on the one hand, and the review of updated international and national bibliography on the subject, on the other, allowed obtaining objective and pertinent information from highly prestigious managers in the process of training doctors.

All this led to making proposals from theory and practice to establish a theoretical-practical framework for the internationalization process of doctoral programs, in pursuit of improving the quality and relevance of the profile of its graduates.

RESULTS

The establishment of a theoretical-practical framework for the process of internationalization of doctoral programs, in pursuit of improving the quality and relevance of the profile of its graduates, adhered to the logic of the general, the particular and the singular. It was considered as the general to imbricate this process in the internationalization of Higher Education; in particular, in the internationalization of postgraduate studies and research and; singularly, in the analysis of the internationalization of doctoral programs.

The theoretical systematization of the constructs, the internationalization in the institutions of Higher Education, the internationalization of the postgraduate, of research and doctoral programs allowed us to have a theoretical-referential framework to design a set of strategic actions for the internationalization of doctoral programs.

Next, the starting theoretical elements that support the proposals made are presented.

Internationalization in Higher Education Institutions

Internationalization in HEIs is an objective process associated with the phenomenon of globalization, which leads to a terminological precision, in terms of internationalization and globalization, since both terms are often used and confused frequently and have a different meaning.

In the case of Higher Education, globalization refers to:

Flow of technology, knowledge, people, values, ideas that transcend across borders. Globalization *affects* each country differently, in relation to its history, traditions, culture and priorities. While *educational internationalization* is described as "one of the ways in which a country responds to the impact of globalization, respecting the individuality of each nation" (Gacel-Ávila, 2000, p. 122).

"Internationalization and globalization are two different concepts, but united by the same dynamic. Globalization can be understood as the catalyst element, while internationalization would be the proactive response to this phenomenon by university students" (Gacel-Ávila, 2000, p. 122).

Internationalization is "a process that integrates into the substantive functions of higher education institutions a global, international, intercultural, comparative and interdisciplinary dimension, whose scope is the promotion of a global perspective and awareness of human problems in favor of values. and attitudes of a responsible,

humanistic and supportive global citizenship" (Gacel-Ávila, 2000, p. 61).

Four dominant perspectives are established that serve as a frame of reference to think about internationalization in Higher Education. These perspectives are:

- (1) the perspective of the activity, which includes mobility projects and technical assistance;
- (2) the perspective of competencies, which has focused on training graduates who are knowledgeable about international dynamics with intercultural skills;
- (3) the ethos perspective, which emphasizes the creation of a culture or climate of values that supports international and intercultural initiatives without losing sight of the identity of the community;
- (4) the process perspective, which integrates internationalization as part of teaching, research, and extension services (Qiang, 2003, p. 250-251).

The current demands of higher education imply that professionals must perform effectively as true global citizens, capable of interacting with specialists of different nationalities and of offering solutions to the problems facing humanity, based on respect for the identity of each people. (Villavicencio, 2019, p. 9).

The ideas put forward above allow us to assume that internationalization is an urgent need for HEIs and that, due to its transversal nature, it directly affects postgraduate

training and research processes. In this way, the academic and scientific quality of universities is raised, by training a professional with global skills capable of contributing to the development and well-being of their society and their local environment, based on humanistic and supportive principles (Villavicencio, 2019).

The internationalization of postgraduate studies in Higher Education Institutions

The internationalization of postgraduate studies in HEIs becomes a premise in the management of doctoral programs, by directly influencing the comprehensive and competent training of graduates, permeated by the values and attitudes of a responsible, humanistic and supportive global citizenship.

Postgraduate education has become a priority for governments and national productive sectors in the current international scenario, in terms of its contribution to international competitiveness and national development. Both governments and production sectors demand from universities the training of highly qualified human resources, as well as quality scientific and technological production, which motivates a scenario for debate and reconfiguration of postgraduate policies (Dávila, 2012).

Internationalization "is one of the trends to transform postgraduate education around the world and adapt it to the demands of a global, multicultural and highly competitive society" (Gacel-Ávila & Rodríguez-Rodríguez, 2018, p. 56).

In addition, these authors refer that:

The internationalization strategies are systemic and transversal to all the institutional development policies in order to have an impact on the different

academic areas, such as the contents and curricular structures, the development of international and intercultural competences in the profile of the students, the promotion of intercultural understanding, as well as the production of knowledge with a global perspective based on international collaboration, among others (p. 57).

The main benefits of internationalization for postgraduate education are summarized in:

(a) an improvement in the training of graduates from the social and professional point of view for the global context, with the development of intercultural skills; (b) an improvement in the quality of postgraduate education; (c) the recruitment of a greater number of postgraduate students (Gacel-Ávila & Rodríguez-Rodríguez, 2018, p. 60).

The main risks faced globally with the internationalization of postgraduate education, according to Gacel-Ávila & Rodríguez-Rodríguez (2018), are:

(a) internationalization programs mostly benefit students who belong to an economic elite and the largest HEIs with the most resources; (b) the brain drain and the increase in inequality between the institutions of the same country and (c) the loss of cultural identity (p. 60).

On the other hand, these researchers suggest that the main promoters of the internationalization of postgraduate

education at a global level are: (a) government policy, (b) regional policies and (c) the demands of the productive sector (p 61).

Finally, the main obstacles to the internationalization of postgraduate education are:

(a) insufficient financial resources; (b) the lack of command of foreign languages by students and academics, particularly in Latin American and Caribbean countries, due to the lack of well-developed national policies for language learning and (c) the lack of command of foreign languages significantly limits the participation of Latin American and Caribbean academics and students in internationalization programs, scholarships and international cooperation (Gacel-Ávila & Rodríguez-Rodríguez, 2018, p. 61).

In summary, the benefits, risks, promoters and obstacles of the internationalization of postgraduate education have their impact on the internationalization of doctoral programs, favoring or hindering their management and, consequently, the quality of graduates.

The internationalization of research in Higher Education Institutions

The internationalization of research in HEIs has been systematically presented through the widespread and universal dissemination of the knowledge generated by this activity, especially in universities and public research organizations, this being, moreover, one of its fundamental characteristics (Sebastian & Barrere, 2018).

The internationalization of research is considered one of the current trends of internationalization in HEIs and it is proposed that:

it is understood as the expression of the international dimension in the scientific policies of each country, as well as in the activities carried out by researchers, managers and decision makers of science and technology policies. It is a dynamic process in which, based on the results of Research, Development and Innovation (R+D+I), the aim is to enhance the quality of science, promote academic mobility and expand international visibility. (Villavicencio, 2019, p. 6).

Add Villavicencio (2019) thinks that:

The interrelationships established between researchers from different countries have an increasingly decisive impact not only on their specialization and training, but also on the optimization of resources based on capacity building and the establishment of consortiums, programs, networks and projects. of international cooperation generated on the basis of common interests (p. 7).

Sebastian & Barrere (2018) consider that:

The formation of platforms, consortiums, programs, networks and international collaborative projects are rapidly changing the ways of producing scientific

knowledge. Schemes for the dissemination of results and co-publications are probably the expressions of internationalization that best reflect the growing weight of the international dimension in research activities (p. 112).

The internationalization of doctoral programs

Doctoral studies and the execution of the research work that leads to the doctoral thesis constitutes an initial stage in the training of researchers. The main objective of the doctoral studies "Is training for research in a human environment and material means that enable scientific interaction, group work, access to information, scientific debate, a culture open to criticism. , the appearance of new opportunities and collaborations" (Sebastian & Barrere, 2018, p. 115).

"Good training for research is usually more related to the quality of the environment in which it is produced than to the specific topic on which the research for the thesis is carried out," says Sebastian & Barrere (2018, p. 116). Training in international environments generates externalities of great importance for the future trajectory of young researchers.

Sebastian & Barrere (2018) mean that:

The international relational capital that is acquired in these stages and the networks of international links that are built are catalysts for scientific collaboration and insertion in internationalized communities. A good part of the scientific communities in Latin America and the Caribbean were generated from training experiences abroad and the influence of

external environments historically marked the orientation of areas and lines of research (p. 116).

The international dimension in doctoral training "is expressed both through training in another country and through the inclusion of this dimension in the training processes in national programs" (Sebastian & Barrere, 2018, p. 116).

Some details about the preparation in these two scenarios will be made below.

Doctoral training abroad

Doctoral training in another country was a generalized scheme in the past that was based on the fact that the offer of national programs was insufficient, their quality was poorly guaranteed or simply lacking in them. To the extent that countries have been acquiring capacities, "training abroad has become less dependent, although the offer of doctoral training programs is still very scarce in more than half of the countries of Latin America and the rest of the world." Caribbean" (Sebastian & Barrere, 2018, p. 117).

Several countries in Latin America and the Caribbean benefit from public policies related to training abroad, through scholarships and internships supported by governments and international organizations, among which the following stand out: the Science Without Borders Program of Brazil; the CONICYT Internacional and Becas Chile scholarships, in Chile; a massive training program abroad in Ecuador; the south-south collaboration within the framework of ALBA, where Cuba, with its network of universities, trains doctors from various LAC countries, Africa and, recently, from China, among others.

In the region, the US is one of the countries with the longest tradition in training doctoral students.

Training in national doctoral programs

As an alternative to training abroad, "there are different schemes to introduce the international dimension in national doctoral programs and offer students opportunities to interact and bond with environments from other countries during their training period as researchers" (Sebastian & Barrere, 2018, page 118).

These schematics show:

A gradient of intensity in the internationalization of training processes, from the occasional participation of professors and researchers from other countries in the curriculum of the programs, especially in those that still have a high teaching content, to programs with a double degree, passing by international collaborative programs (Sebastian & Barrere, 2018, p. 118).

Sebastian & Barrere (2018) specify that:

The most widespread schemes, although they have not yet been generalized, are the collaborative programs, the result of inter-institutional agreements or collaboration networks, which allow joint participation in the teaching and research stage through joint supervision, internships abroad students and scientific cooperation (p. 118).

Collaborative programs are presented as a viable alternative for the internationalization of training. A good part of the current efforts is being made at the institutional level to channel activities that contribute to the internationalization of programs and, in some cases, there are external instruments,

such as the Erasmus Mundus program and currently Erasmus+, from the EU. EU data indicate the participation of some 2,500 Latin American doctoral program students in some international activity within the framework of these programs since 2008. At the bilateral level, it is worth noting the initiatives of the German-Argentine University Center in promoting international doctorates sets, such as the one established between the Universidad Nacional del Rosario and the Goettingen research campus (Sebastian & Barrere, 2018).

In the field of social sciences in Latin America and the Caribbean, the role of the Latin American Faculty of Social Sciences (FLACSO), as an international organization, in the training of researchers, and of the postgraduate network in social sciences of the Latin American Council of Social Sciences (CLACSO), which since 2007 links doctoral programs from different Latin American countries. The Ibero-American Postgraduate University Association (AUIP) also participates in the creation of international spaces for the training of researchers (Sebastian & Barrere, 2018, p. 118).

"The development of collaborative doctoral programs between Latin American and Caribbean countries can constitute a strategy to strengthen the Latin American offer, internationalize training processes and improve quality standards," they point out (Sebastian & Barrere, 2018, p. 118).

Support through public policies for these programs is considered necessary to advance in the internationalization of researcher training in Latin America and to make viable numerous existing initiatives of Latin American networks that do not have sufficient resources (Sebastian & Barrere, 2018).

DISCUSSION

The systematized theoretical-referential framework about the process of internationalization of doctoral training and the good practices of HEIs from first world countries and from Latin America and the Caribbean allowed to establish a set of strategic actions that point to a good management of internationalization of doctoral programs.

Strategic actions for the internationalization of doctoral programs

Government policies, HEIs and international organizations and agencies face the challenges of conceiving programmatic strategies that foster international collaboration, in particular the training of doctors with international skills.

Some actions that should be part of the programmatic strategies for the internationalization of doctoral programs are highlighted below:

1. The academic collaboration agreements they represent a powerful way to increase knowledge, healthy competition and scientific and technological development, by encouraging researchers from different areas of knowledge to join forces to solve a common problem, where synergies are generated that go beyond what each one of the members can contribute. individually, says Paniagua (2019, p. 7).

2. The strategies that are conceived in this regard should contain actions that help to ostensibly reduce the gap of scientific development in the countries of the area; for example: mobility programs for students and researchers, promote distance courses and develop thematic networks to organize regional collaboration projects with the aim of solving common problems, Paniagua (2019, p. 7) notes.

3. The internationalization of the curriculums defined as:

Integrate the international and multicultural dimension in the contents and forms of the course programs, in order to train graduates to act professionally and socially in an international and multicultural context. It is an analogy of the *global* concept, which refers to the enrichment of local knowledge from a global perspective (Gacel-Ávila, 2014, p. 1).

The most common actions adopted by HEIs for curricular internationalization are:

(a) the outgoing and incoming mobility of students, (b) scholarships for study abroad, (c) the participation of teachers and researchers in international knowledge generation networks, (d) the invitation of foreign teachers to carry out activities academic and (e) internationalization activities at home, namely: double degree programs, co-tutelage, online courses, virtual mobility (Gacel-Ávila & Rodríguez-Rodríguez, 2018, p. 3).

4. The Joint and double collaborative academic programs represent one of the most innovative internationalization strategies, but also one of the most complex to implement and consolidate.

In this way, the University of Zaragoza (2021) notes that:

The training programs for doctors can be developed jointly by at least two or more HEIs and have the collaboration expressed through an agreement, of other organizations, centers, institutions and entities with

R+D+i activities, public or private, national or foreigners, who will grant a joint title, he specifies.

5. The Institutional language learning policy contributes to the fact that the actors involved, say students and faculty, dominate foreign languages, in particular, the English language.

The ways to achieve language preparation in a foreign language can be institutional, through the language centers and/or departments of HEIs or through the efforts of those involved in other public or private institutions. Also, the ease of foreign language courses offered online by various international institutions is little exploited.

6. The academic mobility it is a process that involves the physical movement of students, professors, researchers and directors from their university to another HEI, with the purpose of carrying out an academic activity that complements their knowledge, training or research activities.

Academic mobility will be seen from the actions that professors and researchers, students and directors of doctoral training programs can carry out. For this, the experiences of the University of San Buenaventura (s. f.) were taken into consideration.

Teachers and researchers can perform the following actions:

- The teaching stay: it is the type of modality where the professor moves physically or virtually to teach a course or subject or several of these at the undergraduate, postgraduate or continuing education level, according to their area of expertise, in national territory or Foreign.
- The attendance at events: it is specified in the participation of

professors and researchers in workshops, seminars, congresses, conferences, symposiums, forums and colloquiums, in which the professor can travel as a speaker or as an assistant. The objective of these activities is to contribute to the development of curricular programs or to teaching and research activities.

- The mission: it is the modality where the professor, the researcher or the manager develops training activities towards the improvement of the quality of their study or teaching, research or management work. These activities include the participation or presentation of papers in seminars, short courses, language courses, colloquiums, congresses, missions, workshops, meetings and international fairs, among others. Short academic trips have the purpose of having an approach to different institutions (universities, companies, organizations), generally of a global nature. The mission allows, at the same time, to live a cultural experience.
- The short course: participation in courses lasting less than three months, where the professor or researcher receives a certification.
- The research stay: it is the modality where the researcher from the university of origin must travel to a destination university to carry out research work that involves studies and exhibitions, among others.
- The professor of an undergraduate, master's or doctoral program: is the mobility actor who, due to his professional profile and expertise, without being linked to an educational institution, is invited by it to collaborate in teaching activities and to strengthen the curriculum of one or more various undergraduate, master's or doctoral programs.
- The doctoral or post-doctoral studies: this is the process in which HEI

professors and researchers travel abroad to complement their training in doctoral or postdoctoral programs and, at the same time, have the opportunity to carry out research and teaching activities.

The students can perform the following actions:

- The academic semester: it is aimed at postgraduate students interested in taking modules and/or subjects for one or a maximum of two academic semesters at another university, within the framework of an academic agreement.
- The *double degree*: it is aimed at students who are studying at the destination university, in order to obtain a double degree, consecutive degree or joint degree. According to the respective agreement, the requirements, documents and procedures to be followed are established.
- The doctoral thesis co-supervision: it is the international modality that allows the doctoral thesis to be developed under the direction of supervisors from two or more universities. This requires the signing of a specific agreement or memorandum of understanding.
- The practice or internship: allows the graduate student to develop activities for the benefit of obtaining work experience based on the studies they are pursuing.
- The mission: they are short academic trips with the purpose of allowing the student to have an approach to different institutions (universities, companies, organizations), generally of a global nature. The mission allows them, at the same time, to live a cultural experience. The themes are articulated with aspects of their academic program.

- The short course: allows the participation of students in courses lasting less than three months, whose purpose is to promote interculturality while studying a subject that can be approved as part of the student's curriculum.
- The attendance at events: it is the participation of students in workshops, seminars, congresses, conferences, symposiums, forums and colloquiums, in which the student can travel as a speaker or as an assistant.
- The research stay: it is the modality where the student from the university of origin must travel to a destination university to carry out research work that involves studies and exhibitions, among others.
- The international volunteering: it is the modality where the student, through a voluntary act that is part of a service practice, puts vulnerable people or communities at the center.

Academic mobility is divided into outgoing and incoming. The outgoing refers to the fact that the students, professors, researchers and directors of the university of origin are inserted in other international or national institutions; For its part, the incoming refers to foreign students, professors, researchers and directors and from other universities, who wish to carry out short stays, academic semesters, internships, academic practices and/or participate in continuing education programs, among others, are inserted in the foreign university.

7. The internationalization of research and knowledge production It is specified in: the intensification of scientific exchanges; the efforts of institutions and countries to increase academic mobility; the financing of research projects; participation in international projects; the international visibility of the production of knowledge, with the publication of scientific articles in indexed journals; access to databases of international

publications; advice for writing and submitting articles to indexed international journals; financial support for the payment of memberships to international research networks; advice for the preparation of international research projects and the filing of international patents.

The implementation of these actions requires international and institutional financing, an administrative staff trained in these issues and academics who, in their international profile, demonstrate interest, are well informed and master foreign languages.

8. The quality assessment and international accreditation guarantee that the doctoral program reaches its highest value by undergoing international evaluation and accreditation processes and that, as a result, a certification is issued by a recognized international body. This evaluation and accreditation must be preceded by national evaluation and accreditation processes, where its high-quality standards are demonstrated.

The accreditation of doctoral programs is a voluntary process and its objective is to certify the quality of the programs offered by the autonomous institutions of Higher Education, based on the purposes declared by the institution that imparts them and the criteria or standards established for this purpose. end by the corresponding scientific or disciplinary community [National Accreditation Council (CNA), 2020].

The Ibero-American Network for Quality Assurance in Higher Education (RIACES) is an association made up of 37 members represented by 30 public or private accrediting agencies, with a presence in 20 countries in Central America, Latin America, the Caribbean and Europe and seven regional and international organizations. All this brings together a large community of people working in favor of the accreditation and certification of the quality of Higher

Education, in particular, doctorates [Ibero-American Network for Quality Assurance in Higher Education (RIACE), 2021].

The Ibero-American Postgraduate University Association (AUIP) is international and its main purpose is to maintain and improve the postgraduate academic offer available to the international community. This association is involved in the evaluation, accreditation and certification of doctoral programs, which allows the generation of value judgments from the information obtained and the making of decisions to review, adjust, improve, strengthen or consolidate them (AUIP, 2022)

As a conclusion, the treatment of the internationalization of university processes in the agendas of international events and the establishment of declarations and the adoption of agreements give significant importance to the subject due to its strategic importance for governments, organizations and international and international organizations. IES to promote inclusive, relevant and quality education internationally.

University internationalization is a process of institutional renewal, which integrates into the substantive processes of HEIs an international and intercultural dimension in culture, mission, vision and transversally in all institutional strategies for institutional strengthening, improvement of quality and relevance of the profile of graduates, of the teaching programs and of the research products.

The internationalization of doctoral programs is the process of inserting an international and intercultural dimension in their management, which materializes in institutional policies and strategies, with the purpose of improving the quality and relevance of the graduates' profile. This process is based on the theoretical and practical conceptions of the

internationalization of postgraduate studies and research.

Doctoral studies aim at training for research in a human environment and material means that enable scientific interaction, group work, access to information, scientific debate, a culture open to criticism, the appearance of new opportunities and collaborations.

The internationalization of doctoral programs in a complex, multifaceted, controversial, changing and challenging process, given the movement towards a knowledge society and economy, which has its scenarios abroad or nationally, for which HEIs must design strategies to its management. The main strategic actions include: academic collaboration agreements, the internationalization of the curriculum, joint and double programs, the institutional language learning policy, the mobility of academics, the internationalization of research and the production of knowledge and the quality assessment and international accreditation.

The theoretical systematization study carried out and the set of strategic actions proposed constitute a novel way to address the process of internationalization of doctoral training, by offering current and relevant theoretical and practical elements that typify doctoral training in the world, in the region of Latin America and the Caribbean and in Cuba.

Similarly, the set of strategic actions constitutes a valuable practical tool to manage the process of internationalization of doctoral training and, thus, improve the quality and relevance of the profile of the graduates of these programs.

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BIBLIOGRAPHIC REFERENCES

- AUIP. España. (2022). Dirección General. AUIP: España. Disponible en: <https://auiop.org/es/organo-gobierno/direccion-general>
- Consejo Nacional de Acreditación (CNA). Colombia. (s. f.). *Acreditación Internacional Regional*. CNA: Colombia. Disponible en: <https://www.mineducacion.gov.co/CNA/1741/article-186365.html>
- Dávila, M. (2012). *Tendencias recientes de los posgrados en América Latina*. Argentina: Editorial Teseo, Universidad Abierta Interamericana. <https://uai.edu.ar/media/109498/t>

- endencias-recientes-de-los-posgrados-en-am%C3%A9rica-latina.pdf
- Díaz-Canel, M. M., Núñez, J., & Torres, C. C. (2020). Ciencia e innovación como pilar de la gestión de gobierno: Un camino hacia los sistemas alimentarios locales. *Cooperativismo y Desarrollo*, 8(3), 367-387. Disponible en: http://scielo.sld.cu/scielo.php?script=sci_abstract&pid=S2310-340X2020000300367&lng=es&nrm=iso&tlng=es
- Gacel-Ávila, J. (2000). La dimensión internacional de las universidades mexicanas. *Educación Superior y Sociedad*, 11(1 y 2), 121-142. Disponible en: <https://www.iesalc.unesco.org/ess/index.php/ess3/article/view/135>
- Gacel-Ávila, J. (2014). *Internacionalización del currículo*. Seminario "Responsabilidad y Rehumanización, obligaciones territoriales". Mexico, ORSALC. Disponible en: https://www.uv.mx/cuo/files/2014/08/9.-Joselyn_Gacel_Avila.pdf
- Gacel-Ávila, J., Jaramillo, C. I., Knight, J., & De Wit, H. (2005). Al estilo latinoamericano: Tendencias, problemas y direcciones. En *Educación Superior en América Latina* (pp. 351-380). Mexico: Banco Mundial en coedición con Mayol.
- Gacel-Ávila, J., & Rodríguez-Rodríguez, S. (2018). La internacionalización de la educación terciaria en América Latina y el Caribe: Avances, tendencias y visión a futuro. En *Educación superior, internacionalización e integración en América Latina y el Caribe. Balance regional y prospectiva* (pp. 57-88). Caracas: UNESCO IESALC
- Moreno, C. M., & Balanta, N. (2014). *Políticas de la internacionalización de la educación superior*. IX Congreso Internacional de Educación Superior, La Habana.
- Naciones Unidas (NU). (2018). *Agenda 2030 y los Objetivos de Desarrollo Sostenible: Una oportunidad para América Latina y el Caribe*. ONU-CEPAL Disponible en: <https://repositorio.cepal.org/handle/11362/40155.4>
- Paniagua, C. (2019). El poder de la colaboración académica. *Orinoquia*, 23(1), 7-8. Disponible en: <https://doi.org/10.22579/20112629.534>. https://www.researchgate.net/publication/334661123_El_poder_de_la_colaboracion_academica
- Qiang, Z. (2003). Internationalization of Higher Education: Towards a Conceptual Framework. *Policy Futures in Education*, 1(2), 248-270. Disponible en: <https://doi.org/10.2304/pfie.2003.1.2.5>. https://www.researchgate.net/publication/225083424_Internationalization_of_Higher_Education_Towards_a_Conceptual_Framework
- Red Iberoamericana para el Aseguramiento de la Calidad en la Educación Superior (RIACES). (2021). *¿Quiénes somos?* RIACES. Disponible en: <http://riaces.org/quienes-somos/>
- Sebastian, J., & Barrere, R. (2018). *Internacionalización de la investigación en América Latina y*

el Caribe. En *Educación superior, internacionalización e integración en América Latina y el Caribe. Balance regional y prospectiva* (pp. 111-154). UNESCO IESALC y Córdoba. Disponible en: <https://drive.google.com/file/d/1oxiGjiABqxTZNFdPGOj68IXhSEX1ZdfE/view>

Universidad de San Buenaventura. (s. f.) *Internacionalización: Movilidad Académica*. Universidad de San Buenaventura: Medellín, Colombia. Disponible en: <https://www.usbmed.edu.co/internacionalizacion/movilidad-academica/que-es>

Universidad de Zaragoza. (2021). *Titulaciones internacionales. Guía orientativa*. Universidad de Zaragoza: España. Disponible en: https://internacional.unizar.es/sites/internacional.unizar.es/files/archivos/pdf/guia_orientativa_dobles_titulaciones_internacionales.pdf

Villavicencio, M. V. (2019). Internacionalización de la Educación Superior en Cuba. Principales indicadores. *Economía y Desarrollo*, 162(2). http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0252-85842019000200011&lng=es&lng=es

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