

## **Monographic Projects in the Promotion of University Entrepreneurship**

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### **Abstract**

*University entrepreneurship is a challenge due to various factors that can negatively affect the consolidation of entrepreneurial ideas. Monographic projects could be a tool for its promotion, but students sometimes have unfavorable attitudes towards it and do not recognize the value and professional opportunities of their projects. Moreover, the methodology and didactics used by educators do not allow monographs to be perceived as potential undertakings. Therefore, this research aims to strengthen the development of monographic projects as a strategy to promote university entrepreneurship in the programs of Tourism and Hotel Management, Industrial Management, and Industrial Design, Universidad Pedagógica y Tecnológica de Colombia Facultad Seccional Duitama. The research assumes a qualitative approach with descriptive scope and action research design. Thirty students from the academic programs in question, both graduates and active students, were analyzed. Strategies were formulated to promote university entrepreneurship and overcome the obstacles that limit the development of monographic projects, based on which it is concluded that there is a need to promote a positive attitude among students towards their projects, and that teachers re-evaluate their methods and approaches to support entrepreneurship.*

**Keywords:** *University entrepreneurship, Strategies, Monographic projects.*

### **Introduction**

In contemporary times, there is a constant increase in unemployment rates, where the quality of available jobs does not meet the expectations of individuals, even those with advanced academic training are limited in their employment options. This scenario leads to unsatisfactory salaries, motivating potential workers to develop entrepreneurial strategies as a means to generate income and achieve economic independence, avoiding dependence exclusively on the governmental system.

From this approach, contemporary society recognizes entrepreneurship as a fundamental component of sustainable economic development. Authors such as Lena and Wong (2005) argue that the responsibility for training entrepreneurs does not lie solely with the governmental system, but that the higher education system also has a crucial role to play in fostering entrepreneurship among future professionals. It is necessary to design

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academic strategies that raise students' awareness of the importance of becoming self-employed.

In line with these considerations, the Organisation for Economic Co-operation and Development (OECD, 2004) argues for the need to develop competencies and skills in students to cope with the demands of 21st century work. Successful examples of strategies to foster personal work culture, such as business start-ups, entrepreneurship training and awareness-raising courses, have been implemented by countries such as Spain, Finland and Norway.

Motivated by the above, this study aims to strengthen the entrepreneurial spirit in students of the Universidad Pedagógica y Tecnológica de Colombia, specifically in undergraduate programs such as Industrial Administration, Tourism and Hotel Management, and Industrial Design. Given that the labour reality in the department of Boyacá, Colombia reflects limited employment opportunities, and, consequently, this study proposes to use the monographic works of degree as a tool to enhance student entrepreneurship. Through a qualitative approach, it seeks to identify both the strengths and difficulties associated with university entrepreneurship, in order to formulate strategies that foster an autonomous culture, allowing students to generate income and meet their basic needs.

## Literature Review

The literature review presented in this context seeks not only to explore, but also to comprehensively understand and interpret the object of study, which focuses on the phenomenon of entrepreneurship. This analysis covers various aspects related to entrepreneurship, breaking down its key elements and considering its impact in different contexts. It also highlights the fundamental relevance of the development of degree projects in the field of higher education, highlighting their potential as a catalyst strategy for the gestation and materialization of entrepreneurial initiatives.

### University Entrepreneurship

Entrepreneurship should not only be interpreted as an action solely framed within organizations, detached from education, since it is precisely in educational scenarios that ideas that transform society are generated. It is through education that ideas can be consolidated for the creation of projects that contribute to improving living conditions, therefore, higher education institutions are called upon to promote the development of entrepreneurship in students.

Based on these considerations, Padilla, et al., (2019), argue that currently in all social sectors there is talk of university entrepreneurship, since the university is considered to be the place where knowledge is generated, and therefore, from which students must seek to transform social reality in each discipline of knowledge. For this reason, university entrepreneurship in the modern world is decisive for the promotion and creation of new companies, business ideas, personal progress, social development and, above all, the application of the knowledge acquired by students.

In view of these considerations, the role of the university is key in social and business development, as its function should be focused on finding solutions to economic situations. In this sense, higher education should promote innovation, productivity, the generation of sources of employment and the training of human talent that supports the economic sustainability of a community.

In addition to the above, in the opinion of Iglesias et al. (2016), modern models of university education should be framed in the creation of companies, for which it is necessary for higher education centers to make curricula more flexible in the different academic programs, so that entrepreneurial knowledge is imparted that allows students to acquire the bases and competences to materialize their business ideas; it is also relevant

that entrepreneurship-oriented training is transversal, i.e. throughout the entire professional development process.

As Lans et al. (2008) point out, in the last two decades there has been a considerable increase in the design and development of programs and courses aimed at promoting university entrepreneurship, which is why university classrooms have become the ideal place to promote entrepreneurial competence (Duval, 2013). Undoubtedly, the university's mission is to contribute to the development of entrepreneurial activities such as the implementation of courses, workshops and events aimed at strengthening the innovation and creativity of students.

The above statements lead to the conclusion that the university should enable the entrepreneurial link between students and the productive sector, particularly by facilitating the recognition of the immediate environment, in order to make business ideas a reality outside the classroom. Furthermore, it should be borne in mind that the regional context of the students should be the objective for them to consolidate their entrepreneurial ideas (Audretsch, 2014).

#### Relevance of Entrepreneurship in University Students

University entrepreneurship is relevant for business and social progress, and students are a human resource capable of transforming social reality through the creation or materialization of innovative ideas, as expressed by Bercovitz and Feldman (2008), in order to consolidate student entrepreneurship, it is necessary to take into account the elements shown in Figure 1.

Figure 1 Elements of university entrepreneurship



Note: The image shows the elements in which the university enterprise is framed.

Regarding the contextual factor, Wennberg et al. (2011) indicate that there is an undeniable relationship between the consolidation of a business idea and the context or scenario in which it will be carried out, given that this may or may not facilitate opportunities to realize the business idea, and, as mentioned above, the environmental conditions affect the entrepreneur's attitude.

In addition, Ástebro et al. (2012) confirm that the university school environment, both inside and outside the classroom, is fundamental for making decisions regarding entrepreneurial ideas. Within the classroom, the joint construction of knowledge, analysis and reflection can motivate students to create entrepreneurial opportunities or to desist from them. In addition, the spatial location of higher education institutions influences the students' view of entrepreneurship and how far they can go. Therefore, the conditions of knowledge appropriation and knowledge exchange by university students are decisive when it comes to starting a business idea.

Based on the above, it should be recognized that the contextual factor is relevant for students who want to be entrepreneurs. Wennberg et al. (2011) cite as an example the creation of the social network Facebook and the search engine Google, ventures developed by university students who were located in favourable contextual scenarios to materialize these ventures.

Regarding the influence that the context has on the entrepreneurship of university students, Geissler (2013) refers that this factor should be classified as the most important, as the university, regional scenario and the family background of the students are more decisive when it comes to promoting entrepreneurship; the author considers that not even professional training is as relevant in the entrepreneurial attitude as the scenario in which one wishes to start a business.

Regarding the institutional factor, Audretsch (2014) points out that as young people idealize the idea of having a profession related to the business sector, some have a strong desire to materialize ventures, therefore, the university is an ideal setting to enhance the entrepreneurial skills of students, as academic research and emerging knowledge serve as input to create new entrepreneurial opportunities, which can be catapulted into the creation of new companies.

Therefore, the institutional factor, as indicated by Ástebro et al. (2012), must be linked to student entrepreneurship, as the transfer of knowledge from the alma mater to the labour market allows for constant social, business and economic evolution. In this sense, the university must provide leadership, thought and strategies to enhance the development of entrepreneurial capital, for this it is necessary to strengthen skills, abilities and capacities in students, so that they can seek economic opportunities based on the application of the knowledge acquired in their professional training.

Finally, the individual factor is intertwined with the contextual and institutional factors, as the latter two can influence the entrepreneurial intention of students, as they can start a business based on the knowledge provided by the university and the reality they face in the context in which they develop.

#### The Role of the Teacher in Entrepreneurship Education

As has been mentioned, entrepreneurship is a reality that must be faced by schools; however, in order to achieve the comprehensive training of potential entrepreneurs, teachers, in their role as innovators of learning, must make use of various strategies aimed at developing entrepreneurial skills. In this sense, according to Dolabela (2003), the responsibility for entrepreneurial education falls largely on the educators, who must redefine the methods and didactics that they integrate in the training process for entrepreneurship, as it is not enough to simply transmit knowledge in a theoretical way, i.e. through lectures.

On the other hand, the changes in global society have led to consider an education in entrepreneurship oriented to the development of student competencies, as Maldonado (2006) points out, the teacher plays a relevant role in the promotion of entrepreneurship, as it is he who must put the knowledge acquired at the service of students, for which he must carry out specific actions, among which are:

- Planning the teaching-learning process within the framework of entrepreneurship.

Particularly at this stage, the teacher must be fully aware of each student, their interests, motivations and the entrepreneurial skills they possess. According to Tobón (2006), it is necessary for the entrepreneurial coach or trainer to design strategies or actions aimed at strengthening the competences of entrepreneurs. The planning of the pedagogical process is inexorable, as this allows the teacher to have an adequate organization for making decisions inherent to the contents of entrepreneurship that must be taken to the classroom, as well as to make the necessary adjustments or adaptations based on the characteristics

of each student, in such a way as to guarantee an adequate process in the training for entrepreneurship.

Consequently, when planning school activities aimed at training entrepreneurs, it is important for educators to isolate themselves from the lecture model and plan strategies aimed at personalized attention for each student, as some students have greater skills and abilities to be entrepreneurs, while others may have limitations.

- Communicating

One of the skills that educators who guide entrepreneurship training must have is the ability to transmit knowledge, since, as Zabalza (2003) indicates, the teacher has to reach the student, i.e. ensure that the student appropriates the relevant competences to be a good entrepreneur. In this sense, rather than transmitting information, the educator must play a proactive role in the training process, and must become a guide and advisor for future entrepreneurs.

- Using Information and Communication Technologies

If it is a question of innovating entrepreneurial activity, it is necessary to integrate ICT into this process, as Vainrub (2007) indicates, technology in the modern world makes the development of different enterprises possible, as the exchange of information is extensive. Furthermore, linking educational technology to the strengthening of entrepreneurial skills allows students to use alternatives such as marketing to promote their business creation ideas and find opportunities for alliances that contribute to the development of their entrepreneurship.

In this sense, ICTs in today's world are considered to be useful tools in the work of teachers who guide entrepreneurship training, since on the one hand they contribute to their pedagogical work, but they also make it possible to socialize students' entrepreneurship and thus make it visible.

- Advising students

In order to carry out university ventures, educators are required to provide advice to students at all times. According to Zabalza (2003), it is necessary to implement actions that allow each venture to be strengthened. Therefore, teachers must provide personalized support, identifying the progress or limitations that students may have in order to materialize their business idea. It is also relevant to link experts from the business and commercial sector who can provide support to entrepreneurs.

On the other hand, as far as possible, it is necessary for the teacher to present significant experiences related to the students' ventures, in order to provide information that can contribute to improving their business idea and also to reduce possible risks and uncertainty.

Consequently, the work of the teachers who guide the training process in entrepreneurship should seek to develop skills and competences in the students so that they can act in the best way in the face of business opportunities or adverse situations that arise.

### Academic Production and Entrepreneurship

The academic productivity that begins with the development of university projects, whether from a specific area of the school curriculum, or the degree requirement work, should be considered as the fundamental input that allows students to generate entrepreneurial options. In this respect, Herrera (2006) indicates that during the time students spend in the classroom, they must develop various types of projects, including academic projects involving monographs; this allows them to reflect on the needs that arise in the environment in which they develop, and thus seek possible solutions, which if taken advantage of can become ventures or sources of employment in which the knowledge acquired during their professional training is applied.

Therefore, in the author's opinion, the development of academic projects should not be conceived as the fulfilment of a requirement to qualify for an academic degree, but as the integration of the different knowledge acquired by the professional in training. In this sense, academic production is the best entrepreneurial tool that students can have to generate opportunities in the labour sector.

For Borrayo et al. (2018), the development of a research project, in the case of monographs and others, the university student must feel pleasure in the work they are carrying out and researching. Likewise, it is necessary that they set clear goals about the impact that their project should have and how at a given time it can be a potential way of linking up with the productive sector. Therefore, the support of university lecturers is essential when guiding students in the execution of their degree project.

Educators are required to have a futuristic and innovative vision, so that students' research has a transcendence in the social sector and in their professional life.

From the point of view of Osorio et al. (2010), the university has the responsibility to train professionals with entrepreneurial skills that enable students to respond to the needs of the global world, especially when progress in entrepreneurship in Latin American universities is slow. From this perspective, training for entrepreneurship should be based in higher education centres, especially from the consolidation of degree projects that allow students to strengthen their entrepreneurial skills and competences.

The development of research projects, such as monographs and other academic works, according to García's research (2019), represents a valuable opportunity for university students, as it allows them to immerse themselves in reflection on the needs and problems existing in their environment and specific fields of study. These experiences of enquiry and search for solutions can be the starting point for the creation of successful ventures that contribute to the personal and socio-economic growth of the community and the country in general.

The author emphasizes that the development of academic projects transcends the mere fulfilment of requirements to obtain an academic degree, as it becomes an integration of the knowledge and skills acquired during professional training. Therefore, academic production acquires an essential entrepreneurial character that enables students to generate job opportunities and develop ventures based on the application of their knowledge and the solution of problems in their field of study.

García also highlights the importance of the student's enthusiasm and commitment in the process of developing the academic project. Establishing clear goals about the impact that the project can have on the environment and its possible link with the productive sector is essential. In this sense, the support and guidance of university teachers are invaluable, as their futuristic and innovative vision can provide an adequate focus to the students' research, thus ensuring its social relevance and potential application in the professional field.

Furthermore, the author suggests that fostering university entrepreneurship through research projects can enhance students' ability to identify business opportunities and develop innovative solutions to real problems. He also stresses that a well-oriented academic production favours the transfer of knowledge from academia to the business sector, strengthening the relationship between university and industry.

From this perspective, it is the university's responsibility to train professionals with entrepreneurial skills, especially in a globalized world. Therefore, the promotion of entrepreneurship should be encouraged in higher education centers, and the development of degree projects, such as monographs, is a key platform for fostering entrepreneurial skills and competences in students. In this way, it contributes to accelerating the progress of entrepreneurship in Latin America, empowering young people to face the challenges of the labour market and promoting innovation in various sectors of society.

Likewise, academic knowledge and particularly professional careers in university education, constitute a tool that contributes to the consolidation of future entrepreneurs. According to Borrayo, et al. (2018), the appropriation of disciplinary knowledge allows university students to acquire skills and competences that can be used in the design of ventures and in turn allow them to put into practice the knowledge acquired in their profession. For example, students who have studied a program oriented towards industrial design can innovate aspects inherent to the business sector that favour the creation of new products, even more so if their school training work has been directed towards the development of research to provide solutions to the needs of the community.

According to Westlund (2010), when a person decides to undertake a training process in higher education, it is with the aim of having a better future, therefore, their academic intention is an investment. In this sense, the university scenario must be seen as a possibility to generate undertakings that contribute to this purpose, and with the knowledge acquired and institutional support, it is possible to generate opportunities that can become businesses. From this perspective, the formation of a professional career can be seen as the best undertaking that a person can undertake.

For Terán and León (2010) the development of academic monographic and/or research projects should not only be approached as a way to deepen knowledge, but also as a path for those who feel motivated to carry out innovative actions to provide solutions to particular needs or those of a community, for this reason monographs have a character of transformation of social realities and even more so when they are directed towards the creation of business opportunities, they become relevant in the university school environment.

Regarding the development of monographic or research projects in the university context, Maldonado (2009) indicates that it is necessary to provide guidance to students, so that the projects presented are not developed solely to obtain a degree diploma, but transcend to different social scenarios. To this end, it is relevant that educators, in their role as innovators, contribute to the identification of the needs that arise in the environment in which professionals are trained, because if the realities and specifically the needs are not recognized, the entrepreneurial potential that the monographic projects may have may be overshadowed.

On the other hand, once a possible entrepreneurial opportunity is fully established, it is necessary that the student who is in the process of developing his or her degree project has timely support to develop his or her creativity, so that the project has an impact on the community and can thus generate employment opportunities.

In contrast to the author's statement, Mora (2011) points out that higher education institutions should strengthen the development of innovation projects in students, enabling them to respond to the needs of the business sector, as sometimes, in the opinion of business people, professionals who wish to join the productive sector lack the skills and abilities to generate entrepreneurial opportunities, as it would seem that their university education is disconnected from reality and limits their ability to generate solutions to social requirements.

Therefore, Mora (2011) points out that the important thing is not to carry out degree projects without a productive purpose for society, but to transform knowledge into opportunities that integrate development, creativity, and the possibility of seeing different production perspectives that contribute to the development of communities and to forge an entrepreneurial path for professionals.

For Herrera (2006), the university as a trainer of entrepreneurs must redefine the development of projects, giving priority to the needs of the communities, as there are cases in which students carry out their research without taking into account that it has an impact on a specific sector. Likewise, if it is a question of linking university research

experiences to favour business development and entrepreneurship, the requirements of entrepreneurs must be taken into account and the knowledge, skills and competences appropriate to professionals must be made available to them.

With regard to the execution of research projects as entrepreneurship, Wasserman (2012), refer that higher education institutions should strive to articulate innovation, development and research, and not continue to allow the development of projects from models focused on repetition, i.e. doing things already done, since students who are framed in this form of research may have difficulties to access the labour sector successfully, given that in the modern world professionals who have capacity for innovation and creativity are required. Therefore, the authors indicate that if the development of these or research projects without significance continues to be carried out, the work possibilities of future professionals may be limited, which is why higher education institutions are called upon to redefine the way in which entrepreneurial projects are developed.

Consequently, monographic projects are a tool that allows students to strengthen their entrepreneurial skills and, at the same time, enable them to apply the knowledge they have acquired in their professional training. Therefore, degree projects should not be seen as a simple requirement for obtaining a degree, but as an opportunity for personal advancement and progress, but also as a way of contributing to the economy and transformation of communities.

## **Materials and Methods**

The following lines detail the methods used for the development of the study, the research scenario, categories and participating subjects, techniques and instruments used in the collection of information, among other aspects of the research process.

The study carried out by the approach is framed within the qualitative paradigm, since, as Lucca and Berríos (2009) point out, this research method aims to structure knowledge about social reality, taking as a reference the conditions and subjectivities of those who originate and live it. In this sense, the researcher must assume a dialogical character with respect to the opinions, arguments and reflections of the informants, as these are the basis for the development of new knowledge about the reality under investigation.

Martínez (2011) stresses that qualitative research focuses on understanding and interpreting the events that subjects face in their real environment, therefore, it is crucial to consider their particularities. Following this perspective, the present study focuses on interpreting the perceptions of the sample subjects regarding the use of monographic projects as a strategy to promote university entrepreneurship.

In order to detail the feelings and appreciations of the students involved in the research process, the scope of the research integrates the descriptive method, which according to Danhke (1989) seeks for the researcher to detail phenomena, situations, contexts and events surrounding the object of study; to do so, it is necessary to detail how they are and how they manifest themselves. On the other hand, the descriptive method makes it possible to specify the properties, characteristics and profiles of people, groups, communities, processes and objects under analysis. In other words, it measures, collects and evaluates data on various concepts, aspects, dimensions or components of the phenomenon to be investigated.

Regarding the design, the study is framed within the method of action research, because as Ferrance (2000) points out, this methodology allows participants to inquire about their practices carefully and systematically, in order to transform the reality faced by the subjects, from the formulation of guidelines or strategies aimed at solving the problems surrounding the object of study. In this sense, through this method integrated into the research process, the aim is to establish guidelines and actions conducive to strengthening

the development of monographic projects by students, and more than that, to ensure that their research becomes potential undertakings that guarantee their economic stability.

#### Unit of Study

The unit of analysis in this research is constituted by undergraduate university students, both graduates and current students, belonging to the academic programs of Industrial Management, Tourism and Hotel Management, and Industrial Design, in the period between 2020 and 2022.

For the selection of the participants in the study, a survey was carried out among the graduates of the aforementioned programs and the students who were still studying, in order to identify their willingness to participate in the research. Other criteria were also considered for the selection of the purposive sample, which are detailed in Table 1.

Table 1 Criteria established for the selection of the study unit (convenience sampling)

Study unit	Selection criteria
For the research carried out, the study unit was made up of 30 graduates and active students from the Industrial Administration, Tourism and Hotel Administration and Industrial Design programs.	<p>The criteria taken into account for the selection of the unit of analysis are the following:</p> <ul style="list-style-type: none"> <li>- To be a graduate or active student of the Industrial Administration, Tourism and Hotel Management and Industrial Design programs.</li> <li>- To have carried out or be carrying out a monographic degree project.</li> <li>- The monographic project must be considered as an undertaking that contributes to the solution of social problems or needs.</li> <li>- Express the desire to take part in the study.</li> </ul>

Note: The table details the criteria assumed for the selection of the study unit.

Once the selection criteria had been established, the responses to the survey were analyzed, and the study unit was then configured; table 2 details aspects of the study's sample subjects.

Table 2 Sample Subjects - Unit of Study

Criterion	Description			
	Graduates		Assets	
Industrial Design	Women: 2 1	Men:	Women: 1 2	Men:
Tourism and Hotel Management	Women: 5 3	Men:	Women: 4 2	Men:
Industrial Administration	Women: 2 1	Men:	Women: Men: 3	4
Academic programs	Four educators from the undergraduate programs concerned			
Average age	17 to 40 years old			

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Economic Stratum 2,3 and 4

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Note: The table details characteristics of the study unit.

It should be emphasized that the linking of students as a unit of study was carried out in response to their desire to take part in the research.

On the other hand, with regard to the formulation of improvement plans to promote university entrepreneurship, it was necessary to integrate into the study unit some teachers who guide subjects related to entrepreneurship in the following programs: Tourism and Hotel Management, Industrial Administration and Industrial Design: Tourism and Hotel Management, Industrial Management, and Industrial Design, table 3 details aspects related to the educators linked to the research.

Table 3 Teachers linked to the unit of study

Teacher	Service time	Academic program
Teacher 1	10 years	Industrial Design
Teacher 2	7 years	Tourism and hotel management
Teacher 3	15 years	Industrial design
Teacher 4	9 years	Industrial Administration

Note: The table details aspects of the purposive sample of teachers involved in the research process.

It should be emphasized that it is necessary to have the opinion of the educators when considering improvement strategies to strengthen the development of monographic projects as a tool for entrepreneurship in graduate students and those in training.

#### Categories of study

The categories of study in this research were formulated based on the analysis of the literature referred to in the state of the art and theoretical references. In this sense, table 4 shows these categories in detail.

Table 4 Categories of study linked to the research process

Category	Subcategory	Dimension	Indicator	Technique / Instrument
Entrepreneurial profile and entrepreneurial intentions of students	Entrepreneurial attitude	Interests and expectations in entrepreneurship as a career progression strategy	Activities or actions that students carry out to become entrepreneurs.	Opinion survey - Structured questionnaire with open-ended questions
The role of the university in students' entrepreneurial intentions	Methods and didactics used to promote entrepreneurship	Syllabus	Students' opinion about the thematic contents and their relation to entrepreneurship.	Focus group - Structured questionnaire
	Management of strategic alliances for the promotion of university entrepreneurial	Agreements and strategies with the external sector	Participation of private enterprise, entrepreneurs, unions and organizations in the university	Focus group - Structured questionnaire

	culture university entrepreneurial culture	entrepreneurial ecosystem and organizations in the university entrepreneurial ecosystem.
Monographs and entrepreneurship	Utility entrepreneurial intention	Purpose developing study projects
	in	of
	students' motivations in the development of their degree project	Opinion survey - Structured questionnaire with open-ended questions

Note: The table details the categories of study through which the object of research is studied.

The purpose of the study categories referred to is to analyze the entrepreneurial attitude of the sample students, the methods and didactics used by the teachers to encourage university entrepreneurship, as well as the strategies implemented for this purpose, and also to recognize the impact of the development of monographic projects on entrepreneurial intentions.

#### Stages of the research

The research process in which this study was framed, was developed in three stages, which in turn are related to the objectives formulated.

##### - First Stage

This stage of the study was oriented to the fulfilment of the objective: To characterize entrepreneurship in undergraduate university students who are part of the following programs: Tourism and Hotel Management, Industrial Management, and Industrial Design at the UPTC Duitama Sectional Faculty. For this purpose, the opinion survey technique was applied through a structured questionnaire in which aspects inherent to the study categories were investigated.

##### - Second Stage

In contrast to the results of the first stage, this phase of the research process sought to fulfil the second proposed objective: to formulate guidelines for improvement aimed at the recognition of monographs as a potential tool for entrepreneurship in university students.

Specifically, with regard to the factors that limit the use of monographic projects as entrepreneurship for students, guidelines for improvement were formulated, framed in recommendations aimed at the use of monographic work as a labour projection for students who have graduated from the programs already mentioned and who are in the process of training.

##### - Third Stage

The third stage of the study sought to fulfil the objective: Socialize improvement proposals with teachers of the programs: Tourism and Hotel Management, Industrial Management, and Industrial Design and interpret their opinion. For this purpose, after the design of the improvement proposal, the qualitative research technique of focus groups was applied to interpret the opinion of some teachers who guide the area of entrepreneurship in the undergraduate programs in question.

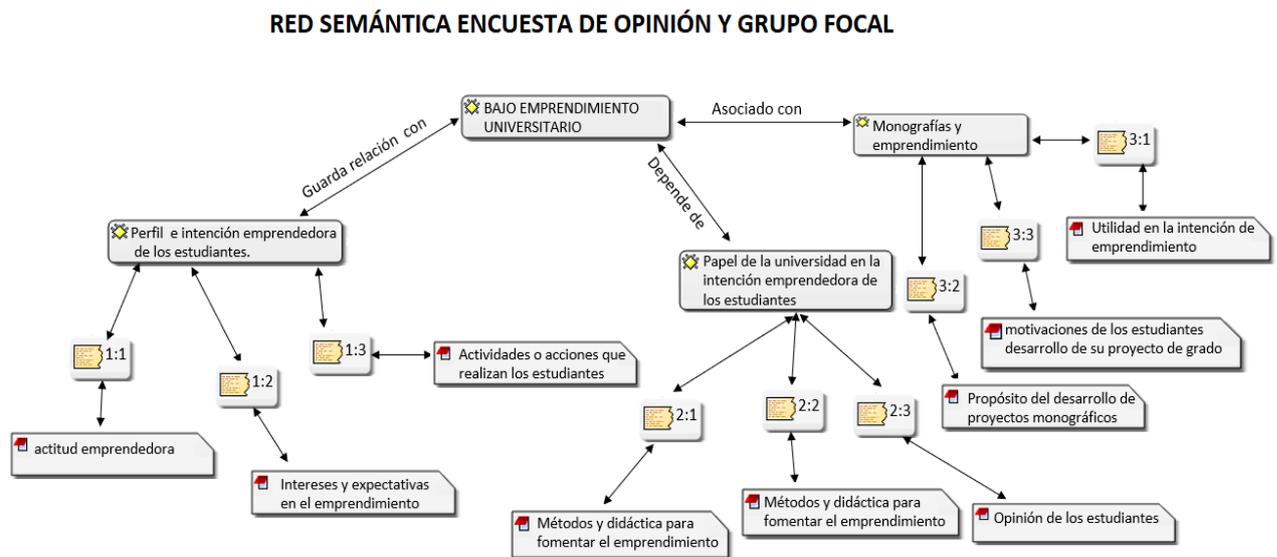
**Results**

For this research, a protocol for the evaluation of results was implemented, designed in accordance with the established objectives, using descriptive statistical techniques to provide a detailed description of the elements that constitute the object of analysis.

The analysis of the information was carried out through a detailed and descriptive interpretation of the categories and subcategories emerging from the perceptions and opinions collected from the participants, which is closely related to the theoretical framework of the study. To achieve the qualitative interpretation of the data, three different approaches were employed. Firstly, a literal reading was applied in order to understand the content, structure and use of the words used. Secondly, an interpretative reading was carried out to discover the meaning and representation of the words used. Finally, reflective reading was used, recognizing the reader/researcher as an active agent in the process of generating and interpreting information.

The analysis was carried out considering the process of open, axial and selective coding of the data, which consisted of the incidents narrated by each of the participants, in this case, the students and teachers who formed part of the sample. To carry out this analysis, the qualitative analysis program Atlas.ti 7.0 was used, which made it possible to examine the data collected using qualitative techniques and tools to construct the categories and subcategories, facilitating their comparison and the elaboration of the semantic network related to the object of study (see figure 2).

Figure 2. Semantic Network opinion survey and focus groups.



Note: The semantic network presents the categories and subcategories that allow the object of study to be analyzed.

**Results First Stage - Diagnosis**

The findings of the characterization or diagnostic stage focus on the interpretation of the circumstances that restrict students' use of case studies as possible opportunities for university entrepreneurship. In addition, possible factors hindering entrepreneurship in the sample subjects in higher education at the undergraduate level are examined.

- Category Entrepreneurial profile and entrepreneurial intention of students

In relation to the investigation of the study categories "entrepreneurial profile" and "entrepreneurial intention" of the students, as well as their link with the monographs and

entrepreneurship, it is pertinent to highlight that during the diagnostic stage, exhaustive analyses of the opinions and arguments provided by the sample subjects were carried out. These analyses sought to identify aspects related to the students' interests and expectations in the field of entrepreneurship as a strategy for their professional progress, as well as the motivations that drive the development of their monographic degree projects.

The responses provided by the informants were coded using the qualitative analysis software Atlas Ti 7.0, and organized according to a predefined structure for subsequent interpretation. In this sense, codes such as "EE21H" were used to identify and classify the responses according to their content and context.

- E: Represents a student
- E: Means that he/she has been surveyed
- 21: Represents the number of the survey applied
- H: Represents the gender of the respondent, in this case male.

In reference to code EE21H, this is interpreted as a student respondent number 21 of the male gender. Having clarified the coding process used for the responses provided by the informants, we proceed to present the results that emerged from the analysis of the study categories and subcategories.

Through the study of this category, a detailed analysis was carried out of essential aspects linked to the entrepreneurial disposition of the students, considered as the main focus of the study. Likewise, we sought to identify their interests and expectations in relation to entrepreneurship as a strategy to promote their professional growth, and we also analysed the activities or measures they carry out to develop as entrepreneurs.

In order to analyze and interpret the study category, the following questions were asked:

Within your expectations, have you considered the possibility of becoming self-employed, in order to apply your professional training knowledge in a business venture?

In relation to this question, most of the students surveyed stated that in the current context it is essential to consider additional alternatives for the development of their professional career. This is due to the fact that, in Colombia in particular, there is no absolute certainty of obtaining a formal job at the end of a vocational training program. Consequently, the participants in the sample consider it of great importance to contemplate possible ventures that would allow them to put into practice the knowledge acquired during their academic training. Below are some relevant responses expressed by the informants:

- EE5M: Of course I consider entrepreneurship as an opportunity for independent work, especially when the market sometimes offers fluctuating job opportunities and there are no job opportunities, so it is necessary to look for alternatives and these can be derived from vocational training.....
- EE7H: If I want to take advantage of my knowledge as a potential entrepreneur, it would be beneficial, because I would like to have the possibility of generating a business idea and generating work in the sector....
- EE22M: Yes, I would like to be independent after gaining knowledge as an employee, generate my own income and give jobs to future industrial designers.....
- EE12M: Yes, I would like to start a business that has the possibility to generate employment and opportunities for the region with the help of the knowledge acquired....

Based on the analysis of the informants' references, it is necessary to identify and promote the potential of university entrepreneurship as a route for the professional and occupational growth of students. Therefore, from their opinions, they consider that the knowledge acquired throughout their academic training constitutes a solid foundation of resources and skills, which can be skilfully exploited in an entrepreneurial approach, making it possible to generate employment opportunities and contribute to the economic and social progress of their environment.

On the other hand, students recognize that the knowledge acquired in their professional training should be used to strengthen entrepreneurship, as this can provide them with different benefits. Firstly, students can concretely materialize the concepts and theories they have acquired in their studies, giving them a sense of applicability and relevance in the practical field. Moreover, according to informants, entrepreneurship provides an environment conducive to continuous learning and the development of transversal skills, such as adaptability, decision-making and teamwork, which are of vital importance in today's labour market.

Consequently, for the sample subjects it is of vital importance to take advantage of the knowledge acquired in their professional training to strengthen entrepreneurship as a job opportunity; given that this not only represents a viable alternative in a changing and competitive labour context, but also encourages and supports their entrepreneurial spirit, as well as promoting a culture of innovation and generating positive impacts at both the individual and collective level.

With regard to the question posed: In the development of your monographic project or degree strategy, have you ever thought about it becoming an entrepreneurial venture to improve your economic and professional progress? It is observed that students perceive the development of their monographs as an opportunity that could potentially lead them to become entrepreneurs, by designing ideas for monographic projects focused on addressing the needs of the social environment.

From the evaluation of the answers provided by the participants, it can be seen that most of them have considered the option of turning their monographic degree project into an entrepreneurial opportunity. However, some sample subjects emphasize the lack of adequate support and guidance from the university institution to achieve this goal.

Finally, for the analysis of the category: entrepreneurial profile and entrepreneurial intention of the students, the question "Do you consider that the academic knowledge and competences acquired in your undergraduate studies facilitate the identification of opportunities, recognizing possibilities and ways of accessing economic resources?"

After examining the answers provided by the participants in relation to the benefits derived from the academic knowledge and competences acquired in terms of identifying opportunities and accessing economic resources, it can be seen that they recognized the capacity that the academic knowledge and competences acquired during their university education give them to identify opportunities and obtain economic resources. However, some of the participants pointed out the lack of adequate thematic orientation that would enable them to develop entrepreneurial skills and achieve this objective more effectively.

Based on the responses collected, there is evidence of a lack of academic training and insufficient skills among students, which limits their ability to adequately identify opportunities and access economic resources. This finding highlights the urgent need to strengthen educational and vocational training programs, focusing specifically on the promotion of entrepreneurial skills. In this way, it is possible to equip students with the necessary tools to face the current challenges in the labour and economic sphere.

The results in this context strongly underline the urgent need for greater attention and dedication to students' academic training, as well as to the promotion and development of

entrepreneurial skills. These measures are essential to enhance students' ability to identify opportunities, discern possibilities and successfully access economic resources.

- Category Monographs and Entrepreneurship

In particular, elements related to the usefulness of entrepreneurial intention, the purpose of carrying out monograph projects and the students' motivations in carrying out their degree project were examined. To this end, questions were posed such as:

Based on your monographic project or degree strategy, have you currently carried out any activity to promote your entrepreneurship as a professional occupational projection? justify your answer.

In response to this question, most of the sample subjects who have carried out monographic projects as part of their degree, as well as those who are in the process of doing so, stated that they have not considered focusing on the development of their graduation project as a possible entrepreneurship strategy. From the analysis of their arguments, it is clear that there is a need for the research project advisors to guide the development of the project in such a way that it can become a potential form of employment for the professionals, since the students are only focused on fulfilling a requirement to obtain their degree, without considering the entrepreneurial opportunities that the monographic projects can provide them with. Some relevant responses provided by informants are as follows:

- EE27H: Well, as a graduate, the truth is that when I was doing my monograph I did not foresee the possibilities that this research could have as an undertaking for my professional projection....
- EE10M: In my opinion, in the university environment, the mentors of the monograph projects focus exclusively on the development and completion of the same as a mere requirement for obtaining the degree, without paying attention to the business opportunities that may arise from them....
- EE20H: I would have liked to have been mentored, so that I would have had the opportunity to progress economically and professionally with my dissertation....

Based on the views expressed by the sample participants, it could be observed that both graduate students and those who are still studying at university have not carried out actions to promote their entrepreneurial spirit as part of their professional development, based on the monographic projects they have carried out or are in the process of carrying out.

From the answers provided by the participants in the sample, it is clear that there is a gap between the development of monographic projects and the entrepreneurial aspirations of the students. The majority of the respondents indicate that they do not have a clear understanding of the entrepreneurial potential of case studies as a requirement for a professional degree. Most of the respondents mentioned that during their academic training they have received little support from the tutors in charge of guiding the development of the projects. As a result, they do not consider the development of their monograph as an entrepreneurial opportunity that would allow them to grow both professionally and professionally.

In response to the question: Have you received or have you received advice from a professional for your degree project to direct your monographic research towards a business opportunity? Based on the referents of the respondents, it has been detected that the lack of guidance and support by the mentors of monographic projects at the Pedagogical and Technological University of Colombia, Duitama, is one of the main factors that limits the development of an entrepreneurial culture among undergraduate students. In the opinion of the sample subjects, this situation can be observed in the

absence of guidance and advice from the project directors, who sometimes limit themselves to supervising the fulfilment of academic aspects without providing a holistic vision of the entrepreneurial potential that underlies such research.

Therefore, the respondents' assessments allow us to establish that the lack of an entrepreneurial vision focused on the development of monographic projects does not allow them to transform their research projects into prosperous ventures that provide them with the opportunity to develop their professional skills and achieve job autonomy. The lack of encouragement and guidance from project directors and/or advisors contributes to this lack of entrepreneurial perspective and motivation.

From this perspective, it is essential that the university institution and the tutors and/or directors of the case study projects appreciate the relevance of fostering entrepreneurship among students. It is necessary to promote a more comprehensive orientation in the management of the projects, going beyond the mere satisfaction of academic requirements, and to stimulate creativity, innovation and entrepreneurial mindsets in young university students.

- Category Role of the university in students' entrepreneurial intentions

In this category, a study was conducted with the purpose of examining and interpreting the opinion of students and graduate professionals about the methods and didactics used in the classroom to promote entrepreneurship, focusing specifically on the curriculum of the aforementioned undergraduate university programs. In addition, the management of strategic alliances and the promotion of an entrepreneurial university culture through agreements and strategies with the external sector were investigated. For this purpose, the focus group technique was used, in which a total of 8 people were invited, including graduates and current students of the vocational training programs. The purpose was to gather their perspectives and experiences related to the role of the university in fostering entrepreneurship.

From the analysis of the opinions and arguments put forward by the participants in the focus group, it was possible to identify the existence of different situations in the way in which the university approaches the promotion of entrepreneurship in undergraduate education programs. In particular, the members of the focus group said that the university's quality policies have not provided for a restructuring of the curricula so that entrepreneurship is addressed transversally throughout university education. For most of them, entrepreneurship is concentrated in specific semesters and assigned to teachers with related knowledge, leaving aside the participation of all educators and is not taken into account from the beginning of the training program selected by the students.

Furthermore, in his opinion, there is a tendency to teach entrepreneurship in a rhetorical way, without an adequate practical connection or contextualization in situations in the environment that require solutions to improve the well-being of the community. The didactics used in the teaching of entrepreneurship tends to favour traditional methods, which represents an obstacle to the development of entrepreneurial skills in undergraduate students.

From the perspective of the participants, it is necessary to incorporate new didactic strategies that promote entrepreneurship and motivate students to show a real interest in putting their monographic projects into practice. For this reason, the members of the focus group indicated that it is essential to go beyond a merely theoretical approach and adopt a more practical approach, where students have the opportunity to apply their knowledge and develop entrepreneurial skills in an active and participatory way.

On the other hand, they said that the university should promote a critical reflection on its role in the training of entrepreneurs and consider the importance of integrating entrepreneurship in a cross-cutting manner in undergraduate training programs. This would involve reviewing and updating curricula, involving all educators from the start of

the program in which students enrol and encouraging teaching that goes beyond rhetoric, providing concrete opportunities for practical application and contextualization in real situations.

In this sense, the focus group concluded that it is necessary for the university to assume a more active and committed role in the training of entrepreneurs, re-evaluating its educational approaches and practices in order to provide students with the tools and the right environment that will allow them to develop entrepreneurial skills and make the most of the potential of their monographic projects as real opportunities for economic and professional growth.

From another perspective, during the focus group, the issue of the management of strategic alliances to promote entrepreneurial culture in the university environment was explored. The aim was to find out about the agreements and strategies established by the university in collaboration with the external sector, the participation of private enterprise, entrepreneurs, trade unions and organizations involved in the university entrepreneurial ecosystem.

The analysis of the opinions expressed by the participants in the focus group revealed a worrying situation regarding the management of strategic alliances for the promotion of the university's entrepreneurial culture. Although it is true that the university has established agreements and alliances, these have focused mainly on the field of internships or business practices, leaving aside the entrepreneurial potential that the monographic projects developed by the students may represent.

In the opinion of the participants, it is worrying to note that, despite the efforts made by the university, no effective connection has been established between the business and academic sectors in the context of university entrepreneurship. The participants in the focus group expressed that the activities promoted by the university, such as business shows, fairs and academic events, are not oriented towards establishing agreements or alliances with entrepreneurs to promote and strengthen the entrepreneurial ideas arising from the students' monographic projects.

This lack of partnerships and collaboration between the business and academic sectors is a significant constraint to the development of university entrepreneurship. This situation leads to students being deprived of the opportunity to establish links with the business world, access sector-specific resources and knowledge, and receive the necessary support to put their entrepreneurial ideas into practice. This gap between academia and the business sector in turn reduces the chances of turning their case study projects into successful and sustainable ventures.

#### Results Second Stage / Action plan Improvement Proposal

Strengthening entrepreneurship among undergraduate students at the Universidad Pedagógica y Tecnológica de Colombia plays a crucial and urgent role in economic and social advancement at both regional and national levels, as well as in preparing students to face the challenges of the labour market and contemporary society. Moreover, by fostering entrepreneurship among students, immediate and significant benefits can be obtained for their own development, as they acquire skills and competences that will be useful in their professional and personal careers. In this sense, this research formulates strategies focused on the fulfilment of this purpose. It is important to emphasize that the strategies presented are suggestions and guidelines that need to be adapted and personalized according to the particularities and requirements of each context and group of students in the respective undergraduate university programs. Likewise, it is essential to have a committed and properly trained working team to carry out the improvement plan effectively.

- Awareness-raising strategies

In view of the attitude that the sample students have towards university entrepreneurship, assumed from the development of their monographic projects, it is pertinent to carry out an initiative aimed at raising awareness about the relevance of entrepreneurship and the various benefits that can be obtained by getting involved in the development of these projects. This effort may include specialized talks, interactive workshops, informative seminars and other related activities that facilitate the dissemination of relevant knowledge in this area.

The awareness-raising strategy could play a key role in stimulating entrepreneurship among university students at the Pedagogical and Technological University of Colombia, Duitama branch. According to Gibb (1993), this strategy focuses on the ability to recognize entrepreneurial opportunities in the environment and motivate people to take action. Awareness-raising involves raising awareness about the importance of entrepreneurship and its impact on society, as well as fostering curiosity and creativity to identify business possibilities that, at a certain point, can become job opportunities where the knowledge acquired can be applied.

In order to raise awareness of entrepreneurship among university students, especially those involved in the sample, it is crucial to develop activities that provide them with the opportunity to learn about successful entrepreneurial experiences and the skills needed for entrepreneurship. Following the proposal put forward by Cuevas and Hernández (2019), some strategies that could be used with the students involved in the study to promote entrepreneurial awareness include: holding talks and conferences with prominent business people and entrepreneurs, implementing workshops aimed at developing entrepreneurial skills, organizing networking activities to interact with other entrepreneurs and share experiences, and visiting companies or entrepreneurship fairs.

Consequently, through this strategy, it is essential to constantly seek to cultivate a positive attitude in students, so that they feel motivated to embark on monographic projects and, beyond that, that they recognize them as an opportunity for their development and advancement both professionally and in the workplace, avoiding perceiving the development of their thesis only as a requirement to obtain their university degree.

- Mentoring Strategy

Mentoring strategies play an essential role in promoting and strengthening university entrepreneurship. Therefore, within the framework of the implementation of monographic thesis projects, it is imperative that students receive constant support from their advisors. In this context, it is essential to provide students with the necessary guidance and support to enable them to realize their entrepreneurial ideas effectively.

According to research by Ramos et al. (2019), mentoring is characterized as an activity that involves accompaniment, monitoring and guidance provided by experts in the field to students throughout the process of developing their projects. Furthermore, Hernández and Castillo (2018) emphasize the importance of the advisor adopting an empathetic and active listening attitude, in order to understand the needs and expectations of the student entrepreneur, so that he/she can provide accurate guidance and constructive feedback at each stage of the project.

From these points of view, mentoring should be carried out by professionals with experience in the field of entrepreneurship, entrepreneurs and specialists in the field, who have to offer a practical and realistic perspective in the process of developing the monographic projects. In addition, it is relevant that the mentoring also covers the identification of valuable resources and contacts that can be useful for the student in the implementation of their initiatives.

It is important to emphasize that mentoring must be individualized and tailored to the particular needs of each student entrepreneur and his or her case study project, as each venture has unique characteristics and requires a specific approach. In this sense, mentoring plays a key role in improving the quality and effectiveness of university entrepreneurship projects.

- Strategies oriented to the Creation of Partnerships

Strategic partnerships represent a valuable tool for promoting and consolidating entrepreneurship in the university environment, by facilitating interaction between different actors, such as the academic institution, companies, governmental entities and non-governmental organizations (NGOs). These alliances enable the exchange of knowledge, experiences and resources, which in turn increases the prospects of success of students' entrepreneurial projects.

According to studies by García et al. (2018), the importance of establishing partnerships is highlighted as a fundamental strategy for venture development, as it facilitates access to resources and capabilities that are difficult to obtain individually. Furthermore, research by Véliz et al. (2018) indicates that partnerships can have a positive impact on both employment generation and economic progress in a region.

In order to implement partnerships as an entrepreneurship strategy within the improvement plan, a network of contacts and collaboration could be set up involving the university, companies and surrounding organizations. One way to achieve this would be through the organization of entrepreneurship fairs, where students would have the opportunity to exhibit their monographic projects to potential investors or clients, and establish alliances with companies in the sector.

- Strategies Based on the Development of Entrepreneurial Competencies

Competences play a key role in the development of successful university entrepreneurship. According to Timmons and Spinelli (2014), competencies refer to the skill and knowledge required to perform a specific task. In the context of academic entrepreneurship, competences should relate to the skills and knowledge required to conceive, develop and carry out a business idea. Some of the key competences that entrepreneurs should possess include the ability to identify business opportunities, the ability to establish and maintain a network of contacts, financial and management skills, as well as the ability to adapt and be flexible in changing situations.

In order to promote and strengthen university entrepreneurship through dissertation projects, it is crucial from this research that students acquire and develop the necessary competences for this purpose. Especially when dissertation projects provide an excellent opportunity for students to improve their research and analytical skills, while learning how to present their ideas in a coherent and persuasive way. However, it is equally essential that students have the opportunity to cultivate entrepreneurial skills.

To achieve this goal, it is possible to implement workshops and training programs that instruct students in the skills that are indispensable for the creation and development of a business. In addition, it is feasible to establish strategic alliances with companies and organizations that offer internship opportunities, thus allowing students to put their acquired skills and knowledge into practice.

In this sense, it is crucial to incorporate the acquisition of entrepreneurial competences in the education of university students, as these skills play a key role in the successful achievement of entrepreneurship. Through the realization of monographic thesis projects, the opportunity is provided to promote and cultivate these competences, thus preparing students to become successful entrepreneurs in their future careers.

- Strategies for the Dissemination of University Entrepreneurship Projects

With regard to dissemination strategies, it is imperative to consider that university entrepreneurship projects have significant potential in terms of their impact on society and the economy. It is therefore essential to disseminate them through a variety of media and communication channels in order to reach a wider audience and thus increase their prospects of success.

In this context, it has been stressed by authors such as Kotler and Armstrong (2012) that the dissemination of an idea or project requires meticulous planning in order to achieve the greatest possible impact. Therefore, it is necessary to employ various communication strategies, such as advertising, public relations, events and sponsorships, among others, to achieve this goal.

In addition, it is relevant to consider new technologies and social networks as means of dissemination. According to researchers such as Rodríguez et al. (2016), these digital platforms are valuable tools for reaching a younger and more technologically oriented audience, who are more willing to accept this type of proposals. Therefore, university students who are developing their monographic projects can take advantage of social networks such as Facebook, Instagram, Twitter, LinkedIn, among others, to disseminate their initiatives and reach a wider audience.

In addition, it is crucial for university student entrepreneurs to possess communication and marketing skills in order to be able to present their projects effectively and persuasively. According to researchers such as Cardozo (2015), persuasion and presentation skills are fundamental to convince potential investors and collaborators, and to achieve success in entrepreneurship.

In summary, dissemination strategies play a fundamental role in the progress of university entrepreneurship projects, requiring the implementation of various communication strategies, including the use of new technologies and social networks. In addition, it is essential for student entrepreneurs to possess communication and marketing skills in order to achieve effective dissemination of their projects.

- Strategies for the Continuous Evaluation of Projects

Evaluation plays a fundamental role in the promotion of university entrepreneurship, as it is an essential stage in the entrepreneurial process. Its main purpose lies in measuring the impact and effectiveness of the strategies implemented, thus enabling informed decision-making for continuous improvement. According to López (2013), evaluation in entrepreneurship focuses on analyzing the results obtained, measuring the progress achieved and adjusting action plans accordingly. It is crucial to establish clear evaluation indicators aligned with the objectives and goals of the improvement plan.

#### Results Stage Three - Socialization of the Improvement Proposal

In order to achieve the third objective of the study, a focus group session was held with teachers from the academic programs of Tourism and Hotel Management, Industrial Management and Industrial Design. The purpose of this session was to socialize and present a proposal aimed at strengthening entrepreneurship in undergraduate students. Once the socialization was over, different questions were asked to the teachers who participated in this focus group, in order to validate the proposal, put forward.

Most of the educators participating in the focus group agreed in their opinion that the proposed strategy is successful in terms of raising students' awareness and encouraging them to transform their monographic projects into ventures. In addition, the educators emphasized the relevance of the actions formulated in the proposal to enhance the students' research skills. According to their perspective, it is through research that new opportunities can be discovered and innovative ideas for entrepreneurship can be generated. This approach highlights the importance of integrating research training into

the entrepreneurial process, since the development of these skills strengthens the capacity for analysis, problem identification and the generation of creative solutions.

In response to the question: Based on what is set out in the improvement strategy, do you consider that the type of consultancy proposed would be effective in promoting the students' monographic projects as potential entrepreneurship projects?

Most of the educators participating in the focus group considered that the type of counselling proposed in the improvement plan is relevant to promote the monographic projects, as awareness-raising is a necessary first step. In addition, they highlighted the importance of providing support that includes clarification of the different methodological processes involved in research. From this perspective, they recognized that students require comprehensive support to enable them to understand and develop the necessary skills to transform their projects into real undertakings.

However, some educators presented a contrary view, considering that the proposed consultancy, although necessary, would not be sufficient on its own. They argued that a comprehensive strategy involving different people and entities such as the entrepreneurship unit is required to really empower these projects and achieve their materialization as ventures that generate professional and economic growth for the students.

In addition to the question posed above, the following question was also asked: According to the socialized proposal, do you consider that the alliances stipulated with external companies and organizations are sufficient to promote university entrepreneurship?

The teachers who participated in the focus group agree that the partnerships set out in the improvement proposal are appropriate. However, they suggest the implementation of other events complementary to the fairs. For example, they propose holding specific academic events to facilitate the signing of agreements, as well as the organization of business conferences to support entrepreneurial initiatives. They also highlight the importance of carrying out immersion visits with allies, among other forms of collaboration. From their perspective, these networks and partnerships give students the opportunity to broaden their horizons and potentially find like-minded collaborators or converging research projects.

On the other hand, other educators involved in the focus group argue that the partnerships proposed in the improvement plan are important, but insufficient. They argue that holding isolated events does not generate a significant impact on the promotion of university entrepreneurship, unless agreements, alliances and concrete contracts are consolidated. From their perspective, it is necessary for alliances to go beyond collaboration in specific events and materialize in tangible agreements that support and strengthen entrepreneurial projects.

On the other hand, they expressed that it is necessary to disseminate university entrepreneurship projects, which not only implies external promotion, but also internal communication within the university community. It is necessary that students, teachers and other stakeholders are informed and feel part of the entrepreneurial process. This will foster an atmosphere of collaboration and support, and strengthen the entrepreneurial culture in the institution.

Finally, the following question was asked: What is your perception of the guidelines for the continuous evaluation of university entrepreneurship projects formulated in the proposal?

With regard to this approach, the teachers invited to the focus group shared their point of view on the continuous evaluation guidelines proposed for university entrepreneurship projects. Firstly, they expressed that the monographic projects require a continuous

process of review and monitoring, thus highlighting the relevance of constant evaluation in their development.

Likewise, the educators agreed that the evaluation of these projects should transcend the exclusive focus on economic aspects, and focus on the assessment of the entrepreneurial skills and competences acquired by the students. In this regard, they stressed the importance of evaluating elements such as the ability to identify opportunities, leadership, creativity and the ability to manage risk, among others, in order to ensure the comprehensive training of future entrepreneurs.

In summary, the contributions of the educators who participated in the focus group underline the relevance of the continuous evaluation of university entrepreneurship projects. The guidelines proposed in the improvement plan were considered adequate and appropriate, emphasizing the need to evaluate both entrepreneurial skills and competences and the social impact and innovative potential of the proposals. Furthermore, the importance of accompaniment, awareness-raising, strategic alliances and appropriate dissemination were emphasized as fundamental elements for strengthening university entrepreneurship in the undergraduate programs mentioned. These contributions help to improve the quality and relevance of entrepreneurial training, fostering an environment conducive to the development of innovative ideas and the creation of successful companies.

## **Discussion**

University entrepreneurship plays a crucial role in the professional and economic projection of undergraduate students. In this context, the research carried out at the Universidad Pedagógica y Tecnológica de Colombia, Facultad Seccional Duitama addresses the characterization of entrepreneurship in students of Tourism and Hotel Management, Industrial Management and Industrial Design. The findings reveal that there are factors that limit the entrepreneurial development of students in relation to monographic projects.

Among these factors, an unfavorable attitude towards entrepreneurship stands out, manifested in the low interest and low expectations of students in relation to the development of monographic projects as entrepreneurship. In addition, there is a perceived lack of support and guidance from the university institution, generating demotivation and unfavorable attitudes towards the role of entrepreneurs. This perception is in line with the theory that the entrepreneurial attitude is influenced by personal and social aspects.

Participants consider that the knowledge acquired during their academic training is not sufficient to become successful entrepreneurs, which influences unfavorable attitudes towards this purpose. The lack of practical connection and contextualization in entrepreneurship education, characterized by traditional methods, also limits the development of entrepreneurial skills.

In addition, it is revealed that case study projects are not fully perceived as opportunities for entrepreneurship, due to a lack of understanding of the associated economic and professional potential. The lack of tutor support contributes to this perception, as students do not see the development of their monographs as a pathway to career growth.

From an academic perspective, the university has a fundamental role to play in promoting university entrepreneurship. The proposed strategies, such as awareness-raising, advice, creation of alliances, development of entrepreneurial skills, dissemination of projects and continuous evaluation, are presented as a coherent set to have a positive impact on the comprehensive training of students.

In general terms, from this research it can be established that it is necessary to implement concrete actions that strengthen entrepreneurship from the base, focusing on the development of monographic projects, as these represent a valuable opportunity to prepare students of the Universidad Pedagógica y Tecnológica de Colombia to face the challenges of the world of work. The university, in collaboration with educators, should raise awareness, provide advice, establish partnerships and promote the development of entrepreneurial skills to cultivate an environment conducive to professional growth and contribution to the economic and social development of the region.

## Conclusions

After a detailed investigation at the Universidad Pedagógica y Tecnológica de Colombia on the strengthening of university entrepreneurship through monographic projects, it is found that the implementation of innovative strategies is revealed as a valuable tool to promote entrepreneurial culture among students of Industrial Administration, Tourism and Hotel Management, and Industrial Design. From this perspective, it is concluded that:

There are limiting factors for entrepreneurial progress through monographic projects, which include the profile and entrepreneurial intention of students, the role of the university and the potential of monographs in fostering university entrepreneurship. The need for adequate support for students is highlighted, avoiding negative comments that can affect them emotionally and lead to the abandonment of entrepreneurial ideas. The lack of institutional support, ineffective teaching methods and the absence of external alliances and resources also limit the development of projects. In addition, the lack of skills to recognize the entrepreneurial potential of single projects affects students' ability to make the most of their initiatives.

Strengthening university entrepreneurship requires comprehensive strategies. Entrepreneurship awareness, effective mentoring, collaborative partnerships, competence development, project dissemination and continuous evaluation are key elements. The university must play a leading role, providing guidance and establishing connections with the business sector. Competence building, active promotion of projects and constant evaluation are essential to achieve a significant impact on students' education and contribute to the economic and social development of the region.

Coherence and coordination are essential in initiatives and approaches to foster entrepreneurship at university level. These must be integrated into a unified university policy. The relevance of a unified policy lies in the synergy created by aligning all initiatives towards a common direction. The importance of the support of the University Business Enterprise State Society Committee (CUEES) is highlighted, which plays a fundamental role in fostering collaboration and integration of various key actors in the economic and social development of the community. The joint participation of entrepreneurs, academics, local government representatives and the community in general enriches entrepreneurial initiatives.

Overall, the research points to the need to overcome the identified obstacles through comprehensive strategies, effective institutional support and coherence in university policies. These approaches are essential to cultivate a strong entrepreneurial spirit among students, contribute to economic and social development, and open up new avenues of development for the future.

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