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## **Entrepreneurship in High School Education – Perspectives of Colombian Teachers**

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### **Abstract**

The term entrepreneurship has been seen from a productive perspective, tending towards the development of business ideas. However, today it is also associated with the strengthening of skills and attitudes on a personal level. In Colombia, Law 1014 of 2006 regulates entrepreneurship as part of academic training, at all educational levels. Despite it being an initiative raised by the government, concrete actions on the subject are being directed by teachers in classrooms. For this reason, the views of high school teachers, through the lens of qualitative research, are essential for exploring the reality that education occupies in this aspect, and that increasingly highlights some obstacles which hinder its progress.

Therefore, the aim of this article – immersed in the framework of a doctoral thesis about the practices of entrepreneurship among high school teachers in public schools in Bogotá – is to expose which actions have been aimed at integrating entrepreneurship into Colombian high school education from the experience of teachers, as well as to unveil their criticism of the absence

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of the entrepreneurial process from the first grades established in the law, the role of the National Service of Learning (SENA) as an important institution in Colombia related to entrepreneurship in the classrooms, the lack of a more human vision that is less focused on production in entrepreneurship education, and the huge gap in teacher training in the area.

*Keywords:* entrepreneurship, entrepreneurship teachers, high school education, education alliances

## **Introduction**

The meaning of the word entrepreneurship, according to Filion (2009), descends from the Latin *inprender* which means to undertake; in ancient Greece it was used in connection with people who carried out commercial activities. Abu-Saifan (2012) exposes how some of these views are closely related to the economic environment: Schumpeter's perspective from 1934, which defines an entrepreneur as an innovative individual; McClelland, who in 1961 defined it as one who takes risks; Kirzner as a referee in 1978; Carland et al. as a strategic thinker in 1984; and finally Timmons and Spinelli, in 2008, as a holistic, persistent, and committed leader.

These definitions focus on the term as a fundamental part of the economy; however, they highlight characteristics that describe a behavioral profile that can be encouraged from the classroom as a disciplinary area. We believe that the answer to the question, "Can anyone who wants to learn be taught to be a good entrepreneur?" is "yes" (Saravasthy & Venkaraman, 2011, p. 117). Thus, entrepreneurship has built a space within the educational field through gradual incorporation of actions aimed at the creation of a company, developing skills, and promoting creativity and innovation from school.

The enactment of educational plans and policies in Colombia around the theme of entrepreneurship outlines a set of actions that permeate school life and are seen as an alternative that can reduce unemployment rates and generate sustainable economic development as well.

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The introduction of Law 1014 of 2006, which promotes the culture of entrepreneurship – the main interest of which is the development of General Labor Competencies (GLCs) and the promotion of an interaction between the educational community and the productive chains from preschool to the eleventh grade of high school – constitutes a potential response to these needs.

In high school – which in Colombia refers to the last two years of school, tenth and eleven grades – as explained by Law 1014, it is necessary “to strive for innovative productive development, generating conditions of competition in equal opportunities, expanding the base productivity and their entrepreneurial capacity, to unlock the creative potential of generating better quality work” (Camacho, 2010, p. 35). As a result, institutions of public education have been forced to implement entrepreneurship within their processes; however, the absence of links with the productive environment, the lack of inter-institutional support with universities and technical and technological education institutions – being necessary connections to establish successful actions in the field of entrepreneurship – have been evident.

The guidelines of Law 1014 of 2006 cover all levels of education, but their lack of specific details in their materialization generates various interpretations when public schools try to adopt them. In some educational institutions, general aspects were considered to fulfill these guidelines, such as including a specific class on entrepreneurship in high school, holding business fairs, or incorporating them through cross-sectional projects, while in other schools it was simply ignored, without giving them a true meaning or making their economic and social impact important.

Therefore, this article is intended to describe the actions developed in order to incorporate entrepreneurship in high school education from the teaching experience in Bogotá, Colombia, for instance, the implementation of alliances with technical education institutions and universities, in addition to other strategies that have provided students with the necessary tools and skills to access the world of work. Likewise, it aims to highlight the critical role that teachers have had as an important and decisive part of educational entrepreneurship, in the transformations that

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institutions have undergone and the various proposals generated to be able to adopt it.

### **Entrepreneurial skills in high school education**

Some skills in entrepreneurship education that are regarded as fundamental, according to Studdard, Dawson, and Jackson (2013, p. 3) in their review of diverse authors include leadership, adaptability, creativity perseverance, and financial education. These skills offer the students the opportunity to confront a variety of challenges throughout their lives. There are more types of competencies that are intended to develop other characteristics of an entrepreneur, which are classified according to their nature, such as technical, managerial, and organizational ones. Thus, oral and written communication can be included inside the universe of technical skills. Among management skills, it is possible to find planning and decision-making. From the realm of history, entrepreneurs must also have personal skills such as innovation, creativity, risk-taking, and persistence. For Kuratko (2004) "the characteristics of seeking opportunities, taking risks beyond safety, and having the tenacity to push an idea through to reality, are combined in a special perspective that permeates among entrepreneurs" (p. 3).

Based on the historical evolution of entrepreneurship conceived of by Boutillier and Uzunidis (2014), "the Schumpeterian entrepreneur has charisma and authority. The importance of authority cannot be absent; it is often a matter of surmounting local resistance, of winning relationships, and of being able to face heavy challenges" (p. 24). In high school education, these aspects are meaningful in view of the challenges posed by a globalized world. Although an entrepreneurial attitude can be cultivated in all stages of life, it can be reinforced especially during adolescence, regarding the axis of entrepreneurship education that for Fayolle (2013) "is positively associated with entrepreneurship-related human capital assets (knowledge, skills, positive perceptions of entrepreneurship, and intentions to become an entrepreneur)" (p. 696). The training process

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of entrepreneurs in Colombian high schools considers the skills to be an essential component.

For the Colombian Ministry of Education (2020),

education is defined as a process of personal, cultural, and social permanent learning, based on a comprehensive understanding of the human person, his/her dignity, and his/her rights and duties. The Colombian education system is made up of early childhood education, preschool education, basic education (five grades of primary and four grades of secondary), high school education (two grades and ending with the bachelor's degree), and higher education. (p. 1)

The two grades of high school are nowadays the focus of entrepreneurship education, but its adoption has been studied more in technical education than in the academic modality. Bearing in mind the approximation done for the National University related to high school and the articulation program by Celis, Gomez, and Díaz (2006), "it continues to privilege the separation and hierarchization between academic and technical modalities, considering the latter of lower social and academic status, oriented towards sectors of the population with lower incomes and low-paid occupations" (p. 5); as a result, the relationship between entrepreneurship and workforce has created a special nexus with the technical modality.

The experience of implementing entrepreneurship in Colombia has reached some advances through cooperation between schools, institutions, and universities, the establishment of a law, and the participation of SENA as a leader institution in entrepreneurship; all of these actions have shaped the present and future of schools around the topic of entrepreneurship.

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### **Implementation of entrepreneurship in high school education: Actions from alliances**

Intending to respond to the needs of entrepreneurship education in Colombia, Law 1014 of 2006 frames the obligation for all educational institutions to incorporate this topic as a class. This law defines it in Article 13 as “a specific area of training for entrepreneurship and the generation of companies which must be incorporated into the curriculum and developed throughout the entire curriculum.” With this parameter, the mandatory inclusion of a class on entrepreneurship leads to the construction of an official curriculum for this subject, especially in high school. However, this regulation requires it to be incorporated from preschool on in order to strengthen culture and innovation in all educational cycles.

Regarding the induction of entrepreneurial culture in schools, this article emphasizes that it is necessary “to transmit knowledge at all school levels, to form a favorable attitude of entrepreneurship, innovation, and creativity, and to develop competencies to generate companies” (Law 1014, 2006); thus, the content of the entrepreneurship class is included, considering various implementation strategies as a specific subject in accordance with the law. The skills promoted by entrepreneurship have been more developed in high school education, as a consequence of the articulation processes of high school and tertiary education, and orientation promulgated by the Ministry of National Education (MEN) in 2008 and by the Office of the Mayor of Bogotá, within the sectorial education plan for 2008–2012 which states that

this model seeks the transformation of schools in their pedagogical, administrative, and organizational fields so that grades tenth and eleventh assimilate and deploy appropriate, relevant content and methodologies of higher education, through the semester syllabuses, the adoption of the system of academic credits and preparatory cycles, and the implementation of forms of academic evaluation and university type. (Alcaldía Mayor de Bogotá, 2008, p. 74)

One of the most relevant strategic alliances of educational institutions for the articulation of high school and higher education, aimed at the tenth and eleventh grades, is the one established with the National Learning Service (SENA). As a preceptor of this field in Colombia, SENA offers programs that support schools in specific technical training in various fields for work, which are supported by schools and are reflected in the pedagogical component of their Institutional Educational Projects (IEPs). This articulation that exists with some public schools in Bogotá has allowed students to appropriate knowledge, delve deeper into a disciplinary field, and ratify decision-making regarding their professional vocational choice.

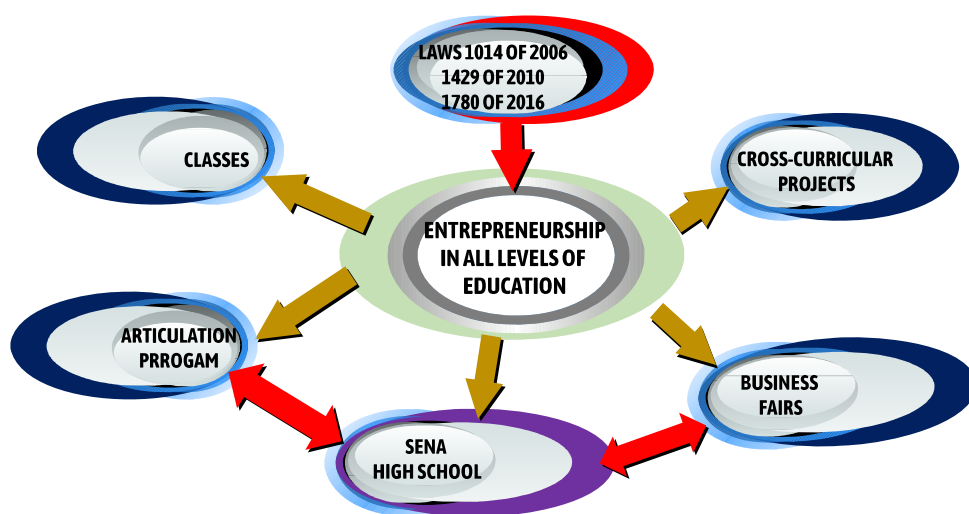
The objective of these programs, specifically with SENA, as described by the MEN (Ministerio de Educación Nacional, 2006) is to “allow educational institutions to access curricular programs based on labor competence standards. These norms are defined with the productive sector and serve as references to grant labor certifications” (p. 6). The possibility of taking classes at school aimed at developing GLCs and entrepreneurial skills within the framework of a technical career makes articulation a benchmark that characterizes the institutions in which the productive project is the axis of their institutional work. Hence, the articulation processes are fundamental in the adoption of entrepreneurship and its interaction with the productive environment; additionally, in high school, they make it an essential aspect, to offer other alternatives to students.

Law 1429 of 2010, in addition to the recent, important Law 1780 of 2016, embrace the creation of young entrepreneurship, which according to the Chamber of Commerce of Bogotá (2016), an institution which supports the establishment of enterprises in Colombia,

seeks to promote the creation of new young companies, understood as those created by natural or legal persons which are considered small companies, understanding small companies as those whose staff does not exceed 50 workers and whose total assets do not exceed 5,000 Minimum Current Legal Monthly Wages. (p. 1)

This legal support and the SENA foundations promote new ventures that may be born from seeds in high schools. In Figure 1, there is a diagram of the most important aspects of entrepreneurship implementation in high school and its fundamental objective to strengthen entrepreneurial skills.

**Figure 1. Implementation of entrepreneurship in high school education**



In Colombia, the role of SENA – a leading technical education institution in the country – and MEN Laws 1014 of 2006, 1429 of 2010, and 1780 of 2016 are promoting the culture of entrepreneurship and supporting the need to link the curricula of educational institutions with the productive sector in order to improve living conditions: “through alliances and inter-institutional agreements that support the purposes of the educational establishment and provide support to its processes” (Ministerio de Educación Nacional, 2010, p. 31), which translates into the adoption of multiple pedagogical processes that are linked with the productive ideas which arise within the classroom.

Currently, there are two types of high schools in Colombia: technical schools, which offer specific training in work areas, and academic schools, which mainly prepare students for an academic future at university. The technical schools have had to extend their schedules to include work on



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entrepreneurship, from the high school modalities according to their area, created in alliance with universities and SENA. With the same purpose, the curricular aspect has been modified and made more flexible and principals and teachers have seen the need to focus their efforts on proposing training alternatives in order to make entrepreneurship a cross topic immersed in their IEPs – which still do not meet the implementation needs of the educational community. This a consequence, for example, of the deficit in infrastructure, scarce laboratories, a lack of teacher training and funding, among other things.

### **Methodology**

This study was developed from semi-structured interviews with seven high school entrepreneurship teachers working in different schools in Bogotá with more than five years of experience in the area and six SENA instructors linked to the articulation process working in different schools than the teachers, in order to find different perspectives of the work on the subject. Likewise, four coordinators of the articulation program of SENA Bogotá, in the areas of business management and resource centers, were interviewed; their perspectives represented two lines of work with a strong presence in Colombian schools. Finally, the study included two school principals from a public school other than those of all the other study participants; they presented points of view from the field of management. The style of the interviews was selected according to the view of Choi (2018):

Follow-up questions – also referred to as probes – are formulated relative to what interviewees have already said. Researchers sequence questions to generate free-ranging conversations about research topics that are directed by what participants have to say. This kind of qualitative interview is widely used across disciplines as a primary research method. (p. 233)

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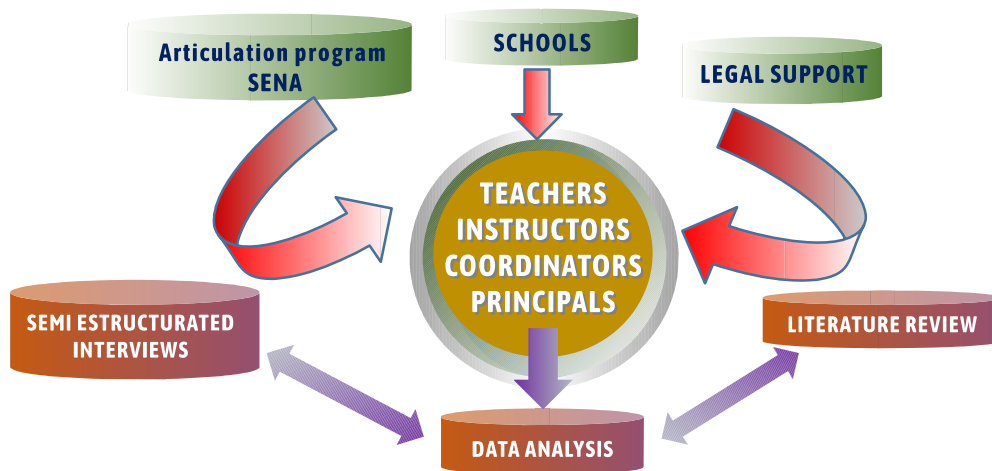
Some guidelines for creating the interviews were fundamental in order to identify the diversity of perspectives which all the participants have about entrepreneurship, “formulating interview guides involves generating a list of questions and topics that are likely to elicit descriptions that speak to the research questions posed” (Choi, 2018, p. 237).

Moreover, we conducted a literature review about this subject in high schools, which revealed the importance of investigating the perspective of teachers and their experience in reality, beyond the scope of theory. All of these aspects have configured a qualitative study of a descriptive order, foreseeing the development of entrepreneurship in education, its history and the role of teachers, principals, coordinators, and other institutions in its transformations. According to Loeb et al. (2017), “the process of descriptive analysis is iterative, with each step building upon others and requiring reconsideration and modification as the researcher’s understanding of the phenomenon, relevant theory, and the study advances” (p. 9).

It seeks to highlight the teacher’s work in their daily practices, reflecting their concerns, expectations, and needs, as part of their innate humanity. As a consequence, this qualitative research dealt with people in constant activity, which for Cárcamo (2007) “emphasizes the interpretation of the particular phenomena that occur in a context of defined time and space” (p. 88). The space and the phenomena to approach revolve around entrepreneurship and the way it has been developed in high schools. Figure 2 illustrates the methodological process in this study.

As a discipline, entrepreneurship has been strongly influenced by the productive perspective, for this reason, in agreement with Atkinson (2017), “qualitative research methods help to gain insight into the processes involved in co-constructions of meaning, lived experiences, cultural ritual, and oppressive practices” (p. 65). We took into consideration the images associated with the term entrepreneurship and its cultural tradition involved throughout the management history. Teachers, instructors, coordinators, and principals are not distant from this historical development and its implications in education. Their practices, activities, and strategies are permeated by the productive environment, which has built the roots

**Figure 2. The methodology developed to investigate perspectives about entrepreneurship in high school education**



of modern entrepreneurship. In the same way, policies and laws currently have assisted some actions adopted by schools for fostering entrepreneurship in their institutions – Laws 1014 of 2006, 1429 of 2010, and 1780 of 2016, as well as the SENA parameters are implemented in high school education.

For Marín (2018), when observing people in their daily life, a qualitative researcher obtains direct knowledge of social life. Therefore, by meeting directly with teachers in schools, it was possible to recognize the social bond between them and the individuals around them, which is seen as essential for a reflective discussion. For this reason, as Marín (2007) points out, there are relationships and movements between paradigms based on the interactions that guide the research. In this scenario, where the director, the school teachers, instructors, and coordinators of SENA provided fundamental support to the process, as a source of real data, and they allowed a discussion of the various experiences collected and the visions they assume about governmental policy.

For this objective, the interviews allowed an inquiry into the strategies they have designed to implement entrepreneurship in their institutions, thus achieving “the active involvement and learning of the interviewer and the interviewee to favor the identification and analysis of the issues”

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(Simons, 2011, p. 71). This exploration sought to explore the process of inclusion and adoption of entrepreneurship in high school, from teachers, all permeated under the influence of educational public policy.

### **Entrepreneurship objectives from teachers' experience: Realities and contrasts**

Based on the regulations on entrepreneurship which are in place in the country, this has been incorporated into the academic program of educational institutions and has created a new compendium of requirements that schools must deal with in response to this challenge. New needs arise, especially in terms of the work of teachers, who are ultimately responsible for bringing entrepreneurship to the classrooms. According to its preponderant role, "entrepreneurship education is characteristically a contextual phenomenon and in this perspective, the educator's relevant context and background are central factors for understanding their personal background and the teaching infrastructure available for entrepreneurship education" (Ruskovaara & Pihkala, 2012, p. 214). For this reason, when the experience, training, and profile of the entrepreneurship teacher who currently works in high schools are discovered, certain elements emerge, such as the implementation of transversal activities in the classrooms, some curricular innovations, and the uncertainty generated by comparing all of them. Another aspect which arises is certain disastrous realities experienced by the teachers, who are facing high expectations from these ministerial guidelines.

Article 2 of Law 1014 of 2006 reflects the main purpose: "to promote the entrepreneurial spirit in all educational levels of the country." Of course, this objective is carried out under the responsibility of the teachers, with the curricular adjustments that this implies. Likewise, Law 1429 of 2010, which favors the creation of companies and benefits for those under 28 years of age, inspires the training of entrepreneurship in young people with a view to setting up companies as the pinnacle of the process carried out through this evolution from preschool through primary and

secondary school to university education. According to Díaz and Celis (2010a), “teachers in many cases perceive that the objective of their area is to generate self-employment or survival units so that their students can occupy themselves and have some income” (p. 206). This perspective reinforces the idea that entrepreneurship is conceived with a limited vision, towards the production of goods and services, or to prepare pupils for the job market.

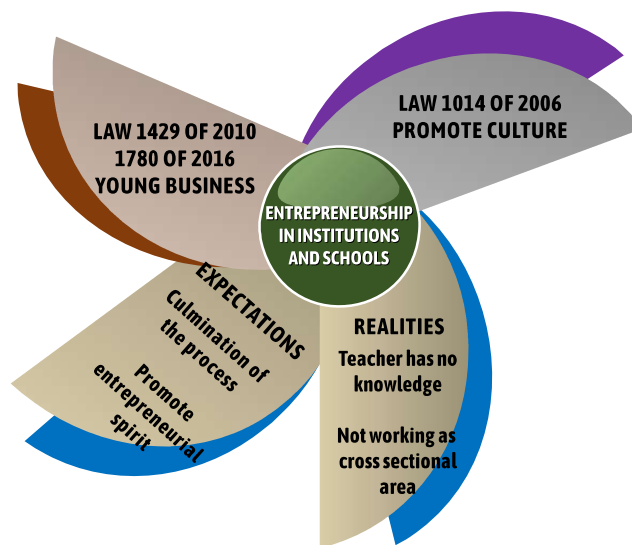
### Findings

In the dialogue established with high school teachers and a group of instructors and coordinators belonging to SENA, whose role is to develop accompaniment in schools included in the program, it was found that there is a great gap between the expectation generated when addressing entrepreneurship in schools and the reality, because “the subject of entrepreneurship is assigned to a teacher who has not graduated in education or who does not have knowledge of the subject, and simply tries to do a project” (Teacher 1). “Entrepreneurship in SENA does not work as a cross-sectional area, and Law 1014 is not being applied. Those in charge of giving workshops in that area are the psychologists” (Coordinator 1). In other words, the aspirations expressed in the regulations are different from the processes experienced by teachers, especially in the handling of information that they have in the area. This contrast is illustrated in Figure 3.

The schools which have adopted the articulation program have the support of SENA instructors, whose perspective shows an implementation of the subject, through their foray into specific subjects in the modalities they develop. However, the entrepreneurship class was not designed to be taught in this alliance, as explained by instructors who work in schools: “SENA is strengthening this through productive projects” (Instructor 1). “From the technical and technological part, entrepreneurship is the core, because it is related to transforming what is learned from theory and developing it into practice” (Instructor 2). From the perspective of the SENA instructors, the productive phase is the peak of entrepreneurship training,

so the maximum objective of the training is reached when the students manage to consolidate a productive idea and are able to carry it out in the academic semester.

**Figure 3. Current situation of entrepreneurship in high school:  
Expectations and realities**



For principals, there is an empty space about this topic in education at schools, in comparison to the development obtained by other governments around the world: "Entrepreneurship is important in education, but there is still a long way to go, compared to other countries" (Principal 2). Further, they consider it necessary to become more flexible about the way entrepreneurship is conducted in schools: "We stick very closely to the contents of a program, of a curriculum, we do not see other things that are sometimes necessary to develop skills" (Principal 1). In the administration's perception, entrepreneurship in schools is more than a class, and it requires teamwork with all the components of the institution to ensure that it is effective: "With the example that I can give to others, or to the people who are under my responsibility, initiatives take shape" (Principal 2).

The objectives pursued by the teaching of entrepreneurship vary according to the experience of the teachers and the alliances they establish within the framework of technical training, and the goals for SENA are

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based on the success of the presentation of the productive project. The adoption of entrepreneurship, in a study carried out by Rico and Santamaría (2018) in schools in Bogotá, showed that technical training is a vital element which directly affects the implementation of entrepreneurship in schools, by virtue of

the relationship between the IEP and the entrepreneurship class in schools revolves around technical training programs and training in GLCs. Their transformations depend on the profile of the technical training programs, which, for example, SENA imparts in the institutions. This is an indication that aims to understand that the IEPs of schools have a technical training character, which supports the programs that work in their classrooms. (p. 110)

Schools adjust their training objectives to involve entrepreneurship in their IEPs, in addition to integrating it with other school activities. In other words, the institutions which offer technical media adopt the entrepreneurship classes as a result of their articulation with SENA or the universities and incorporate it as a requirement in the emphasis they promote. According to Sánchez and Gutiérrez (2013), “in Bogotá and Medellín, although with different emphases, it is conceived that the articulation processes must contribute to overcoming the disconnection of education with the dynamics of the productive world” (p. 78) – dynamics which, from the point of view of technical training, support the creation of a company as the axis of entrepreneurship and which are undoubtedly led by teachers.

For the coordinators, the issue of entrepreneurship “is not linked to the productive structure [and] there is little support to start prototypes from ideation” (Coordinator 3). This point of view reinforces the studies carried out by Dimas and Malagón (2011), where the findings showed that “the incidence of institutions with technical identity in the social, economic, political, and cultural dynamics of the environment is very limited, especially because the societal conception that exists about high school

education is to guarantee access to higher education” (p. 55). Although there is interest on the part of technical education to offer GLC, in the case of the academic modality its objective is to prepare for university education. Table 1 illustrates some of the responses of the interviewees and their vision of the relevance of this subject in education in Colombia.

**Table 1. A part of the analysis of semi-structured interviews**

INSTRUCTOR 1	<i>1. Do you consider the topic of entrepreneurship to be relevant within education in Colombia?</i>	It is an essential tool in the training and education processes in Colombia. It allows the student to generate project creation and go out into the world of work.
INSTRUCTOR 2		Yes, I consider it necessary to give a lot to the students, to teach them that they should create a company, teach them to be entrepreneurs, and not simply workers.
INSTRUCTOR 3		Yes, it is relevant; first of all, because entrepreneurship is born in all of us, it is created and developed from childhood what creativity and development mean.
COORDINATOR 1		It is very important since children start their training process in preschool. This is because the educational and insertion model in economic life is changing day by day.
COORDINATOR 2		Definitely yes. It is vital that students or apprentices come up with some basics on the topic. The apprentices arrive without knowledge, so it should be a cross-sectional subject that focuses on the development of skills.
TEACHER 1		It has fallen into education, with the task of generating within the students a spirit to change, to innovate, to generate business ideas. In the education system, this task has been generated, and this is how we seek to ensure that people really begin to look at that entrepreneurial attitude to assume a life project, assume their role in society when they finish their first beginnings of education.
TEACHER 2		The Teaching of Business Management and entrepreneurship in Colombia is totally relevant because it is vitally important to promote business thinking between the children and youth of our country. Unfortunately, it is a field little addressed in Colombia, especially in public education; they are very few schools implementing it.
TEACHER 3		Yes, totally. Entrepreneurship is not only one action, but it is a way of life. It is a mindset. If we develop an entrepreneurial mindset, they can transform the country's economy, transform their lives, and transform their society and transform the communities close to them.
TEACHER 4		Entrepreneurship in school is extremely important to help people develop those necessary competencies to undertake, so I justify that it is extremely important to undertake at school.
PRINCIPAL		It is relevant within education in Colombia, and the initiative will always be a determining factor for education and to develop specific objectives.
ANALYSIS		<b>From the points of view of the interviewees, the relevance of entrepreneurship within education in Colombia is evident. The perspective of all the participants stands out, reinforcing the vital importance of promoting entrepreneurial thinking among children and young people. The emphasis proposed was to establish agreements to support the development of the necessary skills to undertake. The need to promote entrepreneurs from the classrooms is reiterated, but not to train workers.</b>



Despite being a relevant topic for all interviewees, entrepreneurship in some institutions is seen as a “useless” subject that, despite being regulated, does not have the necessary importance within the curriculum, as expressed in the opinion of one of the SENA coordinators: “Unfortunately, instead of motivating the students, the topic of entrepreneurship is demotivating because in SENA the entrepreneurship classes or workshops became useless classes” (Coordinator 1). This situation arises as a consequence of the lack of cohesive work between the processes proposed by SENA within the articulation and the expectations and needs embodied in the institutional priorities of the schools. Seen through the lens of the critical reality of teachers, the development of articulation with SENA requires an engine which works harmoniously, with the institutional priorities of the school, the purposes and desires of the students, and the requirements which improve the reality of the entire community in order to achieve a functional and effective alliance.

### **Teachers as an important and decisive part of the transformations for the adoption of entrepreneurship in high school**

Teachers, since the enactment of Law 1014, have been in charge of leading the process of training in entrepreneurship at the preschool, primary school, high school, and university levels. Figure 4 presents the views on this initiative of various groups of people involved in the process. One of them is are the principals, who make decisions regarding schedules, infrastructure, and resources. Another group are representatives of higher education institutions, such as Distrital University, Uniminuto University, or the International Corporation for Educational Development, apart from SENA, the most relevant. These institutions have agreements with schools, by providing instructors, curricula, and materials. Finally, on the lowest line of this figure, are the teachers, who are located in the classrooms, essential protagonists of the whole group.

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Those directly involved in the subject of entrepreneurship in high school treat it as a crucial tool that helps to develop a variety of skills, as one teacher stated: "Entrepreneurship is not a single action, but rather a way of life" (Teacher 3). It is a process that should be implemented from pre-school education, considering that "entrepreneurship must be formed from pre-school, in consonance with the child's innate abilities" (Coordinator 2). In the same sense, they emphasize that although it is a process that should start with the youngest children, it must not only involve the educational community, because "we have to address all environments, the family, the educational environment, the university, and the business world" (Instructor 3). The role of the teacher is decisive in the actions undertaken.

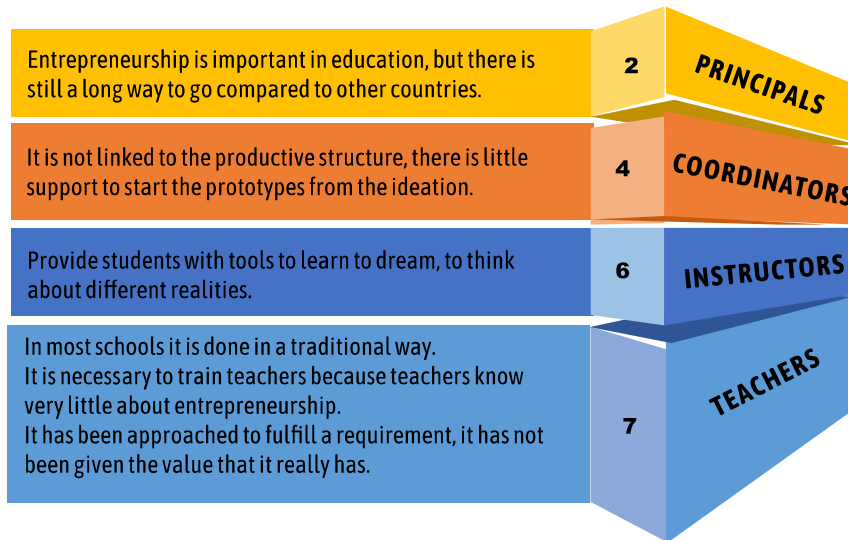
Teachers carry with them an immense responsibility, which in the framework of a practical reality, according to Mizgier (as cited in Camacho, 2010) shows that

there is a need to prepare teachers at all levels of the formal educational system from preschool to higher education, understood as a permanent learning process. The Faculties of Education, for example, do not prepare primary and high school teachers in these new dimensions of personal and professional behavior. (p. 23)

Entrepreneurship training for teachers shows an empty space that the universities have left and, as a consequence, has generated a lack of perspective in education. There is a need for instruction that understands the meaning of virtual work, creativity in the times of Artificial Intelligence, the adaptation of new productive initiatives, and the promotion of quality of life. Despite the efforts made by the Chamber of Commerce, an entity which regulates the creation of companies in Colombia and SENA, according to Pilonieta (2009), in Bogotá some actions were established to incorporate entrepreneurship in education, one of them being the "training of teachers as multipliers of the promotion of entrepreneurship" (p. 11). Since the passage of Law 1014 of 2006 there has been

an attempt to implement this training, but it still has immense potential to be exploited. In Figure 4, some general points of view taken from the interviews are presented.

**Figure 4. General perspectives about entrepreneurship in high school**



The urgency of training is one of the most frequent claims of entrepreneurship teachers, both in SENA and in public schools:

“It is necessary to train teachers because teachers know very little about entrepreneurship. Learning to undertake or teaching to undertake is not just done using a board and marker; it is necessary to develop skills in the students. And if teachers don’t have those skills, well, they won’t be able to develop them in their students. (Teacher 3)

As a result of this situation, the teachers who work in entrepreneurship find their own way of appealing to their own strategies to acquire the necessary information for their work – in addition to considering the subject from a business perspective to consolidate a productive project to show at school fairs. As one teacher expressed, “students are only involved in that process when there is a college fair” (Teacher 4). Teaching

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revolves around the presentation of a product or service, in events organized annually or semi-annually, in harmony with the planning of the institutional schedule, an aspect which detracts from the importance of entrepreneurship as part of a culture that concerns other aspects of life.

### **Conclusions**

When approaching entrepreneurship from the teacher's perspective, it is possible to recognize that there is a regulation in effect in Colombia which regulates the adoption of entrepreneurship in the educational spectrum. From this perspective, Díaz and Celis (2010b) assert that

in countries with critical unemployment problems, as is the case of Colombia, entrepreneurship has been making its way as one of the active labor market policies. As part of this active policy, Law 1014 of 2006 establishes the mandatory "promotion of the culture of entrepreneurship." (p. 374)

This law governs all educational levels; however, entrepreneurship has been incorporated more frequently in high school as a key part of the implementation of the articulation with higher education: "It is carried out in the opposite shift of students with an intensity of 13 hours weekly. The educational institution offers students, in agreement with SENA, work practice spaces that start from the second semester of the tenth grade" (Sánchez & Gutiérrez, 2013, p. 29). This organization favors the school work in entrepreneurship with the students of the last grades since they are finishing their school education and are ready to start their work or university life.

The Ministry of National Education is a government entity which has discreetly directed the actions in entrepreneurship, by providing materials such as Guide 39 and booklets for the articulation of high school and the productive environment, all of them focused on the development of GLCs, as described by Sánchez and Gutiérrez (2013):

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In 2003, the Ministry of Education published the first document in that direction, entitled “Guide for the articulation of high school with the productive sector,” which insists on the need to train in job skills and to bring the educational sector closer to the productive ... emphasizing the need to train in competencies of this nature from primary school education, with a special emphasis on high school. (p. 48)

The topic of entrepreneurship, from the point of view of school teachers, instructors, and SENA coordinators, is relevant within education in Colombia not only from the perspective of the national government, but also from an educational perspective, because it seeks to promote business thinking in children and youth. According to Tarapuez, Osorio, and Botero (2013):

In the case of Colombia, the two sectors with the greatest influence to include entrepreneurship on the government’s agenda in the period 2002–2010 were education and production. Although the topic was relatively new in the period under review, significant experience had been gained in research, academic events, and the curricular and extracurricular training of entrepreneurs in the education sector. (p. 282)

For the teachers interviewed, entrepreneurship is essential, since it aims to help people develop those skills which are necessary to undertake their own life project. In addition, it should be carried out from pre-school and primary school education, with topics such as the importance of saving; in middle and high school with aspects such as financial responsibility, family budget, and investment, among others; and finally at university with accounting and business administration. In the opinion of the teachers, the majority of professionals with university degrees do not have a background of financial knowledge. Likewise, the active participation of the educational community, SENA, and the teacher in this integrated work requires a profile of the empowered entrepreneurship

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teacher as the leader of the process, to achieve success in its implementation.

It is necessary to link the productive ideas generated from schools with the reality of entrepreneurship and the economic environment. This is a result of the role that companies are given in secondary schools that offer entrepreneurship: "the productive sector is assigned the function of providing practical spaces and offering training alternatives for students" (Sánchez & Gutiérrez, 2013, p. 51). The participation of the productive sector is limited to agreements with schools as school places for internships and they are not configured as possible partners for future businesses.

A strong call is made from the critical perspective of teachers, instructors, coordinators, and principals for the MEN to generate a public policy of teacher training in entrepreneurship which is not simply training in creating micro-enterprises, but a strategy to provide other elements which impact the personal and social life of students. As suggested by Leffer (2019), "if teachers aimed to improve their skills to be more professional and use an entrepreneurial attitude in their leadership, they would be more aware of business theories and their own learning processes" (p. 13). Likewise, there is a call to create an initiative to start strengthening curricula as a nerve center for the development of an entrepreneurial mindset, in line with the institutional priorities of schools. The expectation and reality of entrepreneurship training in high school education present a serious criticism of the intervention of SENA, the Secretaries of Education, and the MEN, which have left the teachers alone in their daily work. As a consequence, the introduction of entrepreneurship is not yet a reality in all public and private schools as established by law.

### **Limitations of the study and prospective**

The academic nature of the schools, their participation in the articulation program, and their relationship with the implementation of entrepreneurship, are aspects about which there is currently an information

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deficit. As stated by Cadena (2017), “there is still a lack of research on technical and academic high school education in public institutions that articulate with public and private higher education institutions. Regarding entrepreneurship training, it has only been addressed in technical secondary education” (p. 340). This lack of background constituted a limitation in this approximation, considering the differences between the technical perspective and the academic nature of schools, their core foundations, and their interest when adjusting their academic processes.

Another condition that, perhaps, affected this study was the choice of participants, limited to Bogotá city high schools, which could be considered a limitation to the applicability of the findings in other places. The decision to compare the point of view of teachers, coordinators, instructors, and principals who belonged to schools that nowadays are immersed in the articulation program with SENA instead of schools with no relationship with SENA or articulation could have yielded different results related to entrepreneurship.

An interesting extension of this research would be to compare and contrast the views of teachers of academic schools unrelated to SENA. While researchers have investigated the role of SENA in high school education, very few have delved into the entrepreneurial processes in schools where there is no articulation, and none have compared the views of technical educators against academic ones.

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