
Entrepreneurship teaching in a region in southern Brazil

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Structured Abstract

Purpose –Entrepreneurship teaching can allow students in technical high schools and universities to develop their management capacity to start new endeavours. Beyond being a career option for these graduates, management competences allow own businesses generate wealth in a locality and contribute to economic development and poverty reduction. This understanding of the social importance values the dissemination of knowledge about entrepreneurship in a more socially deprived region of the Santa Catarina state according to data from the Human Development Index.

Design/methodology/approach – The methodological procedures of the research were predominantly qualitative. The used worldview was phenomenological, because it is basically the analysis of the report of the experiences of the authors. A positivist worldview with data treated quantitatively was used in connection with the literature data extraction and document.

Originality/value – Federal Institute of Santa Catarina, founded in 1909 by the federal government of Brazil aiming to bring professional and technological education for the most economically disadvantaged sections of society. But only in 2010 Lages campus starts its activities, among them is the dissemination of an innovation and entrepreneurship culture among its students. The article is pierced by the strong farm culture present in Santa Catarina mountainous region, which prints to entrepreneurship

teaching in these conditions a unique situation. Farm culture is strongly present in the local society.

Searching for appropriated solutions to the local reality is essential in order to achieve concrete results and this feature ensures originality to this article.

Practical implications – A society of farm culture traits prints a limiting view of innovation and entrepreneurship. The farm is the place where gives economic and political power to the figure of Colonel (latifundia owner). This farmer struggles to maintain order at the expense of any change. These aspects of tradition are opposed to a culture of innovation and impose an unwillingness to take commercial, legal and personal risks, risks inherent in this entrepreneurial activity. These students inserted in this culture perceive to be more "natural" perpetuate the history of their ancestors that depended on a "benefactor" to subsist.

The article presents the design, methodologies used and its first results to demonstrate how it is possible to pierce cultural difficulties and print a sense of creativity, courage and entrepreneurship.

Keywords – Entrepreneurship, Farm Culture, University Extension, Professional Education.

Paper type –Practical Paper

1 Introduction

Entrepreneurship teaching brings the purpose of arousing or forging the entrepreneurial profile in students, and it prepares them to take risks. Since they are well trained, they should be able to assess opportunities, calculate risks, start and manage their own business.

It is expected that this entrepreneurial action provide personal/professional development for the former student, that now is an entrepreneur, and economic and social development for the region where it operates.

At Federal Institute of Santa Catarina, Lages Campus all technical courses and the graduation course are technology-based and have in their curriculum framework the subjects related to the study of business administration and entrepreneurship so that, there is the intention to prepare the student not only to act in companies already established in the region, but to undertake, be the agent of the local reality transformation.

Campus Lages actions, in this sense, are planned, organized and developed taking into account unique cultural aspects. Lages is situated in a mountainous region, geographically located in a south-central position of the state of Santa Catarina, a state on which, in turn, is located in southern Brazil. Lages despite having the largest jurisdiction among the municipalities in the state, has a low Human Development Index - HDI and Gross Domestic Product - GDP per capita.

These data reinforce the need for actions related to entrepreneurship to help social change, but they come up some difficulties because a society with traces of a farm culture come up with a limiting view of innovation and entrepreneurship to its citizens.

Therefore, this article presents and analyses the dissemination activities of entrepreneurship through specific pedagogical actions, scientific research and extension, which stands out the project “Hotel of ideas”(Hotel de ideias). These actions, with strong intention, reach the local community, transposing barriers and take knowledge applied to stakeholders.

2 Theoretical fundaments

2.1 Entrepreneurship teaching

Entrepreneurship teaching can allow students from technical high-schools and universities to develop their management skills to start new businesses. Beyond being a career option for these graduates, management skills allow that own businesses bring wealth in a locality and contribute to economic development and poverty reduction (DEGEN, 2009).

The entrepreneurship education discussion and its practice effectiveness have been highlighted throughout the scientific community. Although government interest in entrepreneurship education has been increasing, it is difficult to highlight economic results that were obtained as a specific return of these activities. Still, the financing of entrepreneurial activities for the creation of new businesses is considered, in some occasions, such as a waste of resources, often by lack of adequate education, or, in cases where the student does not have characteristics and abilities developed. (Graevenitz et al., 2010;. O’CONNOR, 2013).

Thus, sharing knowledge about the adopted teaching methodologies, taking into account the citizens cultural traits as well as the measurement of results, as this article does, become important to enable educational institutions to be able to optimize their efforts, focusing on more effective results.

In a research conducted by Martin et al., (2013), through a meta-analysis examination, it was shown that the entrepreneurship education and training is most effective when it converges in descending order of importance with: quality of human capital related entrepreneurship; knowledge and skills; entrepreneurship positive perception; and the intention of becoming an entrepreneur. It also suggests that a broader theoretical and conceptual teaching improves decision-making power of these students, increasing chances of success of their endeavors.

In this sense, Rocha and Freitas (2014) conducted a multivariate experiment applied to students of administration from the State University of Ceará, which showed the change in the profile of the students who participated in entrepreneurship training, realizing now, new entrepreneurial characteristics, among the main self-realization, planner, innovative and willing to take risks stood out, some things that were not perceived in academic who did not participate.

In a systematic review study from 290 articles in entrepreneurship area, between the years 2000 and 2008, Nassif et al. (2010) identified that the theoretical production expands as researchers look for meanings of practical observations. Sciences such as

psychology, anthropology, sociology and economics strongly contribute to entrepreneurship and renew the way of thinking.

In phenomenological study conducted in five companies created by necessity, not by entrepreneurial ideal or belief, it was concluded that there is a great difference between entrepreneurs in need and by the ones with an ideal (dreams), explaining that those with anxious behaviors and disconnected in general do not follow a consistent and planned trajectory (CASADO et al., 2012.); corroborating so for the idea that teaching, research and extension can effectively contribute to the creation of better structured projects with clear and able to be achieved goals.

Kallio-Gerlander et al. (2013) in their study in Finland, state that traditional entrepreneurship courses are not the solution, and suggest support for entrepreneurship during the studies. Other learning methodologies about entrepreneurship refer to lectures and practical work, as a well-organized business plan, that will prepare students for starting and running a business.

This support, in the specific case that is under study comes mainly by research and extension activities. Each one has several possible methodologies, and it is invariably possible to see that the combination of them, anywhere in the world, has been implemented in an attempt to make more aligned companies to their markets and their entrepreneurs have decision-making focused on their goals.

Other research on entrepreneurial profile performed with recent graduates of the MBA program at Harvard, concludes that in addition to entrepreneurship teaching, the encouraging fact of helping students to become entrepreneurs or not, is the knowledge of stories and reports of success and failure of experienced entrepreneurs in their field of interest, suggesting that a business incubator can promote this meeting between these entrepreneurs and their peers (LERNER; MALMENDIER, 2013).

2.2 The mountainous region of Santa Catarina and its culture

Lages is located in the mountainous region in south-central of Santa Catarina state, a state which, in turn, belongs to southern Brazil. It has the largest land area among the cities of Santa Catarina state, but this feature does not have comparative advantage when the socio-economic data of the city are analyzed. This land size data shows that the territorial extension is not capable of generating wealth for the city. Lages has an HDI of 0.77, which places it in 51st position, and a GDP per capita of US \$ 21,349.94, the putting in 82nd position when compared to other municipalities in the state (IBGE, 2012).

The historical reasons why this region has this low socioeconomic development, if compared to other state mesoregions, are strongly related to the beginnings of its settlement.

Before European colonization of the country, the mountainous lands were inhabited by indigenous nations Xokleng and Kaingang. Only in 1766 Lages was founded with the grant of large areas of land to a few privileged by the federal government, (Costa, 1982). Munarim (1990) reports that the legal limitation was that every dealer received a property of up to 108 million square meters (10,800 ha), but those who had received benefits from the government received properties up to 35 times higher. For this reason, the main

season production factor (land) was in possession of a few farmers. their properties were so great that the lands that now make up the current municipalities of Anita Garibaldi, Campo Belo, Cerro Negro, Correia Pinto, Lages, Otacílio Costa, Ponte Alta, São Joaquin, São Jose do Cerrito, and others that make up the mountainous region of Santa Catarina, were owned by a few farmers.

It was this great concentration of land that institutionalizes large farm livestock as a social space, the main place of social relations in that region. According to Locks (2013) it is in the large farm where the mountainous region citizen (serrano) built his individual and collective identity. And from then it is possible to call this sum of peculiar characteristics of the citizens of this farm culture society (as will be called by this article).

Thus, the economic and political power concentrated in the figure of Colonel (the owner of the big farm). And he strove constantly to maintain order and social structure rather than any change (Haesbaert, 1988).

The "farm culture" is still present in serrano people day-by-day. It still works in the construction of the worldview, determines the pace of work, provides social behavior and establishes many of power relations. The influence of farm culture can also be observed in extrinsic aspects such as dress, vocabulary, gastronomy, among others. Thus, extrinsic and intrinsic aspects of culture show great dissonance between being a citizen in the mountain (serra) of Santa Catarina and being a citizen in other regions of the state.

According to Martendal (1980) the main economic activity of Lages was the livestock on large farms until 1940, when at the instigation of a new national development policy gains importance and leadership in the local economy crop of exploitation (logging). And it is from the timber "industry" that Lages is highlighted in the state economy and it becomes an important city in the mountainous region.

Anyway it is important to note that the change of the main activity economy does not generate a change in power relations, since the main sellers of wood remain the large landowners.

In fact this social stability and the maintenance of the rich and the poor in their social stratum is a limiting factor of free enterprise and the full independence of the people in this culture. (CABRAL 1979).

Mentioning the same subject, the lack of social mobility, Professor Geraldo Locks (2013, p.6) describes the mountainous region society as follows: "the farm culture [...], hardly the 'low'sectors [...] will come to legal land owners. This historical fact described by different authors can explain the reasons that make the mountainous region of Santa Catarina still be with the human development index (HDI) lower in the state. "

If the upward mobility does not exist in rural areas, the structures of farm culture are still active, even today in the urban dweller and hinder social mobility in other economic sectors.

About the lack of entrepreneurial spirit in the region's citizens, when Avé-Lallemant visited Lages city in 1858 already clearly saw this lack of "adding value to production" and "enterprise" according to reports of this visit, despite being the major producer of cattle, you could not find butter in Lages (just cheese), mills owners, in turn, did not build

simple water courses to keep the water wheels running all year, unlike the mills were stopped for months to the water flow is re-established again. (LOCKS, 2013)

This cultural feature is own of this region. By comparing the mountainous region with the coast of Santa Catarina, a region that was colonized by distributing small plots of land, mainly for Italian and German immigrants arriving in the country, you can see a big difference in economic and social development that can be observed by the population's level of education, per capita income, level of industrialization, and other factors.

A peculiar point is the separation of activities by gender. In the farm culture the woman fits the activities of the house, especially the care of children. All activities of the external environment the farm were exclusively male activities. (LOCKS, 2013)

The farm was in the past, synonymous with safety as enabled its dwellers housing, clothing, food, However it required the recipient to lose their autonomy, their individual achievement capacity. To the dwellers the farm offered stability (including social) and, in turn, it was retained from the citizen the dominion over the determination of their own future.

The farm culture is losing strength before a more culturally eclectic society. This is the loss of economic power (and therefore loss of social and political power) of large landowners, the urbanization of the population (who despite are coming from the field) live in the city and their children were born in this new space (currently 97% of Lages population is urban according to the last census of the IBGE) and the people, coming from other cultures, moving to reside in Lages. These people, in turn, when faced with different social realities of their place of origin feel motivated to produce change.

3 Methodology

The methodological procedures of the research were predominantly qualitative. The applied worldview was phenomenological, because it is basically the story of the analysis of the experiences lived by the authors to determine the strategies for entrepreneurship education based on groups of students belonging to farm culture. A positivist worldview with treated quantitatively data was used from the data extraction for the theoretical foundation and documents.

4 Strategies for entrepreneurship education in a farm culture region in southern Brazil

The Federal Institute of Santa Catarina is an institution founded in 1909 by the federal government of Brazil with the aim of bringing vocational and technological education to the most economically disadvantaged sections of society. Being present in the state of Santa Catarina for more than a century it was only in 2007 that the Ministry of Education began a major process of internalization that resulted with the opening of campus Lages, in a main mountainous region city of the state, in October 2010 (IFSC, 2015).

The stated mission of the Federal Institute of Santa Catarina is "To promote the inclusion and educate citizens, through professional, scientific and technological education, generating, disseminating and applying knowledge and innovation,

contributing to the socioeconomic and cultural development" (IFSC, PDI, 2015). It guides the teaching actions, research and extension carried out by entrepreneurship professors in Lages Campus.

To achieve the mission and promote entrepreneurship education IFSC Lages Campus offers 18 disciplines related to entrepreneurship education (including basic administration) in all technical courses: Agroecology, Agribusiness, Chemical Analysis, Biotechnology, Electromechanical, Mechatronics and Information Technology, and in its graduation course in Computer Science. This provides 819H of management / entrepreneurship teaching in these eight courses per semester.

Subjects related to entrepreneurship in the implementation of projects of higher education in Mechanical Engineering and Technology in Chemical Processes courses are planned. In the deployment project of Technologies and Educational Practices, post graduation program aimed at training the regular high school teachers, discipline of "entrepreneurship teaching practices" is expected in order to transform the teachers in the region in agents of change through the dissemination of entrepreneurial culture. And it is also present in the pre-project of master degree program in Systems and Industrial Processes course disciplines that deal with entrepreneurship.

That is, from the high school technical training courses, through the undergraduate and reaching postgraduate courses offered by the institution, there are, at all levels, actions related to entrepreneurship education.

The average classroom hours of these semester courses is 45,5h, which represents, an average, 7.25% of the total classroom hours of the courses. The most recurrent themes on education plans of these disciplines are: Management Concepts, Social Importance of Management/Entrepreneurship, Entrepreneurship Concepts, Economics Fundamentals, Associations and Cooperatives, Corporate Organization, Strategy, Planning, Marketing, People Management, Leadership, concepts of accounting and finance, Costs, Business Plan.

In addition to these specific subjects, entrepreneurship is understood as a transverse and interdisciplinary content within the technical and technological education, as relies on other sciences that will help in technical and scientific training of students and should be disseminated in the study of such content. Even though not formalized as a topic of other courses educational plan, it is the role of these subjects teachers also promote and encourage entrepreneurship.

Among the developed teaching strategies in specific subjects, to promote direct contact between successful entrepreneurs and students is one of them. For this, among other actions technical visits to companies are organized. This allows deepening the expertise related to the course content, the improvement of concepts and management techniques and knowledge of the history of creation of these organizations through entrepreneurship of its founders.

In addition to technical visits, local entrepreneurship is used by direct cases sharing in the classroom, and with the invitation of these entrepreneurs for lectures.

These lectures take place throughout the year in many inserts during disciplines teaching and in a concentrated form in the Technology, Entrepreneurship and Innovation

Forum (Fórum de Tecnologia, Empreendedorismo e Inovação – FORTEI), an event promoted by the institution in the first half of each year with lectures, workshops and practical workshops. FORTEI is set in an educational action and extension spreading the knowledge about entrepreneurship at an internal level and also to the external community.

In educational actions the strategy that supports all others is to value examples of entrepreneurship, especially those from the region. This is a little lonely task for the entrepreneurship teacher, since the local community, portrayed by media, repeatedly puts all regional development expectations to the arrival of large companies and foreign investment, not considering the local entrepreneur power.

During the classes students are encouraged to simulate innovative and creative companies, where scenarios are built, business plans, scientific articles, which results in submission of papers to conferences, seminars, meetings and also projects submissions to research funding agencies and extension as the CNPq, Sinapse da Inovação (incentive program for new entrepreneurs of Santa Catarina State), investor selection programs (also known in Brazil as "angels"), and to stimulate the records of new technologies patent.

In scientific research, campus entrepreneurship teachers are members of the Group of Studies and Research in Entrepreneurship and Innovation (Grupo de Estudos e Pesquisas em Empreendedorismo e Inovação) – GEPEI, the research group registered in directory of the Scientific and Technological Development National Council (Conselho Nacional de Desenvolvimento Científico e Tecnológico) – CNPq, agency linked to the Ministry of Science, Technology and Innovation (Ministério da Ciência, Tecnologia e Inovação) - MCTI of Brazil Federal Government. This group is currently made up of Lages and Caçador campus teachers, with the possibility of the participation from Urupema campus teachers, geographically close municipalities that have a very similar culture and which therefore face similar cultural challenges.

Teachers are also encouraged to produce interinstitutional research, expanding and sharing the knowledge across the board, so that the results of scientific research are socialized and become drivers of regional socio-economic transformation.

In extension, the faculty encourages students to create business plans and community citizens in general, through the project "Hotel de ideias", focused on an individual advice to guide the building of documentation that enables the submission of projects for incubating companies. Lages city already has an incubator in operation, Lages Technology Based Microdistrict (Microdistrito de Base Tecnológica de Lages - MidiLages, but the project "Hotel de Ideias" is linked to a second incubator that is settling in Orion Technology Park, which is nearing completion and is located in neighboring territorial space to IFSC Lages Campus.

To support the citizen who has an innovative idea, but has difficulties in performing the initial analysis and feasibility of building the document required for submission to the incubators, the project makes it possible to increase the project's chances of success at this early stage.

Once the project is approved hatching in Orion Park, the entrepreneur now has favorable infrastructure and training, the fact of being in a space where there are several

innovative projects of the same size enables numerous connections that helps the growth of business and market access.

It is evident, therefore, that the extension project "Hotel de Ideias" is not in itself an incubator. The project takes place in a stage prior to incubation, seeking to make the leap from what was just a good idea and becomes a feasible business plan.

The focus of the guidance is on the market, the feasibility analysis, to determine if there is already a necessary maturation of the idea and an entrepreneur is already in a position to make personal incubation of your company.

4.1 Analysis of strategies

The offer of courses in all courses and an average of 45,5h classroom hours allow the broad theoretical and the formation of a conceptual base that will support an entrepreneur repertoire to students, allowing more assertive decisions underpinned by the teaching of administration as a science.

This constant supply of disciplines considers and contrasts cultural aspects that hinder the entrepreneurial action in the region. In addition to the 18 disciplines already offered, new courses with new entrepreneurial class offerings have been planned. Among them it is worth highlighting the discipline of "entrepreneurship teaching practices" that will be offered to the graduate program in "Technology and Educational Practices." This is the only discipline that is not intended to enable students to undertake involved, but transform teachers from conventional high school courses (math, language, geography, history, ...), the different schools in the region, dissemination agents of an entrepreneurial culture. Whereas the number of people served by IFSC campus Lages is limited, this specific action may result in a range of results with an exponential effect.

Direct contact between successful entrepreneurs and students takes into account the fact that is an encouraging factor for the students to know the stories that successful entrepreneurs report. This strategy allows the student to view concretely a citizen who got a social mobility through entrepreneurship, encouraging the confrontation of the cultural pattern of social stagnation. If direct contact is with an entrepreneur woman, this action also opposes the standard of farm culture that determines the difference between genders.

These effects are enhanced with the completion of the Technology, Entrepreneurship and Innovation Forum - FORTEI, for example the dissemination of these occurs both for the domestic public as to the general public, the community.

The strategy to encourage innovative simulation and scenario building seeks to reduce, through simulated experience, the difficulty in taking risks which is also imposed by the farm culture.

The research strategy through research groups allows to share best practices and experiences among teachers.

To the extent the project "Hotel de Ideias" brings together the triple helix (private sector, government and university) in the search of an intervention that works in a practical way to overcome the cultural limitations. Despite the inclusion on the farm culture the student has innovative ideas and after incubation it tends to remain managing his or her business, so the main "bottleneck" promoted by the local culture is the

transformation of the idea in a incubated company. And it is at this stage that project "Hotel de Ideias" gives a personal attention encouraging one by one to undertake.

By offering special consulting support and advice to projects, we seek to demonstrate business ideas feasibility, and facilitate their development under special conditions that will be offered by "Hotel de Ideias", in their areas of expertise and limited to its technical, operational and financial possibilities,.

The "Hotel de ideias" can be applied in other regions with different cultures, but this factor of individualized attention impacts directly in the creation of entrepreneurial spirit. Thus the action of the teacher in a mountainous region must be more practical, more individualized and more intense towards this profile building.

5 Conclusions

The colonization of the mountainous region of Santa Catarina occurred under extensive conditions in livestock development mainly between the years 1776 and 1940. This economic dominance consolidated culture farm and established the social and power relations that influence, to the present day in the development of new businesses. Becoming thus, a peculiar condition of the region, to advance entrepreneurial initiatives.

The latest generations, those who were born in an urban environment, however, begin to realize more naturally the possibility of undertaking.

To enhance this cultural change, teaching actions, research and extension aimed at promotion and dissemination of knowledge about entrepreneurship become relevant. Thus, Lages campus of the Federal Institute of Santa Catarina seeks to accomplish its mission and including forming citizens, through professional, scientific, technological and entrepreneurial education, contributing to the socioeconomic development of the entire population. The expansion of its training offer always with the supply of new entrepreneurial subjects is one of the signs of this institutional conviction.

As expected results of all these actions is the training of entrepreneurs and the emergence of new technology-based companies; training of specialized human resources; encouraging and attracting investments focused on research and development; stimulation and promotion of information and entrepreneurial culture, the transfer and development relating to technologies, fostering the consolidation of technological hubs compatible with regional vocations and as a final effect, improving the living conditions of the population of the mountainous region of Santa Catarina through its socioeconomic development.

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