

# **SATC CREATIVE ENTREPRENEURSHIP PROGRAM: AN EXPERIENCE REPORT**

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## **Abstract**

This experience report describes the activities related to the first year of activities with the programa Satc's Creative Entrepreneurship Program - PEC. For the beginning of the activities, a partnership was made with the Associação Catarinense de Tecnologia - ACATE and with the Sapiens Institute, both based in Florianópolis / SC, for the structuring and implementation of the PEC. During the 18 months of the project's duration, 48 events were held, reaching 1,864 people registered and 1,074 effective participants. Over the months and completion of the planned steps, in addition to training, the practical results of the PEC were: elaboration of the fundamentals of the SATC 2030 learning methodology, consolidation of the Applied Technologies curriculum component for basic education, start of the innovation ecosystem activities (pre-incubator Cocreation Lab Satc and incubator Colearning), incorporation of the discipline of Creativity and Innovation and the replacement of the TCC - Course Completion work by ECC - End of course development in the new matrices of undergraduate courses, in addition to other initiatives.

## **Keywords**

Satc 2030 Methodology. PEC SATC. Entrepreneurship.

## **1. Introduction**

In its more than 60 years of history in the region, Satc has always had education and technology as its foundation. From 2018, the institution that has already trained thousands of students in the most varied areas of knowledge, advances and starts to include in its mission the culture of innovating. To this end, Satc 2030 appears, a Platform that has as its pillar Creative Entrepreneurship and Innovation as the essence of the pillars of a change aimed at the next decade and the future of the school.

The Satc 2030 Platform brings together an institutional action plan aligned with the Sustainable Development Goals (SDGs) proposed by the United Nations (UN). This platform applies innovative concepts in education, management and development of physical and intellectual assets that SATC has. The search for the culture of entrepreneurship, technological innovation, the creation of national and international partners, in the investment in the culture of research and development applied to business needs and their insertion in the sustainability agenda, are points of relevance in the journey of the future of SATC (Castelan et al. 2019).

SATC's new leap in its reinvention trajectory, characteristic of actions on the path of success until the age of 60, is based on the component of the family spirit, the commitment to unite everyone, the love for an institution that honors its employees. Ethics in relationships, the commitment to the well done, the results obtained, the successes of this journey leave all those who were at the head of SATC, with great pride and with the desire that in the next 60 years, the Institution can make a difference in the development of our Society and region.

In this report, we are going to present the Creative Entrepreneurship Program - PEC, which is a program developed in partnership with ACATE - Associação Catarinense de Tecnologia that aims to foster an entrepreneurial culture with a creative bias in all those involved in education: managers, coordinators, teachers, employees in general, students and the external community. The program takes place in a series of workshops held at SATC and address themes related

to entrepreneurship, such as Business Plan, Innovation, Customer Development, among others. In addition, creativity development methodologies are also part of the program, such as Maker Culture, Ideation and Design Thinking. Local cases of innovation and entrepreneurship, as well as the launch of the SATC Pre Incubator will also be taking place during the program that extended until the end of 2019.

## 2. Entrepreneurial Education

Since Satc is an educational institution, the search for entrepreneurial education to deliver professionals with the profile that meets the needs of the labor market is something that is constantly being sought.

Dolabela in her studies (2006, p. 51) cites 10 reasons for teaching entrepreneurship, namely:

- High death rate of companies in the early years;
- Changes in the employment relationship;
- Requirement by companies for a high degree of entrepreneurship, both for employees and managers;
- Inadequate current methodology to train entrepreneurs;
- Distance between educational institutions and “support systems” (companies, public agencies, financiers, etc.);
- lack of entrepreneurial culture;
- The perception of the importance of SMEs (Small and Medium Enterprises) for economic growth is still insufficient;
- Large company culture still prevalent in education;
- Concern with the ethical aspects that involve the entrepreneur's activities in society and in the economy;
- And finally, citizenship and the entrepreneur's commitment to the environment and the community.

Dornelas (2016, p. 40) points out factors that should be taken into account for every course that teaches entrepreneurship:

- in identifying and understanding the entrepreneur's skills; identifying and analyzing opportunities;
- how innovation and the entrepreneurial process take place; the importance of entrepreneurship for economic development;
- how to prepare and use a business plan; on how to identify sources and obtain financing for the new business;
- and how to manage and grow the company.

It is perceived that the teaching of entrepreneurship is of paramount importance and should be included in the curricula from basic education to higher education. “So, more important than the content of the subjects will be the possibilities of experiences offered to students engaged in their own development” (LOPES, 2010, p. 28).

Guided by these principles, Satc sought partners to implement the PEC and insert the principles of entrepreneurial education in its various levels of education.

Satc “[...] innovates in education based on technology, training and directing its teachers to practical classes and with entrepreneurial purposes, thus resulting in more focused academics and authors of their learning” (Castelan et al, 2019, p. 45). This practice corroborates the words of Lopes who mentions “[...] it is clear and an emphasis on the connection between the real world and this type of education, which uses resources, strategies and context with which participants will face or have already faced in adulthood, thus creating meaningful learning” (Lopes, 2010, p. 29).

## 3. Partners

In order for PEC to be successful with the activities already applied and for it to last in its activities, partners with more experience were sought to jointly provide the community with a project that really does the transformation in their lives and work. To this end, we will now present the partnerships established.

### 3.1 ACATE

The Catarinense Technology Association - ACATE is the main representative of innovative entrepreneurship in Santa Catarina. Acate's mission is to support the local ecosystem from end to end, from startups to large companies, generating connections that strengthen the technology sector in the state (Acate, 2020a).

We represent more than 1200 associates in the 13 innovation and technology centers in Santa Catarina, we manage a network of Innovation Centers in Florianópolis and we are also present in other regions: our offices in São Paulo and Boston (USA) are open to companies from Santa Catarina that they need support and structure (Acate, 2020a).

In the capital of Santa Catarina, we are located at the Acate Primavera Innovation Center (on SC-401, the “Innovation Route”), at CIA Downtown, in the city center, and also at CIA Sapiens, located in the Sapiens Parque technology park, in the North of the Island (Acate, 2020a).

More than an associative entity, ACATE is a support, training and inspiration network for entrepreneurs: our MIDITEC incubator, created 20 years ago, was chosen as one of the 5 best in the world and has already helped to form hundreds of companies and generate thousands of jobs. Business Verticals connect entrepreneurs in their respective segments and help to foster new projects and initiatives (Acate, 2020a).

In the Thematic Groups, solutions are discussed and proposed for the demands of companies, professionals and other participants in the technology ecosystem. LinkLab is the first open innovation laboratory in the state that places large companies and startups side by side. The Angel Investor Network (RIA SC) has already connected dozens of people interested in investing resources in innovative companies, also helping entrepreneurs to seek resources and connections to expand their businesses (Acate, 2020a).

ACATE has an active participation with the government in the search for solutions and projects that qualify the entrepreneurial and business environment in Santa Catarina. We are partners of several entities that work with the same purpose, we support events and initiatives that value the state's technology sector (ACATE, 2020a).

### 3.2 Vertical Education

The future of education, professional training, student demands and teaching platforms are at the center of the actions and debates promoted by Vertical Educação. An environment of ideas and projects that can make all the difference for the future of the country - and for new generations (Acate, 2020b).

Vertical has more than 30 companies that develop and commercialize innovative solutions for educational institutions or even for companies and industries. They are products and services in areas such as virtual learning environment, content applications for distance learning, academic evaluation and management system, mobile applications, tutoring solutions and several other projects (Acate, 2020b).

### 3.3 SAPIENS INSTITUTE

The Sapiens institute is a spin-off of Sapiens Parque, a research organization linked to UFSC and led by Prof. Dr. Luiz Salomão Ribas Gomez, who led the conduct of the PEC during its execution on the SATC premises. The synergy between ACATE, with its entrepreneurial bias, and Sapiens, with an academic bias, generated a program with scientific foundations aimed at practical application, within the reality of the market, attracting people and giving them meaning and utility to the learning process built during the execution of the PEC.

## 4. PEC - SATC

Since 2016, with the trips of our faculty coordinators to the Massachusetts Institute of Technology - MIT and Olin College, the need for a change / disruption in the way of teaching was realized, as this new way of teaching would soon come to Brazil. With studies on new teaching methodologies such as Problem Based Learning – PBL “Which refers to didactic concepts based only on problem solving or concepts that combine traditional courses with problem

solving through project work”, it was realized that many solutions that students presented in their class work would have the possibility of becoming a business (Enemark and Kjaersdam, 2016). And after reading the job market, it was realized that it expects a bold and proactive professional, which was not the main focus of teaching and learning at that time.

Partnerships were then sought to improve the institution's teaching methodologies with the adoption of active methodologies that “emphasize the role of the student's role, his direct, participatory and reflexive development in all stages of the process, experimenting, drawing, creating, with the guidance of the teacher [...]” (Moran, 2018, p. 3). After the analysis of some proposals and after a visit to ACATE, it was realized that through vertical education, this could help in the construction of an effective training program with a focus on disruptive education with new and current teaching methodologies. Acate presented a proposal customized to Sate's needs and the partnership was formalized from then on.

To initiate the implementation of the PEC, through a partnership with the ACATE, all consultancy and mediation between the Workshops' ministers was elaborated, as well as outlining all stages of the project. In this study, a report will be made of all activities developed from August 2018 to December 2019 that involved the organization and execution of the PEC, as well as its stages; implementation and involvement of the partners concerned.

Launched in August 2018, the PEC aims to foster an entrepreneurial culture with a creative bias in all those involved in education: managers, coordinators, teachers, employees, students and the external community. The program was divided into three distinct stages that provided participants with a series of workshops held at SATC that addressed topics related to entrepreneurship, such as Business Plan, Innovation, Customer Development, among others. The program includes:

- Training for local managers, teachers, students and entrepreneurs;
- Creation of the company pre-incubator;
- Creation of the business incubator;
- Creation of the SATC methodology for creative entrepreneurship.

With the aim that at the end of the period proposed by the three stages of the PEC, SATC has visibility and can contribute significantly to the innovation ecosystem in Criciúma, conditions that are necessary for this purpose were listed. The PEC was developed over a period of 18 months, starting on 08/27/2018 (Figure 1).



Figure 1: First PEC Training

We will describe the three stages of PEC activities, presenting their objectives and training schedule.

- ✓ Phase I (August to December 2018)

After completing the activities in phase I (Table 1), SATC obtained as a result:

- Online Forum / Virtual Environment / SATC Entrepreneurship and Innovation HotSite;
- Event - SATC Creative Entrepreneurship Challenge;
- Formation of the team of mentors and consultants of the SATC Pre-incubator;
- Creation of the SATC Pre-incubator;
- Selection of projects for Pre-incubation (up to 5 companies).

Table 1: Phase I Training

ATIVITIE	TO	WHO
01 - Day zero: diagnosis	Managers, teachers and students	Luiz Salomão Ribas Gomes
02- Day one	Managers and teachers	Henrique Veersteg
03- Innovation and entrepreneurship	Managers and teachers	Márcio Jappe
04- Maker Culture	Teachers and students	Jovani Castelan
05- Ideation	Students	A Definir
06- Design thinking	Students	Priscila Albuquerque
07- Business model	Students	Felipe Mandawalli
08- Customer development	Students	Guilherme Reitz
09 - Pitch	Students	Marcos Buson
10- Local innovation case	Students	Simples Dental

✓ Phase II (January to June 2019)

After completing the activities related to phase II (Table 2), SATC obtained as a result:

- Formation of the team of mentors and consultants of the SATC Incubator;
- Creation of the SATC Incubator;
- Selection of companies for incubation (up to 5 companies);
- New selection of the Pre-incubator (Up to 10 companies).

Table 2: Phase II Training

ATIVITIE	TO	WHO
11- Satc methodology of creative entrepreneurship	Managers and teachers	Luiz Salomão Ribas Gomes
12- Innovation ecosystem	Managers and teachers	Alexandre Souza
13- Culture and mentoring	Managers and teachers	Fuad Apene
14- Soft skills	Managers and teachers	Leandro Piazza
15- Empathized and prototype: a dive into the tools	Managers and teachers	Júlia Ghisi
16- Formalization of companies	Students / Pre-incubated	ACE
17- Lean startup	Students / Pre-incubated	Miguel Rivero Neto
18- Sale and inside sales	Students / Pre-incubated	Diego Cordovez
19- Digital Marketing	Students / Pre-incubated	Everton Martins
20- Investment for startup	Students / Pre-incubated	Leandro Carioni
21- Financial modeling	Students / Pre-incubated	Rodrigo Ventura

✓ Phase III (July to November 2019)

After completing the activities related to phase III (Table 3), SATC obtained as a result:

- New Pre-incubation selection (Up to 10 companies);
- Launch of the SATC Methodology for creative entrepreneurship;
- Launch of the Administration Course.

Table 3: Phase III Training

ATIVIDADE	PARA	QUEM
22- 10,000 startups	Managers and teachers	Felipe Matos
23- Incubator and accelerator: good practices	Managers and teachers	Gabriel Sant'ana, Toni Chierigni, Marcos Mueller e Luiz Salomão
24- Product management	Pre-incubated / incubated	Gélio Junior

25- OKR	Pre-incubated / incubated	George Eich
26- Storytelling	Pre-incubated / incubated	Olavo Pereira
27- Growth Hacking	Pre-incubated / incubated	Gustavo Stok
28- Culture in startups	Pre-incubated / incubated	Ivan Biava
29- Last day	All	Camila Farani

After 18 months and having completed Phases I, II and II, a total of:

- Training hours: 130 hours;
- Consultancy workload: + 500 hours;
- Meetings: 29 training sessions.

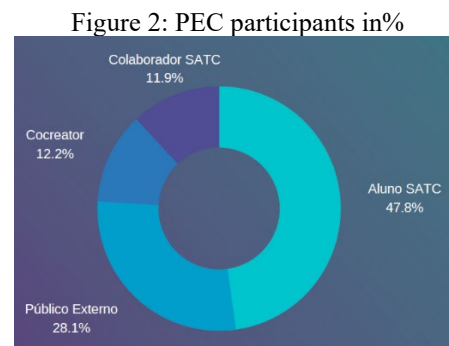
The participation of teachers in the three phases of the PEC is of paramount importance because “the teacher needs to try to respond to new challenges and find ways to amplify his methodological actions focused on social and educational changes, in contemporary and globalized structures that bring about a new social relationship” (Jungles et al 2018, p. 5).

By involving the entire internal and external community in training and workshops bringing into the walls of the School and the University Center, it aims at open innovation “This view is constituted as a strategic dimension for a new development insofar as it allows the formation of reflective and empathic citizens, capable of (re) building cooperatively (and not only competitively) ideas and proposals in different contexts and situations, thus producing a livable knowledge, that is, a knowledge that is significant because it enables new forms of involvement in the world” (Albuquerque et al 2016).

## 5. Results

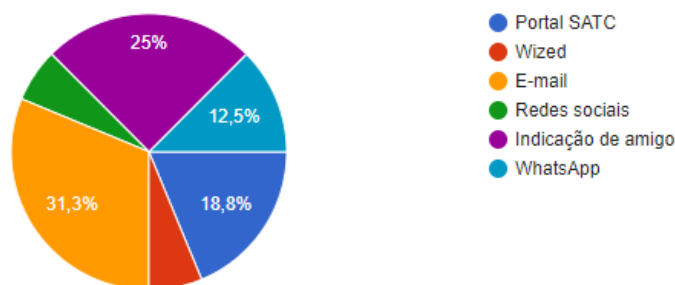
During the three phases of the PEC, after the necessary training, the results obtained went beyond the expected results. During this process, several initiatives aimed at entrepreneurial education in Sate's internal and external community took shape and became part of the school / academic curriculum. During the 18 months, a total of 48 events were provided, with a balance of 1,864 people registered and 1,074 effective participants, a rate of 57. 62% of the effective participants in relation to the registered participants.

Impacting more than a thousand people in the first 18 months of the Program proved to be a very rewarding result for everyone involved. When the profile of the participants is analyzed and it is observed that 47.8% (Figure 2) of the participants are former students of the Institution, it is clear that the purpose of disseminating creative entrepreneurship among students has been achieved “The process of creating, acquiring, disseminating and applying knowledge is at the heart of these functions of the modern university, which starts to actively seek and use its knowledge to promote and develop new innovative capacities in its region of operation” thus fostering the innovation ecosystem local and regional (Porto, 2013, p. 63).



When analyzing the number of PEC participants, it is possible to perceive a community relationship with the activities offered by the Program and that these participants come to participate in PEC activities through the contact of several means of communication (Figure 3).

Figure 3: How did you hear about this SATC event in%



You can see the importance of these workshops when we read the comments and the participants' comments (Table 3).

Table 3: Testimonials and comments from participants

TESTIMONIALS AND COMMENTS
Satc overflowed its areas of knowledge with the creation of its incubator, it went beyond engineering and communication. Thanks to the workshops we participated in we had support for the creation of the Darwin team.
The evolution of Satc since the beginning of the program is visible. We even see changes in the structure of the courses, where there will be the possibility of creating a startup during the TCC, as well as high school / technical students doing jobs with real market problems.
Because I work alone, I lack arm and mentoring is helping me to organize processes, automate steps and facilitate my day to day, which allows me to grow sustainably as a company.
It was one of the main factors for us to be able to establish ourselves as a company and to start growing.
The idea is to reduce the lead time of purchases from 24 to five hours, and increase the cost reduction by up to three times. As Satc is directly linked to the metalworking and mining sector, I saw an excellent opportunity to develop and grow my business. We receive mentoring for free, exchange ideas, share mistakes and successes.
It is an interesting experience, bringing tools that complete our daily lives. This type of activity captures the attention of students, so it is a very positive factor, besides, it is a factor of entrepreneurship
What caught my attention was to be sharing ideas with other people. It made me become more communicative.

In addition, creativity development methodologies are also part of the program, such as Maker Culture, Idetion and Design Thinking. Local cases of innovation and entrepreneurship, as well as the launch of the SATC Pre Incubator also occurred during the program.

Some products were born from the activities resulting from the PEC and will be described in more detail.

**MAA - Active Learning Methodologies:** within the scope of Active Learning Methodologies we have: a) Innovative Intercurricular Projects, which identify problems and opportunities and seek solutions by integrating disciplines from different courses and areas of knowledge; b) the EDLE methodology - Entrepreneurial Dynamic Learning - which applies concepts of Design and entrepreneurial culture in engineering projects; c) TBL - Team Based-Learning - or team-based learning, which performs a diagnostic assessment and encourages teamwork and d) 360 ° assessment - which integrates diagnostic, procedural, summative and attitudinal assessments. These four examples of active methodologies are part of SATC 2030, which brings as guidelines the Meaningful, Active, Transformative and Creative learning, appropriating the acronym that designates the institution and positioning itself in line with the UN's Sustainable Development Goals, to be achieved until the year 2030.

**APPLIED TECHNOLOGIES:** The activities are prepared by the discipline's teachers. Through projects the student learns programming, robotics, creativity, internet security, maker world, basic electrical and electronics, 3D printer and laser cutting. Thus, providing understanding and fluency in the digital and socioemotional world. Based on the



axes: Computational Thinking, Digital World and Digital Culture. Early Childhood Education students up to the 1st year of High School receive two weekly classes in this discipline (Figure 4).



Figure 4: Applied technologies

**COCREATION Lab SATC:** The Cocreation Lab SATC is a Pre-Incubator organized by SATC in partnership with the Cocreation Lab in Florianópolis. In order to validate ideas and transform them into Startups. For this, people are selected who have proposals involving the Sustainable Development Goals - SDGs and with the potential to generate new ventures, for this a robust validation methodology is available. Having as target audience all students and external community with ideas in the initial phase for validation. The selection process for Pre-Incubation takes place every six months and lasts for five months. Recreation until the article submission period formed two classes (Figure 5).



Figure 5: Cocreation Lab SATC

**CREATIVITY AND INNOVATION:** Creativity and Innovation is a discipline that proposes to dialogue with the different areas of knowledge and human activities. Classes are prepared by the discipline's teachers and make it possible to produce and implement knowledge and/or procedures for new realities, considering local specificities.

**I9:** I9 is an Active Methodologies project based on the resolution of real problems based on Entrepreneurship, and developed in the discipline of Applied Technologies in the 1st year of High School. The objective is to propose ideas that can solve problems based on the objectives of sustainable development - SDGs in order to make the necessary validations. Seeking to effectively generate innovation for participation in FECITEC and the submission of projects to the Cocreation Lab SATC (Figure 6).



Figure 6: I9

**COLEARNING SATC:** it is a place where it is possible to make the physical space as responsive as the software. In the business context, more meetings mean better communication, speed of decision and more assertive energy, significantly affecting productivity and creativity. Colearning is a toolbox where the Hub Office can synthesize the critical mass together with innovative ideas through the availability of space for activities, seeking to foster an innovation ecosystem and breaking down barriers with the community in general. During the period of construction of this article, Colearning had the number of 11 startups incubated (Figure 7).





Figure 7: Colearning SATC

**FACTORY OF IDEAS:** Based on the Sustainable Development Goals (SDGs), the Startup Weekend philosophy and the EDLE methodology, the Fábrica de Ideias project is an initiative of the pedagogical team of the Technical Education of Colégio SATC whose premise is to awaken the entrepreneurial spirit of technical course students, delivering development methodology, prospecting and capturing ideas with these students (Figure 8).

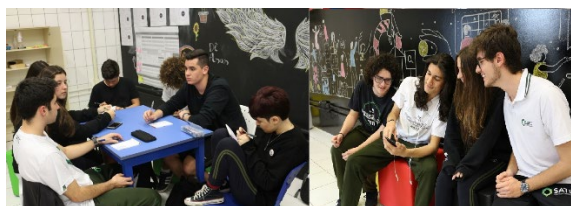


Figure 8: Factory of ideas

**FORMATION OF THE TEAM OF MENTORS AND CONSULTANTS:** Throughout the activities of the PEC, Satc was able to form a bank of mentors and consultants that assist in the activities of Cocreation and Colearning whenever requested according to their possibilities. Mentors and consultants are activated depending on the needs of the incubators for the mentoring of ideas. For the workshops, a bank of themes and names of professionals trained to talk about the subject were created. Always with preference for members of the Criciúma ecosystems, but as it depends on the guest's agenda, we can call consultants from other cities. Everyone comes to give these workshops free of charge.

**SUPERIOR ADMINISTRATION COURSE:** The Administration course with an emphasis on Entrepreneurship and Innovation launched at the end of 2019, is largely directed to the needs of society in response to changes in the concepts of employment and time, aiming at updating these market trends, through the capacity identifying problems that need solutions, through the use of creativity. The graduate of the Administration Course with an emphasis on Entrepreneurship and Innovation, will be above all an innovative and entrepreneurial professional. You will have skills and competencies to deal with real situations related to needs in the most diverse areas of market knowledge and organizational daily life, whether as an entrepreneur in your startup, a consolidated company or as an intrapreneur within the organization in which you are inserted, making use of knowledge and experience in innovation acquired throughout its training and study path (Figure 9).



Figure 9: Administration Course

**PFC - Final Course Project:** The TCC is an excellent opportunity to align with the job market and business development without, however, losing its academic-scientific character. In this new format, the student has two options: 1) take the traditional TCC, whose format is in a scientific article with presentation to a panel and 2) Develop,

from an idea, the Course Conclusion Enterprise - ECC. ECC is a business model that is developed in Satc's pre-incubator - the Cocreation Lab. The new course matrices, therefore, will present the PFC - Final Course Project, instead of the TCC. Enrolling in the PFC, the student has two options - TCC or ECC.

## 6. Conclusion

we innovate because we prioritize quality education for the citizens and professionals we train. PEC is yet another initiative to connect students, the internal and external communities and the region's innovation ecosystem to the future. Encourage the development of soft skills, such as leadership, and promote the search for new solutions for the market.

Since it was implemented, the PEC has made it possible to implement new institutional projects such as the Cocreation Lab, Colearning and HUB Satc. In addition, it has been an important training and networking tool for startups. The project followed three pillars: the awakening of new ideas, the attraction of these businesses and the consolidation.

Everyone involved in the consolidation of the PEC believes that entrepreneurial education is of paramount importance for the future of the actors we impact (students, employees, incubators, the external community, the local innovation ecosystem, among others). To exemplify the quality of the work that Satc has been doing, the words of the coordinator of ACATE Educação Felipe Mandawalli finalize this report.

“Sate's evolution since the beginning of the program is visible. We even see changes in the structure of the courses, where there will be the possibility of creating a startup during the TCC, as well as high school / technical students doing jobs with real market problems”.

## References

Acate - Associação Catarinense de Tecnologia. *Sobre nós*. (2020a). Disponível em: <https://www.acate.com.br/institucional/> . Acesso em: 28 de agosto 2020

Acate - Associação Catarinense de Tecnologia. *Educação*. (2020b). Disponível em: <https://www.acate.com.br/programas/educacao/> . Acesso em: 28 de agosto 2020

Albuquerque, Cristina Pinto et al (2016). Educação holística para o empreendedorismo: uma estratégia de desenvolvimento integral, de cidadania e cooperação. *Revista Brasileira de Educação*, 21(67),1033-1056. [fecha de Consulta 17 de Marzo de 2021]. ISSN: 1413-2478. Disponible en: <https://www.redalyc.org/articulo.oa?id=275/27547766012>

Castelan, Jovani at al (2019). Metodologia de aprendizagem Satc 2030. *Revista Vincci: Periódico Científico da Faculdade SATC*, v. 4, n. 2, p. 39-47, ago./dez. Disponível em: <http://revistavincci.satc.edu.br/ojs/index.php/Revista-Vincci/article/view/153/104> . Acesso em: 28 de agosto 2020

Dolabela, Fernando (2006). *O Segredo de Luísa*. 30. ed. São Paulo: Editora de Cultura.

Dornelas, José Carlos Assis (2016). *Empreendedorismo: transformando ideias em negócios*. 6. ed. São Paulo: Empreende/Atlas.

Moran, José (2018). Metodologias ativas para uma aprendizagem mais profunda. In: Bacich, Lilian; Moran, José (Org.). *Metodologias ativas para uma educação inovadora: uma abordagem teórico-prática*. Porto Alegre: Penso. xxii, 238 p. (Desafios da educação).

Enemark, Stig; Kjaersdan, Finn. (2016). A ABP na teoria e na prática: a experiencia de Aalborg na inovação do projeto no ensino superior. In: ARAÚJO, Ulisses F.; SASTRE, Genoveva (Org.). *Aprendizagem baseada em problemas no ensino superior*. 3. ed. São Paulo: Summus.

Lopes, Rose Mary A. (Org.) (2010). *Educação empreendedora: conceitos, modelos e práticas*. Rio de Janeiro: São Paulo: Elsevier, Sebrae, 2010.

Junges, F. C. et al (2018). Formação continuada de professores: Saberes ressignificados e práticas docentes transformadas. *Educação & Formação*, 3(3), 88-101. <https://doi.org/10.25053/edufor.v3i9.858>

Porto, Geciane Silveira (Org.). *Gestão da inovação e empreendedorismo*. Rio de Janeiro: Elsevier, 2013.

## Biographies

**Gustavo dos Santos De Lucca** Master and is currently a PhD student at PPG3M by UFRGS with research development in the area of Industry 4.0. He has a degree in Computer Science, a postgraduate degree in Information Security. He served as an Information Technology manager for nine years leading teams. He is currently Coordinator of the Computer Engineering Course. He acts as a member of the Innovation Hub HUB facilitating the development of connections for innovation initiatives across all innovation products such as Colearning and Cobusiness. He coordinates the LUPA-Computer Engineering Laboratory acting as a leader in more than 10 Research and Development projects including Mobile Systems, Artificial Intelligence, Big Data, among others.

**Jovani Castelan** Vice Dean of Learning at UNISATC University (Criciúma/SC/Brazil). Graduate in Design (UDESC), Lato Ssensu in Industrial Automation (CTAI / UFSC) and Design (SATC/UFSC), Ph.D. in Engineering of Mines, Metallurgy and Materials (LdTM/PPGE3M/UFRGS), research line of biomedical engineering; post-doctorate by LdTM/UFRGS/CNPq. Member of CNPq Research Group; with experience in Higher Education, acting on the following topics: teaching, course coordination, learning coordination, learning methodologies, academic management and training of human resources to undergraduate teaching.

**Vânia Medeiros Ribeiro** Specialization student in Integrated Media in Education at the Federal Institute of Santa Catarina, Criciúma. Specialized in School Library Management from the Federal University of Santa Catarina (2011). She has a degree in Library Science from the State University of Santa Catarina (2008). She is currently the Coordinator of the SATC Library - Associação Beneficente da Indústria Carbonífera de Santa Catarina, working for 12 years in a school and university library. At Satc she acts as a manager for the School, University and Coal Documentation Center, participates in Satc's Huboffice Innovation Office, which supports innovative actions that are initially ideas and that could become reality.