

# The Teaching of Entrepreneurship, Innovation and Management Tools for Children from University Extension Program

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## Abstract

**I**n Brazil entrepreneurship education in all levels of education became law according to the bill passed in the Federal Senate on 12 July 2016. The entrepreneurship should be treated as a crosscutting theme in all educational levels from basic education to the higher education. However Brazilian education is admittedly weak, getting the 58th position in the ranking published by the Programme for International Student Assessment (Pisa) in 2012. There are many problems related to this gap in the education system. The business and public administration courses are increasingly embodying the entrepreneurial discipline in their curricula of higher education. However make this basic education students knowledge theme is a challenge that needs a lot of planning to get good results. At the Santa Catarina State University, specifically through the University Extension Program ESAG Kids, we developed a methodology to teach entrepreneurship to children aged 8-12 years, with planning tools and management for introducing the topic entrepreneurship and innovation for children. Our methodology has been tested and validated replication step, from workshops taught by graduate students who have some management tools, such as the business model Canvas adapted for children

**Keywords** — *Entrepreneurship, innovation, child, administration, education.*

## I. INTRODUCTION

In Brazil entrepreneurship is a very present theme in management courses for Business and Public Administration also. The issue is still hotly debated in academia, however a recent PL772 / 2015 bill, approved by the Senate on July 12, 2016 states that the curricula of elementary school, final years, and high school include entrepreneurship as a crosscutting theme. It also includes guidance for work and entrepreneurship as a guideline of the curricula of basic education and, finally, establishes the purpose of higher education stimulating entrepreneurship and innovation, aiming at the connection between the technical and scientific knowledge and the world of work and production. Therefore, a theme that is currently discussed and studied only in Business Administration courses and also to a lesser extent, in public administration courses and a few other study areas, it is now a mandatory subject for all educational levels, both in basic education and in higher education. Brazil has stood out negatively by the low quality of education that broadcasts in their school spaces. In the Ranking Programme for International Student Assessment (PISA) of the Organisation for Economic Co-operation and Development (OECD), Brazil appears in the overall standings as the 58th country in the world in a set of 65 countries analysed. More specifically in the area of Science and Mathematics the country occupies the 59th position [1]. A small sample of the educational deficit that the country is experiencing. And in this context as to be effective a law that proposes entrepreneurship education in all school levels? In this respect the University Extension Program ESAG Kids propose work methodology with the theme presenting management tools adapted to children working and entrepreneurship issues, innovation and education tax.

## II. OBJECTIVES AND CONTENT

Among the objectives of ESAG Kids University Extension Program are:

- Present the University for students of elementary school.
- Develop interpersonal ability relationship
- Fostering a Culture of Innovation from the initial series of basic education.
- Work planning issues, from model Canvas Kids planning, which developed especially for the target age range of action.
- Reflect on the importance of education as tax benefits of a sponsor for the community, city and country.
- To encourage the latent entrepreneurial spirit in each child from the creativity and innovation this capacity in each individual.
- Provide different ways to carry out entrepreneurial activities, helping the community and people (Social Entrepreneurship), protecting nature and the larger environment (Environmental Entrepreneurship) and creation of new products, technologies and services (business entrepreneurship).
- Enhance public speaking, synthesis ability and resourcefulness in presenting innovative solutions

Among the traditional curriculum content related to the Workshop Canvas Kids given to students are: Mathematics (Percent, basic operations, projections and estimates, decimals, fractions, flat and spatial geometry, negative numbers, financial education, among others), Portuguese and writing, geography (geographic localization, internationalization).

It is worth emphasising the importance and innovation of the proposal that addresses issues traditionally not curriculum, such as: Entrepreneurship (social, environmental and business), planning, logistics, reverse logistics, financial education, fiscal education, creative economy, globalization, leadership and innovation.

### **III. ENTREPRENEURSHIP TEACHING METHODOLOGY FOR CHILDREN**

The University Extension Program Esag Kids, from College of Administration and Economic Science (ESAG), of Santa Catarina State University, evaluated by Ministry of Education of Brazil ranked UDESC as the 4th best state university in Brazil and 18th overall among 192 evaluated, aims to address issues of entrepreneurship, innovation and also aspects of tax education for children. Using the idea proposed by Schumpeter that the entrepreneur does not have to be a business related to a company [2]. Located in Florianopolis, Brazil recognized for being a center of technology and innovation companies, and recently self-proclaimed "Capital of Innovation", the innovation theme is very present in the local business circuit. However, the fact entrepreneurial environment that exists in the city does not care effectively for building a culture of innovation. We know that innovation is the specific tool of entrepreneurs, meaning they exploit change as an opportunity for a different business or a different service [3] and we need to spread this idea to kids in order to encourage a culture of innovation.

The relationship of the University with society began as a teaching relationship, evolving over time to research and culminating at the end of the nineteenth century, with an even closer relationship with the company from the University Extension. To get to the school children, specifically children aged 8-12 years, we have built our actions based on the University Extension Program [4]. In Brazil, the law that dictates the guidelines and bases of national education states that the University Extension aims to "work towards the universalization and improvement of basic education, through training and professional training, conducting educational research and the development of outreach activities that bring the two school levels" [5].

The methodology developed from a workshop that lasts approximately 2 hours. The group of children is conducted by the University to carry out the activities. It starts there, for many the first experience of going to a university. Upon arriving in the academic environment, little students are greeted by Professor coordinator ESAG Kids Project and scholars of management courses, Public Administration and Economics who previously had registered to participate in the voluntary action. Younger students then make their registration by signing presence, answering a short survey verifying whether they had entered into some university and receive badge containing the student's name and logo of the University and the ESAG Kids Project. By registering presence also receive the kit workshop, which comes in an envelope containing the Kids Entrepreneur's Handbook, an A3 size sheet planning model Canvas Kids and some other materials such as Notepad, pencil and post it.

Kids Entrepreneur's Handbook is a paradidactic material developed by Extension Program team ESAG Kids and comes to presenting, in a playful manner and in appropriate language, entrepreneurship theme to children. The manual includes the following chapters: Social Entrepreneurship; Green Entrepreneurship; Business Entrepreneurship; Innovation; Creative economy; Leadership; The Administrator of the Future; The Public Administrator of the Future; Planning; How Things Go and come; Taking care of your money; Internationalization and Culture Tips. A fun way little students find that the Manual can be a source of play, games, planning and lots of information. In addition to the hardcopy students and all interested parties also have access to Junior Entrepreneur's Guidebook ebook available for download at [www.esagkids.com.br](http://www.esagkids.com.br).

After registration, the dialogic teacher encourages children to know the Manual. looking at the pictures, playing with word-finding games, dice and board, reading comics or just randomly flipping through the manual of 108 pages, small begin to better understand the playful character of the workshop. Guides by volunteer students from the University, the kids receive a checklist mini tour who will perform, where the following locations are identified: Dean, Jr. Company, General Directorate, the Staff Room, Computer Lab, Academic Board and Classroom. The tour is recorded by images and audio recordings made by scholars previously intended to be the "reporters" of the action. In mini tour little students are received at the Rector Office (often by the Rector himself) ale, to know the other areas outlined in the checklist. One of the highlights of the tour is when the gang enters a classroom of Higher Education. With the license (a) teacher (a) that is in the room the little ones come in, they talk to the students and ask questions about the operation ("it is difficult to study here?" "Can use calculator", ...)

Marked all items in the checklist the junior entrepreneurs are placed to reflect on the importance of good planning. Dialogic expository form is presented to students Canvas Kids methodology of planning. Based on the Business Model Canvas [6]. The Canvas Kids, as shown in Fig. 1, is presented in a colorful A3 sheet of paper with the following fields to be fulfilled: "My idea"; "For whom?"; "What I need?"; "Who can help me?"; "How will I get what I need?" And "How do I know if it worked?". Starting with the "My Idea" and using many post-it colored stickers, the teacher propose a collective idea to show you how to fill in each field. From an idea suggested by the group of students develops a basic model to fill the Canvas Kids. It encourages students to give opinions and each argument is recorded in the post-it and pasted in the box. Then, who know how to fill out the model Canvas Kids, scholars gather in groups, affinity, each group having a university academic as mentor / tutor who will assist in the development of ideas.

From the organized groups the students are again encouraged to invent something using the methodology Canvas Kids. This invention can be in any area: social, environmental or business. By small we say that "innovation can not miss"! The groups are in the brainstorming process, guided by the university, which play the role of mentoring, pointing out possibilities and difficulties in implementing the plan. After the time of construction of ideas that lasts about 30 minutes, the groups are challenged to fill an invoice, directly related to the product, or indirectly as an input to the product.

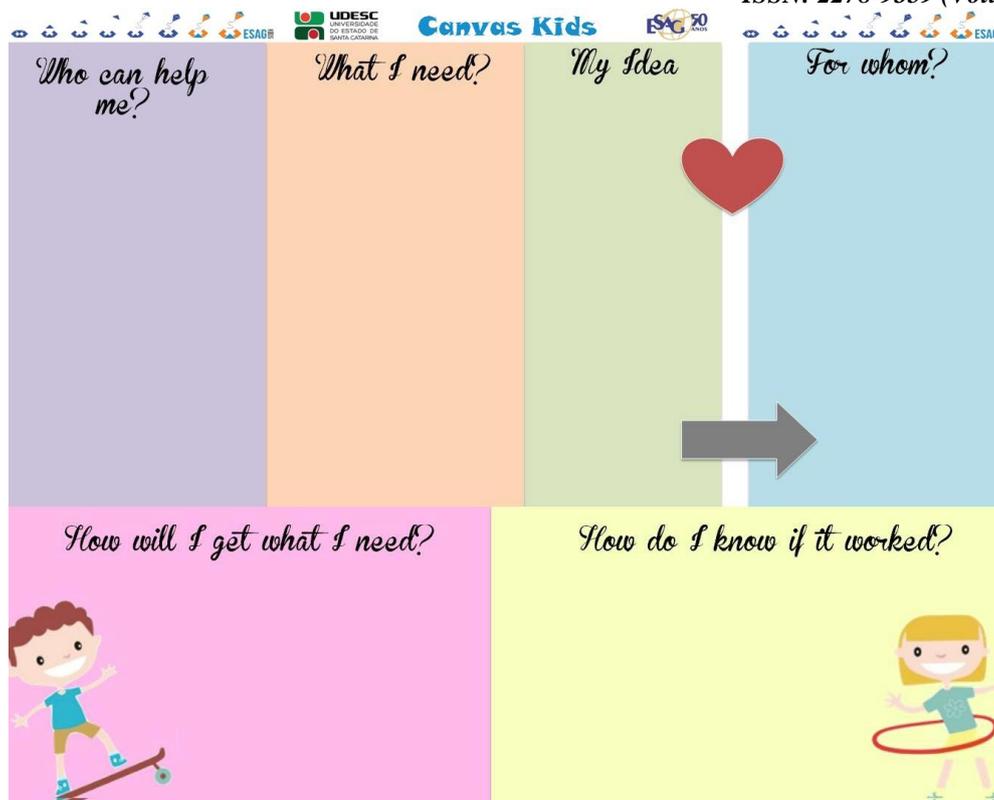


Fig. 1 - Canvas Kids, created by University Extension Program Esag Kids

In completing the invoice, the junior entrepreneurs are asked how they would be spending 3% tax that will be collected. At this time there is awareness of the teacher, saying that their idea is that is responsible for generating the feature. If they had not built and executed the idea these resources would not be converted to the Public Administration. More directly, we say that "the Mayor will make some money because of their idea." It is an introduction to the world of Fiscal Education. Challenged to report how would that resources were used, the solidarity of children surprises us: "to improve schools"; "To help street people"; "To improve school court"; "To fix the square"; "To improve the holes of the streets" are examples of some of the collected responses. Finally small entrepreneurs are invited to make a presentation of their ideas. In front of everyone, developing speech skills and public speaking groups present their ideas to the other participants of the workshop. After the presentation, with some possible teacher's questions, the question is open to the rest of the class.

To propose the methodology until we reach the stage of validation for replication, use the cycle to plan, implement and evaluate. According to the loop learn build and measure proposed by Eric Ries [6] to describe the action should start with the minimum viable product (MVP), which adapted to instruct the children to think of plan, execute and evaluate.] to be applied and evaluated by both the action performers, as the students who participated. Until we get to the methodology replication point, we run some workshops to go better every new cycle. Persevering in action, or creating a pivot, indicating the positive points that should remain and some adjustments that can be made, from the identification of small flaws or inconsistencies with the continuous cycle of planning, implementation and evaluation. When performing many of these cycles come to a possible methodology to be replicated.

#### IV. EVALUATION

The rating is determined from two aspects: quantitative and qualitative. The quantitative aspect checks the number of children participating in the workshop, where the number of children who entered the University for the first time and how much children who are having a first class on entrepreneurship. Is asked to each of the children if they have had a class on entrepreneurship or already talked about it with someone. At the time of registration is made this question for each of the participating children. Up to now we have record of more than 800 children attended the workshops and rate of approximately 97% of children having experienced a first experience with the University from ESAG Kids Project. This is a very positive factor, given that the experience is very striking for everyone involved, children and university students, and such a pleasant and remarkable experience for the kids, makes the university environment pass to be imagined as a space warm and can be attended. We have reports recorded on audio that indicate children saying that "wanted to study there in the future." For 93% of the children involved is also the first contact with the subject entrepreneurship, as the vast majority have not talked about the issue in their school whitespace or other people The 97% who responded positively in relation to the subject of knowledge were coming from a private school working the issue with children, focusing rather on business entrepreneurship aspect.

Another fact that we measure is in relation to number of groups unable to propose any idea. Fortunately this number, until now, has not passed zero. All groups challenged to propose ideas so they did. Of course the child's creativity

anything is possible and I list here some of the plans proposed by the small entrepreneurs: Pen writing what you think in any language; A donation of space where you can donate anything (hair, cord, couch, ...); water park which could lead dog; Pizza flying; Cheese Giant; Bus stop with wifi zone; Rock band; Ending the Cold homeless; Law of all trades have a garden; Hot IceCream; among many others.

The qualitative aspect we find the ability to propose the entrepreneurial plan and record capacity and idea presentation for the group. It is noticed that some groups find it easier than others to express their ideas, which enables work specifically issues of how to talk in a group. Another important point is the return data from reports of students, parents, students, teachers and others involved in the action. Generally we have received many positive feedbacks that we suggest in the right direction of the stimulus to creativity, innovation and ability to perform from an entrepreneurial attitude.

## **V. METHODOLOGY REPLICATION**

In the ESAG Kids Program, the volunteer university students help the professor, using as tools what they learn in classes, to create a culture of innovation and entrepreneurship more and more present in the early stages of their education. This program is pioneer in Florianópolis, in its proposal of educate children in business, innovation, design thinking. Elementary teachers in Brazil, don't have access the knowledge about entrepreneurship that graduates have just early on. they learn about Canvas, design thinking, tools of management, so they can fill that gap. It is possible to introduce entrepreneurship in schools in our country, her idea is to give children entrepreneurial skills since early on [8].

The workshops can be done in various ways, like a visit to the university, or in the schools, foundations, or a visit to company, for the kids see entrepreneurship in practice. The visits to the university also objective stimulate the children about getting into college, sometimes they don't even know what a university is, so it's important to show them that a higher education is not impossible, and is available for free. Beside that the instruments of knowledge are available online on the electronic address of the program.

In fact, the author Gray [9] makes the case for children and young people interact stating that "Young children not only acquire physical skills and knowledge about appropriate practices in their culture through such play with older children, but they also gain social skills", and for both of them "In our research on age-mixed interactions at Sudbury Valley, we observed many instances of back-and-forth discussions between older and younger students that seemed to expand the understanding of both". Through the workshops the university not only reapplies the idea of entrepreneurship to the students of public schools, and consequently their communities, but also reinforce and awakes the feeling of social responsibility in college students.

As a example, in July of 2016 the program ESAG Kids to the Júlio da Costa Neves State School, about 200 children were expected to attend, but because was raining that day the number was significantly smaller. The children were divided in two rooms, one with the professor and the other with two graduates in Business and Public Administration, who already had the know how to do a workshop on their own, because if you attend one, you can easily reproduce alone. The workshops where a success, the kids created great canvas project, they felt appreciate for having their ideas heard.

In the ESAG Kids program, the college students are given a opportunity to give to back to the community, being the Santa Catarina State University a public free tuition college. The students can reinforce what they learned in class, passing that on, enhancing their communication skills, and they have the understanding to do that in the beginning of the course. The design method of the program objective develop in the kids the feeling of appreciation, for having adults listening, taking their idea seriously. And, after participating, they can reapplied what they learned in the workshops in their own communities.

Entrepreneur education requires that the children have a exposure to the practice, and experience with real life entrepreneurs [8]. That's what ESAG Kids doing, giving children in playfull, fun way, lessons of entrepreneurship, on environment where then can get hands on.

## **VI. CONCLUSIONS**

Attend a Workshop ESAG Kids Entrepreneurship and Innovation is a unique experience that enables educators and graduate students engaged in reflecting action on children's ability to innovate and propose creative plans. Regardless of the immediate viability of the implementation of these plans, the fact of giving voice to a child should be something that is increasingly valued in schools of elementary school. For college students who act as the action tutors, the experience reports lived by them are the same gratitude tone and learning, reporting it is-a "unique experience", which, in fact, it can be seen in person when we entered in a classroom University. Photos and audio reports prove this visual aspect of joy and integration of children and students.

The mission of offering social transformation opportunities is what inspires the University Extension Program ESAG Kids to continue always improving. To create opportunities children a first contact with the University, debunks is the aura of inaccessible space, presenting children a healthy space with judicious people and interested in hearing your ideas and plans. The pleasure of knowing you gives opportunity to a child's first contact with this "new world" makes part of the educational role of the intangible, that this ESAG Project Kids makes it very real for all who engage in the action.

The self-assessment also allows reflections that everyone has their innovative capacity and entrepreneurial attitude. When challenged to create a plan, all of the 800 children participants proposed something. From a football field with zero gravity to a storybook written also in Braille, children move us with their ability to be direct, as a group that wanted to end the cold (Who? Homeless people and who goes cold )

Anyway the ESAG Kids Project Entrepreneurship and Innovation for elementary school children is a reality at the Santa Catarina State University, which has been improving their experiences to make them increasingly known and able to be carried out with children of primary school, regardless of entrepreneurship education have been transformed into a national law. With the belief that a Culture of Innovation is needed to positively impact the educational landscape for the construction of a more just and wise society the Santa Catarina State University have been joining efforts to empower more and more children and young people, checking possibility of replication methodology from people trained by the Outreach Program, providing opportunities to all learning opportunities and reflections on entrepreneurial attitudes.

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