

Bootcamp: Collaborative and Multidisciplinary Learning to Boost Creative Entrepreneurship. Conceptualization and Methodology for Its Implementation.

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Abstract: The purpose of the research is to introduce people interested in organizing a Bootcamp for social entrepreneurship purposes; Theoretical elements of the teaching-learning strategies to users, and for the proper implementation of the phases and materials required they provided. From a correlational study, its applicability they experienced with university students participating in a community to integrate a productive unit; It concluded that a Bootcamp integrates various strategies of teaching, learning technology and the implementation of multidisciplinary knowledge for the realization of a project, their validated the utility of obtaining partial results in the planning and implementation of products obtained from A rural productive unit.

Keywords: learning, Bootcamp, direction, teaching, organization.

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I. INTRODUCTION

At present, our students must prepare to enter the unstable work environment, very different from years ago, leading community teams to impact the economy and generating jobs in productive units can be an opportunity for multidisciplinary entrepreneurship. The problems that professionals face cross the boundaries of disciplines and demand innovative approaches, skills, and abilities to solve complex problems. The objective of this work is to conceptualize and experience the planning of an educational project based on the Bootcamp methodology to integrate various disciplines, competencies of people, experiences for execution, waiting for the result to impact the social empowerment of a community.

An intervention was carried out in which it was evidenced that the methodology of a Bootcamp must be complemented with other work strategies, at this time the design thinking was used that made it possible to structure a teaching-learning dynamic in university students.

The social project was carried out with participants from a rural community to support the elaboration of a business plan that allows the operation for commercialization on a larger scale of artisanal cheeses.

In a study carried out by the UNESCO, the labor competencies for the professional in the 21st century that include teamwork, a high orientation to the rapid organization of work, ability to analyze, (Scott, 2015) interpretation of data for the generation were highlighted of reports, ability to make decisions, a high marketing culture oriented to the design of companies in which the director is the final consumer, creativity, innovation and effective communication. (Monroy, n.d.). These competences are promoted within the training programs to facilitate labor inclusion for graduates.

The English term Bootcamp has been used for high-intensity military sports training with which it is intended to achieve an improvement in physical conditioning in a short time. (Simoneaux, S. L., & Stroud, 2013)

Once the above was analyzed, the first question of this research arises: Is it a teaching strategy or is it a work methodology for problem solving and project generation?

This concept has been adapted to business terminology for training purposes, and in the software industry for the generation of applications demanded in industries, it is also part of the lexicon that can be used in innovation and is developed in different contexts:

- As an accelerator so that startups (companies that are based on business models that can be scalable faster and efficiently adopting digital technologies for their operation) in a Bootcamp develop the idea and prepare the prototype and speeches for presentations to investors. (Wallin, Arto; Still, Kaisa; Henttonen, 2016)
- In education the term Bootcamp is an intensive course whose duration is no longer than four months in which the transmission of fundamental knowledge in a specific subject is sought and that focus on the training of

professionals to meet the demands of the labor market, solve the needs of companies in a short time, build proposals, prototypes with an express purpose from its conception, a useful tool is the design thinking methodology. (Fischer, 2015)

The Massachusetts Institute of Technology (MIT), has developed a methodology for the attention of educational, technological and health problems around the world including mixed work with online training that includes training topics: the use of innovation as a way to entrepreneurship; identifying your consumer; Do you have an idea of a product or service? And show me where to find the money.

The University of Kentucky's College of Engineering, is also another institution that promotes this training strategy since 2004, in which an alliance with the Toyota Motor Corporation sought improvements in its production process, including Active Learning, a method that allows incorporating Experiential practice and awakening the interest of the student in the participation to solve problems, is trained by acquiring experience and this knowledge is intended to be transferred or incorporated into other environments.

This University administers the Bootcamps in four courses: The first called principles and practices in which the fundamental concepts of production and manufacturing are provided include just-in-time strategies, zero defects, and the kaizen method. The second-course trains for the administration of operations provide details of the structure and administration of the business strategy emphasizing costs, quality, security, and business ethics.

The third-course trains on the topic of organizational learning, adult learning, and the importance of communication. The last course presents the improvement of production systems using a systems approach. Several topics are covered, including the mapping of the material and the information process, the techniques of early extraction, the design of the facilities, the economy of the movement, and the techniques for analyzing the flow. The course presents methods to develop the production system (Badurdeen, Cooper, B; Hall, A; Holloway, L; Marksberry, 2008)

A Bootcamp is characterized by not being an education activity of the non-formal type, and it is not a long-term program that causes to lose the desire to undertake and innovate.

Reviewing the methodologies and contents of both institutions, it follows that beyond a teaching-learning strategy, a Bootcamp is a methodology that includes various teaching-learning strategies.

Regarding the Learning Strategies to be implemented in the Bootcamp, it was found that those that have the purpose of collaborative work towards the realization of a project are implemented, the training strategies that are applied can be some of the following:

(Goikoetxea, Edurne, Pascual, 2002) Cooperative learning is a generic term to refer to techniques for organizing and conducting classroom instruction, and it is characterized by working in small groups of heterogeneous students to achieve everyday learning activities.

Cooperative learning takes place when there is a defined structure of the learning situation and also has a cooperative structure of incentives; students are allowed and required to work together on homework, efforts to bring it to fruition are coordinated; Students often depend on each other to receive the incentive or reward that can be based on group performance, individual learning.

It has been proven that cooperative learning improves human relationships, promotes cognitive achievement, improves academic performance by offering a more significant opportunity to discuss and learn from others. (Muñoz Otero Ma. Elena, 2014)

Problem-based learning (ABP):(Morales & Landa, 2004) The learning focuses on the student promoting their significance by developing a series of skills and competencies essential in today's professional environment. Among the characteristics for the implementation of this strategy, workgroups of up to 8 students must be formed; Teachers are facilitators, their role is to stimulate cognitive goal communication, raise questions that support questioning, understanding and problem management; It is recommended that the tutor should be an expert in the area.

Learning revolves around the challenge that students will face in practice and provides relevance, and if the motivator for learning is the focus to integrate information from many disciplines. In problem-based learning, information is acquired through self-directed learning, and students are expected to learn from real-world knowledge and accumulation of experience, discussion, comparison, review, and ongoing debate is induced. The happened. The ABP greatly stimulates the goal cognition through the approach of the goals. What will I do? How will I do it? How are we doing it? Furthermore, the evaluation of the achievements Will it work?

The successful resolution of problems will not only depend on the possession of considerable baggage of knowledge, but also on the use of resolution methods to achieve goals.

A variable that enables the success of this strategy is the social or contextual factors that are included in the design of the problem that must be complex and significant, that drives the goal of cognition, students value the experience of the expert to feedback actions, and Suggestions during the process.

Another novel strategy used in a Bootcamp is Design Thinking for (Garber; 2017) is an approach that seeks to solve problems collectively and collaboratively, in a perspective of maximum empathy with its stakeholders (stakeholders) (Abrell, 2016; Kwon, Bromback & Kudrowitz, 2017; Levy, 2017; Reinecke, 2016;

Sonalkar et al., 2015): people are placed at the center of product development - not just the end consumer, but all involved in the idea (multidisciplinary teamwork is joint in this concept).

This approach has many advantages: it is a fast and economical process whose purpose is to generate value innovation as a result of the methodology and teamwork; The process focuses on customer perception, needs, desires; The process takes into account people's knowledge and experiences, allows the design of prototypes as a result of the following phases, mentioned by (Juan Arrausi, 2018):

Phase 1: Empathize. It involves putting yourself in the shoes of the consumer or the user of the product to get a deep understanding of the needs of the users involved.

Phase 2: Define. Understand the strategic dimension of the challenge you will face. It is an effort to synthesize the knowledge generated so far around the product, to produce new and exciting perspectives. Identifying where the problems are and understanding them will allow structuring the opportunities that will define the innovative solutions.

Phase 3: Devise. There are various techniques for generating ideas, from the rethinking of hypotheses, the generation of forced relationships (hybridization), the construction of metaphors, the brainstorm, among others. The goal is to generate endless options, giving free rein to expansive thinking. The most bizarre ideas sometimes generate ideal solutions.

Phase 4: Prototype. However, an idea without execution is worth nothing. Prototyping in design consists of materializing ideas. A prototype can be a drawing, a model, a cardboard box, or a beta web. It is a way to define and convey the concept quickly. The fact of turning the idea into a tangible product helps to visualize the possible solutions. Phase 5: Test. It is the moment when we test our prototypes with users. This experimental phase of validation is the key to identify failures to be resolved, significant improvements, or possible deficiencies. We enter a permanent trial/error cycle that will allow the idea to evolve until it becomes the solution the consumer is looking for. With the preceding, he led the researcher to raise another research question: From a Bootcamp, is it possible to develop a social entrepreneurship project? A social entrepreneurship is a process that involves the innovative use and combination of resources to seek opportunities to catalyze social change and address social needs. (Mair & Marti, 2006); For (Mort, G; Weerawardena, J. Carnegie, 2003), social entrepreneurship is one that leads to the establishment of new social enterprises and continuous innovation in existing ones, ... social entrepreneurship as a multidimensional construction that implies the expression of virtuous business behavior to achieve the social mission, a unity of coherent purpose and action in the face of moral complexity, the ability to recognize opportunities for social value creation and the critical decision-making characteristics of innovation, proactivity, and assumption of risks.

(Chou, 2018) proposes to use design thinking in social enterprises because the characteristics of a social project and its participants together with the work methodology perfectly mesh, and are described below:

- 1.- Entrepreneurship must focus on the human, relate to people's lives and how to meet their needs.
2. Social entrepreneurship seeks specific objectives to achieve, and for its solution requires the application of specific strategies for the fulfillment of the goals.
3. Social entrepreneurs always describe themselves as innovators pursue ideas and venture into social development.
4. Social entrepreneurs, in their deep thinking, there is the idea that they must solve the social problem to improve the life of the human being.
- 5.- Collaboration approach and brainstorming: Social entrepreneurship involves a variety of stakeholders such as entrepreneurs, users, citizens, governments, communities. Who must collaborate to solve social problems?
6. Use of technology: Social entrepreneurs use technologies such as the Internet, social networks, and mobile devices to promote and communicate their idea and philosophy with users and the general public in societies.
7. User participation: The success of social entrepreneurship projects is based on the amount of user adoption in society. Greater user participation means the better success of the social entrepreneurship project.
8. Use of the prototype: The social entrepreneurship project can start with an initial plan or prototype to look for new project improvements. Therefore, continuing development will improve the quality of social enterprises.
9. Proof: In order to find a better social entrepreneurship plan and project, the proof or evaluation of said plan or project is necessary.
10. Experimentation: While social entrepreneurs are confident in their desire to solve social problems, the practice of experimentation is always implemented. The experimentation of social entrepreneurship projects allows experimenting with the project to be improved with precision.
11. The necessary resources: The social entrepreneurship project consumes a variety of resources such as social capital, funds, human resources with its knowledge and experiences.

Organization of a Bootcamp, there is no defined process for your organization; the following phases constitute a combination of different institutions that are dedicated to the organization and that coincide in the points:

Theme selection. In the planning of a Bootcamp, it is based on the presentation of a problem, not of solutions, it is not necessary to mention the type of development expected solution, but to give space for those involved to describe and understand the problem and that from that understanding Define possible solutions.

As in the ABP strategy, the problem must pose a cognitive conflict, and it must be challenging, exciting and motivating for the student to be interested in the search for viable alternative solutions; The problem should be sufficiently complex in such a way that it involves the surrounding conditions.

The interest of the students must be guaranteed; they must relate to the expected learning of the course and real-life situations. It should lead the student to make decisions based on facts, with logical and informed information.

The difference between the ABP and a Bootcamp is that in the ABP, the solution proposed is reached, and in a Bootcamp, the prototype is built, and the investors or interested parties are approached to take it to the tangible.

Generate and share the available data: It is recommended to have a quantity of data that allows the understanding of the problem faced so that from this, the participants propose more practical and viable proposals.

Use agile work dynamics: In the planning of work dynamics, an environment of creativity, innovation, and collaboration must be promoted. Dynamics can be used to break the ice, to strengthen teamwork, and to validate assumptions through games and challenges quickly. Use work dynamics in which visual schemes are achieved.

Materials needed: Materials such as sticky notes, markers, blackboards should be provided , sheets of paper to facilitate writing down ideas and discarding others that do not go in the expected line.

Generation of ideas: Contact the stakeholders: the Bootcamp serves as a meeting point for audiences of different nature, interested in generating solutions related to their community.

Experts or connoisseurs of that reality or situation must be convened for the development of the project, to know in depth the problem. They can be people who work in government, private companies, NGOs, or academia that also maintain interest in using or promoting the use of the tools or solutions developed.

For the generation of ideas, it is recommended to use the group technique called Brainstorming by Alex Osborne (1941); This technique allows you to release creativity, generate an extensive number of possible solutions, involve everyone in the process to identify the highest amount of improvement opportunities.

Creation of the prototype: a prototype is the first model that serves to represent or simulate the final product, its creation requires fundamental principles: something concrete about the idea must be visual and tangible; it can be a diagram, drawing or three-dimensional model; assisted by a diagram in computer equipment, using software for design.

Discussion and modification of the prototype: at this point, the participant must have openness and not fall in love with the first ideas, alternatives have to be created.

Creation of the business model: a business model that is easy to build, the experiences of the mentioned universities include the Alex Osterwalder Business Model Canvas (2010) consists of a format that allows you to visualize the business model identifying nine fields: customers, value proposition, distribution channels, customer relationships, sources of income, essential resources, class activities, key alliances, and cost structure; It is a document that will offer a global vision of the business idea by clearly showing the interconnections between the different elements.

Preparation of the presentations and the speech (pitch) Once the team approves the prototype and the business model, the next phase is to prepare a brief presentation using a powerpoint or Prezi in which you should highlight the qualities and benefits of the project, the business model; It must be so professional, brief and objective that it captivates to achieve a right place - if it is competition - or obtain funding from existing investors that are called by the organizers, called Crowdfunding.

Evaluation of the learning process: the elements that are included for the evaluation of the work developed in a Bootcamp is a combination of qualitative and quantitative variables, the activity is carried out, and it is recommended that it be by an evaluation jury whose selection characteristics include that it is immersed in the problem situation that is addressed; The criteria included for the projects are: innovation, impact, originality, commercial viability, sustainability, contribution to society, and quality of information sources.

An evaluation strategy that will be used is the training partner, which intends that the protagonists in training recognize their potentialities, consolidate their ethical life project and assume the feedback that the evaluation provides based on criteria (Mosqueda & Cuevas, 2018).

Mentoring and ongoing training: Support conferences on technical areas related to the central theme of the event, entrepreneurship, marketing, business, project development, and other strategic issues. Participation of specialized mentors who provide advice during the development of the project.

II. METHODOLOGY

The situation that guides the research is the theoretical and hypothetical analysis of the training strategy called Bootcamp to validate if the application of it enables the generation of projects that contribute to being part of the solution of economic and social problems of a community. To understand and support the above, documentary research was conducted on theoretical references in relation to this collaborative learning proposal; and to experience its application, a Bootcamp was organized with some students of economic and administrative sciences, social sciences, computer science and engineering of a university center; The research approach is quantitative, of correlational scope, it is intended to measure the performance variables of competence achieved by the students who were involved in the training process and the impact of Bootcamp in the community in relation to benefits obtained before and after the intervention in a productive unit.

The hypotheses that were raised were:

Hi: A Bootcamp is a teaching-learning strategy that enables the elaboration, selection, and execution of proposals for the benefit of a community.

Hii: Based on the proposed solution to the problem, a productive group was positively impacted.

For the evaluation of the students, rubrics were designed to measure the level of involvement in the problem, performance in the training process in which various collaborative work strategies were used to achieve the implementation of a productive project.

The measurement of the benefit of the community will be carried out based on the follow-up of the productive project that must be completed in a short period.

The results of student achievement were captured and analyzed using the Excel tool, for further discussion and presentation of this report. The results of the productive unit will be presented based on the achievements of the project execution.

III. RESULTS

The results presented correspond to the 2017 and current period, the duration of the project was in the period corresponding to the months from April to November. The interest of the researchers arises from the desire to generate opportunities for improvement in low-population communities that have a product that can be marketed on a medium scale; Research has been carried out in different villages in which various business opportunities have been detected, the name of the boot camps that will be implemented in the future from the results documented in the present will be: "Empowerment and entrepreneurship to improve my community".

Applying the methodology described in the theoretical framework, we started to identify the same problem described below: The rural community Los Volcanes belongs to the city of Atenguillo Jalisco; the population is made up of 956 inhabitants, the fixed population is 487 women and 469 men; the men dedicate themselves to the sowing and labor of the field and the women to the activities of the home, in seasons they are left alone by the migration of the husbands to the United States; by tradition, a temporary economic activity has been developed: artisanal elaboration of goat cheese and table cheese made from cow's milk.

The product is marketed at a minimum scale using direct sales, without any support in marketing and null technology

A feasibility study for large-scale commercialization was carried out, expanding market coverage at the regional level, but the business plan to access a government support program is lacking.

Bootcamp participants are requested to develop projects that enable the development of the company.

As a second phase, the call for recruitment of participants into the University Center of the Valleys was launched through posters and classroom visits. Fifteen voluntary participants of the following educational programs were enrolled: Administration (6 students); Agribusiness (4 students); Tourism (2 students), Mechatronics (1 student), and Information systems (2 students).

In parallel, the theoretical contents that will support the students in the structuring of the proposal were structured; The topics that were included were the variables that make up the Alex Osterwalder Business Model Canvas (2010), which consists of a format that allows you to visualize the business model identifying nine fields: customers, value proposition, distribution channels, relationships with customers, sources of income, essential resources, class activities, key alliances, and cost structure.

The work sessions were scheduled in six days at the facilities of the Regional Center for Business Quality (CRECE) of the University Center of the Valleys; The work was carried out in the afternoons from 2:00 p.m. with work agenda on Moodle platform until 24:00 p.m. of each day to complete the work, administering the following agenda:

| Topic | Day 1 | Day 2 | Day3 | Day 4 | Day 5 |
|--|-------|-------|------|-------|-------|
| Dynamics of equipment presentation and integration | ■ | | | | |
| Presentation and immersion in the problem. | ■ | | | | |
| Training in problem-based learning. | | ■ | | | |
| Training in Design Thinking methodology | | ■ | | | |
| Start of work Design Thinking phases | | ■ | ■ | | |
| Training for the Business Model Canvas model | | | | ■ | |
| Closing works and submitting proposals. | | | | | ■ |

Table 1. Bootcamp, 2017, work schedule.

The sessions took place as planned and suggested in the methodology: have the necessary material: bibliography, computer equipment, sheets of paper, sheets, self-adhesive ballots, markers, product samples and a permanent supply of food and drinks; Effective time management emphasizing the product beyond the contents and permanently stimulating the 3 teams that were integrated.

The three teams on the sixth day presented their projects in the format of the Business Model Canvas; each team offered different alternatives for the solution of the problem to medium-scale marketing of the two types of cheeses; The following tables summarize the achievements of each of the teams:

| Summary Of Gray Hair Model Proposals | | | |
|--------------------------------------|--|---|---|
| Quadrant | Team 1 | Team 2 | Team 3 |
| Customers | Niche: upper-middle class. Families. Prestigious hotels and restaurants with gourmet style. | Niche: cremerías, grocery stores | Niche: cremerías, grocery stores, supermarkets, craft shops, restaurants, schools |
| Value proposal | Specialized gourmet cheese food Quality guarantee Taste and Texture Intrinsic nutraceutical Development of a gourmet culture of gourmet cheese in the Jalisco Mascot region with high tourism potential. | Packaging design for conservation, transfer, and marketing. | Diversity of sizes and combination of cheeses |
| Distribution channels | Direct distribution in hotel and restaurant chain | Direct with a company vehicle. | Direct with intermediaries |
| Relationships with customers | Catering services Tasting Organization | Tastings and fairs | Tastings at fairs, coffee shops |
| Sources of income | % of earnings from purchases made by users | Tastings and fairs | Tastings and fairs |

| | | | |
|----------------|---|---|--|
| Key resources | finance Technological Innovation: online commerce Infrastructure: cheese production, maturation, and storage plant Human Resources | Finance Technological Innovation: packaging Infrastructure: cheese production, maturation, and storage plant. Human Resources | Innovation: expansion of the product line. |
| Key activities | Gourmet Cheese Production Health record control and quality control Technological maintenance Advertising Commercialization Trade mission | Packaging design Packing line installation. Packaging validation. | New products. Diversification of sizes. Brand Diversification |
| Key Alliances | Milk suppliers Machinery suppliers Hotels and restaurants of prestige | Packaging suppliers and packaging material. | Milk suppliers Machinery suppliers Partnerships for distribution. |
| Cost structure | Milk suppliers Machinery suppliers | Fixed costs, variable costs, packaging, and distribution costs. | Fixed costs, variable costs, packaging, and distribution costs. |

Table 2. Solution proposals.

The presentation was made to two professors from the University Center of the Valleys to the Director of Economic Promotion of the municipality of Atenguillo; The feasibility of the proposal, its scalability, and the cost-benefit of the implementation were evaluated.

To decide on their implementation, the development of the gourmet product was first chosen, without leaving aside the other two options, which will be implemented in the short and medium-term.

To evaluate the work done to the students, rubrics were designed to assign a numerical value and double-entry boxes to verify compliance in the rigorous performance of each of the stages. In addition, the participants were followed to comply with the activity of reading for the acquisition of conceptual bases and their mastery, for which the quizlet platform was used, which allows capturing concepts and programming games in which the participants have to get scores and improve them.

The proposals were made known to ten women from the community who are currently carrying out the activity separately, with the support of the director of financial and personal promotion of the Ministry of Rural Development to obtain a lost credit to begin the operation. ; the intervention proposal was raised; Initially, they doubted, they were skeptical and distrustful, refusing to participate, they were insisted on emphasizing the possible benefits and the decision to leave the project without problems, hearing these options they chose to accept.

The requirements of the agency to participate in obtaining the credit in the current 2018 call were integrated and the group of producers is awaiting the opinion in which they will obtain an economic benefit of \$ 200,000.00 which will serve as seed capital for the payment of training in the adoption of best production practices that allow them to manufacture a product with gourmet characteristics and the acquisition of start-up machinery which will allow starting operations, it is intended to triple the current production of 50 kilos per month and start the commercialization of products in three hotels of the Mascota mountain range, and in a Gran Turismo hotel located in the Sierra de San Sebastián del Oeste that will use it for the elaboration of gourmet dishes in its two restaurants.

Students continue to work on the market research, the packaging prototype, and they have the design of the corporate image that includes the brand, logo, and slogan that will be carried out before the Mexican Institute of Intellectual Property for the Obtaining the registered trademark.

IV. DISCUSSION OF RESULTS

It is convenient to remind the reader of the hypotheses that were raised at the beginning of the document:

Hi: A Bootcamp is a teaching-learning strategy that enables the elaboration, selection, and execution of proposals for the benefit of a community.

The research carried out refutes that a Bootcamp is a teaching-learning strategy, a Bootcamp is a work methodology that integrates various teaching-learning strategies, including brainstorming, design thinking, problem-based learning, project-based learning, collaborative learning and others that stimulate collaborative work to achieve an objective that is needed when planning it.

For a successful execution of a Bootcamp it was found that a real problem is required that allows the recruitment of students from various areas for the generation of prototypes or economic, practical and viable solutions; but it is not necessarily possible to develop within the educational institutions, but rather the companies themselves, as exemplified by Toyota, take the analysis and proposals table to the University; society also shares its needs so that from the fourth helix model its demands are met and from the academy it is investigated, and solutions are tested.

According to the methodology planted by the two Universities Massachusetts Institute of Technology and The University of Kentucky's College of Engineering, it is necessary to have a conceptual and methodological basis according to the problem to be addressed, to train in the topics that are addressed around the problem and that can detonate solutions.

In this case, being a business problem in which the design of a business plan was required, the organizers opted for the Canvas model, but other models could have been suggested and used what directed the teams to specific proposals, limiting them to other options.

In relation to hypothesis II: "Based on the proposed solution to the problem, the economic environment of a population will be impacted," the application of the Bootcamp methodology, - whose result necessarily has to be a strategy to solve a problem. Problem- for this case, it was found that you can effectively contribute positively to a group by proposing various solutions, the more participants you have, the more significant alternatives will be presented, which will increase the chances of at least one. For the evaluation, rubrics were designed to measure the level of involvement in the problem, performance in the training process in which various collaborative work strategies were used to achieve the implementation of a productive project. Concerning the business plan, a checklist was designed in which the existence within the document of the points that are integrated was evaluated.

The evaluation carried out by third parties was carried out following the criteria set by the SME Fund of the Ministry of Economy for companies that will participate in an incubation process and that include that the applicants must present in their speech the following elements and that included within the canvas business model:

- Organizational structure.
- Cost analysis.
- Production planning
- Production Management
- Determination of the launch date.

V. CONCLUSIONS

The literature examined at work leads to the identification that a Bootcamp is an educational proposal with positive effects on the cognitive, social, affective sphere.

The need to know more accurately the fundamentals, effects, and mechanisms to include it as a formal educational practice is reflected.

A Bootcamp is made from a theme proposal, it may be as in this case to promote entrepreneurship, but can also be addressed to detect social, educational, technological and health problems; The success will lie in an adequate planning of the same for which the present document presents a guide and strategies for its planning.

It is recommended in the recruitment of applicants to participate that is multidisciplinary so that the problems are observed and addressed from different perspectives and areas of knowledge.

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