



## Entrepreneurship and financial literacy in the 1st Cycle of Basic Education

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### summary

The Entrepreneurship and Financial Literacy Project (ELF) has been developed since 2010, in a systematic way and using integrated didactics, leading to the involvement of students in activities that take into account the specificities and resources of the environment and valuing the knowledge of cultural and local roots. To this end, it makes clear use of group dynamics in mini-companies, with a view to developing the skills of entrepreneurship, necessary for a more effective acquisition of curricular aspects, thus promoting inclusion and school success.

The project has been applied to two classes of the first cycle of basic education (1st CEB), in rural schools in the region of Lisbon and Vale do Tejo, using as a basis cross-entrepreneurship with the national curriculum in an integrated manner, giving you a greater expression in relation to the potential of application in daily life and trying to make students aware of the importance of the sequence in which it is approached. Thus, the aim is to make learning more meaningful and provide a truly global view of the interconnection between the various curricular areas. The project was oriented towards two main objectives: to determine whether a curriculum integration project in the first cycle can contribute to (i) the development of skills associated with entrepreneurship; (ii) the centralization of the school in the community, giving rise to two studies. The results obtained are in the sense of demonstrating that the experiences associated with entrepreneurship contributed to the personal development of students and the appreciation of local roots, resulting in a decrease in school failure. It is possible to see that students have become more aware of the necessary steps to be taken to achieve success in the decision-making process, in terms of their personal and academic future.

**Key words:** entrepreneurship, curricular integration in the 1st CEB, financial education, school-

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community relationship

## **1. Introduction**

Social and organizational changes pose new challenges to the education of children and young people since the early years of schooling, requiring the development of autonomy, critical and initiative skills, and interpersonal skills. We are faced with skills that not only favor students' academic performance, but also contribute to the formation of future citizens who are aware and available to participate in their community (Johansen & Schanke, 2014).

The 2001 Global Entrepreneurship Monitor report indicates geographical, historical, educational, cultural and economic reasons to explain a very low level of entrepreneurial initiative in Portugal, and therefore training in this field should be invested to boost the economy.

Johansen and Schanke (2014), pointed out this education for Entrepreneurship as an enhancer of entrepreneurial skills, and entrepreneurial projects can "with less focus on the business part, (...) constitute a good teaching method for improving academic performance".

At the school level, the European Commission considers the creation of mini-companies as the best way to develop Entrepreneurship, which can lead students to "demonstrate their creativity, develop enthusiasm and self-confidence, and learn how to work as a team". who "seems to develop enthusiasm and motivation, even among students who are not motivated by the more traditional content".

Due to the objectives and methodologies it promotes, entrepreneurship can be assumed as a strategy with the potential to develop these competences at school, facilitating the practice of integrated curriculum management and promoting the strengthening of the school's connection with the community.

## **2. The ELF Project**

The Entrepreneurship and Financial Literacy project was developed in two primary schools located in rural areas in the region of Lisbon and Vale do Tejo. In its origins, the project aimed to enhance the role of the school within the communities in which they operate, establish the link between the knowledge and life experiences of the student and the relevance of the curriculum, develop in the students habits of informed decision-making and develop a knowledge exchange network around the school (Pina & Ferreira, 2014). Subsequently, the project was oriented towards two main objectives: to determine whether a curriculum integration project in the first cycle can contribute to (i) the development of skills associated with entrepreneurship; (ii) the centralization of the school in the community, giving rise to two studies.

The studies were developed through an action-research design, since they essentially aimed at

creating, implementing and evaluating a process of improving pedagogical practice, starting from the analysis of contextual and particular factors of a concrete situation (Coutinho, 2011) .

The direct participants in the project were two teachers from the 1st cycle and their respective classes. Since one of the schools was a single class and the other had only two classes, they were made up of students from different years of schooling. Thus, class A covered the 4 years of schooling in the 1st cycle and was composed of 17 students: 10 girls and 7 boys aged 6 to 10 years. Two of the students had an Individual Education Program. For its part, class B covered the 2nd and 3rd years of schooling and was formed by 20 students: 8 girls and 12 boys, aged between 7 and 10 years. Four students had an Individual Educational Program. In total, the project was developed with 37 students.

In addition to the direct participants, the families of the students took on a relevant role in the process, as well as some of the institutions and local entities, with whom partnerships were established, as can be seen in the following figure:

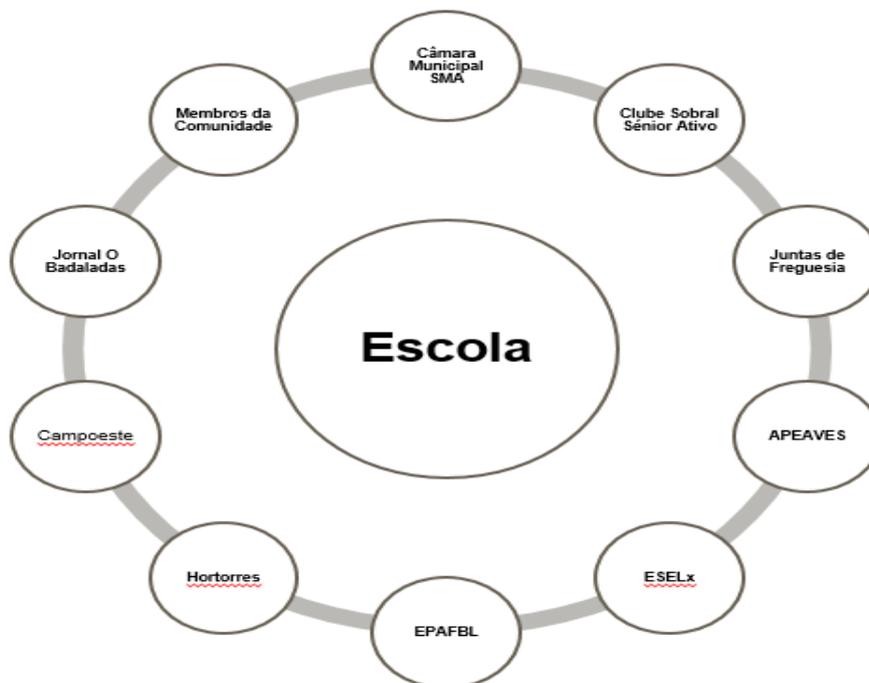


Figure 1 - Network of partnerships developed within the scope of the ELF Project.

### 3. The project phases

The project was developed in 4 phases: 1) initial evaluation; 2) negotiation and planning; 3) implementation; 4) final evaluation.

Disclosure was occurring in all phases of the project.

For the initial assessment, questionnaires were conducted with students and group interviews with parents. In this phase, Questionnaires for Determining Entrepreneurial Capabilities were

also carried out, adapted from the European Entrepreneurship Test (IAPMEI, 2012), to determine the degree of key entrepreneurial skills (Pereira, Ferreira and Figueiredo, 2007) in students, namely : (i) Risk-taking; (ii) Initiative / Evaluation / Energy; (iii) Resilience; (iv) Planning / Organization; (v) Creativity / Innovation; (vi) Interpersonal relationship / Communication.

In the negotiation and planning phase, the registration of the main partnerships established and the elaboration of the intervention curriculum plan, with all its ramifications in the community, as well as the definition of strategies for the operationalization of group work dynamics, were used.

In the implementation phase, class diaries were used, in which the main activities carried out were recorded, the reactions of the children and the surrounding community, critical incidents, intermediate results and reflections of the researchers-teachers during the process.

For the final evaluation of the project, questionnaires were conducted again with students and group interviews with parents and the Questionnaire for Determining Entrepreneurial Capabilities was reapplied, in order to be able to compare the initial results with the final ones. For this evaluation, other aspects were also taken into account, such as the students' results throughout the project and the frequency of views in the dissemination of the project on social networks Youtube<sup>5</sup> and Facebook<sup>6</sup>.

#### **4. The three pillars of the ELF project**

All the work developed around Entrepreneurship, within the scope of the ELF Project, was based on three pillars: (i) the harmony of values and articulation with the community; (ii) curricular integration; (iii) group dynamics.

Regarding the first pillar, in order to take root the values associated with entrepreneurship, at school and in the community, the ELF Project developed a curriculum articulation practice centered on entrepreneurship. Activities were implemented that involved the involvement of community members, which placed students in the face of the need to make informed decisions. At the same time, it was analyzed whether the experiences associated with entrepreneurship contributed to the students' personal development and if there was a greater appreciation of the students' school path by the parents. In this way, two of the objectives stipulated for the project were answered: to value the role of the school within the communities in which they operate and to develop a network for the exchange of knowledge around the school.

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<sup>5</sup> For consult:

[https://www.youtube.com/channel/UCSLsroKiL\\_R5yFFNymSdvcA/videos?shelf\\_id=0&view=0&sort=dd](https://www.youtube.com/channel/UCSLsroKiL_R5yFFNymSdvcA/videos?shelf_id=0&view=0&sort=dd)

<sup>6</sup> For consult:

<https://www.facebook.com/613761542079519/photos/pcb.879573722164965/879571802165157/?type=3>  
or do a Facebook search for “elf project”

With this process, the intention was to guarantee gains for the community, towards a common good. It was also intended to ensure, through a harmony of values in the school-community interaction, that it would become more valued in the environment, as shown in Figure 2.

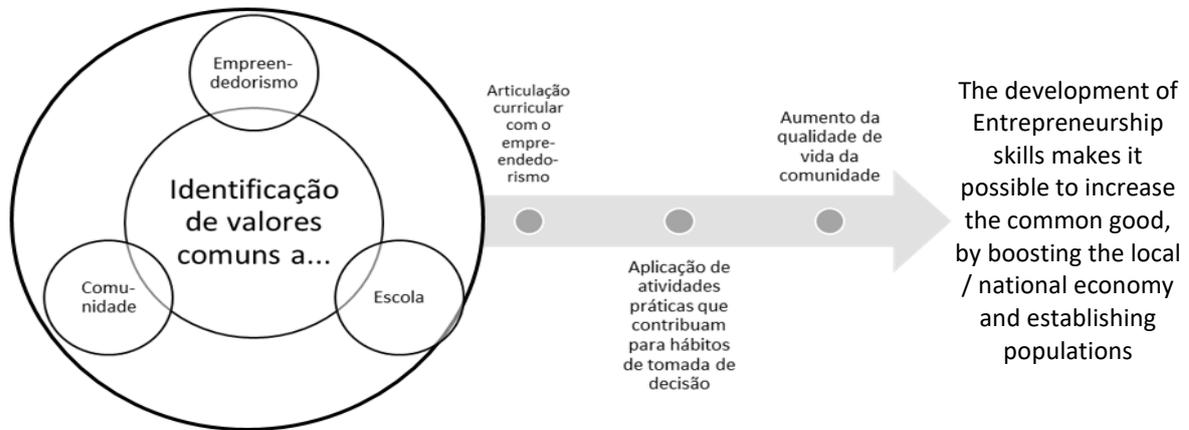


Figure 2 - Scheme of the ELF project for the identification and operationalization of new values.

Regarding the second pillar, curricular integration, when working on entrepreneurship, an ideal scenario is created to identify bridges with the “utility” of the curriculum - Roldão (2013, pp.22-23) - and therefore, in the practical realization of activities associated with entrepreneurship, a series of concepts and contents from the various curricular areas were identified and used, generating a wealth in the process that responds to one of the objectives indicated around the project: establishing the connection between the knowledge and life experiences of students and the curriculum, ensuring its relevance.

With regard to curricular integration and the skills associated with entrepreneurship, students, as they began to be able to identify for themselves the curricular integration of the various areas around entrepreneurship, were also beginning to develop the key competences of the entrepreneurship.

These ideas can be summarized in a cyclical way through the scheme represented in Figure 3:

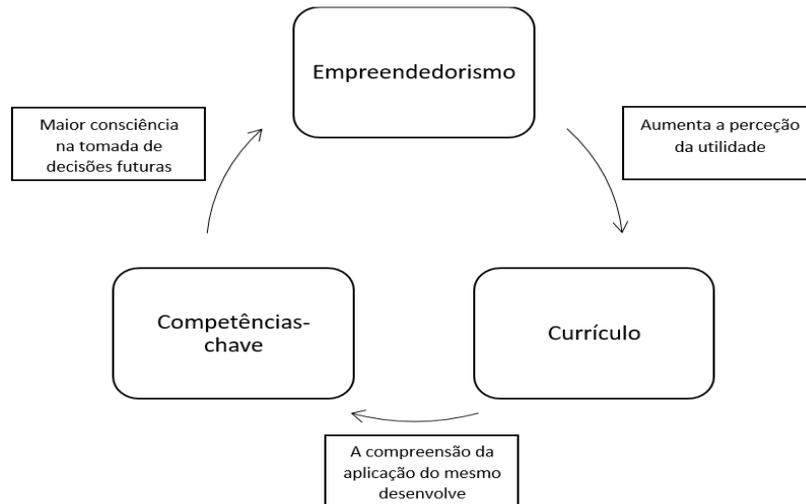


Figure 3 - Scheme for the integration of entrepreneurship, the curriculum and the key skills of entrepreneurship.

Regarding the last pillar, the group dynamics developed within the classes, mini-companies were created in each classroom. These mini-companies emerged after carrying out activities aimed at allowing the summary and selection of information to proceed with the joint writing of business plans. The design of mini-companies culminated in the posting of business plans, which were subject to constant periodic monitoring, and with the preparation of proposals and the choice of a logo that represented the spirit of each of the mini-companies, taking into account their economic activity and traits of the community in which it was inserted.

After the stages of creating the business plans and logos of the mini-companies were over, it was time to take the next step and subdivide each class into groups (work teams), in order to start assigning tasks and rotating them and the different roles that each student had the opportunity to play, within each team.

In other words, and according to Figure 3, these teams (initially selected according to the criteria chosen by the students), in individual terms, would work on the key skills of entrepreneurship enhanced from the roles assigned individually to the students and, jointly, for the dynamics that collectively imposed on each team. The objectives of this dynamic ranged from promoting informed decision-making habits, by reinforcing the local cultural appreciation, through valuing various types of intelligence and learning styles, among other aspects, as Figure 4 illustrates.



Figure 4 - Scheme representing the purposes of the development of group dynamics.

During the implementation of the process, it was found that in the development of skills for entrepreneurship, it was the skills linked to attitudes that proved to be the most difficult to acquire. Therefore, the development of these competences, which result in a strengthening of autonomy, were taken into account in the planning of a job that was intended to be constant in the classroom, giving students the opportunity to experience the demands of different roles within group tasks, with the explicit objective of each role contributing to one (or more) skills of entrepreneurship, as shown in Figure 5. All these attitudes favor decision making throughout the student's life course, according to the last of the objectives of the project: to develop students' informed decision-making habits.

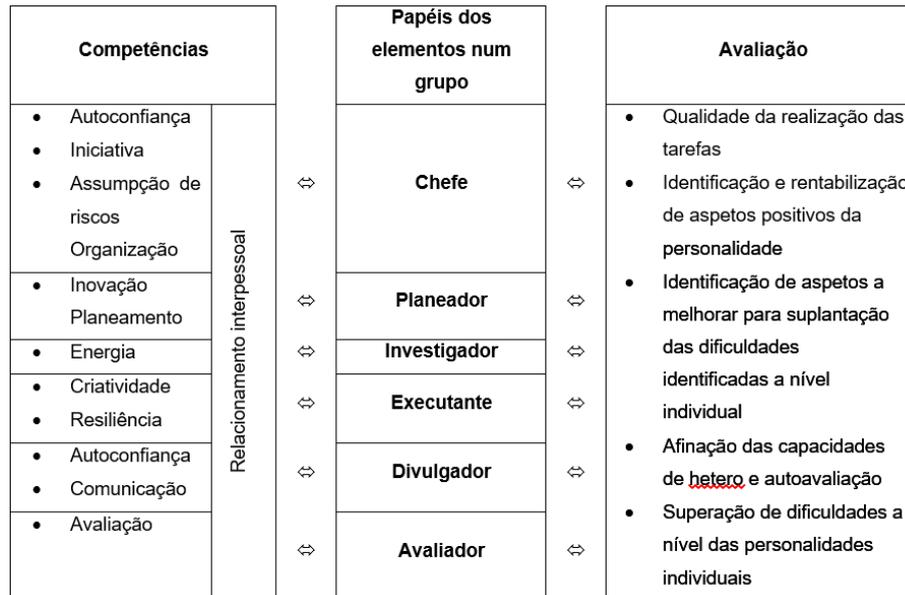


Figure 5 - Summary of roles developed with group dynamics for the development of entrepreneurial skills.

Figure 6 aims to demonstrate the spiral of project development and the impact it had on students during the implementation phase and in the communities where the project is developed with a view to valuing the school and students working on the skills associated with the project. entrepreneurship and the general objectives of the project.

The curricular design and the combination with the practical component somehow make the process innovative and distinct from the usual curricular approaches and other Entrepreneurship projects that are made known in our country. According to Alonso (2013, p. 30), curricular innovation must include some principles: i) curricular integration; ii) educational relationship based on dialogue; iii) stimulating curiosity and the desire to learn; iv) attention to diversity; v) rich and diverse learning contexts and environments; vi) reflective and critical teaching.

It is on these principles that the ELF Project is sustained, seeking, through them, to develop an innovative path.

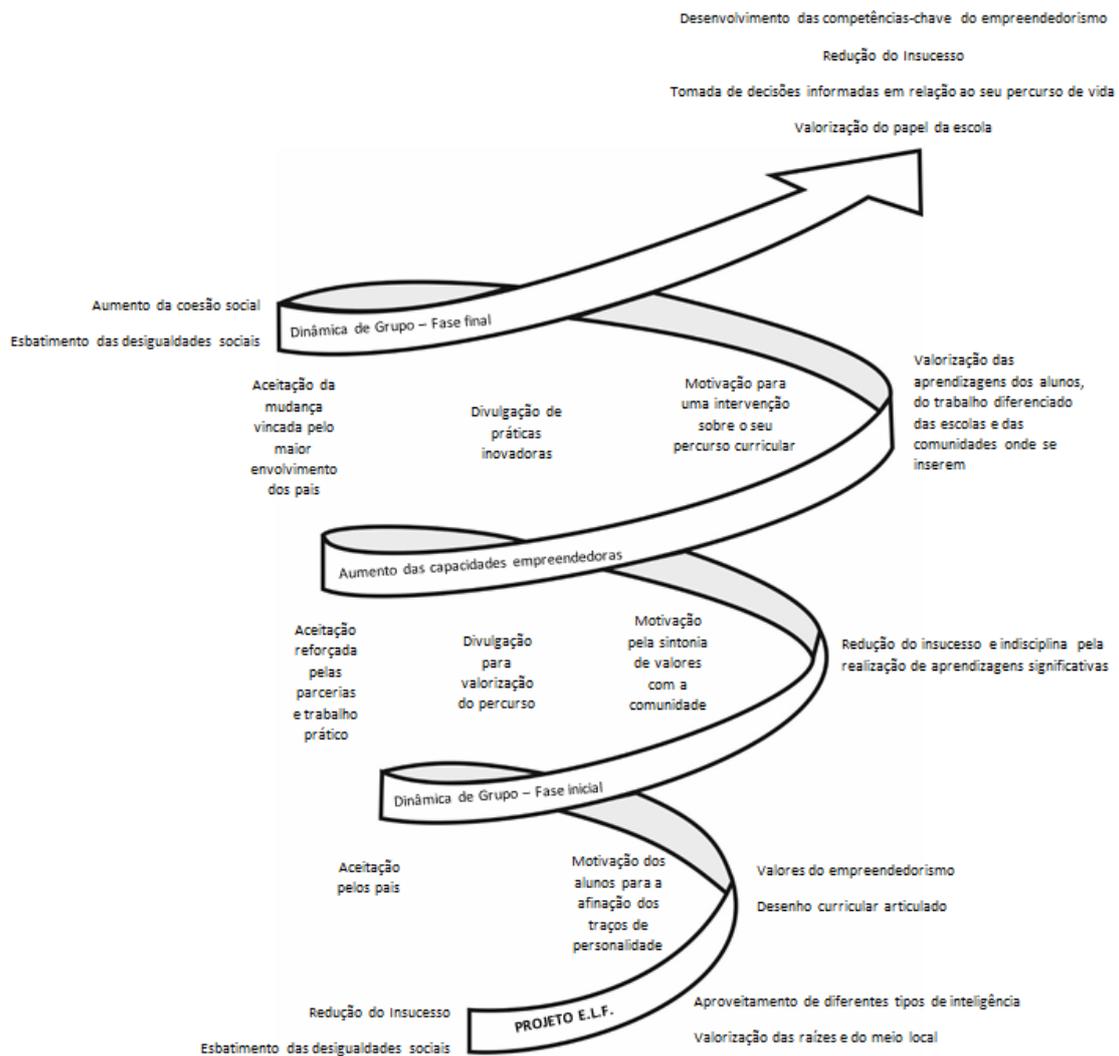


Figure 6 - Schematic of the ELF Project's development path.

## 5. Methodology

In order to carry out the two studies resulting from the ELF Project, a predominantly qualitative methodology was developed through an action research design and based on the notion of the teacher-researcher (Ponte, 2008).

For data collection, the following techniques and instruments were used:

- Questionnaire for Determination of Entrepreneurial Capabilities to students (applied at the beginning and at the end);
- Group Interviews with Parents, carried out at the beginning and at the end (convenience sample);
- Class diaries (teacher records, posters, ELF notebooks);
- Inspection Activity Report;

- Questionnaire to Students for Final Project Evaluation;
- Statistics of Videos Hosted on Youtube;
- Facebook Page Statistics;
- Questionnaire to Teachers on the Application of the Project, carried out after a training / dissemination action of the Project;
- Global Results of Students' Curricular Assessment.

Although the methodological approach is predominantly qualitative, quantitative treatment of some of the collected data was also used. Thus, qualitative data were treated through content analysis and quantitative data through descriptive statistics.

## **6. Results**

The results of the questionnaires to the students show that they considered the project relevant, mainly because it allowed them to learn new content and techniques. It was possible to verify that the activities considered most relevant by the students were activities of a more practical nature and in which the students had an intervention turned to experimentation. They highlight some of the activities developed, namely agricultural activities and study visits.

Among the students involved:

- Most predicted that they could open a company in the future;
- Only one group indicated with certainty that it will not do so;
- Very few expressed doubts about decision-making in terms of their personal and academic future

The results of the Entrepreneurial Capabilities Questionnaires show an evolution in terms of the development of key entrepreneurship skills. In the end, there was a general profile of more creative students, with planning skills, more resilient and self-confident. They maintained the perspective of relating risk-taking as part of the path to achieve success, being an opportunity to carry out new learning. The ability to function in isolation has clearly decreased, revealing, in some way, the effects of teamwork and the group dynamics developed.

It is also important to underline some evidence recorded in the results of the Entrepreneurial Capabilities Questionnaires, in the sense of developing skills that translate into greater autonomy and self-discipline.

In the final interviews, parents value their children's curriculum, highlighting the practical component of the project. They consider that their expectations in relation to the project have been fulfilled and value the work developed by teachers with students and in the community.

Comparing the results of the initial and final interviews, the interviewed parents acknowledged:

- Increasing knowledge about the skills related to entrepreneurship and the skills that an

entrepreneur should have;

- The progressive valorisation of the path based on the integration between entrepreneurship and the other curricular areas, above all by the more practical aspect, contributing to the valorization of schools and the communities where they operate.
- The work around certain entrepreneurial skills, such as planning, resilience or evaluation, ended up extending in some way to the parents themselves;
- The development in students of communication and interpersonal skills, resilience, initiative, planning and organization, decision making, self-assessment and responsibility;
- The importance of the future expansion of the project (at the vertical and local level).

The dissemination, throughout the implementation of the project, through the social networks Facebook and Youtube, was a contribution to the self-esteem and external valuation of the work produced by the students. This disclosure also facilitated the acceptance of differentiated pedagogical practices by parents and the community. The dissemination of these types of experiences also contributed to the students' ability to select, summarize information and disseminate information, increasing students' levels of motivation and demand.

Regarding Facebook, the number of followers was 123, which exceeds the number of students' parents (74). These 123 generated another 1231 calls. Over 858 people, in addition to the 123 followers, shared information about the project, generating a total number of 26233 contacts.

From Youtube it was found that, geographically, the activities were viewed from 12 countries: Portugal; Brazil; France; Switzerland; Chile; India; USA; Spain; Mozambique; Italy; Romania; Russia. Bearing in mind that the data obtained refer to a resource accommodation with Portuguese tags, it would be very interesting to investigate which countries the project could reach if English tags had been included.

The frequency of project views, feedback from partners and adherence to outreach initiatives show the community's appreciation of this initiative.

In an overall assessment of student assessments along the way, in relation to the results of Class A (4 years of schooling), it can be seen:

- The average global utilization in the four areas increased slightly;
- School failure decreased between the beginning and the end of the school year, with a greater incidence at the end of the 2nd period (coinciding with the completion of the most relevant activities for the ELF Project), ending, nevertheless, below 9%.
- The overall average achievement of students reaches higher percentages at the "Sufficient" levels and especially at the "Good" levels.

However, this average overall performance is perfectly matched with the overall results

recorded in the 3rd period of the school year, which indicates that the evolution, despite the slight increase mentioned, ended up not being very significant.

As for Class B (2 years of schooling), it can be seen:

- The overall performance in the four areas registered a significant increase, in the order of 20% (since the percentage of students presenting “Good” and “Very Good” levels increased from 50% to 70%).
- The overall average achievement of students shows an increase in the levels "Sufficient" and Good ".

The average global performance is almost perfectly matched with the final results of the school year, confirming a significant evolution in terms of learning, taking into account the comparison between the initial period and the 3rd Period.

Overall, the learning path resulted in an overall increase in school success, without even having to consider the retention hypothesis for any student, an aspect that is in line with the indications of students (and some parents) that were showing a better understanding of the curriculum and an increase in solidity in the lessons learned.

This success seems to be linked to the group dynamics implemented in the work teams, in which, through cooperation and exchange of knowledge between students, it seems that there has been a homogenization of school results.

## **7. Conclusions**

The studies developed from the ELF Project had as general objectives to determine whether a curriculum integration project in the first cycle can contribute to (i) the development of skills associated with entrepreneurship; (ii) the centralization of the school in the community.

With regard to the first objective, it seems possible to conclude that the integration of the 1st cycle curricular areas with each other and with entrepreneurship resulted in numerous situations throughout the school year in which students were exposed to situations in which they found themselves in the need to develop or perfect those skills. The comparison of the students' responses to the Entrepreneurial Capabilities Questionnaires at the beginning and at the end of the project show the acquisition and / or development of skills related to entrepreneurship, which are also evidenced in the Class Diaries and productions made by students over the course of the project. process. In turn, in the group interview conducted at the end, the parents referred to the development of these same skills. School results also show that the work oriented towards entrepreneurship and the group dynamics implemented in carrying out the activities had a positive effect. To this end, students' awareness of the relationship between the curriculum and the reality of everyday life also contributed. The project provided the development of both academic knowledge and skills linked to Entrepreneurship, which is found in the study by

Johansen and Schanke (2014), in which it is concluded that the interrelation of various disciplines among themselves and of these with the guidelines for the entrepreneurship promote both entrepreneurial skills and more effective academic performance. To this end, students' awareness of the relationship between the curriculum and the reality of everyday life also contributed. The project provided the development of both academic knowledge and skills linked to Entrepreneurship, which is found in the study by Johansen and Schanke (2014), in which it is concluded that the interrelation of various disciplines among themselves and of these with the guidelines for the entrepreneurship promote both entrepreneurial skills and more effective academic performance. To this end, students' awareness of the relationship between the curriculum and the reality of everyday life also contributed. The project provided the development of both academic knowledge and skills linked to Entrepreneurship, which is found in the study by Johansen and Schanke (2014), in which it is concluded that the interrelation of various disciplines among themselves and of these with the guidelines for the entrepreneurship promote both entrepreneurial skills and more effective academic performance.

Regarding the second objective, from the first meeting to publicize the project to parents, it was possible to perceive the harmony between the values of the project and those of the community, the defined objectives and the underlying concerns. It was revealed by some of those present, enthusiasm to start implementing the project and some anxiety due to the perception of the dimensions that it covered, registering an increase in expectations regarding the gains arising for their students with the implementation of the dynamics presented. These expectations were met, as the final interview shows.

External recognition, interest and appreciation on the part of people who had no contact with the community involved in the implementation of the project not only contributed to an increase in communication skills by students, but also reinforced, in the eyes of parents, the value the school path of their students. On the other hand, it was recognized the importance that approaches to entrepreneurship skills had in valuing the communities that joined the project, thus contributing to their self-esteem, proactivity in planning and executing new activities related to the theme associated with the roots, knowledge and local tastes. Regarding the 16 activities documented in the Portuguese language and hosted on Youtube (with unifying tags such as entrepreneurship, financial literacy, financial education, ELF Project, Entrepreneurship and Financial Literacy Project,...), between November 2014 and August 2015, it is noteworthy that a large part of the disclosure was made by the communities involved in the process, which left them with the perception that the project would have arrived to four continents and that communication technologies could quickly take the information that is intended to be transmitted on a global level. Regarding the development of self-esteem, the pride of

participating in activities developed in such small and rural communities was evident in some members, experiencing firsthand the concepts of “global village” and “knowledge society” (Carneiro, 2000) , through the dissemination of activities that worked on the skills of entrepreneurship. between november 2014 and august 2015, it should be noted that a large part of the disclosure was made by the communities involved in the process, and they were left with the perception that the project would have reached four continents and that communication technologies could take little time. information that is intended to be transmitted at a global level. Regarding the development of self-esteem, the pride of participating in activities developed in such small and rural communities was evident in some members, experiencing firsthand the concepts of “global village” and “knowledge society” (Carneiro, 2000) , through the dissemination of activities that worked on the skills of entrepreneurship. between november 2014 and august 2015, it should be noted that a large part of the disclosure was made by the communities involved in the process, and they were left with the perception that the project would have reached four continents and that communication technologies could take little time. information that is intended to be transmitted at a global level. Regarding the development of self-esteem, the pride of participating in activities developed in such small and rural communities was evident in some members, experiencing firsthand the concepts of “global village” and “knowledge society” (Carneiro, 2000) , through the dissemination of activities that worked on the skills of entrepreneurship. having been left with the perception that the project would have reached four continents and that communication technologies could take in a short time the information that is intended to be transmitted on a global level. Regarding the development of self-esteem, the pride of participating in activities developed in such small and rural communities was evident in some members, experiencing firsthand the concepts of “global village” and “knowledge society” (Carneiro, 2000) , through the dissemination of activities that worked on the skills of entrepreneurship. having been left with the perception that the project would have reached four continents and that communication technologies could take in a short time the information that is intended to be transmitted on a global level. Regarding the development of self-esteem, the pride of participating in activities developed in such small and rural communities was evident in some members, experiencing firsthand the concepts of “global village” and “knowledge society” (Carneiro, 2000) , through the dissemination of activities that worked on the skills of entrepreneurship.

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