Decision Making

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TEACHER2020

ENTREPRENEURIAL EDUCATION
Initiatives and Guidelines

Co-funded by the
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ENTREPRENEURIAL EDUCATION
Initiatives and Guidelines

Index

Introduction

Origins, concept and construction of Teacher 2020

George Head, University of Glasgow on behalf of Teacher 2020 partners

This handbook represents the culmination of the work of the Erasmus+ project Teacher 2020. The project was aimed at enhancing entrepreneurial fluency among teachers. Entrepreneurial fluency can be understood as a way of working and learning, an attitude towards the surrounding world, a pro-active mind-set, a will to change and a drive to take initiative and risk. The reasoning for generating entrepreneurial fluency among teachers is based on an argument that traditional approaches to teaching and learning are inadequate for 21st century education of our children and young people. Instead, the European Commission has argued that, 'students need authentic, practical experiences and realistic learning environments as essential parts of active learning' (*Entrepreneurship Education, 2011*).

Furthermore, the Commission argues that, in order to understand entrepreneurship and be able to teach students how to be entrepreneurial, teachers must first develop their own entrepreneurial competency and skills through hands-on, real life experiences, preferably in collaboration with the wider community and local businesses (*Entrepreneurship Education: A Guide for Educators, 2013*). It should be noted, however, that the concept of *entrepreneurship* is not limited to a narrow focus on creating new businesses but is based on a broader vision that entails developing a collaborative pedagogy that is creative, imaginative and based on real-life experiences. This mirrors current developments in education systems throughout the world where learning is moving away from subject based curriculums to become interdisciplinary, active, learner-centred and related to issues in the wider world. The task of the Teacher 2020 project, therefore, is to explore and analyse entrepreneurial projects in the partners' own contexts in order to develop resources for teachers and students throughout Europe.

The project's work method included vertical and horizontal organizers. The intersection of these organizers ensured the creation of the resources and documentation needed to produce the project's outcomes. The vertical organizer operated to structure all project phases and all project activities that produced strong coherence along the project, and informed the framework for the key project outcomes. The horizontal organizer ran through the project clusters, increasing the complexity of the activities and results, including building on the increasing capacity of the projects and their participants through accumulating knowledge, experiences and resources.

Using this handbook

This handbook is not intended to provide or replace the real-life experiences suggested above. Instead, it offers a series of examples of projects and an explanation of what made them successful (chapter 2). The structure of the handbook reflects the thinking and working of the project partners. At the outset, we were aware that entrepreneurship meant different things to different people and was similarly variously conceptualised in the literature. We began, therefore, by exploring the range of definitions of entrepreneur-

ship, not to reach a settled meaning for the project but to enhance our understanding of the multifarious nature of the concept. We were also concerned that our work should not begin with theory but be led by practice, which should then inform theory. The project, therefore, was an exercise in theory building as it arose from the initiatives and our own continued learning. If the initiatives provide inspiration and motivation for similar projects, then by all means explore the possibility of creating a similar project of your own. Do not try to import them and simply replicate them but consider what would be appropriate in your own context. It is important, therefore, when thinking about the initiatives, not only to consider what took place, but how it was created and progressed and why it was successful. The third section includes reflections derived from the practical initiatives. Using the tool to assess entrepreneurial initiatives (section 3.1) and the global framework (section 3.2) will help you understand the projects and support you in creating your own. We have also included our thoughts on the goals and the methodologies of entrepreneurial education (section 3.3) and communication (section 3.4). which became increasingly important as the project progressed and which developed through our growing understanding of the initiatives and our continued reading and learning. The sections in the handbook, therefore, can be used as materials for thinking. From the definitions to conclusions, each section provides opportunities for teachers and students to create their own experiential learning opportunities and drive their own entrepreneurial fluency.

Acknowledgement and thanks
All partners in the Teacher 2020 project acknowledge the support and opportunity provided by the Erasmus+ programme. We would like to thank the European Commission for their creativity and resourcefulness, which allowed this project to take place. We are immensely grateful to the Commission and Erasmus+ for the chance to work together with such committed and enthusiastic partners from across Europe. Teacher 2020 has been an enriching experience, which was only able to happen through the good auspices of the European Commission.

1. Defining *Entrepreneurial Education*

Mariana Ratui. ACTA Center, Romania. | Cathy Fagan, University of Glasgow, Scotland

Entrepreneurial education seeks to support students to develop the capacity to do new, creative, innovative things that add value for themselves and the wider community, in response to opportunities or needs.

Thinking and behaving in entrepreneurial ways in educational settings has its origins in understandings of entrepreneurship and what it might mean to be an entrepreneur. Early mention of the term *entrepreneur* emerges in the nineteenth century in relation to economic activity. Jean Baptiste Say described an entrepreneur as someone who was able to bring about economic progress by finding new and better ways of doing things (Binks, 1990). Differences in preferred definitions of entrepreneur and entrepreneurship continued to persist with Mark Casson (1982) defining an entrepreneur as 'someone who specialises in taking judgemental decisions about the co-ordination of scarce resources.' These ideas are rooted in business and economic visions of entrepreneurial behaviour. Peter Drucker (1985) began to explore wider definitions of entrepreneurship by considering entrepreneurs as those who respond to, and exploit, opportunities for change. He claimed that if an individual can face up to decision-making challenges then that person is capable of behaving entrepreneurially and can learn to be an entrepreneur. An *entrepreneurial spirit* can, therefore, be identified and characterized by innovation and risk-taking, and is an essential part of a nation's ability to succeed in an ever changing and increasingly competitive global marketplace.

The skills and attitudes that are useful for behaving entreprenuerially in business and economic settings can, however, have relevance in wider contexts for learners.

A recent report by the European Commission (2016) has proposed that *entrepreneurship education* is about learners developing skills and mindset to be able to turn creative ideas into entrepreneurial action. This is identified as a key competence for all learners, supporting personal development, active citizenship, social inclusion and employability. It has relevance across the lifelong learning process, in all disciplines of learning and to all forms of education and training (formal, non-formal and informal), which contribute to an entrepreneurial spirit or behaviour.

Entrepreneurial education is not only about educating people to start a business but also means supporting students to develop knowledge, skills and competencies which will help them to engage in a more enterprising, innovative and flexible manner in the changing life-

experience environment of the present day. These are all aspects that should be considered to support the development and flourishing of every person. The European Commission definition focuses mainly on employability and the commercial or economic effects of *entrepreneurship* education that is developed as a key competence for all learners.

Participating in the Teacher 2020 project has supported us in reviewing the approaches taken to education in our respective countries and demonstrated that an entrepreneurial spirit can be found in all aspects of learning and teaching. Entrepreneurial education seems to be an appropriate term for our educational purposes and we can, therefore, propose a Teacher 2020 definition thus: *Entrepreneurial education* seeks to support students' ability to develop their capacities to do new, creative, innovative things that have value for themselves and for the wider community in response to opportunities or needs.

2. Entrepreneurial Education Initiatives

2.1 University of Girona

Creative Undertakings through Musical and Visual Languages

Ivet Farrés i Cullell | Karo Kunde | Marta Carreras Güell[1] | Mariona Masgrau

Two Languages, One Story, Zero Words
Educational institutions involved: University of Girona, Pla de l'Estany Secondary School (Banyoles). Catalonia, Spain
Age of learners: 14-15
Duration of the project: 7 sessions of 1h
Keywords: intermediality, arts, visual and musical narration, creativity, book publishing

Linking art, school and town: Creation of an exhibition
Educational institutions involved: University of Girona, Puig d'Arques Primary School (Cassà de la Selva). Catalonia, Spain
Age of learners: 5-8
Duration of the project: 2 months
Keywords: interdisciplinary learning, artistic creativity, art exhibition

Introduction

Which possibilities does the combination of arts and entrepreneurship give to education? Which new abilities and strategies can students acquire?
The following chapter provides some responses to these questions, comparing two didactical initiatives, which combine arts and entrepreneurship education. The first, *Two Languages, One Story, Zero Words*, promotes arts education, with a special focus on intermediality and creativity, in a third year of Secondary School (age 14 to 15) entrepreneurship class in Banyoles (Catalonia). The second, *Linking art, school and town: the creation of an exhibition*, encourages entrepreneurial education in early childhood (5 years old) and primary initial course (age 6 to 8) arts classes in Cassà de la Selva (Catalonia).

Two Languages, One Story, Zero Words was a proposal to improve some of the competences needed in today's society —teamwork, self-esteem, involvement, motivation, creativity, initiative and divergent thinking— focusing on creative, intermedial and micro-enterprise tasks. Students took advantage of the end product for their aim to collaborate with an endometriosis disease's foundation, selling it at Saint George Fest, Catalonia's book day.
Linking art, school and town: Creation of an exhibition was introduced so that students with creative concerns could bring forward their ideas and give shape to their creativity. It is a project that boosts personal autonomy, critical sense and teamwork, as well as arts management and public participation.

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[1] Farrés and Kunde coordinated the "Two Languages" project and Carreras *Güell* coordinated "Linking art, school and town project".

Both projects promote the use of different languages (art and music) as alternatives to share emotions and concerns, with a personal aim of pleasure, but also to transmit a message. Therefore it is necessary that the artistic works of students find other public outlets, beyond the assessment of the teacher and parents.

In the case of *Two Languages, One Story, Zero Words*, results showed also that it is important to work with different languages in the school curriculum as a daily task. A new product arises from this relationship. It generates new techniques, new resources and new perspectives. Moreover, the narration gains expressiveness. The intermedial influence in entrepreneurial education is therefore also going to be analysed in this section.

Description

Two Languages, One Story, Zero Words

The initiative was planned to be carried out over 5 sessions. However, two more sessions were added: one to encourage creativity and the other due to technical problems during the production. The sessions are described in the following section.

The aim of the first session was to create a theme for a musical-picturebook by using ordinary material from the classroom. The students were encouraged to explore and experiment with the sounds made by everyday material they could find in the classroom: first of all, in four small groups organised by the material type (wood, metal, water/crystal and paper); and later with the whole class in a drum circle. We recorded those sounds and small music pieces during the whole activity and those responsible for the initiative used them to compose a final theme.

The goal of the second (and third) session was to prepare illustrations as a reply to the musical theme. Once participants heard the music, they decided the theme ("the contagious rhythm"). First individually and then in pairs and they drew whatever was in their mind. As the artworks were quite stereotypical (notes dancing over the page or people singing or playing instruments), those responsible for activities decided that it would be necessary to repeat the session providing the students with a creative technique. The one used was IdeArt (Franc Ponti, 2000), which consists in first describing and conceptualising an aleatorically chosen image and then forced analogies between these descriptions and the creative focus (in our case, transpose music into a drawing). The new results were impressive, and all the participants realised that if they wanted to be innovative, they needed time to try several possibilities.

In the next session all the participants tried to reply the drawings with music, using movement as a translator. We used The Machine technique, a drama warm-up exercise, as a response to provide other types of communication to students, apart from the verbal one. We divided the class in two groups, each of whom had to represent the images with movement. We asked one to start and the others to add movements creating a performance, where body and voice produced sounds. Then the students could take any instrument (mainly percussion) and go on with the movement. That is how they created six incredible pieces of music. The last and final one was an improvised musical battle.

The main objective of the fifth session was to produce the pages of the picturebook through a lithography technique. Students printed their drawings in pairs using a technique called *kitchen lithography*, which consisted of printing, using everyday material: tinfoil, crayons, cola and a rolling pin. This was enough to create the plate, acidify it and print it on paper. As we had a little but significant failure during the first try (we used the wrong side of the tinfoil), we had to repeat this session.

In the sixth session, students bound the pages of this handmade musical-picturebook using the Japanese style of bookbinding. They were able to finalise their musical-picturebook in an easy and skilful method. Those responsible brought the covers (we made them, due to the missing time to make them in class), as well as two digital printed pages with a short explanation and the QR codes of the digitalised musical pieces. Students had to finish the cover, join the papers in the correct order, make the holes and bind the books.

Finally, in the last session the main goal was to evaluate the initiative through creative dynamics. Assessment was done from the beginning by our observations during the sessions. Different strategies and resources were used to evaluate the process and the final results. First of all, those responsible wrote field notes of each session including their perceptions and observations and later on, they evaluated the final product: a musical-picturebook without words. Following the idea of entrepreneurial initiative those responsible proposed an activity of self-assessment and peer-assessment in a creative way, which consisted of representing the evaluated concepts, for example cooperation, final product, work process, responsibles evaluation, with visual, musical or kinetic media. This way we also used the different types of language during the assestment.

Linking Art, School and Town

In this project, the students staged an art exhibition with the art works they had been working on during the school year.

The project consisted of 5 distinct phases, which were as follows:

First pupils created their works of art using different materials for the exhibition.

Then they had to design the exhibition. They chose a showroom, observed it, took measurements and decied how to organise the exhibition.

The next step was to design and distribute an advertisement to invite all the community to visit the exhibition.

In the following sessions learners assembled the exhibition according to their plans.
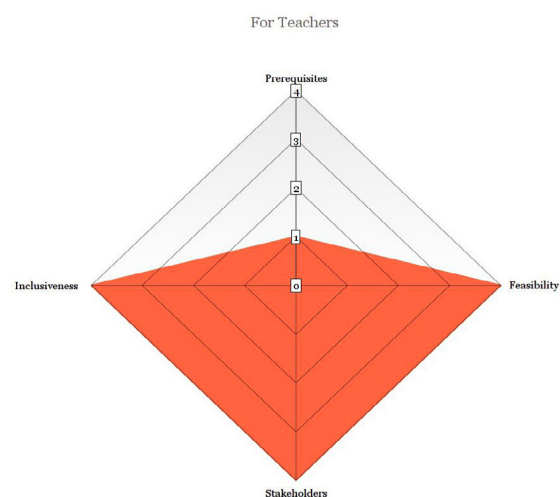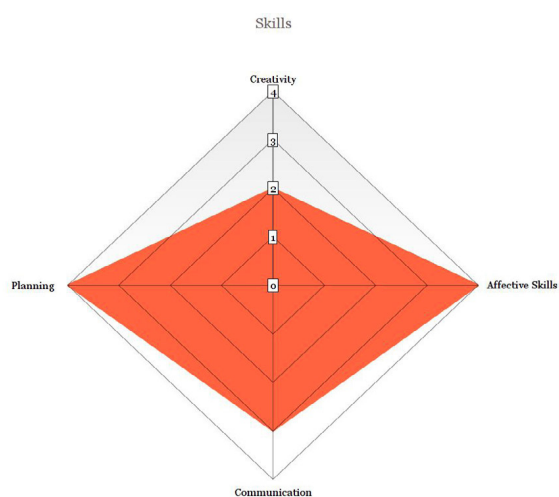

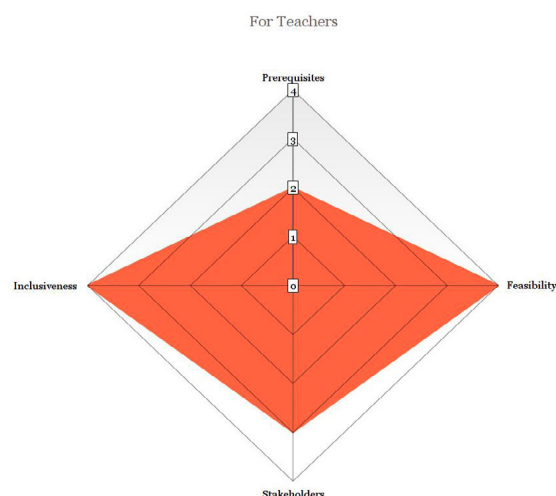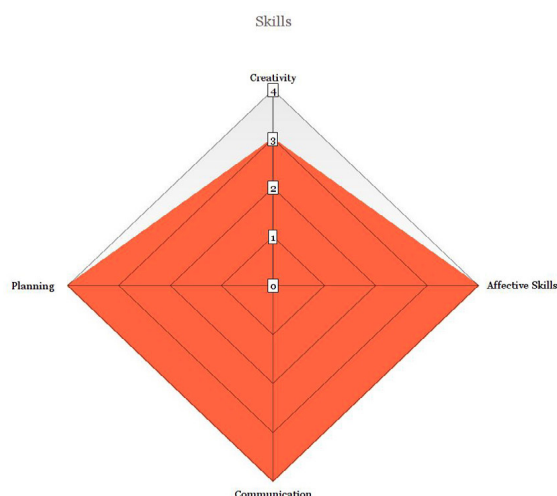Finally pupils could observe the results and celebrated.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[4]

Two Languages, One Story, Zero Words

²See chapter 3.1

Linking art, school and town: Creation of an exhibition

Skills

Creativity

Planning

Affective Skills

Communication

For Teachers

Prerequisites

Inclusiveness

Feasibility

Stakeholders

Based on the initial objectives it can be concluded that both initiatives were very dynamic, active and cooperative experiences. All the students had the opportunity to individually search for their solutions to the problems and to interact with other classmates to achieve the main goals. As the World Arts Alliance (2006) outlines:

Collectively the arts offer young people unique opportunities to understand and create their own cultural and personal identities. They stimulate interdisciplinary study and participatory decision-making, and motivate young people to engage in active learning and creative questioning.

Therefore, these entrepreneurial projects stimulated the students to create networks in a natural, cooperative and familiar way. They also provided an interdisciplinary project, where arts, mathematics, and many others dimensions were taken into account.

Moreover, students had the possibility to decide many aspects in the global project, especially in *Linking art, school and town: Creation of an exhibition*. They had to choose the place to present their final product (taking into account some variables and important factors established by those responsible), they designed the poster with all the information attached, and they organised all of their works to be on display. In addition, in *Two Languages, One Story, Zero Words* students were part of the decision making, not only in the creative issues, but also in the management of selling the final product.

Strong points
- All students were actively included in the learning process.
- Several local institutions participated in both projects.
- Being exposed to the public view gave real value to both projects and at the same time situated students into a risk-taking situation, enhancing in this way the creative work.
- Students had to organise themselves and work in teams to accomplish the aims of the project.
- Non-verbal communication is required.
- Self-esteem, overcommitment, initiative, personal autonomy and critical sense are improved.

Weak points
- Those responsible for the project introduced the students to *Two Lanuages, One Story, Zero Words*. They also introduced the techniques to be used. It would have been possible to empower the students even more by letting them discuss the proceedings, format and project design.
- There wasn't enough time for individual reflection and also a lack of time to share and debate different points of view between participants.
- A reliance on common stereotypes suggested there was a need to strengthen the talent of the students during each session.

Challenges
- Time: the more, the merrier. The creative value of artistic creations increases from the work or with the cyclical review. So having more time to dedicate in creative work means widening horizons.
- Communication: Non-verbal communication was enhanced, though students and teachers required verbal communication. One of the challenges of these art projects is to accept non-verbal languages as communicators and learn to interpret them without the need of verbal language.

A critical review of the project (using the global framework)[3]

Which influence has the use of alternative languages in entrepreneurship education? Having a closer look at intermediality in *Two Languages, One Story, Zero Words* gives us some answers. Even though in this initiative those responsible proposed the final product and the development of the sessions, many entrepreneurial skills were required of the students. Not only were they meant to work out a collective story, but they had to produce and sell it through team work thus highlighting the individual commitment to group effort. Also the "worthy goals, sense of belonging, commitment to quality, and feeling supported" were, as Searle and Swartz (2015) say, "the essential glue that [bound the] group to both the work and each other".

During the development of the visual production, they were invited to rethink their outcomes —in order to improve the final result— having to employ divergent thinking, creativity and motivation. They found themselves in situations where they got stuck in the production and were forced to find solutions. Even though they had to deal with some mismanagement, their motivation grew each session thanks to the positive inputs they got by turning the initial idea into a final product. This initiative increased their self-esteem and made them realise that they can be very creative.

There is one skill that was a motivator for those responsible in this project: innovation. The aim was to promote students' creativity and divergent thinking. As Edgar Morin (2007) emphasised

> [i]t is grounded in the need to find knowledge that is pertinent for the human quest to understand and make sense of lived experience, and of the 'big questions' which are increasingly left out of academic discourse precisely because they are too complex and span a variety of disciplines. Lived experience, in this view, simply cannot satisfactorily be reduced to the perspective of one discipline.

As Rajewsky (2005) says "Intermediality opens up possibilities for relating the most varied of disciplines". Intermediality, therefore, was a very interesting starting point. It generates new techniques, new resources and new perspectives and is a creative and innovative resource.

Students are used to the narrative that comes out of the combination of pictures and words. They are also more than used to audiovisual products. But creating a story with only music and pictures was and is —at least in the musical-picturebook production— something very innovative.

Conclusions

On the one hand, art contributes to alternative ways of thinking and decision making to entrepreneurial education. On the other hand, entrepreneurial education projects facilitate interdisciplinarity and social aims within art education. In both cases it seems that the fact to exhibit artwork in public adds an extra value to the students' process and increases their self-commitment.

[3]See chapter 3.2

2.2 ITE Scarpellini

Entrepreneur's Social Responsibility – Co-Marketing Contract

Margherita Battaglini | Donatella Mancini | Marinella Magrini

Educational institutions involved: ITE Scarpellini (Foligno), ANT Foundation Italy, (Bologna). Italy
Age of learners: 16-17
Duration of the project: 8 months
Keywords: voluntary work, entrepreneurship responsibility, social welfare, marketing

Introduction

This initiative wanted to develop students' social responsibility so that they would be able to apply it to their professional field and turn it into entrepreneurial social responsibility. The challenge was to train our students as potential entrepreneurs, make them responsible for the social and economic growth of the area where his/her enterprise is located and contribute to the common welfare. The transition from individual social consciousness to collective shared responsibility will encourage and help public institutions, politicians, profit and nonprofit organisations to promote sustainable and "clever" development of the area with special attention to social and environmental aspects.

Description

The students and teachers from the classes involved came up with the idea of exploring the meaning of entrepreneurial responsibility. Guided by the teachers in charge of the project and after a brainstorming session, they mapped out the ideas fostering an entrepreneurial mindset to make them ready to engage in the project and to make the most of it.

A group of students was selected from the class to carry out marketing and communication tasks for non-profit institutions. Working in different fields, they participated in many initiatives promoted by the volunteering nonprofit associations. Following this they coordinated a class discussion using all the information and stimuli they received at the meetings and working sessions. The technical session was carried out in a multimedia computer laboratory where the students, guided by teachers, designed co-marketing contracts.

This kind of contact is called *philanthropy contact* or *cause-related marketing*, and it refers to a type of marketing involving the cooperative efforts of a for-profit business and a non-profit organisation for mutual benefit. The group will work with the non-profit association

ANT in order to design co-marketing labels between bio product companies of the region and ANT (it provides free social-health assistance at home to cancer patients) and to help this institution and its aims. They have chosen bio products enterprises because ANT at the moment is carrying on a campaign about the importance of a correct life style for cancer prevention. While working autonomously they have to reflect on the procedure they have to use to collect information on the analysis and communication of results.

Non-profit associations and local entrepreneurs took part in the debate sessions: the students shared their ideas with the local stakeholders about what they had learnt, they analysed the advantages of non-profit associations and debated about the new vision of "the entrepreneurs who are aware of their social responsibility".

Finally, entrepreneurs, a non-profit association and students met in order to stipulate a co-marketing contract.


On their own initiative students organised an Easter Egg Sale during a students' assembly. The aim of the sale was to collect funds for ANT, which is the partner with whom we co-produced labels for organic products. ANT is an association providing home care for cancer patients.

Students participated in a Conference about Entrepreneurs' Social Responsibility.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[4]
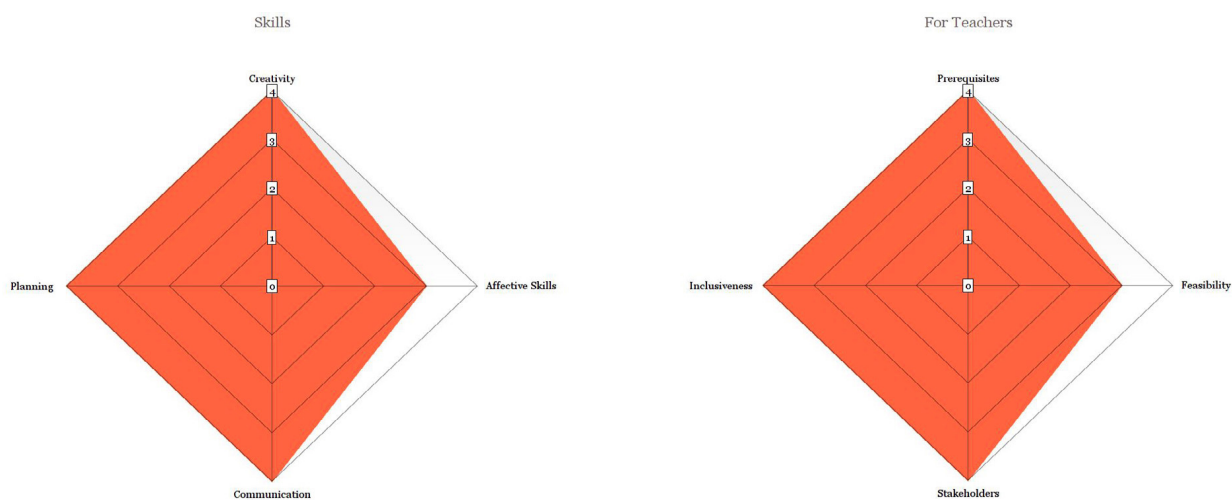
The initiative was relevant for the teachers and the students. The teachers tried new strategies in order to help their students express themselves in the best possible way. They also experimented through the spider analysis evaluation tool that provided useful feedback. The students worked in teams in open classrooms, saw how to develop their creativity and boost self-confidence. Moreover the teachers and the students have become aware that becoming entrepreneurs does not only concern business studies but is a broader concept involving the adoption of a new mindset.

Strong Points
• The project has proved to be relevant to the economic context of the school area thanks to the stakeholders' network, which has been created around the initiative.
• The initiative has enabled an excellent dissemination of the project main topic through the creation of co-marketing labels, which have proven to be a valuable contribution for the community.

Weak Points
• The weakest points are related to the structure of the Italian school system, where the teaching/ learning process is still content-based and academic. In particular the project team has been aware of the difficulties of transferring entrepreneurial competences and methodology and to make them transversal to the curricula in such a way that they could be contextualised.
• Critical thinking and problem solving are fundamental life skills which students should cope with in their educational process to overcome all life's challenges and sometimes it would require some new and specific didactic strategies.
• Through this project we have seen that we, as teachers and trainers, still have to work a lot to help our students become autonomous and self-confident when they want or have to express their own ideas, or develop their own projects.

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[4]See chapter 3.1

Challenges

Italy has not yet adopted specific measures aimed at the development of entrepreneurial education. In most institutions, our school system is more focused on knowledge and learning processes rather than on a competences and learning outcome based curricula. Planning of curricular entrepreneurial education sessions should include at least three goals based on this methodology:

- Clear definition of learning outcomes related to every initiative to be carried out.
- Creation of appropriate entrepreneurial education tools to assess prerequisites, the empowerment process, achievements
- Evaluation of the learning outcomes.

A critical review of the project (using the global framework)[5]

Social Justice

Our school is a vocational institute focused on economics and business studies but, as we know, entrepreneurship is not only concerned with business creation.

Thanks to this new approach we offered our students better opportunities and developed the teachers' awareness in relation to updating their methodologies to supply students and future adults with the appropriate tools to face a challenging and competitive world. Thanks to this initiative following an entrepreneurship education methodology, we are working on a real and possible change to guarantee the right of European citizens and workers not only to alifelong learning, but to a life-wide learning.

Entrepreneurial thinking develops self-awareness derived from consciously thinking, and from giving meaning and significance to the experiences that populate our lives. It is the understanding of what it means to be a life-wide learner, that is what the individuals use in their future imaginings, what can boost the decision making process, it is this consciousness that life-wide education seeks to develop.

Moreover our initiative, *Entrepreneur's Social Responsibility – Co-Marketing Contract*, is based on a real-world based environment and contextualisation is the key to its success. The students have had the opportunity to develop something meaningful for themselves and the community they live in with voluntary activities. They have reflected on the new role of the entrepreneur who is responsible for the welfare of the whole community he/she belongs to.

Inclusiveness

Sometimes it is very difficult to involve low academic achievement students in entrepreneurial activities and thanks to this initiative about the entrepreneurs' social responsibility, all students have been given the same opportunities. At the beginning the students were a bit puzzled because they are not used to being so personally involved and they had never worked using such an innovative methodology, but at the end their feedback has been positive.

A team of teachers carried out some specific activities aimed to help students develop self-efficacy and self-esteem. In organising entrepreneurial initiatives it is fundamental to raise students' aspirations by making them realise that they "can open all doors" and by equipping them with needed life skills. This is especially true for students coming from

[5]See chapter 3.2

disadvantaged backgrounds and with an early school leaving risk. They are difficult students and they may often lack the social and transversal skills needed to be successful. For this reason we organised activities in order to give each student specific tasks according to their attitudes.

One of the assessment tools was a student's personal diary about their experience. The diary was read and discussed in class to let them express their opinion and comment on strong and weak points.

Legislation, policies and initiatives
The Initiative has represented a great opportunity for our institute because it has given a great contribution to the teachers' training towards a real change in their daily approach to the learning process.
European directives have to mean that Governments adapt their policies to European common objectives. The last Italian School Reform is the attempt to fulfill the Europe 2020 objectives. The law introduced 400 hour internship to be done in a three year period and one of the main goals is the change in the assumption "learn first, do later" which has characterised the Italian school so far. Probably the effects of this Reform on young people's mindset shaping will be very slow because it does not take into consideration the different social and economic realities and the capacity of entrepreneurs to train students. A serious evaluation system of placements does not exist and teachers are rather confused.

Conclusions

Entrepreneur's Social Responsibility - Co-Marketing Contract is a community-based project that supplies real-world experiences: therefore contextualisation is the key to its success. Students have had the chance to work for non-profit organisations and learn from them. This way we have contributed to promote a new profile of the entrepreneur, who is responsible for the welfare of the whole community he/she belongs to. Therefore, the social relevance of the project has been fostered by starting from the citizens' responsibility (volunteering experiences) and has been transferred to the entrepreneurs' social responsibility (co-marketing).

2.3 University of Glasgow

Examples of embedded entrepreneurial skills within Scottish Practice

Susie Marshall | Lois Mullaney | Margaret Sutherland

Introduction

Although there are some far-reaching international policies to which many European countries adhere (see for example UN Convention on the Rights of the Child, UN Convention on the Rights of People with Disabilities), how these policies are enacted in the classroom will be dependent on national and local understandings. The role of the educator is crucial in developing classroom practice and so ensuring high quality career-long professional learning is a key component of ensuring change. Embedding pedagogical approaches that support entrepreneurial education and skills development must take cognisance of the context in which educators work.

Identifying, valuing and celebrating excellence remains at the forefront of the current curriculum developments in Scotland (SE, 2006). Curriculum for Excellence (CfE) seeks to develop a coherent curriculum from 3 to 18 (Scottish Government, 2008, 2009). Education Scotland, the national curriculum and inspection body, describes CfE as being designed 'to provide young people with the knowledge, skills and attributes they need for life, learning and work in the twenty-first century' (Education Scotland, 2010). The purposes of the curriculum, known as the four capacities, are to encourage each Scottish pupil to become a

- successful learner,
- a confident individual,
- an effective contributor and
- a responsible citizen.

Equipping educators to become entrepreneurial teachers has to be an integral part of teacher education. In Scotland, the focus on career long professional development is helpful. It allows for the embedding and building of entrepreneurial skills and development starting with initial teacher education and going on to working with advanced professionals and school management teams through certified Masters programmes and continuing professional development opportunities.

The projects from the secondary and the primary sector described below provide clear examples of how skills relating to entrepreneurial learning are embedded in current curriculum structures in Scotland and rely on teacher pedagogy.

Inter House Project
Educational institutions involved: University of Glasgow (Glasgow), Greenfaulds High School (city). Scotland
Age of learners: 12-18 years, Secondary School
Duration of the project: 9 months
Keywords: collaboration; sustainability; design; negotiation

Description

This project was developed in collaboration with a construction company that is currently involved in the building of a new school building for Greenfaulds. Close collaboration took place between the Pupil Support and the Design and Manufacture departments and Morrisons Construction. House groups (vertically organised groupings), each with representatives from every year group, were offered a design brief and asked to design something for the new school. They were given starting points for ideas along with anthropometric data and had to present and justify their designs, ideas and costs to a panel. Skills of communication, team work, creativity and reflection were developed where young people were to use their prior knowledge along with the skills of their team to construct something for the new building that would be innovative as well as sustainable. Young people of all abilities and with a range of additional support needs participated in mixed groups to complete the task which was in line with the four capacities of Curriculum for Excellence (CfE) and within the framework for entrepreneurial learning.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[6]
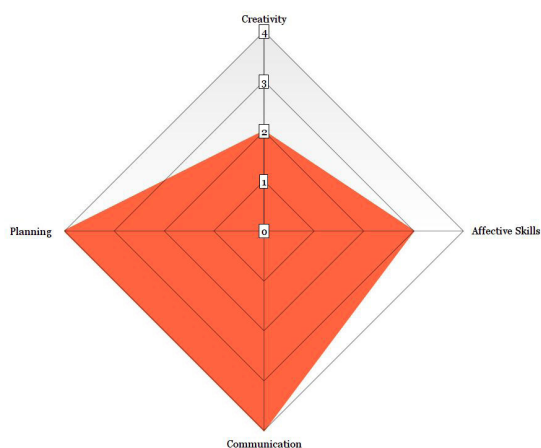
[6]See chapter 3.1

Personal Development Project
Educational institutions involved: University of Glasgow (Glasgow), Greenfaulds High School (Cumbernauld). Scotland
Age of learners: 17-18, Secondary School
Duration of the project: 1 school year
Keywords: support; barriers to learning; needs; relationships; reflection; interests.

Description

This project was run for 6th year pupils (of age seventeen and eighteen) who have expressed an interest in supporting the learning of other pupils. The Personal Development Award (PDA) is a Scottish Qualifications Association (SQA) course that particularly lends itself to focusing on the skills of creativity, emotions, communication and plannification that have been identified as being central to entrepreneurial learning. This curriculum is derived from SQA guidelines that are particularly flexible. For the Greenfaulds context, this course centres on supporting learners across the school and is supplemented by other student led projects that are dependent on their interests and abilities.

One of the four project areas allows for senior pupils to learn something of the main barriers to learning experienced by others as well as to think about how we learn. This has aimed the visit of specialists to run workshops for seniors to enable an understanding of needs and of building positive relationships to develop. The project then continues with the seniors being timetabled across the school for a number of periods each week, where they are involved in supporting learning in subjects they choose, using their own prior knowledge and enjoyment. The senior pupils are encouraged to reflect on their experiences through a diary as well as to create tasks for themselves that will help them to achieve targets set for themselves. A full review of each project is submitted at the end of the project.
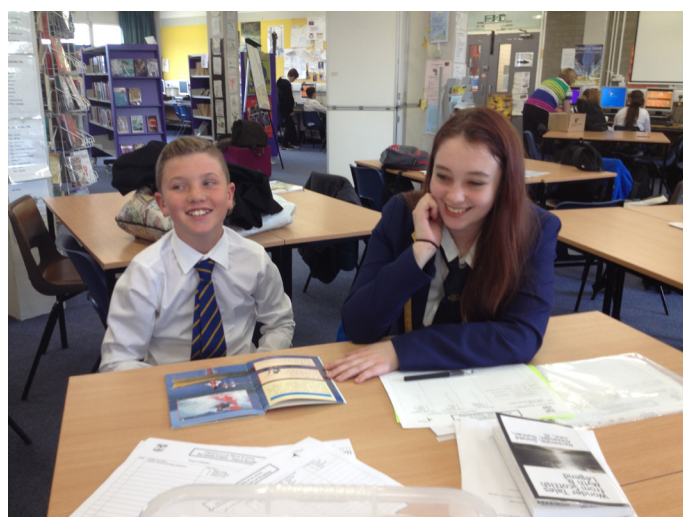
Other project areas develop with the school year and have included establishing a literacy project involving paired reading and spelling support; running lunch clubs for first and second years; facilitating baking and trampolining clubs; delivering first aid training (Heart Start) to the first year pupils as well as a number of presentations concerning bullying and

a range of other examples where participation in the school community has increased. Each project is based on the skills and interests of the seniors involved and on the life of the school at the time.

Each of the projects follows the same five-part structure that upholds the rubric for assessment of entrepreneurial learning. A "strengths, weaknesses, opportunities and threats" (SWOT) analysis capturing the feelings and emotions of the senior pupils was completed before the project starts. This is in line with CfE, which has a strong emphasis on the Health and Well Being of each of the young people. Through their own SWOT analysis in advance of starting the project, young people have a valuable starting point for their own development. Target setting is the second of the structured points and often targets take a weakness or a threat (pinpointed in the SWOT) as a point of focus for development. Tasks are then devised depending on the students' interests and prior learning and will be designed to help with the realisation of targets. The project will then commence involving self-monitoring through diaries or log books, logging any changes or developments along the way. Finally, pupils complete a detailed review for each project to share the outcomes of the project and reflect both in terms of its success in achieving targets and in terms of their own development.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[7]

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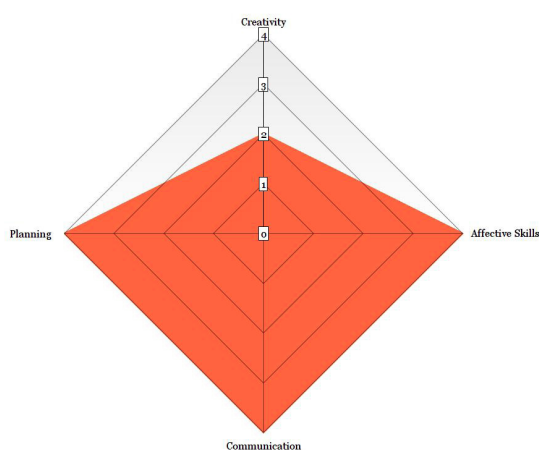
[7]See chapter 3.1.

The Class Pet Project
Educational institutions involved: University of Glasgow (Glasgow), Kelvinside (Glasgow)
Age of learners: 8 years; Primary School
Duration of the project: one academic term
Keywords: responsibility; organisation; inter-disciplinary learning; creativity; emotions

Description

The Class Pet Project was developed as a result of responsive planning. The Primary 4 class had been doing several weeks of work on persuasive letter writing in literacy. The final task was to write a letter to their class teacher to attempt to persuade them to do something that they felt strongly about. Eight members of the class wrote about why they felt it was important to have a class pet, a hamster. Following a class debate, it was agreed that most members of the class would also like to have a hamster. The Hamster Organizing Committee (HOC) was formed. Their role was to ensure that the conditions laid down by the teacher were met before full agreement was given. The conditions included organising someone to provide an old cage, ensuring that a rota was planned for feeding the hamster and cleaning the cage, arranging for students to take the hamster home at weekends and most importantly finding someone to take the hamster (permanently) at the end of the term. All of these conditions were met.

This project required a significant amount of creativity since the students came up with the original idea, but many things had to be organised before the hamster was purchased. There was a strong emotional investment and motivation to this project since the majority of the class wanted a class hamster, so they found lots of volunteers to support them in organising the work needed to be done. A lot of ideas were suggested to promote the care of the hamster; some students were given the task of creating a leaflet for how to take care for it on weekends. Once the hamster had been bought, planning ensured that the HOC had to respond to any issues that arose, including giving the hamster a name, organising classes from the school to visit the hamster and making alternative arrangements as one family were not able to look after the hamster for the weekend that they had agreed. At each step of the project, they had to evaluate what they had done and decide what needed to be focused on next. This project had huge potential for inter-disciplinary learning, particularly different writing projects. The students researched pet shops to visit, spoke to the pet shop owner about hamsters, designed leaflets, wrote letters for parents and even wrote a story about what the hamster got up to at night when the classroom was empty.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[8]
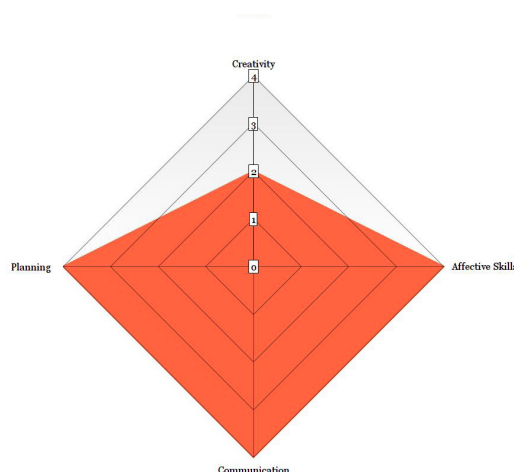
Micro Society Project
Educational institutions involved: University of Glasgow (Glasgow), Kelvinside (Glasgow)
Age of learners: 8 years, Primary School
Duration of the project: 10 weeks
Keywords: society, economy, decision-making, cooperative learning, business

Description

Micro Society is a ten-week programme of work involving students creating their own society within the classroom. Institutions required by the society are established, such as a government, a civil service and businesses. Currency is also created for the economy to run. This project encompasses many entrepreneurial skills such as decision-making, personal and social skills and working cooperatively. It also allows a context for the students to develop their understanding of the economy, politics and choice in the real world. Creativity is encouraged when the students are setting up their own businesses. Pupils focus on finding a gap in the market, promoting critical thinking and problem solving. There is a lot of scope for collaboration, but there is also flexibility, as some students had the choice to work by themselves. Debriefing is central to all stages of the process, allowing students to reflect on their learning and how they are feeling about the work. Families are also involved, which gives the students a sense of pride and encourages home-school links. Communication is at the heart of this project, as there is a focus on students discussing issues and coming to agreements within the society or their business group. Experts are invited to talk to the children and offer them advice when they are writing their business plans. At all stages of their businesses, planning is modified allowing constant self-evaluation of how successful their businesses are.

[8]See chapter 3.1

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[9]
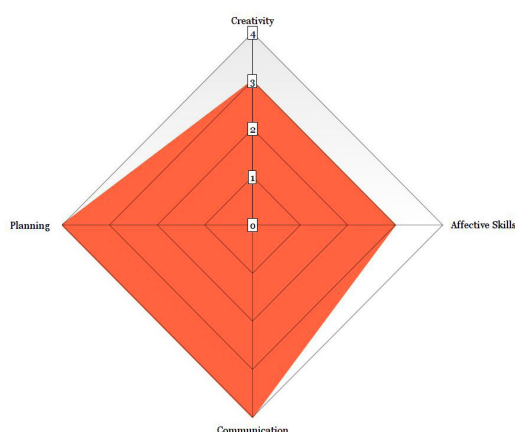
A critical review of the project (using the global framework)[10]

All of these initiatives can be easily linked with the framework that has been developed as part of this project. The initiatives, along with teacher education and career long professional development opportunities, have their roots in a social constructivist approach to learning and teaching. Consequently the learner is at the centre of initiatives ensuring that learning and teaching is responsive to learners' needs.

Social Justice
Social justice has its roots in human rights and equality and refers to the way human rights are manifested in everyday life and across society. In an education context issues of social justice are important as they link to issues of access, opportunities and attainment. This links well with Scotland's legislation and policy and thus elements of social justice can be seen in the way schools organise young people for learning. Throughout the development of the projects, the human rights of all participants were upheld through the pedagogical approaches adopted in the lessons. Social justice was also promoted via full participation and a safe learning environment.

Inclusion
The role of the student and teacher was of key significance in the projects and was based on the concept of the teacher learning alongside the students. There was a significant focus on overcoming barriers to learning to ensure full participation in the classroom and school community. This was achieved through careful and responsive planning. In addition, initiatives offered opportunity for challenge where pupils were already demonstrating expertise. In each of the settings difference and diversity were celebrated and seen as a natural part of what it means to be human.

[9]See chapter 3.1 | [10]See chapter 3.2

Learning and Teaching Issues

With the involvement of the students, there was an acknowledgement of their range of interests and experiences in directing these projects. The students' self-esteem developed as a result of being responsible for organising tasks and there was a significant amount of associated learning concerning health and wellbeing in caring and supporting their peers, wider community across the schools and classroom pet. With these projects adopting different teaching and learning approaches, there was an opportunity for students and teachers to reflect on their own teaching style and the impact this has on inclusion. All of the projects also encouraged a focus on interdisciplinary learning across the curriculum. The projects ensured that learning and teaching were at the core of activities and in doing this it brought together the entrepreneurial skills and pedagogical understanding of the teachers in order to develop both. The transfer of skills into other classroom activities was also an important aspect of the work.

Conclusions

Central to all of these projects is the students, particularly their involvement and emotional engagement with the projects. The secondary school projects enabled students to address issues around them and to become involved in change and development: both their own, on a personal level, and in the community. Whilst the Primary School projects relied on the students to determine the direction of the projects, careful guidance from the teacher was also a crucial aspect of the work. Essential skills of critical thinking, planning, communication, creativity, cooperative learning, self-evaluation and reflection were paramount for both the learner and the teacher. Projects like these involve risk taking for success, and outcomes always differ from one individual student to another. However, the longer term impact of the work on general learning and teaching suggests that taking these risks is critical to the development of pedagogy and an entrepreneurial approach to learning and teaching.

2.4 Global School Support

The Innovation Challenge

Educational institutions involved: Mølleskolen (Ry). Denmark
Age of learners: 13-18
Duration of the project: 2 lessons x 3 hours (+ spare time for some)
Keywords: Creativity, innovation, entrepreneurial mind-sets, decision-making, ideation, presentation, collaboration

Introduction

How can you turn your school into the best one in the world? This is the challenge the students are facing in *The Innovation Challenge*. Learners gain experience in working collaboratively, quick decision making and they have a lot of fun in the process. *The Innovation Challenge* is a great way of working with entrepreneurship, as it particularly aids the development of creative thinking, innovation and communication skills.

Description

In *The Innovation Challenge* the students come up with ideas on what they want to improve, in order to make their school the best in the world. The teacher facilitates the process of coming up with possible solutions through guiding the students. They are encouraged to build upon each other's ideas through a brainstorming session using post-its on the wall where everybody can see them. For example, some students combined the idea of making the school more green using solar panels with the idea of turning down the noise coming from the children playing in the school yard. They did this by making a "noise-blocking-wall" in the school yard with a surface made of solar panels. The students arrange and rearrange them and come up with further ideas after reading their classmate's post-its. Each group chooses an idea and works on it, developing it further by focusing on how much value the idea can add to the school and how crazy or creative it should be to catch the attention of the media. For example, some students decided to go with an idea of making a very cool roof terrace on one of the buildings, as they thought the "coolness factor" would catch the attention of the media. The groups decided how to present their ideas and practiced pitching it. The week after, the students presented their ideas at a fair, where a jury evaluated them on creativity, innovation and presentation, in order to announce a winner.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[11]
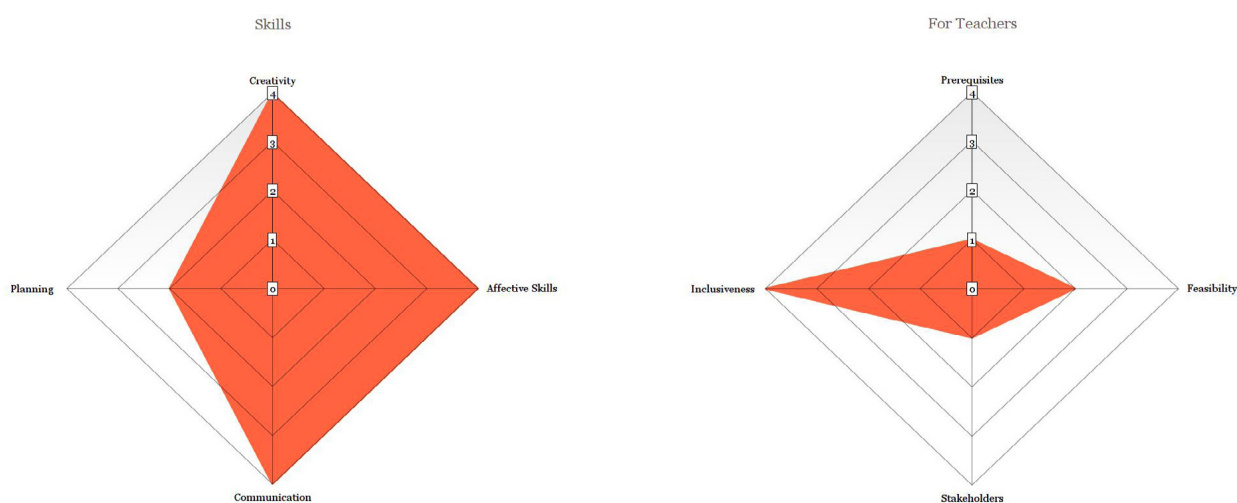
The spider analysis for teachers shows that the initiative requires little prerequisites from the students, as no previous concepts or skills are needed. It is relatively feasible, as only a few of the ideas can be put into practice and the initiative involves no other stakeholders than the school. However, the initiative creates opportunities for all students to learn and it can be assessed in different ways, changing the criteria the jury evaluates the projects on. In short, it is quite easy to put *The Innovation Challenge* into practice, including in classes and by teachers, who have not previously worked with entrepreneurial education. The spider analysis about skills shows that there are great possibilities in the development of the entrepreneurial skills - creativity, affective skills and communication - whereas it does not develop the planning skills strongly. It can be hard to support the development of planning skills if the teacher and students have not previously encountered much entrepreneurial education, so this is great initiative to start with.

Carrying out this initiative has made us realise how important communication is. We told the teachers and the students how the ideas were to be evaluated and valued, but later we discovered how differently we thought about creativity, innovation and communication. For example, we found that one was communicating that the ideas should be possible to carry out, and another was saying that they should be as crazy and creative as possible with no regard of feasibility. This showed a quite wide range of different ideas from the quite feasible proposal of introducing 20 minutes of yoga each day to the quite expensive, not as feasible but very creative idea of making a cooling system with water canals running decoratively through the classrooms. This was rather contrasting but after an eye-opening discussion, we agreed on the later, which was probably the reason for the broad diversity of ideas the students came up with. The strengths of this project include the high degree of inclusiveness as all students can contribute to their project based on what they know and are capable of doing. As the projects are evaluated by a jury, the project has a low degree of self-reflection, which can also be a strength, considering that many teachers (and students) need to get used to the new teacher role, get out of their comfort zone and try something untraditional without it being alienating. Therefore it is a great project to take on by teachers wishing to begin developing entrepreneurial mindsets.

[11]See chapter 3.1

Strong points
- It enhances the buildup of entrepreneurial mindsets in students and teachers.
- The starting point is a need for improvement in areas the students identify.
- It particularly enhances creative thinking.
- There is a high degree of inclusiveness.

Weak points
- Only a few of the ideas might be possible to carry out in real life, thus implementing little change in real life.

Challenges
- It could be useful to involve local companies in the project, perhaps by sponsoring a prize for the winning team.
- It could be interesting to extend the duration of the initiative to see whether the students can implement real change at the school or in the local community.
- Communication between students and teachers (and amongst teachers) is challenging but essential and provides a platform.

A critical review of the project (using the global framework)[12]

Social justice

Everybody has the right to education, but also everybody has certain rights in education. Education is a way of preparing the young people for the future, but how do we do this as teachers? It is rather difficult to anticipate what the future will look like, but we do know that we need to help the young people develop the skills needed. Without specifically knowing what these skills are, we do know we need to change something in our education systems. In the future, young people need to be able to define their own future careers, which is one of the reasons why teachers all over the world might value developing entrepreneurial mindsets. *The Innovation Challenge* is an initiative in which the instructor's role is shifting towards being a facilitator, mentor and guide or, in other words, being an entrepreneurial teacher. This new role is trying to empower and engage the students in order to create authentic learning situations. It is quite difficult for the instructors to take this new role on, as it may feel like losing control. During *The Innovation Challenge* initiative they actually ended up in the traditional role, evaluating the different ideas, thus ending up in the comfort zone of traditional teaching. This is a good way of getting first experiences with entrepreneurial teaching, for teachers as well as students, as it feels safe for both parties.

[12]See chapter 3.1

Inclusion

Even though everybody has the right to an education, not all ideas and projects are valued equally. Some student enterprises are more valued than others and presently many European nations face problems of inclusion. The classes are not homogeneous and are now composed of children with many different backgrounds representing a whole variety of cultures, values and capabilities. How do we include all young people in an educational system that only values certain enterprises? Entrepreneurial education could be the solution, as the development of an entrepreneurial mindset will empower the students and give them self-esteem. As the students in entrepreneurial education are actively taking part in defining tasks and aims, there is a greater chance of achieving small successes as they already know a little bit of what they want to do and how they want to do it. Entrepreneurial education can help students visualise what their own strengths are and provide them with motivating successes, as they complete tasks and projects. It can also be difficult for some included young people to work within the entrepreneurial framework as the predictability of entrepreneurial education is lower than traditional teaching and as they need to use their already known capabilities to build upon ideas.

Legislation, policy and initiatives

To what extent are the various assumptions, values and beliefs apparent in policies and practices at national, local and school level? The European and national Danish policies are consistent with each other and there is no doubt that they want teachers to help develop entrepreneurial mindsets in the young people so that they can set up a business or get a fabulous idea that will develop workplaces and boost the economy. However, there is a wide gap between theory and practice. The recent Danish educational reform of 2014 is an attempt to update the education system so that the results will be visible in the PISA test. This does not go well with developing entrepreneurial mindsets, though. In entrepreneurial education you don't necessary know exactly where the teaching will lead the students and the skills learned are not always are easily measured. However, the Danish teachers also recognised the need for entrepreneurial fluency as they wished to provide the young people with the skills and values that can prepare them for the future. A teacher cannot teach entrepreneurship without being entrepreneurial him-/herself. Many teachers in Denmark do not consider themselves entrepreneurs as they knew they would be teachers before applying to the teaching course at the university college, but more intrapreneurs where they develop something within a framework, like teaching. Therefore teachers actually have a good chance of succeeding in developing entrepreneurial mindsets as they themselves have experience in intrapreneurship and hopefully can transfer some of these skills. However, they need to develop this further so that they themselves will possess an entrepreneurial mindset in order to teach authentically. The recent reform of 2014 in Danish national policy actually encourages teachers to develop their teaching collaboratively, which is one of the most important skills within entrepreneurial education.

Conclusions

Central to all of these projects are the students, particularly in their involvement and emotional engagement with the projects. The secondary school projects enable students to address issues around them and to become involved in change and development: both their own, on a personal level, and in the community, whilst in the primary school, the projects rely on the students to determine the direction of their own projects. Essential skills of critical thinking, planning, communication, creativity, cooperative learning, self-evaluation and reflection are crucial for both learner and teacher. Projects like these involve risk taking for success, and outcomes always differ from one individual student to another.

2.5 La Draga School

The Classroom We Want

_____

Age of learners: 5 years
Educational institutions involved: La Draga School, Catalonia, Spain
Duration of the project: 1 school year
Keywords: design, assembly, cooperation, creativity, teamwork, democratic education, critical sense

Introduction

The beginning

In this project, that was implemented throughout a school year, pupils had to design the classroom from their needs and interests. What do we need? Where and how do we have to place the furniture? What kind of materials do we need? How do we manage the classroom? What will we do?

Of course, they could'nt work by themselves to face this challenge; therefore, collaboration and cooperation were necessary among all the community members: teachers, students, families, caretakers, head teachers… Nevertheless, those responsible of coordinating the project are the P5 teachers (Kindergarten teachers).

Why entrepreneurial education?
- Because pupils are special, adventurous, unique…
- Because initiative is the outcome of learning and experience. It isn't a spontaneous fact.
- Because we believe that people are not born entrepreneur, they become one. If we focus on entrepreneur's processes and attitudes, we will have the way on how to teach them.

Entrepreneur people are the ones who can set up a task from zero facing difficulties and risks like circumstances that can be solved. We understand those difficulties as opportunities to grow and progress.

Aims
- To explore the possibilities a space can offer, observe it with motivation and critical spirit, and get involved actively in its transformation.
- To use different ways of expression to communicate interests and expectations.
- To make decisions individually and in group.

Description

Start from scratch!
On the first day of school, pupils entered to an empty class (no furniture, no seats, no desks, white papers on the walls…). Pupils sat down and started making assumptions of what might have happened and the teacher explained the challenge: designed their own class according to their learning aims. One of the instructor's responsibilities was to manage the personalities and dynamics within the discussion group.

Space knowledge
The educator took advantage of the empty space by encouraging pupils and interacting with them. We considered that the place or context in which learning takes place is an integral part of the learning process.

Discovery games made pupils aware of different possibilities that a space can offer, as well as knowing other spaces and materials. Pupils also discovered their own personal capacities, interests and possibilities, as well as the others' potentials.

As said before, students constantly interact. Discussion becomes an excellent strategy for enhancing student motivation, fostering intellectual agility, and encouraging democratic attitudes. That's why the assembly played a key role in the project, since it was used as an instrument of decision making and of improving pupils' oral speech.

In the assembly we….
- made decisions from needs.
- solved problems from the upcoming needs.
- rectified errors, solve conflicts.
- organised and design different corners in the classroom.
- looked for material and resources.
- valued the different contributions, ideas and expectations and made decisions based on the votes.

Besides the assembly, students and teachers also visited other schools, or watched video images or audio-visuals to discover other kinds of organisations and material possibilities.

Designing the classroom

When the space knowledge stage was completed, it was time to decide how many learning centers pupils wanted inside the classroom. They had to be conscious of how many resources they needed and where they had to get them.

To distribute all the corners and keep everything located, students represented their classroom's distribution by using a free drawing or a map.

To sum up this phase, an architect or a design professional came to the school to advise the students of all the possibilities that the classroom offers, such as advising their initiatives.

Building the classroom

Students created their own classroom by organising and building their ideas according to the class assembly agreement.

Work done!

When the classroom was well organised and ready to work, it was time to show the project to others (teachers, families, other school students...).

Despite the fact that all learning centers can be settled down throughout the school year, inside the P5 schedule there is a specific hour dedicated to class assembly, where students can value the function of the different spaces and propose if changes are required regarding the material, norms or furniture placement. This supported this kind of initiative.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[13]
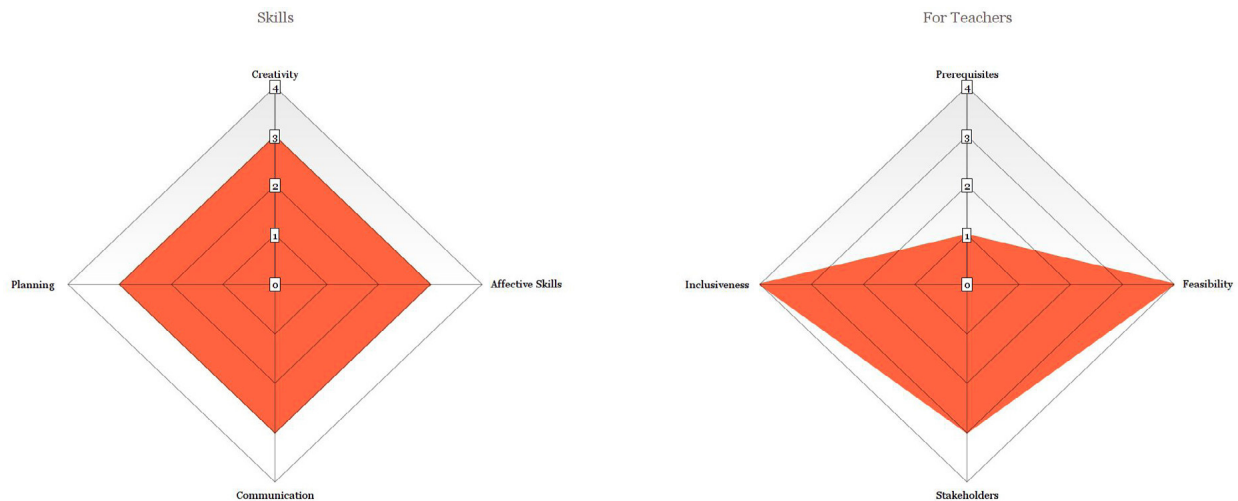
This was a consolidated project that was carried out in our school from 2012. During the course the project has evolved and achieved a higher quality: the teachers faced new challenges and learned how to take advantage of learning opportunities. They have introduced improvements to every course. Moreover, this learning experience has motivated the whole shool community to feel and believe in an active, participative, and creative education.

Strong Points
- High degree of inclusiveness: everyone can take part in the project activities.
- It develops entrepreneurial skills on every student: critical thinking, teamwork, failure as a learning chance, organisational abilities, democratic spirit.

Weak Points
- The project starts from a teacher's necessity, not from a real need.
- Learners' previous experiences influence in their new organisation ideas.
- Two teachers are needed in the classroom in some stages of the project.

Challenges
- It would have been useful to involve parents in the project to help us in the space design based on the children's proposals, placing furniture and elements chosen by students. It was also necessary to inform families about the evolution of the project.
- The architect visit must be before the children plan the design.
- We have to emphasise cooperative work.

[13]See chapter 3.1

A critical review of the project (using the global framework)[14]

Social Justice
One of the singular features of our school is entrepreneurial education. We consider that it allows all students to apply the knowledge, skills and attitudes learned in different life situations, flexibly and creatively. Understanding the challenges of our environment as possibilities of personal and collective growth is one of our priorities. In our school we also believe that to acquire new knowledge learners have to experience the joy of learning and motivatation; without this engine, progress and improvement are not possible. For all these reasons we believe that *The Classroom We Want* allows students experiential learning where the teacher becomes a facilitator and counselor and where students learn through real situations and by enhancing transformation in their environment.

Inclusion
The strategy that allowed a fair, democratic and horizontal education in *The Classroom We Want* were the assemblies. In assemblies all students were required to dialogue, express their points of view and reach common shared agreements. The sum of all contributions was what enabled improvement of the project year by year and made it different in every course. Each student brought their individual characteristics and helped the organisation, planning and execution of the project. *The Classroom We Want* implied in itself small projects that were developed as the students introduced their proposals: the design of a learning centre, the construction of a specific piece of furniture, etc. Students chose the initiatives in which they were interested and believed they could make good contributions.

Legislation, policies and initiatives
The current educational system in Catalonia gives priority to the development of basic skills that will enable all children to get a quality learning for life. Regarding the legislation and policies, the project matches the definition of the entrepreneurial competence of the Catalan Government for Primary Schools (including Kindergarten), which we consider an open and challenging framework to innovate in Education:

"Article 3. Aims

b) To be conscious of the value of team work and self-esteem. To develop different kinds of working habits and personal initiatives. To promote entrepreneurship, self-discipline, critical thinking, responsibility, curiosity, pleasure to learn and creativity during all the learning.

Annex 1. The basic competences

Competence 8. Autonomy, personal initiative and entrepreneurship. It is the acquisition of awareness and implementation of a set of interrelated values and personal attitudes such as responsibility, perseverance, self-knowledge and self-esteem, creativity, self-criticism, emotional control, the ability to choose, to imagine projects and turn ideas into action, learn from mistakes, take risks and teamwork."

(Decree 119/2015, published in DOGC number. 6900 - 26/6/2015 - p. 131)

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[14]See chapter 3.2

Conclusions

This project showed us that children are not born as entrepreneurs, but there are entre-preneurial attitudes that emerge from them, from their experience and from their own observation, problem-solving, decision making, team working and project management. In this way, the students' motivation and commitment to the project is reinforced and they are able to truly make it their own.

In addition, this project is an opportunity for teachers to innovate, to find out new ways for students to learn how to learn and it was a chance to profile them as entrepreneurs.

In conclusion, we consider that the most important thing in adopting the entrepreneurial approach is to believe that young people are capable of learning in a different way and of taking ownership of an entrepreneurial project. This means giving them more power to decide and to act with regard to a project that is meaningful because it stems from something that concerns them while, at the same time, meeting a real problem or need.

2.6 University of Pitesti

Children Reading and Creating Stories

Emanuel Soare | Claudiu Langa

Educational institutions involved: University of Pitesti (Pitesti), Dinicu Golescu City Library (Arges): Romania
Age of learners: 4-6, 6-8 and 9-10
Duration of the project: 2 hours
Keywords: communication, creativity, imagination, critical thinking, problem solving, literacy

Introduction

The *Children Reading and Creating Stories* initiative was carried out as a response to a general state of mind of the actual generations of students who do not care too much about reading. Due to the explosion of digital tools and to the big impact they have on children's behaviour, there is less and less interest and time spent by young people and adults, on reading. In this context, the Faculty of Educational Sciences of the University of Pitesti, Romania, gave birth to a new and innovative idea: how about making children read more by provoking them to create their own stories?
Starting from this idea, we settled a partnership with the city public library to organise, on a weekly basis, a workshop for children from 4 to 10 years where they were invited to tell and write stories inspired by their life, interests, problems, and to create and imagine new ones starting from their own stories and experiences. They were grouped in teams of a maximum 6 children of the same age.

Description

Besides the children, other stakeholders benefitted from this initiative, such as the voluntary students from our Faculty and the local community.
The main aims were to encourage children to become friends of the books and to help them create their own stories. In addition we wanted to create an interactive open space for children that was stress-free, full of satisfaction and that fostered authentic communication and critical thinking skills.
We had several specific objectives in mind, for children and also for the students that were involved. The objectives regarding the children were referring to the development of the interest in reading in order to foster their imagination and creativity, to enrich their vocabulary, to develop the free oral expression, to acquaint themselves with different text types and, not least, to help them develop critical thinking, problem solving and understand the cause-effect relationship.

Regarding the voluntary students objectives, they were the acquaintance with specific tools of non-formal education, the development of their communication skills, the boosting of creativity by the free choosing of the subjects and the way in which to approach them, along with the development of their capacity to adapt to unknown situations.

Several tools and materials were needed to develop the initiative: paper, stapler, pasting, colored pens for the visual images of the created stories and for the production of small books, hand dolls manually done for small dramatisations and story examples.

The voluntary students accompanied one group. During the first 10-15 minutes children became accustomed to the context and got to know each other. Then children were supported in order to create small dramatisations, images or oral improvisations, using as a starting point books or small paragraphs of stories to stimulate their productions.

Students guided the children by asking them questions that were necessary for reading a story (for example, identifying the main characters and their typologies, setting the time and the place of action, recognising the nature of the conflicts...), encouraging their free imagination. Children either explained the stories orally to the students, or presented them through images.

Students corrected mistakes made by the children and then repeated the short paragraphs that were not clear. This motivated the little story tellers to identify by themselves the problems and, importantly, solve them. This way we promoted entrepreneurial initiative by developing creativity, critical thinking and problem solving.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[15]
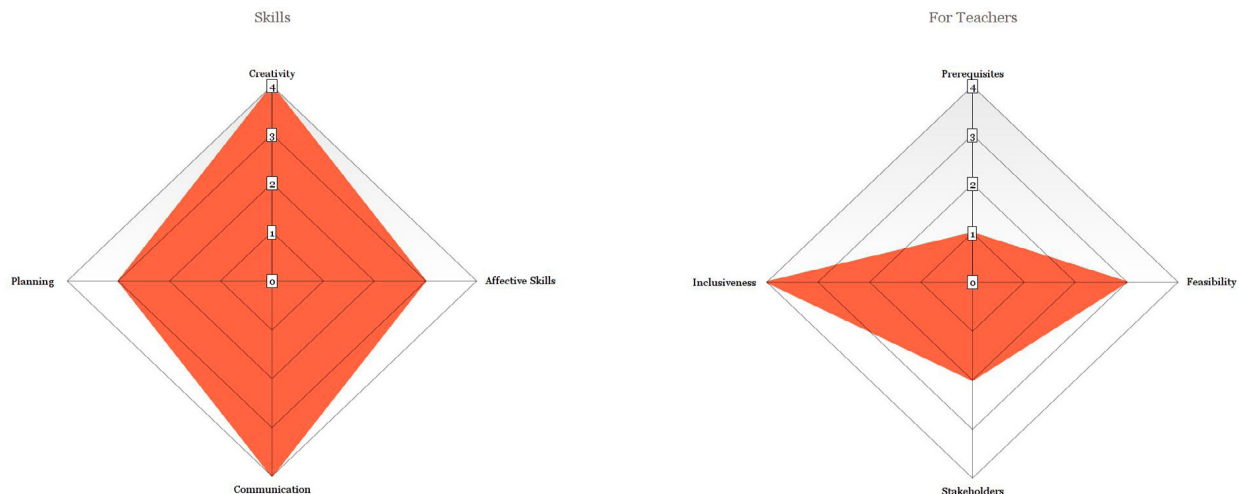
This initiative can be very important for developing children's creativity, problem solving and critical thinking because it is related with their psychological development and facilitates imagination, communication and self-expression. Children were eager to communicate their problems and were very open to express themselves. There was a favorable context for developing children's entrepreneurial skills and to better prepare them for further problem solving. The group interaction contributed to the development of children's social competence and helped them to communicate better and find solutions to their problems and contexts.

Strong points
• Challenging children to create stories from their life experiences and to imagine new developments enabled children's different types of intelligence and helped them think creatively about life and their problems.
• It greatly developed children's imagination and creativity, fostering their capacity to solve problems and stimulated interaction and communication with other children.

Weak points
• It was possible for several children not to be involved in the activity due to their lack of communication skills or their inability to express their feelings and thoughts.

Challenges
• The students/moderators of the workshops should have entrepreneurial skills regarding creativity, problem solving or critical thinking.
• As children did not know each other in the beginning of the activity it is possible that they will not engage in the story creation and thus, there could be some difficulties in generating meaningful learning experiences.

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[15]See chapter 3.1

A critical review of the project (using the global framework)[16]

This initiative can be easily linked with the framework that was developed in the project and its values and beliefs for inclusion, professional knowledge and understanding or skills and abilities for inclusion.

Social Justice
Throughout the development of the initiative human rights of children and of all the participants involved were respected. The students volunteered for this initiative and developed their entrepreneurial skills and contributed to social empowerment of children and the local community. The initiative was promoted in the local community as a free venture for all children regardless their social status, gender or cultural background. All the materials and tools were provided by the city public library and the Faculty of Educational Sciences.

Inclusion
This entrepreneurial initiative addresses all the children regardless of their language skills, ethnicity, social class or their level of poverty. It is equally open to the local community and fosters the participation of, for example, highly able children or looked after children. Actually, all those differences between children can be a success factor in reading and creating stories. As an entrepreneurial initiative, it aimed at fostering commitment to inclusion and to the protection of young children in order to facilitate their social and cultural integration.

Legislation, policy and initiatives
With regards to children's literacy and their growing lack of interest in reading and language development, this initiative supported national and European policies linked to entrepreneurial education and training of younger generations. It was considered as good practice for developing children's creativity, critical thinking and problem solving as some of the most important entrepreneurial skills to be developed.

Conclusions

Developing entrepreneurial initiatives like the one described above should become a priority of today's school curriculum. Challenging children to get involved in such an approach towards teaching and learning will impact their character, their curricular performance and their life competences. By focusing on creativity and problem solving, children will be better prepared for their scholarship and social challenges.
This approach will foster new expectancy in relation to the school curriculum and its outcomes and will prepare children for greater inclusion in their communities. It will lead to a greater involvement of children and their parents in school activities thus building a new generation of students that can approach more efficiently personal and social challenges.

[16]See chapter 3.2

2.7 Otrokovice Public School

The Alchemists' Night

Educational institutions involved: Otrokovice Public School, Czech Republic
Age of learners: 15-19
Duration of the project: 2 months
Keywords: project management, group communication, team working, public speaking, self esteem, collaboration, problem solving

Introduction

The Alchemists' Night was held in mid-December 2015 at the SPŠ Otrokovice. Over 350 participants experienced a magical evening full of alchemical experiments.
Children and their parents saw a lot of light experiments, the birth of Pharaoh snake, they tried the process of making soaps, gold coins, deciphering secret writings or healing abilities of the old masters-healers. The grandmaster and his assistants explained to them how to make pure gold from plums or construct a perpetum mobile.

Almost a hundred students of all grades in the field of chemistry participated in the programme. They prepared the chemical experiments for *The Alchemists' Night* and accompanied visitors in the school premises.

The activity developed the following competencies: communication, proactivity, initiative, planning, creativity, goal orientation, responsibility, teamwork, foresight, learning from mistakes, inventiveness.

The aims of the project were to:
• Know real professional and personal qualities of students when organising school-wide events.
• Independently solve ordinary working situations.
• Develop the ability to search for information (theoretical basis for alchemical experiments).

• Propose ways and possible solutions (to identify suitable trials in terms of organisation, financial security).
• Gain knowledge and skills in teamwork.
• Learn to communicate effectively with superiors (in this case with the school management) and appropriately cooperate with them.
• Exploit ICT resources (for the invitations, banners, presentations, videos).
• Learn to speak in public (via their own presentation).
• Learning how to present the results of their work (newspapers, websites, Facebook).

Description

Almost a hundred students from all grades of the field of chemistry took part in the programme. They prepared the chemicals for *The Alchemists' Night* and devised a total of 35 eexperiments for the general public. They brought the tea candles from home which made the atmosphere of evening events and accompanied visitors in the school premises. The preparations took place in early November, the coordinator of the event was a teacher, Lidmila Juraková.

The experiments that were held were: Gilding of coins, Blue flask, Making soaps, Magic flask, Flammable gel, Burning hands, Inflammable handkerchief, Chemists coffee, Chemist's bar, Trampoline, Secret writing, Pharaoh snake, Ghost in a bottle, Slime, Fake blood, Fireflies, Coloured flames, Burning font, Volcano, Bengal fire, Expansion, Bouncing teddy bears, Lightning in a bulb, Fluorescence, Elephant toothpaste, Sparklers, Convicted thief, Nitrocellulose, O2 generator, Burning beer, Blue beads.

The students' evaluation took place during the preparation, during ongoing experiments, and a few days after the event, when they met with their coordinator in lessons and discussed together about the attempts and the reactions of visitors.

Based on the feedback, the students decided which experiments they wanted to keep for next year and which ones they wanted to change. Preparations were mastered very well but we found out that we will need to streamline the system after the action.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[17]
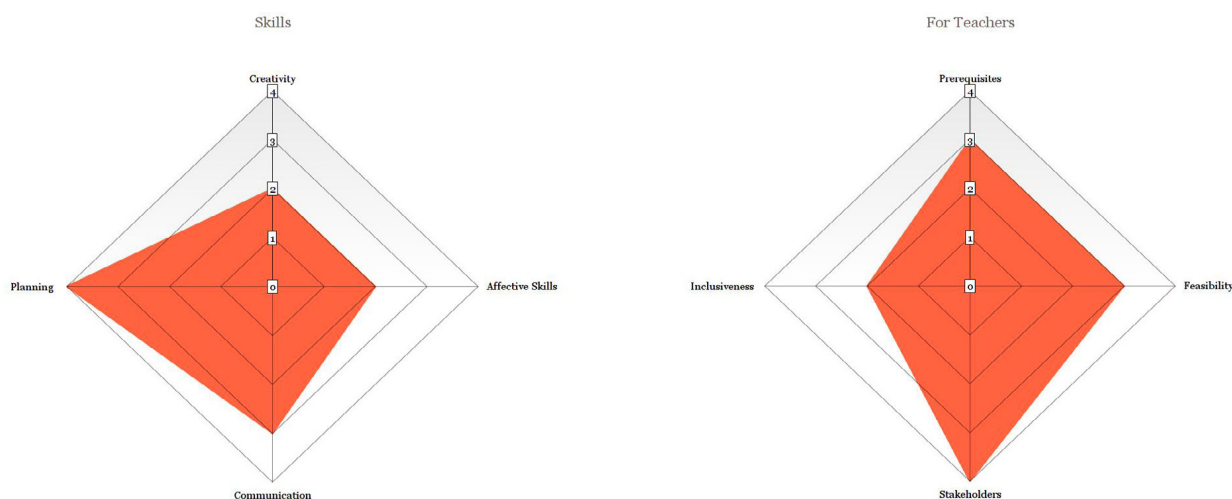
This initiative develops students' skills in three basic areas:
- **Management**: *The Alchemists' Night* promotes the development of skills within project management with a summary of activities consisting on planning, organising and controlling the specific project with a relatively short-term goal. Students were aware of the need to comply with the time limit, projected costs and other resources drawn.
- **Teamwork**: We were convinced that together everyone achieves more, that's why we included different types and levels of interaction (junior parliament, share point, social networks like Facebook, team meetings).
- **Communication**: This initiative promoted the development of students' public communication skills through demonstrations of practical activities (or attempts), which greatly contributed to and increased self-confidence. Students can boast of what they had learnt in a positive sense.

All these three areas together create a favorable environment not only for the development of future business skills, but also a healthy climate in a given group of students to allow integration into demanding and more creative projects in terms of greater autonomy, critical thinking, problem solving etc.

Strong points
- Students use the knowledge and skills acquired within lessons of specialized chemical subjects. In this way, they realize the practical use thus acquired knowledge and skills.
- Chemistry is a challenging field and students, due *The Alchemists' Night*, would be able to describe and explain the matter, activities, processes, which the general public usually do not really understand.
- Students will actually become teachers of their parents and friends, which support the much-needed confidence.

Weak points
- The project was focused only on chemistry's students.
- Due to the voluntary participation, only active, capable students who do not have communication difficulties were involved in this project.

Challenges
These are our future challenges to to be faced so as to improve this initiative:
- Proceed to the entire project strictly from the perspective of management so that students realise their individual stages: planning, organizing, managing, monitoring and motivation
- Put more emphasis on teamwork and awareness of the role of each member of the team
- From the position of leadership, encourage all classes at school so that next year they are more involved not only in the programme of *The Alchemists' Night*, but also in promoting this event (pre and post event).

[17]See chapter 3.1

A critical review of the project (using the global framework)[18]

This initiative can be easily linked with the framework that was developed in the project and its values and beliefs for inclusion, professional knowledge and understanding or skills and abilities for inclusion.

Social Justice
This project has the aim to transform societies by sharing the knowledge built in educational institutions with all their communities: families and people interested in chemistry and in life-long learning.

Inclusion
Regarding the inclusiveness, *The Alchemist's Night* should find the way to involve all the students in the celebration of the event, not only those who feel at ease with communication and public speaking.

Legislation, policy and initiatives
Regarding the Czech policies about entrepreneurial education, there is only minimal support to promote it and it does not have a long tradition, although in today's developed world, it is becoming an essential component of economic growth and quality of life. Therefore, the entrepreneurial education activities are rather uncoordinated, the conceptual approach is still being developed and schools are gradually gaining experience with the implementation of activities aimed at promoting entrepreneurship among students and teachers. Initiatives like this bring new strategies to promote innovation and change in teaching and learning in the XXI century.

Conclusions

Participative learning and open activities are an effective way to promote the natural sciences among the community and to motivate students to show initiative and get involved in the preparation of extracurricular programmes. On the other side gamification is a motivational methodology that works perfectly well for high school students of all grades.

When preparing and implementing activities like this, students can put their first entrepreneurial skills into practice and test them. Therefore, this project is a gateway to the wide open world of future projects, in which students will have to be more autonomous and creative and put more emphasis on critical thinking (for example, our project Students Make School).

[18]See chapter 3.2

2.8 Acta Center

Learning by Doing. The Simulated Enterprise IS GREENTEX SRL

Educational institutions involved: Acta Center, University of Oradea, ROCT (Romanian Coordination Centre of Training Firms)
Age of learners: students 3rd year undergraduate level
Duration of the project: 2014-2015 university year; activity in the simulated enterprise will be taken over and continued by other students in each academic year
Keywords: simulated enterprise, student, entrepreneurial education

Introduction

This entrepreneurial initiative in education is a practical application within the discipline of Economic Legislation. The aim of this discipline is to prepare the students to acquire and to use appropriate knowledge of economic legislation and thereby contribute to the formation of a responsible attitude on the agents' economic activities in accordance with the law, after their graduation.

The Simulated Enterprise (also known as the Virtual Enterprise or the Practice Enterprise) is a virtual company that runs like a real one. The Simulated Enterprise is an interactive learning method aimed at developing entrepreneurship by integrating an interdisciplinary application of the knowledge, which provide conditions for practical deepening of the skills acquired by students in training. The purpose of this teaching method is the business skills development of students by simulating the processes and activities that occur in a real company and its relationships with other companies and institutions. Simulated enterprise facilitates learning by developing the necessary legal and economic knowledge required in a real company, along with the acquiring of skills and competencies that can be applied in all economic endeavours and in all positions within a company.

Description

The overall objective of learning through simulated enterprise is to develop entrepreneurship by:
- Familiarising students with specific activities of a real company.
- Simulating business processes in a specific real business environment.
- Improving business language.
- Providing knowledge and factual information about the mechanisms of the market economy.
- Making students aware of the importance of studies and of getting a degree and the impact of young people in future economy.
- Encouraging competitive spirit, quality and responsibility.
- Developing the required skills and attitudes to become a dynamic entrepreneur.

The practice in a Simulated Enterprise develops competencies and contents such as:
- entrepreneurship
- administration
- personnel management
- marketing and sales
- accountancy
- computer-based skills

In Romania, simulated enterprises are integrated in a national network of training firms, coordinated by the Romanian Coordination Centre of Training Firms (ROCT). ROCT ensures that all activities simulate the real external environment of an enterprise. ROCT is a unique structure at national level, affiliated, at the EUROPEN (EUROpean Practice Enterprises Network).

Preliminary stage for the foundation of the IS GREENTEX SRL

First of all students collect all the information needed for a firm foundation from the qualified institutions: Trade Registry; Banks; Notary; Territorial labor inspectorate; Health Insurance House; Pension Fund and so on.

Then in teams they analysed and debateed all the information collected and started working together with the following objectives:
- Choose the company name.
- Design a company logo.
- Choose the proper legal form.
- Choose the type of business
- Establish the starting social capital
- Nominate the associates and the number of shares or actions.
- Prepare documents as required in ROCT constitution.
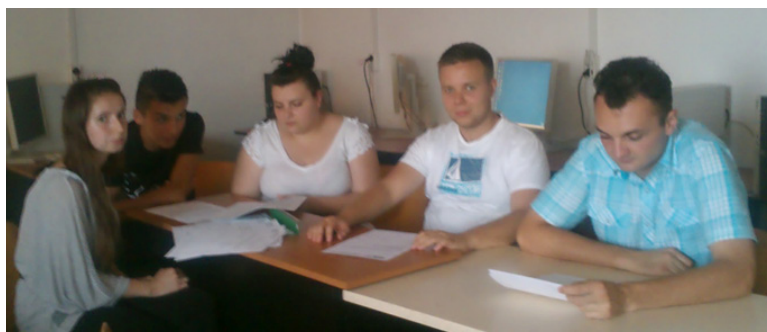
Stage of foundation of the IS GREENTEX SRL

When students reached the agreements that featured in their enterprise, they started setting it up. They requested a reservation of the enterprise name and they prepared the documents required:
- The application for registration and authorisation of the simulated enterprise.
- A constitutive act of the simulated enterprise
- Their own statements
- The declaration on the functioning authorisation
- Proof headquarters - rental agreement
- A request for issuing fiscal record
- A request for an account opening
- Sheet signatories
- The payment sheet at the social capital
- The power of attorney for filing capital
- The registration form in the database ROCT

They sent and archived all the scanned documents to ROCT. This way they got an account for the new simulated enterprise on the site www.roct.ro that would enable them to use the platform for recording transactions, communication with the other groups undertaking simulated enterprises, and other specific activities.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[19]

The entrepreneurial competencies developed through practice in a simulated enterprise are creativity, competitiveness, critical thinking, analytical thinking, problem solving, decision-making, team work, initiative, adaptability, perseverance, flexibility, self-organisation and self-evaluation of individual resources.

Strong points
• Enhance the buildup of entrepreneurial mindsets of the students.
• Foster the capacity to solve problems and stimulate interaction and communication.
• Promote teamwork.
• Prepare the students for their professional future life.

Weak points and future challenges
• We detected that there was a lack of time focused on the project: in future editions, we should spend more working sessions on it.
• We should promote communication between students and teachers and find new strategies to enable this to happen.
• The system and curriculum constraints – such as educational policies without continuity and stability or a curriculum loaded with too much theoretical information.

A critical review of the project (using the global framework)[20]

This practical initiative respects the principles of the framework that was developed in the Teacher 2020 project in relation to social justice, inclusion and legislation and policies. It can be considered as an example of best practice for developing creativity, communication and planning among students as some of the most important entrepreneurial skills. This kind of initiatives are a good way of preparing the students for their future work, of offering their first business experience and of linking theory and practice. It is a model of inclusion respecting the human rights and local, national and European policies and legislation.

[19]See chapter 3.1 | [20]See chapter 3.2

Conclusions

The Simulated Enterprise is truly a transformative teaching methodology that helps the students to develop entrepreneurial attitudes and skills, essential to success in their future workplace.

The students who benefit from entrepreneurial education, especially the ones who work in a simulated enterprise, develop a new attitude, a lot of business knowledge and entrepreneurial competencies such as creativity, initiative, perseverance, adaptability, flexibility, responsibility and teamwork. That means an entrepreneurial mindset develops and this will help them to transform the ideas into action and to become a good entrepreneur or *intrapreneur*. It will contribute to the increasing levels of active citizenship and employability, more jobs, and, finally, to a sustainable economic and social growth.

The students involved in the steps for the foundation of the *IS GREENTEX SRL* have appreciated this method of learning and are looking forward to the effective implementation of activities within this simulated enterprise.

2.9 Centro Studi Città di Foligno

B-Kids, Business Kids

Educational institutions involved: Centro Studi Città di Foligno, the Primary School of Magione (Magione); Italy. Escola Veïnat of Salt (Salt); Catalonia, Spain
Age of learners: 8-10
Duration of the project: 2 years
Keywords: creativity, involvement of the local communities, creation of local and European networks, teamwork, critical thinking, risk-taking, spirit of initiative, problem solving strategies, turn ideas into action

Introduction

With the support of the Association Study Center City of Foligno and in collaboration with the School Veïnat of Salt (Catalonia), the Primary School of Magione (Italy) got a European Union funding under the Erasmus+ KA2 for the project *Business Kids (B-KIDS)*. The aim of the project is to develop entrepreneurial education, encouraging young students' key attitudes, skills and competencies from Primary School throughout life.

Both primary schools involved in *B-Kids* argue promoting entrepreneurial mindset entails two key elements:
- A broader concept of learning entrepreneurial skills focused on the key competencies that play a key role in fostering young learners' democratic and active citizenship.
- A more specific focus on the learning enterprise skills on how to create and manage a business, providing early knowledge of and contact with the world of business, and some understanding of the role of entrepreneurs in the community.

But, going into business is not merely concerned with the creation and management of a new business. In fact, besides developing entrepreneurial attitudes, the core benefits of entrepreneurial culture and entrepreneur-building activities involve fostering young people's imagination, creative thinking, and autonomous and active forms of learning. Therefore, being so transversal, the entrepreneurial culture can be the basis for the acquisition and development of key competences for lifelong learning, in particular: communication, learning to learn, autonomy and personal initiative.

How has entrepreneurship been taught?
B-Kids experimented new ways of producing, documenting and disseminating entrepreneurial practice based on authentic experiences. In fact, *B-KIDS* aimed to promoting a very realistic approach based on creating practice in the field of entrepreneurial actions.

The project experimented with the integration of entrepreneurship in the curriculum, assisting both teachers and pupils to incorporate entrepreneurial culture into existing school curricula. Not only pupils can benefit from the project, in fact, *B-Kids* has also played a crucial role in assisting teachers to improve their competencies in the area of entrepreneurship education.

Considering the strong need to experiment with innovating ways, aimed at integrating the entrepreneurial mindset into the existing curricula, it is important to point out that the project did not deliver intellectual outputs, but raw material which can be a reference point for structuring a solid entrepreneurial culture. In fact, throughout the project, a large part of the documents (all based on pupils' authentic experience) showed both Primary Schools' experiences have been collected and shared.

The Project also had a strong community approach with local private organisations supporting the project acting as pupils' facilitators. Having a strong focus on local and European community, we assume *B-Kids* also provides inspiration and case scenarios encouraging other schools to engage in the full entrepreneurial process.

Since *B-KIDS* aimed at making education accessible and attractive, the teaching material was accessible for all students even at home. In fact, it made extensive use of ICTS (ETwinning open digital educational platform, Skype, Facebook, email, etc.).

Entrepreneurial competencies promoted

B-Kids specifically aims to:
- Foster students' and teachers' creativity.
- Improve pupils' risk-taking and problem solving strategies.
- Develop teachers', students' and their parents' knowledge of their territory and its potentialities.
- Support pupils' and teachers' ability and skills to work in team.
- Improve (directly and indirectly) participants' sense of belonging to their community.
- Develop pupils' and teachers' intercultural skills.
- Foster students' and teachers' digital competence.

Skype Meetings

Exploring Girona
(Salt, June 2015)

Lake Trasimeno
(Magione, Octuber 2015)

Visiting the local company Mobra
(Salt, June 2015)
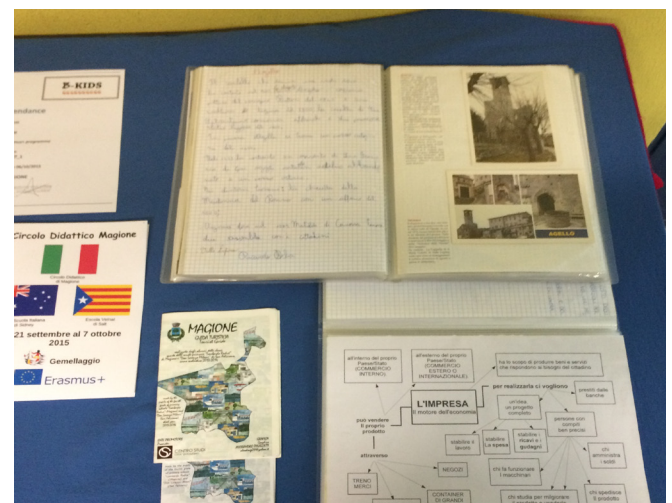
The Entrepreneurship Corner
(Magione, October 2015)

Description

B-Kids involved two classes of each partner school (about 80 students and 10 teachers). The learning activities were carried out regarding an experimental teaching methodology that enabled an active construction of knowledge: learners aimed to explore, discover and learn within a participatory and relational dimension.

The excellent results obtained were driven by the positive synergy that the different actors of the project were able to create: the primary schools, the families, the Association Study Centre City of Foligno, the entrepreneurs who have been acting as facilitators, the local institutions and the business systems.

From the very beginning, the students played a very active role both in the creation and sharing of learning material on the eTwinning platform (http://twinspace.etwinning.net). At the beginning, the teachers organised a Skype meeting, giving pupils the chance to introduce themselves in English and get information about their project partners.

In close collaboration with Veïnat School, the Italian students created a tour guide of Lake Trasimeno and its surrounding area. Creating the tour guide, the students had the chance to investigate history and the socio-economic peculiarities of their territory.

The tourist guide produced by the Italian Primary School is for all young tourists who are interested in exploring the area of Lake Trasimeno while enjoying their stay in our region.
The tour guide is made up of a map of the lake with drawings produced by the learners. Three tourist routes were integrated on the map wishing to present the treasures of the place for young explorers who are visiting the area of Perugia and Trasimeno. Each tourist route focuses on a subject: monuments and buildings; sports and games; and nature and cultural paths. There was also a special section about typical products and includes delicious recipes. The map was a comfortable size to be transported and left in the hands of young travellers.

In June 2015, 20 students from Magione and some accompanying persons, travelled to Salt to undertake a number of key activities for the implementation of the project: presentation of their national and local realities (key prerequisite for the definition of the market strategy to be adopted); analysis of the local companies; discussions with local entrepreneurs; educational activities focused on learning by doing; laboratory activities designed to stimulate students' creativity and cooperation among students.

The second meeting of the partners, which took place in Magione in October 2015, was the occasion for the official presentation of entrepreneurial ideas developed by both primary schools.
Veïnat School also introduced the business idea they developed: a tourist guide of Girona based on local legends.

With the support of entrepreneurs acting as facilitators, students were able to develop their business ideas, following the key steps needed for turning ideas into action: market research and a business plan.

Assessment of the project
(using the spider analysis tool for evaluating entrepreneurial initiatives)[21]
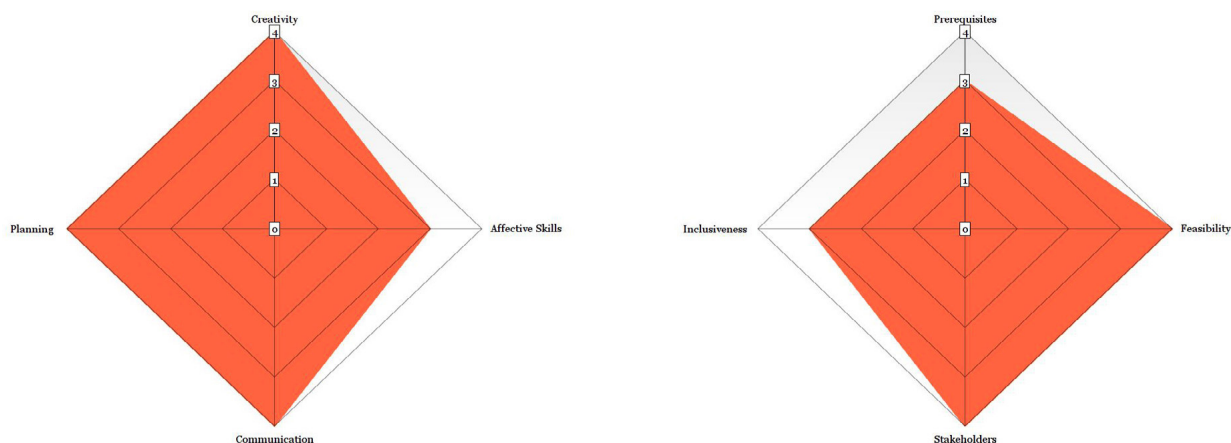
Strong Points
- Promote the sense of initiative among young learners.
- Foster teachers, staff and pupils' capacity to plan and share entrepreneur-building activities.
- Strengthen the interest of the local community in participating in school projects.
- Develop the integration of the entrepreneurial culture into the existing school curricula.
- Create a data-base focused on project partners' experience (the material is available on the e-Twinning platform).
- Develop business ideas arose from pupils' cooperation.

Weak Points
- Teachers and staff involved in *B-Kids* recognize that the integration of the entrepreneurial culture within the school and its systematization requires more time.
- Boosting entrepreneurial culture and embracing meaningful change require effort and time.
- Teachers experienced some difficulties in making the entrepreneurial competencies transversal to the curricula.

Challenges
In our view, the following aspects play a key role in supporting the integration of the entrepreneurial mindset into the exiting school curricula, from early stages throughout life:
- Local communities' active involvement.
- Sharing of good practices that can inspire other schools/actors to undertake innovative learning and teaching paths aimed based on entrepreneurial culture
- Creation of network (educational communities, SMEs, European associations) able to train teachers and students to develop business ideas.

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[21]See chapter 3.1

A critical review of the project (using the global framework)[22]

Social justice
In Italy discussions about embedding entrepreneurship in education are very visible, although entrepreneurship education is not explicitly recognised as an objective at Primary School. Moreover, considering Italy does not have a specific national strategy for entrepreneurial education, we do assume *B-Kids* plays a key role in fostering and underpinning entrepreneurial mindsets. This new approach is focused on the provision for learners and teachers of the appropriate tools to face a challenging world. The labour market is constantly evolving and we need to enable young people to develop the skills they need for life and work.

In our view, entrepreneurial education deals with the concept of turning an idea into facts by developing entrepreneurship skills in pupils, including literacy, writing, presentation, drawing, technology, research skills, numeracy, financial and consumer awareness, storytelling, listening skills, creative thinking, problem solving, team building and collaboration.

Considering "initial education and training offers all young people the means to develop the key competences to a level that equips them for adult life, and which forms a basis for further learning and working life" (EC, 2006), our institution assumes B-Kids provides concrete advice as to how educational communities can promote skills for better socio-economic outcomes.

Legislation, policy and initiatives
Taking into account that, at national level, there is not a specific national strategy for entrepreneurial education, *B-Kids* aims at developing the quality and effectiveness of the European common objectives in our country.
With the support of the whole educational community (teachers, pupils and families), the local community (entrepreneurs, local institutions and associations) and the European network created throughout eTwinning and Facebook, *B-Kids* aims at inspiring other European schools to foster the entrepreneurial mindset from early stages throughout life, giving the chance to experiment innovative teaching and learning paths.

Conclusions

Our institution considers that entrepreneurial culture is one of the most important missions of Europe 2020 and, taking into account the role played by the entrepreneurial mindset for the European economy's development, we do claim steps should be taken to make entrepreneurship a priority from initial teacher education programs throughout life. On the ground of the above, entrepreneurial culture should be considered as a lifelong learning process and a key educational path. So, entrepreneur-building activities have to be systematically structured at each level of educational, from early ages to MBA.

[22]See chapter 3.2

3. Guidelines to promote entrepreneurial education

3.1 Entrepreneurial Skills and Assessment

Stine Nielsen - Global School Support | Àlex Forasté - University of Girona | Joan Carol - University of Girona | Sònia Garcia - La Draga School

How can we educate the youth to meet the challenges of the future?

As teachers we need to educate young people to meet the challenges of the future. But how do we do this? Education should be the key to progress. In the traditional educational system we reward deductive reasoning, as this will ensure that young people will acquire the knowledge needed to find employment and contribute to society. However, if we do not know what society will look like in twenty years, we cannot meet the future by doing what it has been done in the past. Most of Europe's young people will probably work in areas not yet invented in the future. Jobs that may exist now could be completely re-shaped in just a few years, so there needs to be a strong focus on entrepreneurial education and an investment in flexibility, skills, change and motivation. However, in order to teach entrepreneurship, the teacher him/herself must be an entrepreneur. Therefore it is crucial to understand that this isn't just about student-centred learning, it's also about engaging educators to become facilitators, collaborators and mentors. This involves certain entrepreneurial skills that teachers, as well as students, need to develop.

Throughout Teacher2020, our aim was to characterise the various entrepreneurial skills, as well as defining a way of assessing a wide range of entrepreneurial initiatives or projects. The characterisation of entrepreneurial skills arose from practice, and, based upon the very different entrepreneurial initiatives, we came up with the spider analysis: it is a tool that offers an overview of the skills developed and assessed in each initiative. We have defined entrepreneurial skills in four areas: creativity, affective skills, planification and communication. The use of a rubric to assess these skills facilitates a valid judgement of each initiative on entrepreneurial education. The rating scale goes from low (= poor focus on the particular skill) to high (= strong focus on the particular skill).

Furthermore, we have also created a useful second rubric concerning specific information about each entrepreneurial initiative for teachers. This includes a ranking of the prerequisites, feasibility, inclusiveness and stakeholders involved. This allows teachers to get an overview of the implementation of the initiatives in any specific context.

This chapter will focus on entrepreneurial skills and their assessment, starting out by explaining the spider analysis, a tool for evaluating entrepreneurial projects, and its development. Thereafter we will provide more details about entrepreneurial skills, followed by a skills rubric. Finally we will display the spider analysis and the rubric with information for teachers before reaching conclusions.

The spider analysis: a tool for evaluating entrepreneurial projects

During the course of Teacher 2020, we discussed which skills were essential in the build-up of entrepreneurial mindsets. We narrowed it down to four groups of skills: creativity, affective skills, communication and planification. These all have various underlying abilities or composites, some of which are crossovers of the four main categories.

Trying to enhance the development of entrepreneurial mindsets does not mean having to include and focus on all these skills simultaneously. It is important to work on all the skills, but sometimes it is better to focus on one of them specifically. It is also essential to work on these skills at all ages and levels of education, so that young people can use them to develop necessary life-skills.

Skills

Creativity
Creativity in the context of building up entrepreneurial mindsets can be promoted in different ways. Initially, both learners and teachers need to be curious and develop the ability to explore and observe from different perspectives, in order to discover what they would like to change in their nearby environment. To implement this change, it is important to be critical. If we believe everything that people tell us, we will not be able to do much entrepreneurial out-of-the-box problem-solving (De Bono, 2009). We should transform and welcome problems as challenges and things to do, so that we can define relevant objectives, aims and goals. Multiple solutions to problems without fear of sharing crazy ideas are important, as is the ability to create a discussion in a group, mixing all ideas and external inputs into ideas to add real value. Doing this we need to be good at decision-making and risk taking, so that failure can be assumed as an opportunity to learn and advance. We should accept suggestions from other people and be open-minded.

Affective skills
Entrepreneurial mindsets are vibrant and positive, and affective skills are essential for them. The affective domain involves our feelings, emotions and attitudes. If we feel capable, valuable and accepted as a person, we have the courage to act upon ideas. Students need to work on self-perception, knowing their weak and strong points in order to cope with new challenges. Even when the road gets bumpy, we need to embrace the challenges and have self-efficacy, motivation and perseverance. Having positive attitudes, confronting life with constructivist thoughts, trying to understand reality as well as focusing on those beneficial aspects that we can handle, will allow us to make progress. Being responsible when working together and assuming the consequences of our actions depends on the ability of using positive and empathetic way of communicating and accepting that things do not always turn out as we want, trying to analyse what we might be able to improve. Empathy is essential concerning the affective skills in the build-up of entrepreneurial mindsets, understanding what others are experiencing allows entrepreneurs to connect with others in a meaningful way in order to identify possible needs. This will also help to develop collaborative skills so that we can listen to others' opinions, be comprehensive, understand others' needs, share useful information, accept diversity, while being altruistic and guarding over the common good.

Communication
Communication is one of the key skills in entrepreneurial education. We need to be able to collaborate and coordinate with team-members to reach a common objective and to communicate with the group. In particular, we need to practice active listening and to be assertive as well as being able to interpret and being interested in others' contributions. Furthermore, we should be able to explain our own ideas. Possesing a degree of public speaking skills is also important so that we can transmit information to others effectively; this includes having coherent and structured speech, making good visual supports and being convincing and persuasive.

Planning

Referring to planning in entrepreneurial education, we need a range of skills to manage a project, including the abilities of organisation and programme development. Part of planning is establishing goals, and these goals imply actions. We also need some degree of self-reflection so that we can work on a critical review of the work, examining what we need to improve, designing an improvement plan, having the courage to execute it.
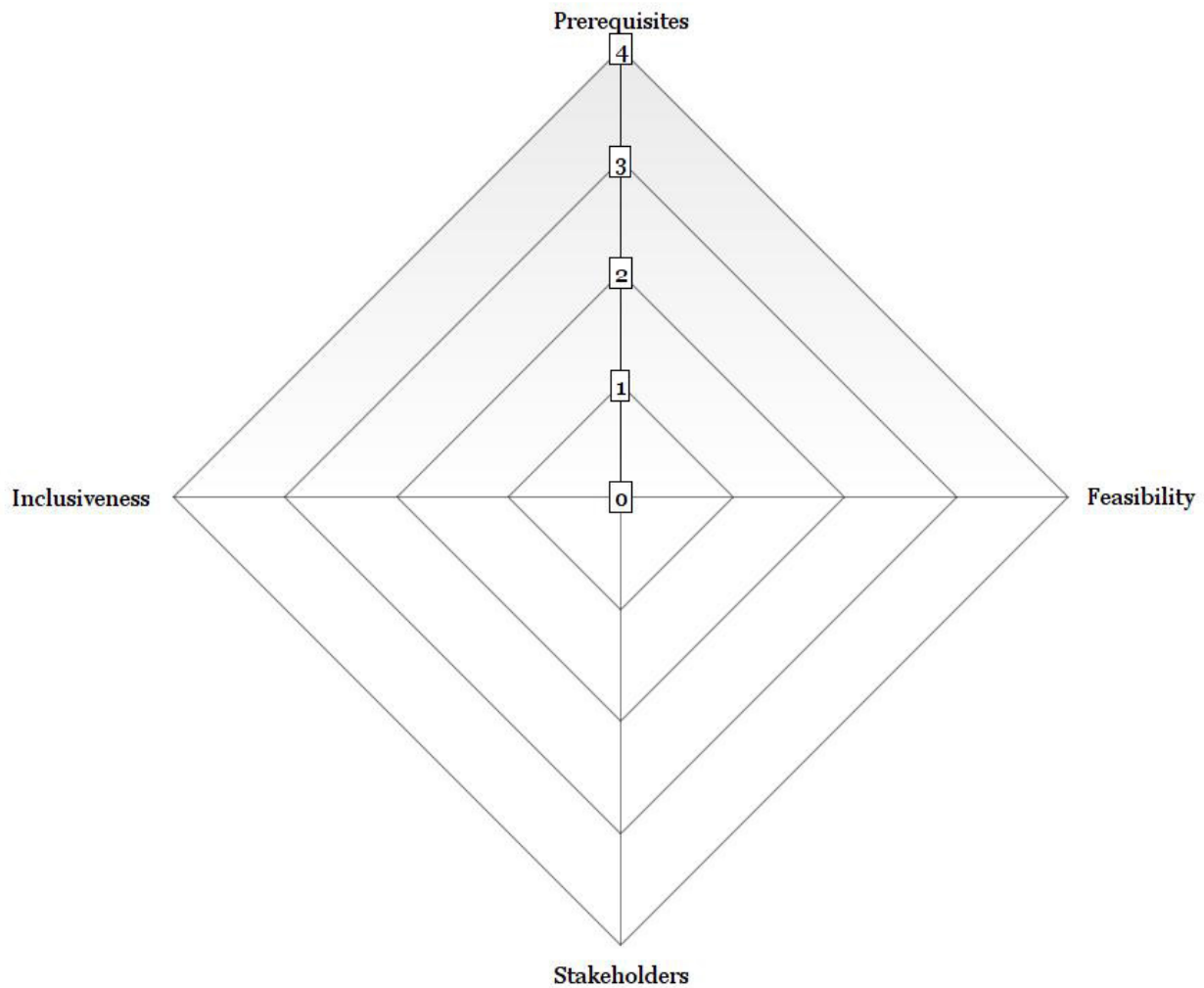
Skills Rubric

Object of assessment *(category)*	1	2	3	4
Creativity	The teacher gives the students all the information and instructions to be followed (challenge, material, methodology...).	The teacher gives part of the information needed to do the project. Both the challenge and the methodology to find a solution are given.	The teacher encourages students to find a problem, to consider the challenge and to generate ideas to find a solution.	The project starts from a problem detected by the students. It promotes risk-taking, critical thinking and ideation.
Affective Skills	The project promotes individual work, competitiveness and there's no chance for errors. It doesn't take into account students' motivation or interests.	The process is guided, but in some stages students can express emotions and discuss about different opinions.	The project promotes the expression of emotions. Debate is encouraged and there's an exchange of opinions during the process. Failure is considered a chance for enrichment.	The project is based on students concerns and emotions. Students share opinions, collaborate and all the tasks are done with most of the group agreement. Failure is considered a chance for enrichment and it is analysed.
Communication	The project doesn't promote situations for students to talk, to ask questions, to listen actively, to reach agreements...	The project promotes group work but the guidelines don't promote decision making, coordination, sharing ideas...	The project offers methods to promote the exchange of ideas among students and with experts who can provide advice to do the project and solve the challenge.	The project is implemented from students discussion and exchange of ideas among them and with experts. It is disseminated outside of school.
Planning	The stages of the project are given and it is developed without objectives, based on entrepreneurial skills. Only the final result is valued and assessed.	Some objectives are set up, giving value to the process, not to the final result.	All the stages of the project are set up clearly. Also the objectives to be achieved during the process and in each stage.	The project promotes the organization of tasks. Students work in stages and with intermediate objectives that must be accomplished. It promotes self-evaluation and coevaluation in different stages.

Rubric for Teachers

For Teachers

Object of assessment (category)	Definition	1	2	3	4
Prerequisites	The concepts and skills that students must know before starting the project.	No previous concepts or skills are needed.	Students need few previous knowledge to do the project.	Students need specific skills and knowledge in some stages.	Students need specific skills and knowledge to do the project.
Feasibility	The easiness of executing the ideas of the students. To go from idea to facts.	The project is difficult to put into practice.	Few ideas in the project can be carried out.	Most of the ideas in the project are put into practice.	A solution to the challenge is found and developed
Stakeholders	The external institutions and human resources involved.	The project only involves the school.	The project involves the school and its community (families).	The project involves other institutions occasionally.	The project involves all different kinds of external institutions.
Inclusiveness	How easy it is to work with heterogeneous groups. (According to the idea of creating groups with 1 high level student, 2 intermediates and 1 low level student.	Students with learning problems don't take part in the project.	Students with learning problems do a parallel project adapted to their needs.	Students with learning problems take part in some of the stages (depending on the tasks).	The project creates opportunities for all students to learn and be assessed in different ways.

Conclusions

How can we educate young people to meet the challenges of the future? During the course of the Teacher 2020 project, the partners have worked on many different entrepreneurial initiatives in order to investigate how we can build entrepreneurial mindsets across the educational sectors of the various cultural settings in the European countries involved. Due to the somewhat unpredictable nature of the concept of entrepreneurial mindsets, it is hard to come up with one answer to this question. However, we have analysed the various initiatives in order to consider the concept further and we have defined the skills involved in four areas: creativity, affective skills, communication and planification.

Our aim was also to develop a way of assessing the initiatives, in terms of which entrepreneurial skills they seek to develop, as well as presenting this visually, using a tool to get an overview of the projects. That's why we have developed the spider analysis, in which we assess the degree to which each of the entrepreneurial skills is focused on using a rubric. It is hard to assess a wide range of initiatives objectively. Whenever you categorise and group things, you also lose some richness in detail, in return for having an excellent overview. However, the spider analysis is good at providing an overview of each initiative before going into more detail about it. The tool can give teachers clues about its implementation in any context.

Additionally we have conducted a rubric and a spider diagram about useful information for teachers that gives the reader an impression of how easy or difficult it would be to implement an initiative. Based upon this information, it is up to the teacher to evaluate whether it is easy or difficult to carry it out in their specific cultural setting.

During the work on the skills involved in the build-up of entrepreneurial mindsets, we have defined the skills, and composed a rubric and a spider analysis that visually displays this. We have also realised that when working with entrepreneurial mindsets we do not need to focus on all the skills involved every time: as teachers, taking into account the different levels and ages of our students, we can initiate this build-up of entrepreneurial skills by promoting many of them simultaneously and, at other times, focusing on one skill specifically. If we continuously take small steps, we can enhance the development of entrepreneurial skills and the build-up of entrepreneurial mindsets, so that young people will be able to meet the unexpected challenges of the future.

3.2 Global Framework for Design, Implementation and Review of Entrepreneurial Education Initiatives

George Head - University of Glasgow

Rationale

Entrepreneurial education is a high priority for the European Commission and for all those involved in education in Europe. The Teacher 2020 project arises out of recognition of the fact that young people will need to think in entrepreneurial ways in the 21st century. Likewise, teachers need to be supported in preparing appropriate educational experiences that will allow themselves and their students to develop their understanding of entrepreneurial education and, together, to become more enterprising in both their educational careers and life beyond education. Thus, developing an entrepreneurial mindset and practice will enable students and their teachers to address the increasingly diverse demands of society.

The Framework

The framework represents a set of parameters or assumptions about the context of entrepreneurial education based on the overarching principles which the T2020 group suggest are necessary for the development of an enterprising mindset. Working across the six European countries involved in the project, three key principles were identified that should underpin any work in this area:

1. Social justice
2. Inclusion
3. Legislation/policy initiatives

The principles were chosen because all educational systems, regardless of political orientation, would claim to lead towards social justice in the context of the country in which they operate. Furthermore, inclusion is a world-wide phenomenon in education and is possibly the major global initiative, informing curriculum change, pedagogical development, and progressive educational policy.

Design principles for entrepreneur education	Values and beliefs	Learning and teaching	Skills and abilities	Knowledge and understanding
Social Justice • Human rights • Right to education • Rights in education • Participation and diversity	Entrepreneurship education should value and demonstrate a commitment to social justice.	Teachers explore their assumptions about children, schools and social justice by Considering the following types of question. • What is it to be entrepreneurial? • To what extent are all young people's enterprises valued? • Who are the children at risk of marginalisation in relation to entrepreneurial education?	Teachers should continue to explore their own assumptions in the light of their own experiences in schools and classrooms, by considering the following types of question. • Why do some children have difficulties in learning and participation in entrepreneurial education? • To what extent do school and classroom factors contribute to these difficulties? • What are the barriers to learning and participation in enterprise education?	Teachers should critically examine their assumptions and the assumptions of others in the light of evidence and their own experiences in schools and classrooms, by considering the following types of question. • Who are the children who are perceived as having difficulties accessing entrepreneurial education? • To what extent do peoples' assumptions, values and beliefs contribute to children having difficulties in accessing entrepreneurial education?
Inclusion • What are the issues of language, ethnicity, social class and poverty, specific learning difficulties, highly able children, and looked after children? • What are the issues of participation and access to entrepreneurship education? • What are the roles, responsibilities and professional identities of the entrepreneurial educator? • What are the opportunities and challenges of working with and through others?	Entrepreneurial education should value and demonstrate commitment to inclusion and protecting and caring for children and young people. Entrepreneurial education should draw on relevant principles, perspectives and theories to inform professional values and practices. Teachers should critically explore knowledge, research and literature relating to current policy, practice and provision and relate it to their own experiences in schools and classrooms.	Promoting learning of entrepreneurial skills. Raising awareness of a variety of appropriate teaching and learning approaches. Encouraging the appreciation of the range of interests, experiences and needs within the classroom and the ability to address these by focusing on what the child already knows and can do. Increasing opportunities and removing barriers to learning and participation.	Teachers should identify evidence of the following indicators within their practice: • Are some forms of enterprise more valued than others? • Are some children's achievements more valued than others? • Are strategies being used to improve entrepreneurial education of all?	• To what extent are various assumptions, values and beliefs apparent in policies and practices at the national, local and school level?
Legislation/policy/initiatives • EU policy? • OECD? • National policies?	Entrepreneurial education should reflect and critique national and global policy	• What are the policies that influence the development of practice and provision in the area of entrepreneurial education? • What are the conditions that promote development of entrepreneurship?		Teachers should develop a knowledge and understanding of current policy, practice and provision, in the light of their own experiences in schools and classrooms by considering the following types of question. •What are the limitations of legislation? •What is helpful about that legislation? • What is the intent of current legislation? • What are the contradictions that exist in current policy and legislation?

The framework is forward-looking: those working within education have a key part to play in bringing about greater equality and social justice through their commitment to universal and fair educational provision and the creation of learning environments that support all children and young people. In recognition of this the framework is also aspirational and anticipates the kind of society in which we want to live.

The framework document aims to be comprehensive but it is not exhaustive nor is it intended to be prescriptive. Although the questions in the framework acknowledge the experience and positions of participants in the Teacher 2020 project and is designed to be used progressively, they may be amended or supplemented to suit particular audiences, countries or cultures. While the framework is concerned with entrepreneurial education, the principles and contexts of social justice and inclusion are relevant to everyone. The questions, or adaptations of the questions, may be useful for development activities with participants from a wide range of backgrounds.

Constructing the Framework

As knowledge partners, the University of Glasgow took the lead in construction of the Framework. At the partnership meeting in Oradea, Glasgow offered the example of Scotland's national framework for inclusion (www.frameworkforinclusion.org) as a possible instrument for adapting to inform the development of the T2020 project. The overarching principles were agreed at this meeting and a draft framework drawn up and circulated among the group. Following circulation and at the subsequent partnership meeting in Glasgow, the framework was discussed and refined in preparation for the training meeting in Girona in May 2016. Thus, while the framework was initiated by the Glasgow partners, the final version was shaped by and belongs to the entire T2020 team.

Design principles
In this section of the framework, each of the overarching principles has been teased out. Social justice in the context of entrepreneurial education is conceptualised as belonging to human rights, entailing the right to education and rights in education. Inclusion is contested through a series of questions on discrimination participation and responsibility.

Values and beliefs
This column is here based on the understanding that what, how and why we teach and learn is based on the underlying values and beliefs held by society in general and ourselves as individuals. Thus, what we believe about young people and how they learn, and what we consider as valuable to learn will determine how entrepreneurial education is manifest, operates and is experienced in our own context.

Learning and teaching, skills and abilities and knowledge and understanding
These columns take the design principles and their underpinning values and beliefs and interrogate them in terms of what they might mean for individual teachers and learners as well as teams and groups involved in entrepreneurial education. In keeping with the overall purpose of the framework, these consist mainly of a series of questions and statements that can be used as critical enquiry to inform the life of a project and the practice of teachers.

Using the Framework

The framework is designed to be a critical document, hence much of the content is in the form of questions. Whilst its principle use may be at the outset of a project, it should not be seen as solely belonging to this stage. Indeed, it is meant to be used as an aide-memoire throughout a project and beyond the life of a project to inform the pedagogy and learning of all children and young people.

The framework can be used both vertically and horizontally. For example, the principle of social justice can be considered in terms of each of the subsections related to rights and participation. Where one begins is a matter of choice that suits the particular context of an initiative and there need not be equal weight given to each. Moving horizontally, there are a series of statements and questions that help us to think about social justice in terms of the values and beliefs that participants in entrepreneurial education should either hold or foster. Similarly, based on the values and beliefs, the remaining columns explore how both teachers and learners experience entrepreneurial education.

3.3 Roots and branches of Entrepreneurial Education

Mariona Masgrau - University of Girona | Margeret Sutherland - University of Glasgow | Montserrat Calbó - University of Girona | Sandra Masdevall - La Draga School

In September 2015 world leaders adopted the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development. These goals followed on from the Millennium Development Goals that sought to end poverty and that applied predominately to developing countries. One difference between the Millennium Development Goals and the Sustainable Development Goals is that the latter apply universally. All countries are called to take steps towards ending all forms of poverty, fighting inequalities and tackling climate change. Sustainable Development Goal 4 focuses on education and calls for countries to ensure inclusive and quality education for all, and promote lifelong learning for all by 2030. It is argued that obtaining a quality education is the foundation to improving people's lives and sustainable development.

Sustainable Development Goal 4 follows in the footsteps of The UN Convention on the Rights of the Child (1989) and The UN Convention on the Rights of People with Disabilities (2006). These widely recognised international conventions challenge the traditional charitable approaches that regard children, and in particular children with disabilities, as passive recipients of care and protection. The focus of these conventions is the recognition of each child as a full member of her or his family, community and society. This different way of thinking about groups of learners has prompted many countries to reappraise the way they construct learning and learning opportunities. The State of the World's Children Report (2013: 3) argues that this shift in understanding requires "a focus not on traditional notions of 'rescuing' the child, but on investment in removing the physical, cultural, economic, communication, mobility and attitudinal barriers that impede the realisation of the child's rights –including the right to active involvement in making decisions that affect children's daily lives."

This international agenda sets the scene for many of the drivers that will change education and education systems in the 21st century. These changes are far-reaching and stretch beyond the school gate. For example, the change in the relationship between school and economy is perhaps acknowledged by the fact that Governments in many developed countries are keen to support the notion of 'life long learning'. No longer does learning stop when we leave school prepared to 'take up a job for life'. Numbers participating in full time and part time education have increased greatly of recent. These fundamental changes will have and are having a profound effect on society and ultimately on education and as such, schools and teachers need to respond to these changes in ways that include, support and develop young people. The development of entrepreneurial education and skills offers one approach to education that will help countries to change they way they engage young people in learning. The call to include young people in "making decisions that affect children's daily lives" (UN, 2013:3) dovetails well with many of the approaches discussed and implemented during the lifespan of this project.

The world has been charged with an aspirational goal –to provide inclusive and quality education for all and promote lifelong learning for all by 2030. Entrepreneurial education and entrepreneurial skills development can play a part in developing citizens for an inclusive society. Citizens who will live, work and participate in a society where global understanding becomes a central feature of justice and peace in our world.

With these universal aspirations in mind, Teacher 2020 was keen to ensure that practice and theory were brought together in a way that developed both. The starting point for this symbiotic development was the projects themselves. Through practical implementation in the classroom theory emerged and was used as a tool for analysis.

Across the projects and during discussions it became clear that the complex nature of the world needed to be addressed through adapting and changing current pedagogical approaches. The "banking concept" which exists in traditional pedagogical teaching; i. e. the teacher as the expert and the learners the passive recipients (Freire, 2005) made way for dialogue, autonomous learning and active participation. Creating a safe and comfortable enviornment so that learners can share their opinions and listen to the views of others played a central part in the initiatives within this project. Such approaches have their roots in the theories of constructivism and social constructivism. Carl Rogers (1959: 185) stated that 'no theory can be adequately understood without some knowledge of the cultural or personal soil from which it springs' and thus a crucial component of Teacher 2020 was the development of practice and theory in situ across the six participating European countries. Although the education systems, culture, histories and physical buildings in each of the initiatives were different, there were similarities in how this participatory and active approach was implemented. The theories underpinning these approaches are not new. Using them to analyse and better understand the pedagogy adopted within entrepreneurial education and skills development offers an oportunity for teachers, researchers and learners to become co-constructors of meaning.

Indeed this collaborative aspect was evident in many of the initiatives. Creating open classrooms where other "agents" such as parents, neighbours, third age people, professionals and experts could work alongside the teacher and learners became vital to the engagement and development of the learner. Vygotsky (1978), a key contributor to social constructivist theory, argues that "a more knowledgeable other" may also refer to books or technology for example. The initiatives all sought to utilise information and communication technologies. However, although it could be argued that there has been a democratisation of knowledge through the Internet, perhaps only information is available for everybody rather than the tools and strategies to process it. The initiatives in the Teacher 2020 project sought to develop entrepreneurial skills and abilities that in turn allowed learners to become, for example, critical thinkers. Learners were offered the opportunity to search, manipulate, discuss, test and demonstrate, rather than receive distilled knowledge.

There are three principle messages regarding entrepreneurial education that emerge from the initiatives in the Teacher 2020 project:

1. It may require a different kind of pedagogy;
2. It should be rooted in real-life, practical approaches and
3. It requires a holistic conceptualisation of educational and personal development.

Below are some examples of how these principles link to and emerge from the theoretical concepts discussed above.

Learner-centred methodologies: Active and participative methodologies

The projects demonstrate that cooperative and collaborative learning are two methodological approaches that essentially promote the idea that young people's learning is best served when they have opportunities to learn with and from each other, and are shown how to do so effectively. These approaches suggest that differences between learners should be a potential for learning, not an obstacle.

Cooperative work is helpful in classrooms to promote entrepreneurial education and skills development, since this methodology offers opportunities for real-life challenges to be addressed and developed utilising the range of abilities and interests present. Where collaboration was a feature of the projects this fostered motivation, dialogue, decision making and peer learning.

However, entrepreneurial education projects where students were grouped also included individual work and reflection. This is a basic and necessary tool to develop the initiative, of both student and project, and personal autonomy of all students.

These are some guidelines for cooperative working:
- know pupils' abilities and interests
- make groups of 4-5 students with different skills, aptitudes and abilities
- develop open projects: the most important aim isn't the result, the product, but the process and the diversity of tools that are used by different members of the group to take it forward.

Cooperating implies sharing: students may benefit from opportunities to see that each member of a group can contribute. It also involves pupils knowing "the other", in order to understand what he/she can give to the group. There needs to be an acceptance that improvement and personal growth is possible when working together. Good examples of cooperative and collaborative learning included in this book are *Made in Italy*, *The Classroom We Want*, *Class Pet* and *Micro Society* projects (see also www.teacher2020.eu).

Project-based learning is a methodology in which students actively explore real-world problems and challenges and acquire a deeper knowledge through carrying out projects. These projects can be eclectic in nature, for example, find ways to measure the clouds (*Meteorological Inventions*), design a new school uniform or organise an art exhibition with the works done by pupils (see also other projects on the website www.teacher2020.eu). During the process, students investigated, designed, discussed and reached agreements about the topic under consideration. They compared, contrasted and confronted possibilities, developed prototypes or reached an agreement. The opportunity such an approach offers for the inter-connecting of disciplines is vital. Morin (1999: 17) argues that "we were taught to separate, compartmentalise, isolate, learning instead of making connections" and as a result "the whole of our knowledge forms an unintelligible puzzle". The initiatives in the Teacher 2020 project sought to make the links across and between disciplines in order to arrive at a better and more holistic understanding of the issues and concepts under scrutiny. Another key part of the project-based approach was communicating ideas and receiving feedback from different stakeholders in order to develop and find tune solutions.

A similar methodology, is problem-based learning, this is another learner-centred pedagogy in which students learn about a subject by solving a specific problem. In the projects, the learning path begins by identifying a 'problem' existing in the real-life practical experiences of the community. This should lead to the construction of theoretical knowledge, applicable to new situations.

Service-learning carries the acquisition of learning (contents, competences and values) through the implementation of a social service to the community, with the aid of reflection tools. The service is contextualised, so that it improves the student's immediate context, promotes civic engagement and helps to transform social reality (Bellera, et al., 2015). This approach is relevant to the development of entrepreneurial skills and abilities as it does not conceive the student as a future citizen but as a current citizen who holds specific and diverse points of view, all of which have to be heard and supported. The initiatives in the Teacher 2020 project demonstrate that when young people are given a voice, they have much to contribute to society.

We consider the methodologies and strategies outlined above to be highly relevant for entrepreneurial education and skills development. However, if we examine educational projects based on these methodologies that are taking place in our schools, we would probably find that many of them might be considered to be entrepreneurial education projects even if they are not labelled as such.

Examples from Teacher 2020 initiatives that will develop entrepreneurial education and skills development include: starting a school radio with stable programming open for the entire city, the improvement of public spaces (*Recycling*), participation in organising celebrations of the community (*Christmas Academy*).

All of these methodologies facilitate entrepreneurial education, and all of these initiatives can be considered entrepreneurial projects. In all of them, metacognitive processes and reflections are important. Learners have to be able to explain explicitly what they have learnt. Therefore, reflection and assessment strategies need to be embedded in any project from the outset.

Although many of these projects promote social engagement, there is however a danger that entrepreneurial education is viewed by and driven by labour market needs. While entrepreneurial education can contribute to economic dynamism, developing entrepreneurial skills will also allow for a more holistic approach to education. An entrepreneurial approach to education will promote criticality and creativity. It also demands an ethical approach to entrepreneurship that will enable that students consider not only financial gain, but also the social and environmental cost of any initiative. Only if entrepreneurial education is defined as an educational initiative for social change does it truly become innovative.

3.4 Communication in Entrepreneurial Education

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Introduction

During the Teacher 2020 project, communication has played an important role, both internally and externally. It is a very important and complex factor in long-distance projects. It is also relevant in the effort to promote entrepreneurial education, creative problem solving skills and creative ways of thinking.

Communication is one of the basic prerequisites for the successful development of all sectors and spheres of human activity while poor communication skills can cause a variety of misunderstandings and false interpretations of situations or attitudes. Since it is impossible not to communicate, precise and effective communication is essential for getting good results in projects, becoming a good coordinator and being able to work in groups. Communication skills are among the fundamental portfolio of leadership competencies but it is also one of the most important assets in personal, social or work life and in teaching and learning initiatives, since education is essentially a communication process.

An important challenge in any entrepreneurial education project is setting and controlling the flows of internal communication. Effective and well-prepared communication in entrepreneurial education is based on objectives, close teamwork in all target groups, adequate work organisation, communication of compliance and ethics.

In this chapter we will introduce some reflections about communication based on the work developed by the Teacher 2020 team, but also on the observation of our students and pupils undertaking entrepreneurial projects.

Factors of communication

Communication is essential for the personal and social life of individuals. The communication process involves both the transfer of information from a transmitter to a receiver, and the changing of roles of the two related subjects, which can react one in relation to the other. In an earlier linear conception, the communication process was envisaged as a one-way flow of information from the speaker to the listener. However, this was gradually replaced with a new interactive concept, in which the speaker and listener roles alternate. Currently, the latest concept of communication is called the transaction process, where each person acts as both speaker and listener, while sending and receiving messages. The sender and recipient have to interact in order to get the least distortion in communication as possible.

Commonly used Laswell's (1948) communication model distinguishes five factors:
1. Who? (transmits the message) - communicator
2. What? (content of the message) - message
3. How? (transfer takes place) - channel
4. To whom? (is oriented communication) - receivers or audience
5. Why? (goals of the communication) - effect

According to the agents involved in the process of communication in entrepreneurial education projects, there are the following forms:

• **Intracommunication**: Communication within the project group; it involves to create tools and strategies to share ideas and information, to build common knowledge and to keep and systematize the work done in order to make the project grow and check previous steps whenever it is required.
• **Intercommunication**: Communication between the groups with other persons, or institutions in different phases of the project with different goals: to search for information, to get advise, to require help, to explain what is being done within the group, etc.
• **Mass communication**: Although it can be considered a kind of intercommunication, it has specific characteristics since it involves a large number of (probably unknown) people. In entrepreneurial education projects, it is important to share the final results with as many people as possible, in order that they can benefit of our work and to get a relevant feedback. The strategic use of Media and Information Technology (Internet, social networks, television, radio, press) is important both to connect with an audience interested in our results and for creating value to the audience.

Principles and guidelines to promote communication in the project

There are some principles that we should take into account when communicating, if we want to make our speech effective and meet expectations, mainly speaking clearly and listening to others, paying attention to the balance of verbal and nonverbal broadcast signals and using multimedia supports when they are required.
Mutual expectations play a big role in personal and professional relationships. To have an effective communication system in a project, the coordinator should keep all the partners informed about everything that is happening within. They should promote both formal and informal relationships that enable the creation of internal cooperation, positive attitude towards co-workers. It is important to have the widest range of means to communicate, to know their benefits and risks and to be able to use it at the right time and in the right way. Meaningful communication can only work if the verbal and nonverbal communication system is based on a common repertoire. Communication contains both the content and the reference dimension; we have to consider also the relational aspect, which depends on many circumstances, including the social position of both partners and differences in gender. An important element of the communication process is the feedback. To be functional, it is necessary to clearly set the parameters that will monitor the effectiveness of communication and its benefits, the fulfillment of goals, the response behaviour of target groups. The information obtained will be useful for possible corrections and for the next planning period.

What can be done to improve communication in entrepreneurial education? The coordinators of the team should strive to ensure that all members understand them, but also that they themselves understand one another. There are strategies and skills aimed at improving communication to avoid misunderstandings: controlling information flows (quality control as well as a number of statements), using of feedback, empathy, assertive communication, simplifying the language, listening actively, and effective use of unofficial communications systems. These are important abilities in European projects like Teacher 2020 that have to be promoted from kindergarten school, and entrepreneurial education projects are good frameworks to work on it.

Intercommunication among institutions in entrepreneurial European projects involves sharing practical information, discussing perspectives, and generating knowledge and new ideas, but these processes have to be promoted also among teachers and students and among students.

Facilitating communication - experiences from Teacher 2020

During the project of Teacher 2020, between 2014 - 2016, the team, of nine different organisations, has met 3 times during 2 days plus a week towards the end of the project. Therefore the online communication has been very important for creating content and initiatives for the project.

The main tool for sharing files and dealing with tasks was a tool called Trello, which was launched one month before the kick-off project meeting. This collaborative tool enables teams to manage and organise complex projects as boards, to upload and comment oon new documents, to coordinate all the required information to conduct the project, which partners can access in one place. In spite of this, we soon experienced that the platform was not intuitive and partners were not using it. Moreover, they sought alternative ways to interact with colleagues (like Facebook or email).

According to the principles and the guidelines in communication, it is important that managers strive to ensure that all people understand the tools and why they should participate in using the platform. This will create an environment where everyone has the motivation for sharing practical information, generating knowledge/ideas and discusses them. In the middle of the project the coordinator team realised that the tool chosen was not appropriate for Teacher 2020, since Trello is designed for collaborative projects. In such projects, everyone works interdependently in the solution of a task, which means a high level of exchange and communication. Since Teacher 2020 is mostly cooperative in its design, which means that a common task will be split into smaller components and solved by groups who work independently (Bang & Dalsgaard, 2005), it created some difficulties. Therefore, the decision was taken to try out Kona after the second project meeting in Romania. Kona is a platform with the possibility of having one structured platform for many different conversations. We also created five work groups with specific tasks. The first two months, it didn't seem to work since the level of communication still was low. But then, before the final meeting in Glasgow, Scotland and close to the deadline for the completion of specific tasks in the different working groups, the level of communication and exchange rose, and since then, the platform has been used consistently for agreements about tasks such as this handbook.

During this process we also tested many other applications and tools for specific goals: Coggle, Padlet, Facebook, Google Drive and Google docs. All these attempts have produced some specific results and helped us to know better what we really needed, although none of them was chosen as a stabile option for the team.

Discussion and Conclusions

It is important to choose the proper tool and sometimes it is necessary to test them many times with many different users who have different kinds of IT skills. Masgrau & Nørgaard (2014) concluded that all partners in transnational projects represent somehow cultural minorities, which makes it rich but also complex: the partners differ a lot in habits, ICT skills, relations/trust, gender, age and facilities available in each organisation. All these factors are important to keep in mind in the use of the platform for communication, and long-distance communication tools have to be chosen regarding specific objectives. The settlement of working groups with specific tasks was a great help in the project for creating closer relations to specific people and for the start of interaction and production of contents on-line. Also, Following Vivian Robinson (2015), who suggests that people cannot collaborate with people they don't trust, we conclude that it is challenging to collaborate on-line with people whom with we haven't met before or worked face to face with. It takes time to develop a new culture with new relations and trust among the partners.

Finally, we want to point out that the exchange of information can be easily solved digitally. Today, a lot of websites and knowledge exchange forums contain useful information and recommendations for the proper tool. The generation of knowledge, the hybridisation of ideas, the deep discussion of complex issues is much more complex, and for some people, it will probably be better to work face to face, although on-line applications enable the team to register all the contributions done with all their nuances, both locally and globally.

All these considerations can be also taken into account in classes when we are carrying out entrepreneurial education projects: communication is a complex process that involves many abilities. We have to promote it specifically but it is also very important to foster teamwork with specifics roles and goals; on the other hand, the implementation of ICT is important to develop complex entrepreneurial education projects and to improve our communication skills in the 21st century.

4. Review of the project, conclusions and future lines

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Entrepreneurial education is an innovative and open perspective that captures the aim of many teachers and institutions to innovate and adapt to modern society, which is complex and constantly changing. Through the Erasmus + project Teacher 2020 (www.teacher2020.eu) we have been working to promote entrepreneurial education in Europe, involving various educational institutions, universities and schools from Scotland, Spain, Denmark, Czech Republic, Italy and Romania.

Often the term entrepreneurial education refers to the development of businesses. However, through this project we have broadened this point of view and delved into the concept in order to give it a wider educational and social dimension, and to take into account the European Commision's guidelines (2006: 11) on the key-competence for lifelong learning, that refers to the sense of initiative and entrepreneurship, which is understood as the "individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives." Therefore, entrepreneurial education is considered as a part of a lifelong process, or of a long wide learning, encompassing transversal skills that can be taken into consideration both in countries where it is a cross curricula approach and in those ones where it is a specific subject.

On the other hand, there are relevant differences between the countries' policies and apporaches to entrepreneurial education; although the concept is very wide, the aim of this Erasmus+ project has been to overcome differences and try to find common guidelines which will help us to go on experimenting this methodology in our institutions. Some of these common denominators we have the detected are the importance of promoting students participation, interdisciplinarity and internationalisation, the relationships between educational institutions and their communities and the practical dimension.

From working together and with teachers and learners, it became clear that entrepreneurial education should be considered a learner-centered methodology in which students and pupils have to play an active role. Knowledge had to be discovered and build on prior learning. Where knoweldge was transmitted, often via an educator, then it was likely that it would be easily forgotten. Although we believe that education methodologies have to be active and participative, this is not to negate the cultural legacy that schools have transmitted for centuries, but it has to be shared in other ways. The interconnection between practice and theory in order to drive forward both are crucial in this respect. This project sought to develop theory from practice thus allowing learners to see that valid and enduring theory has been based on practice.

Within a learner-centred approach, teachers can facilitate significant learning experiences. Project initiatives sought to develop real-life challenges and experiences in order to increase motivation, allow learners to work in an interdisciplinary way and to develop important abilities and skills.

Regarding these considerations, the definition of the learning outcomes when planning initiatives has become less relevant as in other educational approaches. The project team is aware that the definition of the objectives of the educational action is important in order to define entrepreneurial education clearly, and could help students to know what it is expected of them. Nevertheless the reflection on the effective innovation of this methodology, has lead our team to consider the importance of the creative process in entrepreneurial education as a priority, because it gives the opportunity for teachers and students to generate different learning outcomes and develop new ideas to be put into practice along the way. In fact a more open and entrepreneurial approach argues that outcomes would be what is achieved as a result of taking part in a process of the project. Some of them may have been predicted but others will emerge and may apply to individuals and groups within the project, and therefore they can be more meaningful and personal for the people involved. This kind of approach also allows for risk taking, problem solving, problem posing, etc. The creative process is not linear while a rigid definition of learning objectives and outcomes could be.

Through the initiatives, our team has been able to elicit a range of important competences that entrepreneurial education can promote. For example, decision-making has to become embedded in actvities; and creativity has to expand its influence in all areas of knowledge (not only in arts). Developing these competencies and skills highlighted as a result of this project, give teachers the chance to educate learners in order to become more socially responsible and involved across society. Entrepreneurial education also offers opportunites for learners to face the present and future challenges of the labour market. Children and young people can begin to see not only the monetary value of an initiative, but they can also realise the environmental, social and personal costs that need to be considered if we are to contribute to building equitable and sustainable societies.

That can lead educational institutions to reconsider their approach toward several important transformations the present society is facing. They must respond to a triple change: a social change that questions traditional methodologies in school; a curricular change imposed by the new educational paradigms like competence-centered perspectives, situational approaches or entrepreneurial paradigm; and a change in the values and beliefs of the present generation of students.
To addresses these challenges, teachers that must consider adopting new teaching and learning strategies in order to facilitate entrepreneurial learning. The community also is facing these challenges and needs to embrace new ways to connect with school activities and to contribute to the implementation of educational initiatives. Students themselves face this challenge by manifesting bigger expectations about school activities and results that should be more relevant to their specific scholarly and social contexts.

The Teacher 2020 project activities and results aim to contribute to guide schools and teachers with an entrepreneurial mind-set toward designing and implementing innovative initiatives that can add value for students, their communities and society.

Future lines of research

The entrepreneurial education initiatives reflected in this book and also on the Teacher 2020 website enable learners to become researchers, creators, inventors and communicators, and provide them with strategies and competences to solve other challenges in the future. In this sense, a deep reflection about the need to measure the impact of the initiatives in each institution has been carried out, taking into account the skills that we consider more relevant. The spideranalysis we have developed is an attempt to have a common assessment tool. We have realised, however, that some skills often linked to entrepreneurial education, such as critical sense or cooperative work require intensive and specific attention; but above all an explicit reflection on these skills has to be promoted. This is one of the objectives of our partnership in future projects: tackling skills specifically with dynamic proposals.

On the other hand, we have developed a global framework that would guide the critical review of entrepreneurial initiatives in order to ensure that they are inclusive. One of the main issues the Teacher 2020 team has investigated concerns inclusiveness or inclusivity. The journey to becoming an entrepreneurial inclusive school may be long and challenging, but the effort to reach the goal will strengthen our school communities and benefit all children and society. We have seen that inclusion does not simply mean the placement and care of students with disabilities in general education classes, but it must involve a fundamental change in the way teachers and school communities support and address the individual needs of each student. The entrepreneurial teacher should remember that no two learners are alike and should be able to create an environment in which every student has the opportunity to flourish and to find their own personal strengths and values. All students should feel that they are truly a part of the community; fostering an environment where students and their families are valued for who they are would benefit everyone. Students should not be thought of in hieracrchical ways. This may lead to them dropping out, that's what we, as entrepreneurial teachers, must absolutely avoid. On the contrary, the entrepreneurial teacher should understand that all students have unsuspected and undetected abilities that are there waiting for appropriate opportunities to allow them flourish and develop.

Thanks to this project we have had the opportunity of facing and experimenting with this methodology and of trying to put it into practice during our work in the class. The feedback has been positive and we have shared best practices with our partners on the platform and during the meeting and training activities. Nevertheless, we have realised that there are still many teachers who want to implement entrepreneurial education. That's why we think that the project partners' future commitments must focus on teacher training and education and should be concerned with the creation of specific training sessions, activities and materials to provide opportunities for educators to be introduced to this approach and to support their growth in this field.

The project team looks forward new lines of research but also wants to look back and recognise their roots. We believe that entrepreneurship education is an innovative approach but we also know that it is not absolutely new. Like any other scientific contribu-

tion, it is based previous work such as Dewey and project work, Freire and his claim of learners empowerment, the centers of interest of Decroly, and Freinet and active pedagogy. There is an important legacy in educational institutions, a strong know-how that we have to recognise, but we must keep on looking for new ways to put it ideas into practice in accordance with the current requirements such as new technologies, constant change, globalisation and the physical and virtual migrations, among many others.

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Appendix 6.1 Partner Institutions of the Teacher 2020 Project

UNIVERSITY OF GIRONA (Catalonia - Spain)
The UdG was officially founded in 1991. It has 5 Campuses with 8 faculties, a wide range of studies at Bachelor's, Master's, Doctoral and postgraduate and specialisation levels, and more than 13,000 students. Grepai, our research group, is focused in didactics of art, heritage and intermediality and promotes participative methodologies, such as service learning and entrepreneurial education.
www.udg.edu

ITE SCARPELLINI (Italy)
ITE Feliciano Scarpellini is located in Foligno, Italy. Recently the Institute has carried out many projects to prevent drop out and social exclusion. In addition the staff of the school took part in a great number of transnational mobility projects about a wide range of issues with the objective of making instruction more attractive, orienting young people and preventing social exclusion.
www.itescarpellini.gov.it

UNIVERSITY OF GLASGOW (Scotland - Great Britain)
The University of Glasgow was established in 1451 and features in the top 100 research Universities worldwide. The School of Education works in the areas of teacher education (under and post graduate), adult and lifelong learning and conducts research into educational policy and practice.
www.gla.ac.uk

GLOBAL SCHOOL SUPPORT (Denmark)
The organisation is working for a closer connection between classrooms in the schools and the world around them. They are an inspirational and helpful organisation for schools who want to collaborate with schools around in the world.
www.globalschoolsupport.dk

LA DRAGA SCHOOL (Catalonia - Spain)
La Draga is a primary school located in Banyoles. They currently have 19 class groups with students aged from 3 to 12. The school is always open to new ideas, willingto innovate and to provide their students with a better education. We are carrying out some projects based on entrepreneurship.
www.agora.xtec.cat/ceipladraga

UNIVERSITY OF PITESTI (Romania)

The University of Pitesti is a public institution since 1962 and a member of the national higher education system in Romania. Its Faculty of Educational Sciences organises activities regarding teachers' continuous training, professional promotion through the system of granting didactic degrees, as well as specific activities of scientific research and technological development for teachers in the pre-university educational system, including preschool and primary level.
www.upit.ro

OTROKOVICE PUBLIC SCHOOL (Czech Republic)

Stredni prumyslova skola Otrokovice is a modern public school providing vocational education and is a regional informational and educational centre for schools and the general public in the Zlín Region. In close cooperation with the Department of Education, Youth and Sports of the Zlín Region it implements many activities with full-regional impact.
www.spsotrokovice.cz

ACTA CENTER (Romania)

The European Center for Socio Professional Integration (ACTA) is a bridge linking the training of young people and the labour market. ACTA promotes educational activities and professional and social skills development of young people and adults so they ca adapt and integrate effectively in a dynamic society. We encourage people to develop their ideas and initiatives into concrete projects and we develop their creativity and entrepreneurship skills.
www.actacenter.ro

CENTRO STUDI CITTÀ DI FOLIGNO (Italy)

Founded in 1999 for supporting University activities, CSF has then extended its role as a Training Agency. CSF is also committed to designing and managing EU funded projects. We believe high-quality education and training play a key role in promotingindividuals' self-fulfillment.
www.cstudifoligno.it

Appendix 6.2 Teacher 2020 Entrepreneurial Education Initiatives

Title	Institution	Country
Frogs at the Water	University of Girona Bora Gran School	Catalonia - Spain
Linking Art, School and Town: Creation of an Exhibition	University of Girona Puig d'Arques School	Catalonia - Spain
Recycling: Let's Learn Together!	University of Girona La Draga School	Catalonia - Spain
Sharing Emotions	University of Girona La Draga School	Catalonia - Spain
Creation of a Creative Corner	University of Girona La Draga School	Catalonia - Spain
Meteorological Inventions	University of Girona La Draga School	Catalonia - Spain
TONI (We Have Opportunities, We Need Ideas)	University of Girona Pere Alsius Secondary School	Catalonia - Spain
Two Languages, One Story, Zero Words	University of Girona Pla de l'Estany Secondary School	Catalonia - Spain
Let's Adopt a Company	I.T.E. Scarpellini	Italy
Made in Italy, Delicatessen District	I.T.E. Scarpellini	Italy
Are You Ready to Start Your Business?	I.T.E. Scarpellini	Italy
Entrepreneurs Social Responsibility, Co-Marketing Contract	I.T.E. Scarpellini	Italy
The Global Trading Game	Global School Support Mølleskolen	Denmark
Innovation Challenge	Global School Support Mølleskolen	Denmark
The Value of Creativity	Global School Support Mølleskolen	Denmark
Cooking: Creativity and the Greenhouse effect	Global School Support Mølleskolen	Denmark
Game Development in an International Perspective	Global School Support Uglegårdsskolen Pere Alsius Secondary School	Denmark Catalonia - Spain

Practice in Scottish Schools: Pre-Five	University of Glasgow	Scotland - UK
Practice In Scottish Schools: Primary	University of Glasgow	Scotland - UK
Practice In Scottish Schools: Secondary	University of Glasgow	Scotland - UK
Inter House Project	University of Glasgow Greenfaulds High School	Scotland - UK
Personal Development Project	University of Glasgow Greenfaulds High School	Scotland - UK
Class Pet Project	University of Glasgow Kelvinside Academy	Scotland - UK
Micro Society Project	University of Glasgow Kelvinside Academy	Scotland - UK
The Classroom We Want	La Draga School	Catalonia - Spain
The Problems Eater	La Draga School Pere Alsius Secondary School	Catalonia - Spain
A Custom-Designed Playground	La Draga School	Catalonia - Spain
Children Reading and Creating Stories	University of Pitesti Dinicu Golescu County Library	Romania
Trees That Tell Stories	University of Pitesti Scoala Gimnaziala Matei Basarab	Romania
Create Your Own Schedule	Stredni prumyslova skola Otrokovice	Czech Republic
Non traditional Student Teaching	Stredni prumyslova skola Otrokovice	Czech Republic
People Make School	Stredni prumyslova skola Otrokovice	Czech Republic
Christmas Academy	Stredni prumyslova skola Otrokovice	Czech Republic
The Alchemist's night	Stredni prumyslova skola Otrokovice	Czech Republic
Bata slogans in the past and today	Stredni prumyslova skola Otrokovice	Czech Republic
Green products	Acta Center University of Oradea	Romania
From theory to practice, the launching ramp to entrepreneurship	Acta Center Lucian Blaga High School	Romania
Learning by doing. The simulated enterprise "is greentex srl"	Acta Center University of Oradea	Romania
Business at school	Centro Studi Città di Foligno	Italy
B-kids business kids	Centro Studi Città di Foligno Direzione Didattica Magione Veïnat School	Italy Catalonia - Spain

See the complete description of these initiatives on our website
www.teacher2020.eu

Appendix 6.3 Teacher 2020 Project Events

March 2015: kick-off meeting - University of Girona, Catalonia, Spain

October 2015: partnership meeting - ACTA Center, Romania

February 2016: partnership meeting - University of Glasgow, Scotland, Great Britain

May 2016: Training Activity - University of Girona, Catalonia, Spain