

Today's Children Tomorrow's Changemakers: educational resources to develop entrepreneurial skills

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Abstract— Entrepreneurship is one of the main objectives of the European Union to ensure that people have the right skills for jobs. It is also part of the Key Competences for Lifelong Learning. Different stakeholders should be involved in fostering entrepreneurial skills. These skills need to be developed from an early stage. For this reason, teachers and parents have an essential responsibility in helping students gain entrepreneurial skills. This work describes the project Today's Children Tomorrow's Changemakers; a European funded project focused on developing entrepreneurial skills at primary school through a set of educational resources for teachers and children.

Keywords— *entrepreneurial skills, primary education, coursebook, board game, mobile application, European project.*

I. INTRODUCTION

Entrepreneurship is a key competence in the European Framework [1] and an action in the Communication on Rethinking Education. The role of entrepreneurship as an instrument to improve employability levels is also stressed in several studies [2-5]. Many EU member states have successfully introduced national strategies for entrepreneurship education or made entrepreneurial learning a mandatory part of curricula, but more actions are needed. Entrepreneurship education should be brought to life through practical, experiential learning models and the experience of real-world entrepreneurs. Defined entrepreneurial learning outcomes for all educators are needed, to introduce effective entrepreneurial learning methodologies into the classroom [6].

Entrepreneurship continues to be one of the main goals of the European Union to ensure that people have the right skills for jobs. The European Skills Agenda sets objectives to be achieved by 2025 and includes, between their actions, "Increasing STEM graduates and fostering entrepreneurial and transversal skills" (Action 7) [7].

Teachers have an important responsibility in helping students gain entrepreneurial skills [8]. On a master thesis that

studies primary school teachers' views on entrepreneurial skills, research has found that of a total number of 263 teachers who were surveyed, 141 (%53,6) teachers revealed that they either agree or strongly agree that they are having difficulty in teaching entrepreneurial skills to their students. %22 of teachers remained uncertain. This finding is seen as an important deficiency that teachers have difficulties in teaching entrepreneurial skills.

Today's Children Tomorrow's Changemaker project (Table 1) aims to help all students who educate themselves in project partner schools and associated partner schools to develop entrepreneurial skills like creativity, initiative, tenacity, teamwork, understanding of risk and a sense of responsibility. This is the entrepreneurial mindset that helps entrepreneurs transform ideas into action and also significantly increases employability.

TABLE I. PROJECT DETAILS

Title	Today's Children Tomorrow's Changemakers
Funding Entity	European Union
Call	Erasmus + KA2 – Cooperation and Innovation for Good Practices. Strategic Partnerships for school education
Reference	2020-1-TR01-KA201-094277
Project leader	Ömer Yiğit
Coordinator	Bursa İl Milli Eğitim Müdürlüğü
Partners	University of Salamanca Georg-Buechner-Schule Şehit jandarma uzman çavuş İlyas Genel ilkokulu Stiching Business Development Friesland
Budget	62.485,00 €
Start date	31/12/2020
End date	29/06/2022

Finally, this work is set out in five sections. The second section describes the Changemakers network. The third section presents the main characteristics of the project. The fourth section describes the main results achieved during the first year of the project. Finally, the last section summarises the main conclusions.

II. THE CONSORTIUM

The Project is coordinated by the Bursa İl Milli Eğitim Müdürlüğü (Bursa MEM, <https://bursa.meb.gov.tr>). It is a legal authority responsible for the educational issues in the region headed by the Ministry of National Education.

The consortium is completed by the participation of four European institutions with significant experience in the education sector, skills development and entrepreneurship:

- The University of Salamanca (USAL) represented by the GRIAL Research Group, a multidisciplinary research group that arise around the creation and application of educational technology [9].
- Georg-Buechner-Schule a primary school located in Giessen, Germany. This school is already applying some practices of teaching entrepreneurship in its curriculum.
- Şehit jandarma uzman çavuş İlyas Genel ilkokulu a primary school located in Bursa, Turkey.
- Stitching Business Development Friesland (BDF) is an organisation that helps people and organisations to grow.

Furthermore, the consortium is completed with fourteen associated partners that do not receive funding for participating in the project but play an essential role in finding out what entrepreneurial skills teachers prioritise most. All these institutions are located in Bursa (Turkey):

- Barakfakih İlkokulu.
- Cem Sultan AİHL.
- Evliya Çelebi İmam Hatip Ortaokulu.
- Fatih MTAL.
- Halil İnalçık Bilim Sanat Merkezi.
- Hatice Gani Erverdi Ortaokulu.
- İşgir Ortaokulu.
- Mahmut Celalettin Ökten İmam Hatip Ortaokulu.
- Nilüfer Koç Ortaokulu.
- Semiha Mustafa Özer Ortaokulu.
- Şehit Polis Bülent Aslan İlkokulu.
- Şehit Jandarma Er Selim Koçdemir AİHL.
- Yıldırım Beyazıt İMKB MTAL.
- Yusuf Köstem İlkokulu.

III. THE PROJECT

A. The objectives

Several studies have proven that a link between economic growth, development, and entrepreneurship exists [10-12]. According to Meyer and de Jongh [13], Entrepreneurship seems to play a key role in establishing diversified economic structures, innovation creation processes, whilst serving as crucial buffers to economic shocks within the EU.

The academically proven fact mentioned above has been a topic of strong interest for the education professionals in Bursa Provincial Directorate of National Education (Bursa MEM) for the last couple of years. Researching and believing that the students in Bursa, Turkey need to develop their entrepreneurial skills, the team created and carried out a local project about entrepreneurship that has been funded by BEBKA (Bursa, Eskişehir, Bilecik Development Agency) and the next step is carry their studies into the European level.

The project's primary purpose is based on the idea "to make Bursa a brand city in the field of entrepreneurship by increasing the knowledge and skills in creativity, innovation and entrepreneurship of the students studying at the primary school level in Bursa province from an early age". To achieve this purpose, short, middle and long-term goals are established.

The goals in the short term are;

- To increase children who gain entrepreneurial skills such as development-oriented thinking, problem-solving, communication, collaboration and creativity.
- To increase the number of teachers who can provide training, ideas and mentorship to the students in acquiring entrepreneurial skills.

The middle term goal is;

- To increase participation in the idea and project competitions on entrepreneurship at the local and national level.

The long-term goals are;

- To create an entrepreneurship culture and to increase production culture.
- To increase the number of young entrepreneurs.

Following these general goals and objectives, the project is organised to create three concrete educational outputs with the help and expertise of the partnership.

B. The Workplan

The work is organised into three intellectual outputs linked to achieving the objectives of the project:

- An Entrepreneurship Soft Skills Development Course Book for primary school students. This coursebook will be focused on entrepreneurial skills. These are the fifteen skills that are defined in EntreComp [14], the Entrepreneurship Competence Framework provided by the European Commission.
- Today's Children Tomorrow's Changemakers Board Game is planned to be the second output of the project.

- The third output will be a Mobile Application equipped with gamified activities that help the kids and their parents understand the entrepreneurship approach.

IV. RESULTS

A. An Entrepreneurship Soft Skills Development Course Book

The first output is going to be an Entrepreneurship Soft Skills Development Course Book for primary school students. This coursebook is going to be based on the themes of taking entrepreneurial skills into account. These are the 15 skills that are defined in EntreComp, the Entrepreneurship Competence Framework by the European Commission. EntreComp is a comprehensive, flexible and multi-purpose reference framework designed to help you understand what is meant by entrepreneurship as a key competence for lifelong learning and to be able to use this in your work. It is intended to support and inspire actions to improve the entrepreneurial capacity of European citizens and organisations and was launched in 2016 as part of the European Skills Agenda for Europe.

These fifteen entrepreneurial skills are:

- Spotting opportunities.
- Creativity.
- Vision.
- Valuing ideas.
- Ethical & sustainable thinking.
- Self-awareness & self-efficacy.
- Motivation & perseverance.
- Mobilising resources.
- Financial & economic literacy.
- Mobilising others.
- Taking the initiative.
- Planning & management.
- Coping with uncertainty, ambiguity & risk.
- Working with others.
- Learning through experience.

B. Today's Children Tomorrow's Changemakers Board Game

Today's Children Tomorrow's Changemakers Board Game is planned to be the second output of the project. This will be a board game that lets students use many entrepreneurial skills that they develop with the help of the first output. It's going to be a fun experiential game to teach kids about business operations. Teachers will use this fast-paced board game to teach business operations where teams manage their own paper aeroplane companies and try to convince the market to buy their planes the most.

C. A Mobile Application in the Web App form

The third output will be a mobile app equipped with gamified activities that help the kids and their parents understand the entrepreneurship approach. GRIAL will develop the Mobile

Application since they are professional experts in e-Learning. The app will be a basic mobile app available for iOS and Android, where kids can practice entrepreneurial skills with the help of online games. Guidance and information about entrepreneurship will be presented to parents too.

V. CONCLUSIONS

The Today's Children Tomorrow's Changemakers project addresses the entrepreneurial skills in school education from an innovative approach based on integrating good practices and new methods about entrepreneurship to increase capacity and professionalism to work at the international level.

This project is designed to introduce children to the entrepreneurship world at a young age and to teach them essential life skills they can apply in any economic environment, in any career choice.

The three intellectual outputs are planned and designed to achieve the main objective of the project: a coursebook for primary school teachers to use in their classes with the help of the ready lesson plans and instructions for helping students acquire each of the 15 skills to achieve the Entrepreneurship Soft Skills Development; a board game to let students use many entrepreneurial skills that they develop with the help of the coursebook; and, the Mobile Application in the Web App form equipped with gamified activities which help the kids and their parents understand the entrepreneurship approach.

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