

EN.GA.G.E.

Intellectual Output 2

EN.GA.G.E. digital games for entrepreneurial education in Primary and Secondary schools



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MANUAL FOR TEACHERS

Guidance and Entrepreneurship Education through digital games

April, 2019

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1. Driving innovation in education: the Entrepreneurship Education (EE)

Entrepreneurship education is considered nowadays an important tool to address the challenges of the 21st Century. Developing the entrepreneurial skills of citizens became a main priority for EU policies regarding the economic development in the knowledge society. It is more and more obvious that entrepreneurial skills, knowledge and attitudes can be learned and are of a great importance toward EU strategic aims and values.

The Commission recommendations include the necessity for Member States to develop more systematic strategies to promote entrepreneurship training through:

- a) a coherent framework,
- b) support for schools,
- c) fostering entrepreneurship in higher education,
- d) support for teachers,
- e) participation by external actors and businesses,
- f) practical experience.

Based on these recommendations, it is necessary to revise the curriculum to explicitly include entrepreneurship as an educational objective, to support teachers in incorporating entrepreneurial activities in the curriculum, design new teaching materials, implement projects, partner with businesses on entrepreneurial training of teachers or setting up and running mini- companies.

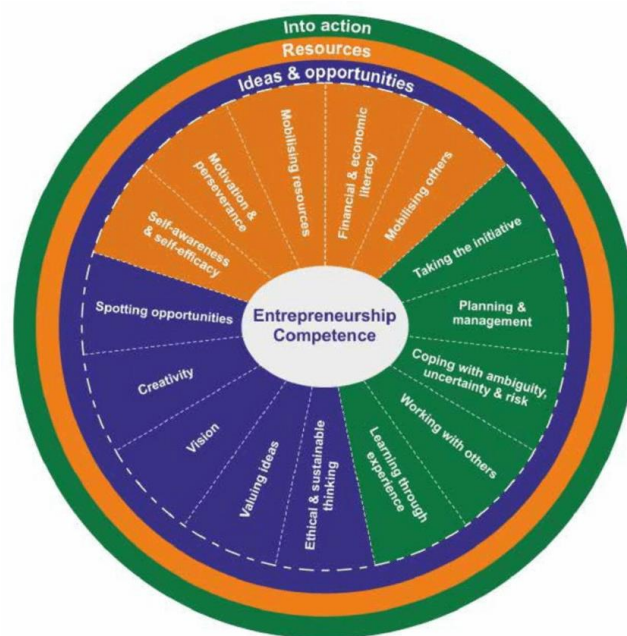
In the Paper *Rethinking Education Communication*, the European Commission included entrepreneurship as one of the eight key-competences for lifelong learning in a modern knowledge-based society. The entrepreneurship key-competence is defined as a sense of initiative and entrepreneurship, being the ability to turn ideas into action through creativity, innovation and risk taking as well as ability to plan and manage projects.

In 2016, the EU developed the European Entrepreneurship Competence Framework (EntreComp) that proposes a shared definition of entrepreneurship as a competence to establish a bridge between the educational institutions and workplace. It defines entrepreneurship as a transversal competence, which applies to all spheres of life: from nurturing personal development, to actively participating in society, to (re)entering the job market as an employee or as a self-employed person, and also to starting up ventures (cultural, social or commercial).

EntreComp represents the European reference framework for the understanding and development of entrepreneurship as a competence, set to become a reference de facto for any initiative aiming to foster entrepreneurial capacity of European citizens.

EntreComp consists of 3 interrelated and interconnected competence areas:

- a) ideas and opportunities,
- b) resources,
- c) into action.

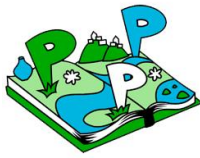


Each of the areas is made up of 5 competences, which, together, constitute the building blocks of entrepreneurship as a competence. The framework develops the 15 competences along an 8-level progression model and proposes a comprehensive list of 442 learning outcomes.

2. The EN.GA.G.E Project

EN.GA.G.E. stands for ‘ENTrepreneurialGAMES for Growing Europeans’. It is a two-year European project, funded by the Erasmus+, delivered in partnership with 8 European organisations:

- 4 Schools:



IC PPP
(Italy)



Lycée R. Couzinet
(France)



Music School of Trikala
(Greece)



Palatul Copiilor Pitesti
(Romania)

- 4 Technical Partners:



EGInA Srl
(Italy)



Le Cnam
(France)



Aketh
(Greece)



University of Pitesti
(Romania)

EN.GA.G.E. aims to rethink education by fostering the entrepreneurial transversal skills and entrepreneurial culture by involving the educational communities of the partner countries in order to foster the entrepreneurial transversal skills through the use of digital games.

EN.GA.G.E. aims to:

- carry out a review of the educational games directly or indirectly focused on the entrepreneurial learning,
- co-create, test and review two digital games for entrepreneurship

The EN.GA.G.E. project focuses on the importance of nurturing the entrepreneurial mindset in Primary and Secondary schools across Europe, combining the findings of the integrated desk and field research (IO1) and the feedback collected during the EN.GA.G.E. training sessions for teachers (Learning Teaching Training Activities) with the designing and testing of two digital games (IO2): *Recyclock Party* and *MyTop - Manage yourself to opportunities powerfully*.

3. Digital Educational games for EE: using EN.GA.G.E. digital games in the classroom

3.1 Who is this Manual for?

This manual is designed to help teachers of Primary and Secondary Schools support the development of EE and its integration into the school curricula, encouraging them to become entrepreneurial teachers who support students' individual learning process and development of personal competences.

Focusing on the assumption that teachers cannot support students to become entrepreneurial without themselves being entrepreneurial, this manual aims to provide teachers with suggestions to use the EN.GA.G.E. digital game(s) to develop the entrepreneurial competences. In fact, EE is more than instructions on how to run a business. It entails a set of knowledge, skills and competencies needed for “*turning ideas into action*”.

Recyclock Party and *MyTop*, the digital educational games designed throughout the EN.GA.G.E. Project, aim to motivate young learners for entrepreneurship, making them understand that entrepreneurial competencies and skills can be acquired and that entrepreneurship as a competence is individual and collective, it applies to all spheres of life (e.g. personal development, entering the job market etc.).

Considering that gaming is an educational tool that can be beneficial to learning, this manual intends support teachers to activate methods of engaging students to release their creativity, fostering their entrepreneurship mind-set through challenging and real-life learning experience!

3.2. EN.GA.G.E. digital games for entrepreneurship: *Recyclock Party* and *MyTop*

Being accessible for free on the project website, *Recyclock Party* and *MyTop* can be used in the classroom or at home by learners.

To run both EN.GA.G.E. digital games, students will need access to a laptop or computer as well as to the internet and download the file or play online.

Players will need to open up an internet browser and head to <http://www.engagegame.eu/en-ga-g-e-digital-games/> to play the EN.GA.G.E. digital games.

Before playing the game(s), we recommend you to arrange some preparatory activities aimed to:

- support students to explore the entrepreneurial competences
- promote reflection on their own values and capabilities
- identify the skills, knowledge and competences needed for the development of an entrepreneurial mind-set.

Here are a few suggestions for preparatory sessions to be used before playing the EN.GA.G.E. digital game(s):



Session 1: Introduction and Preconditions for success

- Aims: to empower learners with a sense of initiative and creativity, stimulate reflexion about entrepreneurship (initiative spirit)
- Duration: 40 minutes
- Activity: The teacher announces she/he will read a statement. Then, students will have to move to one of the two corners of the room depending on whether they agree or disagree with the statement. Students will be then asked to motivate their answer. Throughout the activity, the teacher can read statement such as:
 1. Everyone has the potential to become an entrepreneur.
 2. The only thing certain about being entrepreneur is uncertainty.
 3. Failure is a crucial ingredient for success.



Session 2: What should be my first step for becoming an entrepreneur?

- Aims: to mobilise interest in entrepreneurship and inspire action; to recognize entrepreneurship as a lifelong competence, identifying what are the elements that make someone entrepreneurial (EntreComp)
- Duration: 1 hour
- Activity: Using the [clickable EntreComp model](#), students can explore to see the definitions and insights behind each of the 15 competences, start creating their own path in building their competences.



Session 3 (Just for MyTop): Introduction to Business

- Aims: to get an introduction to business concepts and current business issues (pricing, customer care, human resources management, etc.)
- Duration: 1.5 hour

Activity: Create your own business! Support students to carry out a simple market research. First step: choose your product, explain why a customer can need it; Second step: look at your provider and competitors to set the best price; Third step: choose the name of your company; Fourth step: do you need employees on board? If so, please consider that there are legal obligations for employing people



Session 4: Let's play!

- Duration: 45 minutes - 1 hour



Session 5: What did I learn?

- Aims: to stimulate students' self-assessment and assess the acquisition of entrepreneurs' competencies.
- Duration: 1 hour
- Activity: Emoji worksheet; Self-assessment, questions, exit tickets, EN.GA.G.E. Self-Assessment Form, etc...

3.3 Using *Recyclock Party* Digital Game in the classroom



- Age Range: 8-12 years
- Prerequisites: N/A
- Duration: 40 minutes approx.
- Languages: EN, IT, GR, FR, RO
- Mission:

The player is a member of the class committee who will be responsible for organizing a welcoming party for Erasmus+ exchange students! The player will have to select the country where the final party will take place (4th level). In the other 3 levels, the player will play in the other partner countries (Greece, Italy, Romania, France).

In order to organize the party, the player is going to need funds!

The player will have to get the necessary funds by collecting the waste throughout the city and taking them to the ecological area, where he/she will be repaid with coins (the value of the item depends upon the type waste!). Once the money is obtained, the player can buy the necessary items for the party in the city shops.

The player is asked to buy at least 1 item per category. Categories are: Decorations, Food, Drink and Music.

The game consists of 4 levels. Each level represents 1 of the 4 countries. In the first 3 levels, there are 10 items (waste) that the player needs to collect. In order to collect the waste, the player has to wonder around the city/level and find the items. When he/she find the item/waste, a question will pop up. The player has to answer the question correctly in order to successfully pick up the item/waste. Once all 10 items are found -or when time is over (10 minutes), he/she will proceed to the next level.

When player successfully finished all 3 levels, he/she has to purchase the items needed for the party from the shopkeeper in the 4th level. In the 4th level, the more items player buys, the more points he/she gets!

Once all the required items are purchased... the player can start partying!

Once students have completed all 4 levels, they will receive a Certificate.

- Icons & Commands:



Remaining time



Correct answers / waste collected



Waste found



Money



Points



Decoration items bought



Food items bought



Drink items bought



Music items bought

ESC → pause

Arrows → move

Space bar → jump

CTRL → run

3.4. Using MyTop Digital Game in the classroom



- Age Range: 14-17 years
- Prerequisites: Basic Concept of Business Management (employees, raw materials, final products, pricing, customers)
- Duration: 40 minutes approx.
- Languages: EN, IT, GR, FR, RO
- Mission:

The player inherits a store, his/her mission is to make the store grow, earn as much money as possible and be a successful entrepreneur!

The game consists of 1 level, the player will have to choose the city/country and his/her business sector among: Decorations, Food, Drink and Music.

The player has complete control on every part of his/her business. That includes: Staff recruitment, Employee's happiness, Purchasing needed supplies/raw material, Pricing, Customer's satisfaction.

The 1st step is to set up the company, with a special focus on the employees. The Player will need employees in order to turn raw material into final products. The *Happymeter bar* will show the player if the employees are happy or not! If not, the player will need to take measures to improve their working conditions.

The second step is to buy raw materials. As the productions starts, new customers will come to the store. The player will have to set the price and answer to some questions. The Player will be asked to answer to some questions, if he/she gives the correct answer, the customer will be satisfied and this will increase the sales!

Unexpected events may occur that will force the player to move across the city or make change in the business!



As final step, learners will be asked to download and fill the EN.GA.G.E. Self-Assessment Form and the Business Pitch (see Session n.2).

ENGAGE
Self-Assessment
OF ENTREPRENEURIAL SKILLS AND COMPETENCES

YOU'RE ENTREPRENEURIAL LEARNING JOURNEY HAS JUST STARTED!

WHEN PLAYING, YOU'VE FACED CHALLENGES, COPEd WITH RISKS ACQUIRING/IMPROVED IMPORTANT COMPETENCES (E.G. PERSISTENCE, CRITICAL THINKING, ETC.) WHICH ARE CRUCIAL TO TURN IDEAS INTO ACTIONS AND BECOME ENTREPRENEUR!

THE FRAMEWORK BELOW REPRESENTS A LIST OF 15 COMPETENCES THAT ALL TOGETHER CONSTITUTE ENTREPRENEURSHIP.

CIRCLE THE COMPETENCES YOU HAVE BEEN USED WHILE PLAYING!

- INTO ACTION
 - MANAGE INITIATIVE
 - SEARCH & DISCOVER OPPORTUNITIES
 - COMMUNICATE WITH STAKEHOLDERS
- IDEAS & OPPORTUNITIES
 - SPOTTING OPPORTUNITIES
 - CREATIVITY
 - VISION
 - VALUING IDEAS
- RESOURCES
 - ETHICAL & SUSTAINABLE THINKING
 - MOTIVATION & PERSISTENCE
 - SELF-AWARENESS & SELF-EFFICACY
 - FINANCIAL & ECONOMIC LITERACY
 - MOBILISING OTHERS
 - MOBILISING RESOURCES
- ETHICAL & SUSTAINABLE THINKING
 - LEARNING THROUGH EXPERIENCE
 - WORKING WITH OTHERS
 - PLANNING & MANAGEMENT



Business Pitch

WORKSHEET

EXAMPLE PITCH

I AM HELLEN AND THIS IS MY FRIEND THOMAS. TOGETHER, WE ARE TRAVEL DOG!
 HAVE YOU EVER EXPERIENCED DIFFICULTIES IN TRAVELLING WITH YOUR DOG? WELL, OUR SERVICE IS WHAT YOU AND YOUR PET REALLY NEED! YOUR DOG CAN NOW TRAVEL WITH YOU..WITH STYLE AND COMFORT!
 TRAVEL DOG IS EXPERIENCED IN USING THE BEST FABRICS FOR TRAVEL BAGS.
 BUY NOW AND GET A SPECIAL PRICE OF 20 €.
 READY TO HAVE THE TRAVEL BAG OF YOUR DREAMS?

YOUR PITCH!

I AM _____ (STUDENT NAME) AND THIS IS _____ (STUDENT NAME).
 TOGETHER WE ARE _____ (COMPANY NAME).
 OUR PRODUCT IS _____ (PRODUCT NAME).
 HAVE YOU

_____ (PROBLEM THAT PRODUCT SOLVES FOR CUSTOMER)?

WELL, OUR PRODUCT IS JUST WHAT YOU NEED! _____ (PRODUCT NAME) _____ (WHAT PRODUCT DOES)

BUY NOW AND GET A SPECIAL PRICE OF _____ (PRICE).
 READY TO _____ (WHAT THE CUSTOMER GETS FROM THE PRODUCT)?

Once students have completed the game, they will receive a Certificate.

- Icons & Commands:



Raw Material



Finished Product



Money



Points

- ESC → pause
- Arrows → move
- Space bar → jump
- CTRL → run

4. To go deeper

After students have completed the EN.GA.G.E. digital game(s), we recommend that the teachers continue working on integrating entrepreneurial activities into the school curricula, using educational games in class.

Considering that *‘all young people should benefit from at least one practical entrepreneurial experience before leaving compulsory education’* (European Commission, 2012, ‘Rethinking education: investing in skills for better socio-economic outcomes’), European educational communities should foster entrepreneurial skills through new and creative ways of teaching and learning from primary school onwards.

Here are a few suggestions for activities:

- Implement recycling campaign in your school - *Recyclock Party Game*
- Creation of a fictitious company (Logo, business plan, communication, negotiation etc) - *MyTop Game*
- Establish links and cooperation structures with businesses and community organisations to support their entrepreneurship curriculum
- Entrepreneurial skills can be taught across all subjects as well as a separate subject.

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5. Resources

- [EN.GA.G.E Research Consolidation and Guidelines for Entrepreneurial Education](#)
- [EntreComp: The Entrepreneurship Competence Framework](#)
- [EntreComp into action](#)
- [The Communication on Rethinking Education](#)
- [Entrepreneurship 360](#)
- [Study on Supporting School Innovation Across Europe](#)
- [Entrepreneurship Education: A Guide for Educators](#)