

Pop-Up Business

Age-group: 9-12 years old

Number of hours: 18 hours

Short description of activity:

In this project students are “Young Entrepreneurs”. Students design and implement their own business idea or pop-up store. Students learn about basic economic skills and entrepreneurship. As part of the project students will be advertising their idea and “selling” their products and services and producing customer satisfaction data which will be analyzed.

CT-competences:

Data collection

Data analysis

Data representation

Debugging

Algorithms & procedures

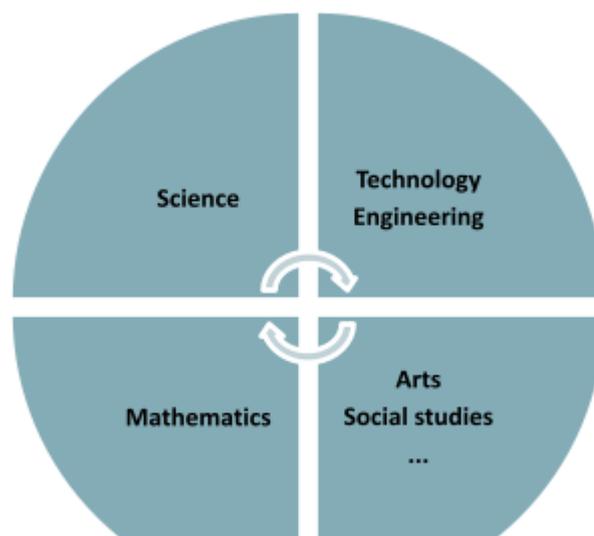
Parallelization

Goals

Students:

- **learn** about basics of economy, marketing, entrepreneurship and accounting
- **design** a working and sellable product and/or service
- **produce** marketing material
- **present** products and services via a pop-up store
- **learn** about proper customer service
- **collect** customer satisfaction data and produce graphical data representation
- **understanding** how economy consists of services and products

Realistic STEAM-context

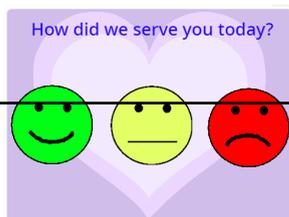


Science	Technology - Engineering
economics examples of bad economic activity marketing	building and programming the "accounting machine" with microbit Happy or Not machine
Mathematics	Arts - Social studies
data analysis coding calculating graphical data representation	designing and building products and services customer service designing marketing material

Methodology

Based on learning by doing (with different levels: from imitation to creation)

Part	Description	Timing
1	<p>Orientation</p> <p>Teaching the basics of economy in classroom:</p> <ul style="list-style-type: none"> -How much do common products and services cost, what is the “value” of money APPENDIX 1 -Exercise for student: combine product and the right value APPENDIX 1 -Different currencies around the world and their value compared to euro APPENDIX 1 <p>-Making videos of students answering general money questions: etc. “</p> <p>CT: abstraction</p>	1-2 x 45min
2	<p>What is?</p> <p>Introducing the project, goals and expectations</p>	45min
3	<p>Making the groups</p> <p>Each group consists of 3-4 students</p> <p>Students can be assigned different roles for example coder, arts, building the store, marketing, building the product</p>	45min
4	<p>Planning, designing and building</p> <ul style="list-style-type: none"> -Students design their own currency that is used in the pop-up store. This currency is delivered for the buyers. APPENDIX 1 -Planning, designing and building/creating the product/service (only one!) the group wants to sell -Students decide a reasonable price for their product -Planning the marketing of their store, building marketing sheets etc. -Coding the microbit for the accounting purpose APPENDIX 2 for basics and APPENDIX 3 for the “accounting machine” -Introducing the customer satisfaction software on iPad/laptop (happy, neutral, unhappy) APPENDIX 3 for the software <p>-Examples of products and services: cookies, “tattoos”, hair saloon, nail saloon, massage parlor, 3d printed toys, self made toys...</p> <p>CT: abstraction, problem decomposition, algorithms and procedures</p>	4x45min
5	<p>Store</p> <ul style="list-style-type: none"> -Students build the store and start selling the product -The buyers (another class) use the fake money invented before, but also real money can be used. -Seller presses the microbit so that the microbit keeps counting how many products are sold -Each buyer also attends the customer satisfaction questionnaire on iPad/laptop 	2-3x 45min



	CT: data collection, algorithm and procedures, parallelization	
6	Data analysis -Each group collects the data from their store: number of sold products and numbers of happy, neutral and unhappy customers -Each group share the data with other groups CT: data analysis, debugging	45min
7	Data presentation -Every group make graphical presentations that includes all the data from the class: what products and how many of them were sold, how many customers were happy, neutral and unhappy CT: data representation	2x 45min
8	Feedback -What did you already know, what was new, what did you learn, what would you do differently -If real money was used, students can discuss and decide how to use it -After the feedback has been gathered it can be analyzed and products and services improved. Is the cost of the product suitable? How is the sale event? and so on... and another event can be organized in which these improvements are implemented CT: debugging	1-2x 45min

Organization

Materials:

- assignments found in appendixes
- computer/iPad for the coding of microbit and scratch
- anything students need to create their products and the pop-up store
- materials for the money notes
- microbit

Use of ICT: coding an accounting machine with microbit, I pads or similar for the customer satisfaction survey. Analyzing data and representing it with Excel or similar program. (Appendix 3 Scratch and microbit)

Opening of classroom: (only mention when relevant)

Coaching

4

STEAM-CT

Useful questions:

Part 1:

What is the value of money?

What do common products cost?

How can money be saved?

What currencies do you know? What is the currency of (fill with your neighboring country for example)?

Part 2:

What makes a product good/popular?

What makes a service good/desirable?

Why do you like a specific product?

How to market a product or service?

What is the fair value of a product or service?

Part 3:

What did you already know?

What was new?

What did you learn?

What would you do differently?

Stimulation of self-management: (concrete opportunities/remarks adapted to the project)

Stimulation of cooperation: (concrete opportunities/remarks adapted to the project)

Teamwork:

- Groups consist of 3-4 students.
- Competences needed in a group
- Assigning roles, for example
 - Coder
 - Arts/marketing
 - Selling staff
 - Builder/Product designer

Students have the chance to assign responsibilities for each other. Giving students specific roles and responsibilities assures that every part of the project has a student taking care of that part

Formative assessment: (concrete description/summary adapted to the project)

Problem decomposition: designing own product, service, store

Data collection: collecting feedback and data from customers

Abstraction: how to value said product or service

Data analysis: how many products were sold, were the customers happy or not

Data representation: representing the data via graphs

Debugging: Problems with the product and/or service. How to improve the sale, sale rate or product.

Algorithms & procedures: How to plan a working product or service step by step. What a good sell event consists of?

Parallelization: adapting same framework of economic theory in different contexts at the same time

Adaptations

General ideas:

- Each group design one product and service
- Using the earned money in a real life context, charity or acquiring something for the whole class or school
- Ideas with younger/older children: (3-6 <-> 6-9 / 9-12 <-> 12-15)
 - 6-9: Concrete goal or prize for the gathered real money if used
 - 12-15: Understanding problematic economic behaviour (for example olympics-organizers and the use of the stadiums etc afterwards)
 - Talking about the grey/informal economy

Tips & tricks

-In the orientation to economy students can visit a local shop/marketplace/supermarket/cafeteria and get to know it, how does it work, what is the economy behind it and why things cost what they do

-If students use real money, they need to think and decide where the collected money is used for. Charity is an abstract thing for kids, there needs to be something more concrete and own to collect the money for: a trip etc.

-Product ads can be electric (info television etc).

-Some of the student groups could focus only on making products and the others for making services. That's how the task of creating products wouldn't be too overwhelming.