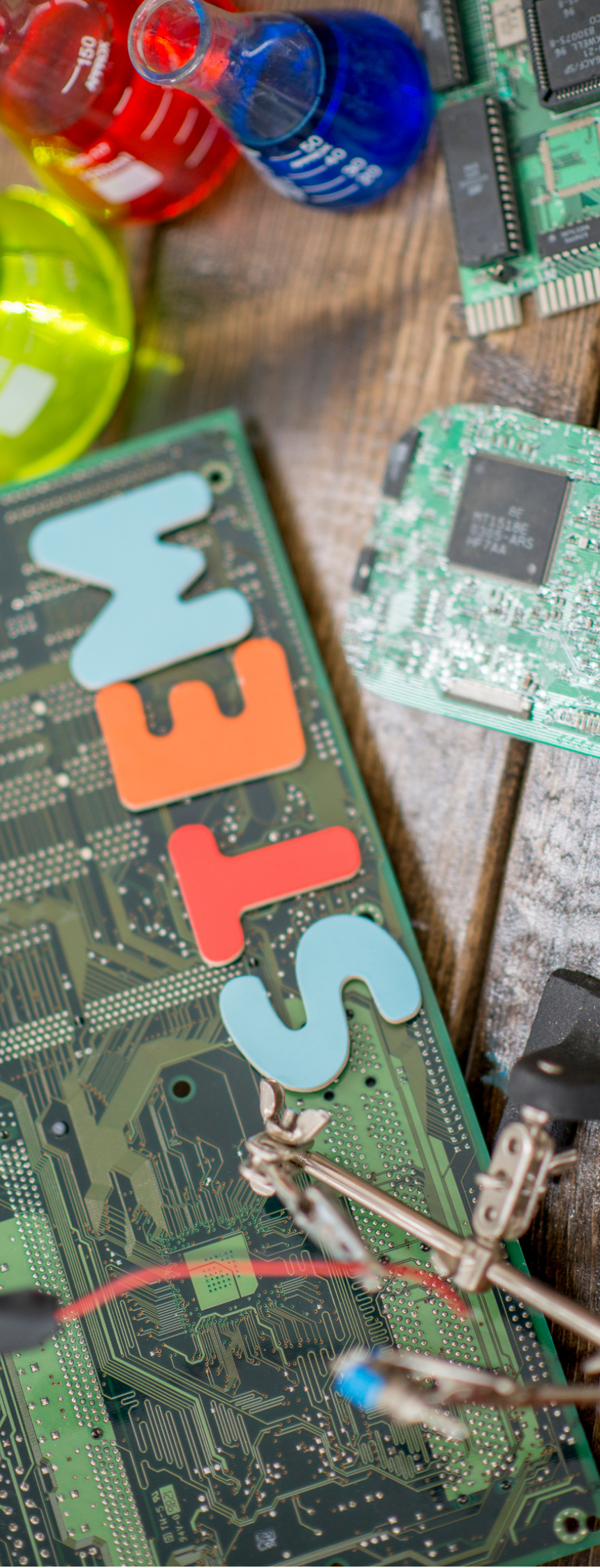




Co-funded by
the European Union



**PILOT ACTION
EVALUATION REPORT**



Co-funded by
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

Project: "EXPERIMENTA: a community-based approach to STEM Education".

2021-2-IT02-KA210-SCH-000050323



This document is licensed under the
Creative Commons Attribution-
NonCommercial-ShareAlike 4.0
International (CC BY-NC-SA 4.0)



TABLE OF CONTENTS

- 1 THE PILOT ACTION**
- 2 THE RESULTS OF THE
PILOT ACTION IN
ITALY**
- 3 THE RESULTS OF THE
PILOT ACTION IN
CROATIA**
- 4 CROSS COUNTRY
ANALYSIS**
- 5 ANNEXES**



The Pilot Action

Introduction

This paper presents and discusses the results of cross-country analysis undertaken to assess the EXPERIMENTA methodology designed **to encourage STEM education in young students** (11-15 years old).

The results collected at the national level have been systematized in this report that summarizes the findings of the pilot action activities implemented in Italy and Croatia and served as a tool for the further improvement of the EXPERIMENTA methodology and the Booklet.

The main goal of the Pilot Action (PA) was to increase students' interest and skills in STEM subjects and support teachers to become familiar with the EXPERIMENTA methodology based on the principles of **open schooling** [1] and the creation and development of **communities of practice** at local level.

In particular, the PA contributed to the following specific goals:

- to enhance students' knowledge competencies and skills in STEM subjects through a hands-on, project-based approach and peer education.
- to promote students' protagonism, the development of communities of practice on STEM education at the local level, creating a model replicable in all European countries.

The PA in numbers:



Duration
30 hrs

15 hours of experimentation of the EXPERIMENTA methodology in each school.



Participants
6 Teachers

3 teachers trained during the PA in each country.



Participants
65 students

35 students were involved in Croatia and 30 in Italy in the Pilot Action activities.

The PA was developed according to the phases described below.

[1] "Open Schooling (is) where schools, in cooperation with other stakeholders, become an agent of community well-being: families are encouraged to become real life in school life and activities, professionals from enterprises, civil and wider society are actively involved in bringing real-life projects into the classroom (Science Education for Responsible Citizenship, European Commission).

Selection of participants

Selection of the classes and conduction of Pilot Activities. The selection was based on the presence in the class of disadvantaged students, with learning disorders, SEN (Special educational needs), or with disabilities.

When: until the end of November 2022

STEP 1

STEP 2

Teachers' training (Peer education)

The teachers involved in the previous phases had the task to train their colleagues (not involved in the previous phases) on:

- the **EXPERIMENTA methodology**
- the use of the **Booklet** in teaching practice.

When: from December 2022 to the end of January 2023

Students' training (Peer education)

Students involved in the previous phases, presented to other peers (not involved in the previous phases):

- at least **1 of the educational activities** presented in the Booklet.
- the **authentic task implemented** in the previous phase of the project. The presentation of the authentic task was implemented as a meeting where students, families, local stakeholders participated.

When: from December 2022 to the end of January 2023

STEP 3

STEP 4

Evaluation of the pilot action

At the end of the PA in Italy and Croatia, the evaluation was conducted through online questionnaires designed by the Consortium (Annex 1) addressed to teachers and students. This report summarizes the results of the experimentation

When: from February to Mid March 2023

Final review of the Booklet

On the basis of the results obtained from the Pilot Action, LSS and XANO will take care of the final revision, translation of the Booklet. It will be available on the [project webpage](#).

When: from February to Mid April 2023

STEP 5



Chapter 1

The results of the Pilot Action in Italy

1.1 The PA in Italy

1.2 Teachers' feedback

1.3 Students' feedback

1.1 The PA in Italy

The PA in Italy was implemented between December 2022 and January 2023.

ITE Grimaldi Pacioli organized three sessions of five hours each. These sessions were scheduled during the School's Open days. It allowed to introduce the EXPERIMENTA project to new teachers and students, but also to an external audience , i.e. middle school pupils and their parents.

The teachers involved in the first phase of the project presented the Booklet and the various educational activities to three other colleagues from the STEM school: Mrs. Emma Scavo (Natural Sciences), Massimo Leone (Computer Science) and Mario Lucia (Mathematics).

The EXPERIMENTA project and its methodology were introduced and the video made by the pupils in the first phase of the project (implementation of the authentic tasks) has been shared with them.

The students involved in the first phase of the project explained the EXPERIMENTA methodology to their classmates, discussed good practices and explained how they worked on their authentic tasks. They were protagonists and very proud to show the result of their work to new students.

1.1 Teachers' feedback

All respondents are STEM teachers and they teach the following subjects:

- Mathematics
- Natural sciences
- ICT

The majority of respondents declared that it is not particularly easy to motivate their students in learning their subjects. As shown below, with regard to the students' success in the subject taught by the respondents (Q5), there are conflicting opinions:

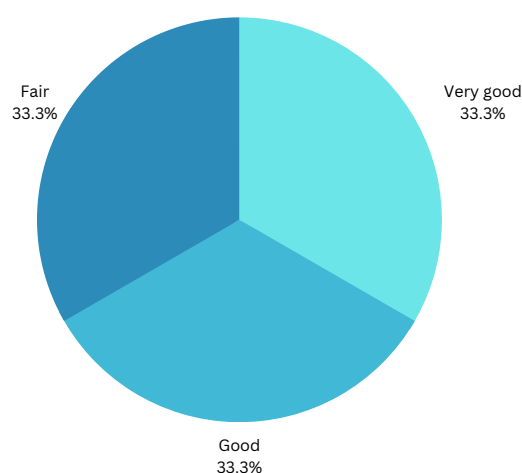


TABLE 1
Chart of respondents' relative answers to question Q5 in relation to the students' academic success rate in the respondents' subject.

Regarding the use of experiments and practical activities (e.g. project based learning, authentic tasks etc.) in class (Q6), all the respondents claimed that they often incorporate this methodology in their teaching strategy.

All respondents reported that they never had the opportunity to experience open schooling [1] activities (Q7).

With regard to the educational activities available in the EXPERIMENTA Booklet (Q8), all respondents found the "Energy efficiency and Biodiversity" activity particularly interesting. They also declared (Q9) that other activities (such as "Achieving European ICDL licenses", "Food delivery fast" and "Energy efficiency") can really contribute to improve students' performance in the subject they teach.

The majority of respondents claimed that the EXPERIMENTA Booklet motivated them to incorporate the project's methodology (e.g. open schooling activities, systematic use of project based learning activities based on the implementation of authentic tasks; experiments and practical assignments) in their teaching practice (Q10). Also, all respondents declared that the PA and the consultation of the Booklet provided a very good opportunity for innovating teaching practice through the cooperation with the stakeholders of the local community. The graph below shows the strengths and weaknesses of the Booklet and the overall EXPERIMENTA methodology (Q13):

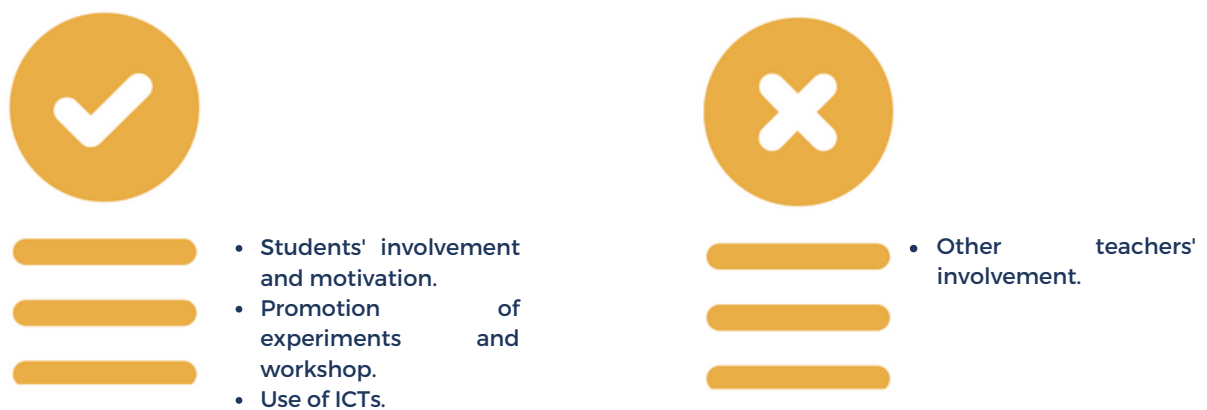


TABLE 2
Table of respondents' relative answers to question Q13

To conclude, all respondents had a very positive attitude towards the EXPERIMENTA project and methodology (Q14). Indeed, the majority of respondents stated that being the first Erasmus+ project of the School, EXPERIMENTA is a great opportunity for innovating education by bringing real world learning in the classroom.

“ —

Although I already implement educational activities based on workshop and authentic tasks, the EXPERIMENTA methodology provided me with very inspirational insights.



1.2 Students' feedback

30 students from Italy were involved in the PA. Findings show that majority of the respondents were females (63,3%) and 36,7 % were males.

The chart below shows the respondents' interest towards STEM subjects.

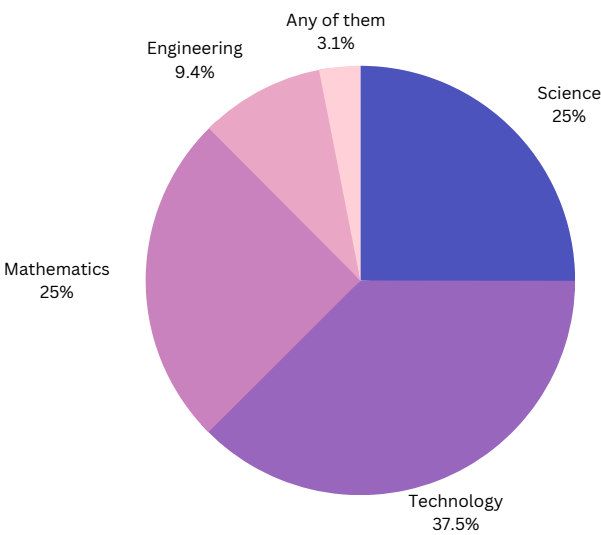


TABLE 3
Table of respondents' relative answers to question Q4.

The majority of respondents (90%) stated that the contents learned at school in the mentioned subjects will be quite useful in their live (Q5).

The chart below shows the respondents' feedback on their academic achievement in STEM.

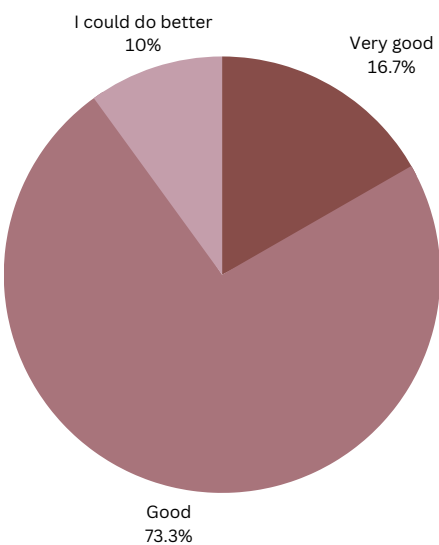


TABLE 4
Chart of respondents' relative answers to Q7.



With regard to the implementation of open schooling activities, only one respondent declared to have experienced such educational activity (Q8).

The chart below summarizes the frequency of use of experiments and practical activities (e.g. project based learning, authentic tasks etc) in class (Q9).

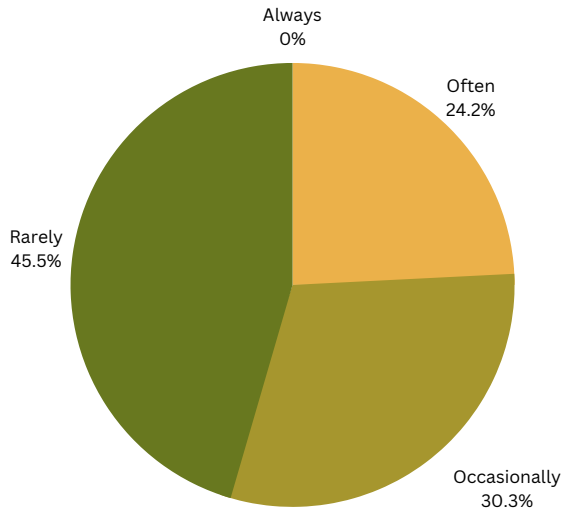


TABLE 5
Chart of respondents' relative answers to Q9 in relation to the frequency of use of experiments and practical work in their learning practice.

Concerning the educational activities available in the EXPERIMENTA Booklet (Q10), the respondents tested different activities, as shown below:

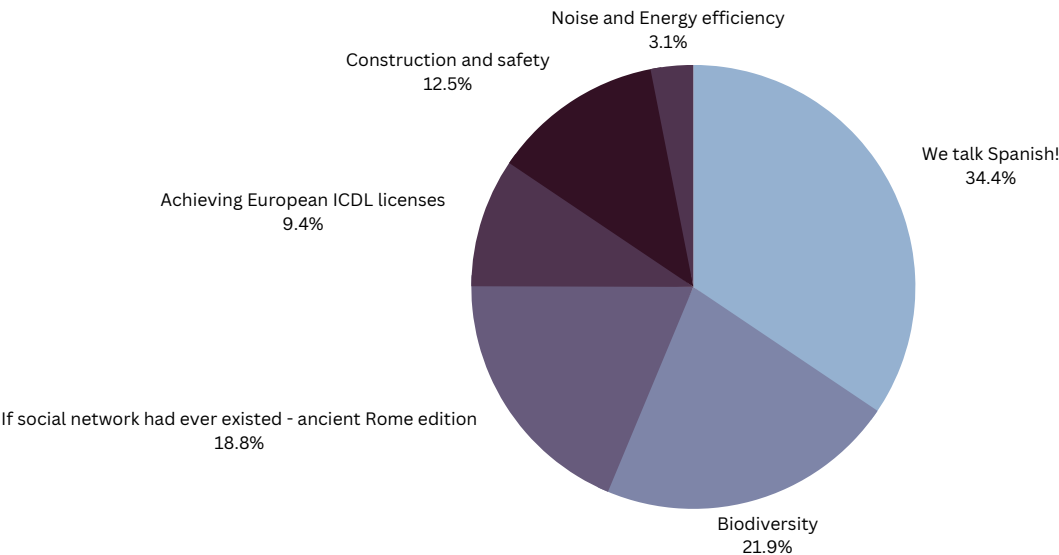


TABLE 6
Chart of respondents' relative answers to Q10 in relation to the educational activities of the Booklet tested during the PA.

With regard to what the respondents liked most about the educational activity tested during the PA (Q11), they mentioned:

- the creation of the video because it was the results of teamwork
- to learn about biodiversity
- to learn more about wasting energy and ways to save money
- to put in practice what they learned in everyday life.

93% of respondents believes that the knowledge and competencies acquired through the activity of the EXPERIMENTA project are useful for their life (Q12).

Most respondents provided very positive feedback on the PA of the EXPERIMENTA project (Q13). They liked the fact that the students were given the opportunity to explain the project and its implementation to other students. They agreed that this facilitated a lot their learning process. They also showed appreciation towards the cooperation with the stakeholders of the local community, since it helped students to know their local community better. They also liked the fact that the PA allowed them to consolidate their skills and competencies. In fact, besides strengthening their STEM skills, EXPERIMENTA provided them an opportunity to consolidate their interpersonal skills, their ability to work in a team, to develop their digital skills (e.g.video editing) and their ability to communicate in English,



- Engaging and motivating activities.
- Rewarding activities (sense of satisfaction).
- Involvement of the local community because it fostered active citizenship.
- Teamwork.
- Active cooperation through realistic and practical tasks.



- School's organization. poor

TABLE 7

Table of respondents' relative answers to question Q13.



Collaborating with the local community is very positive because it makes us active citizens.



Chapter 2

The results of the Pilot Action in Croatia

2.1 The PA in Croatia

2.2 Teachers' feedback

2.3 Students' feedback

2.1 The PA in Croatia

Teachers' training

The PA in Croatia was implemented between December 2022 and January 2023.

Teachers Sanja Škreblin, Mihaela Koren and Antonija Lujanac presented the EXPERIMENTA Booklet and the educational activities provided in the document to the teachers of the School through a set of activities:

- Screening of the videos of the activities carried out by the students (implementation of authentic tasks).
- Analysis of the Booklet and discussion (in pairs or in smaller groups) about the feasibility of the educational activities provided in the Booklet.

The teachers involved and trained on the EXPERIMENTA methodology were three (all STEM teachers): Sonja Pavlič, Nevenka Pokos and Gabrijela Kovačević. Another other teacher also got interested and involved during the PA.

Students' training

Due to bad weather conditions, students could not visit Maksimir Park - one of the main local stakeholders that supported Osnovna škola Dobriše Cesarića in the previous phase of the project (implementation of authentic tasks). However, the manager of Maksimir Park, Mrs. Biljana Janev Hutinec, held two workshops at the School, in cooperation with the students who were involved in the previous steps of the EXPERIMENTA project. During the first workshop, the students previously involved in the project, presented the authentic tasks (identification of trees and creation of bar codes of the trees in the school yard) they implemented to other students.

Afterwards, Mrs. Biljana, presented to the "new" students a Mobile App for birds identification developed by the Maksimir Park as part of the EU funded project "City windows to nature".

She spoke about the work and difficulties connected with the creation of the App. With the help of the students previously involved in the EXPERIMENTA project activities, the "new" students learnt how to identify birds through the Mobile App and the pictures of birds provided by Maksimir Park. During the second workshop Mrs. Biljana Janev Hutinec guided the students in the identification of birds in the school yard. The "new" students were supported by those previously involved in the EXPERIMENTA project.

In addition, with the support of other teachers of the School, the Croatian team organized two extra sessions:

- Art workshop: under the mentorship of teacher Mrs. Danica Bobinac (Art teacher), students learnt how to make a birdhouse out of cardboard.
- ICT workshop: the ICT teacher of the School explained to the students how Mobile Apps are created and the experts involved in their development.

After these activities, the "new" students independently researched what the birds they saw in the school yard usually eat, and in the following art classes they prepared food for the them and started placing it in the feeders.

With the support of the School teachers Mrs. Mihaela Koren and Sanja Škreblin, the students presented the EXPERIMENTA project and the tasks implemented before and during the PA to the students' parents at the parents' meeting.

2.2 Teachers' feedback

All respondents are STEM teachers of the disciplines mentioned below:

- Physics
- Technology, Informatics
- Geography.

The majority of respondents find it easy to motivate students in their subjects (Q4). As shown below, they estimate that the students' success in their subject is quite good (Q5).

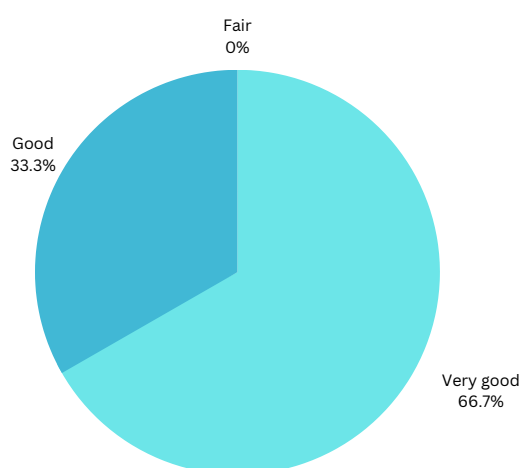


TABLE 8

Chart of respondents' relative answers to Q5 in relation to the students' academic success rate in the respondents' subject.

With regard to the frequency of use of experiments and practical activities (e.g. project based learning, authentic tasks etc.) in class (Q6), the respondents provided different feedback:

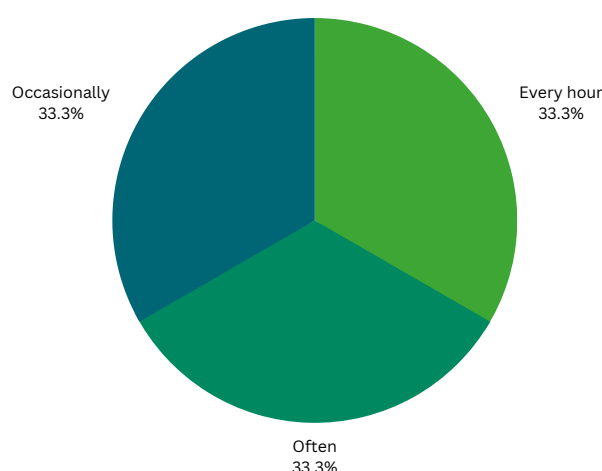


TABLE 9

Chart of respondents' relative answers to Q6 in relation to the frequency of use of experiments and practical work in their teaching practice.

Unlike the three Italian teachers who participated to the PA, most of the Croatian teachers (66,7%) already had the chance cooperate with the local community. They collaborate with public institutions and they are satisfied with the cooperation, organization and implementation of these activities (Q7).

Concerning the educational activities available in the Booklet (Q8), all respondents claimed that they liked the "Construction and safety" activity. They also declared that the educational activities "Noise", "Energy efficiency", "Biodiversity" and "If social network ever exist" can be particularly effective in enhancing students' learning (Q9).

All respondents declared that the educational activities designed by project partners and included in the EXPERIMENTA Booklet inspired them to further connect the subject they teach with the students' daily life (Q11).

They also stated that by reading the Booklet, they got an incentive to include the EXPERIMENTA methodology in their teaching practice, with a special focus on the implementation of open schooling activities (Q12).

The strengths and weaknesses of the overall EXPERIMENTA methodology (Q13) identified by the respondents are represented below:

	
Creative and stimulating educational activities.	- The amount of time required by certain activities. - Issues in implementing the activities due the constraints of the curriculum.

TABLE 3
Table of respondents' relative answers to question Q13.

“
My impressions are very positive and I think the activities are excellent. I would like to have a project week in which all the above activities could be realized.

2.3 Students'feedback

A total of 35 students from Croatia. Findings show that majority of the respondents were females (51.4%) and 48.6% were males.

The chart below shows the respondents' interest towards STEM subjects.

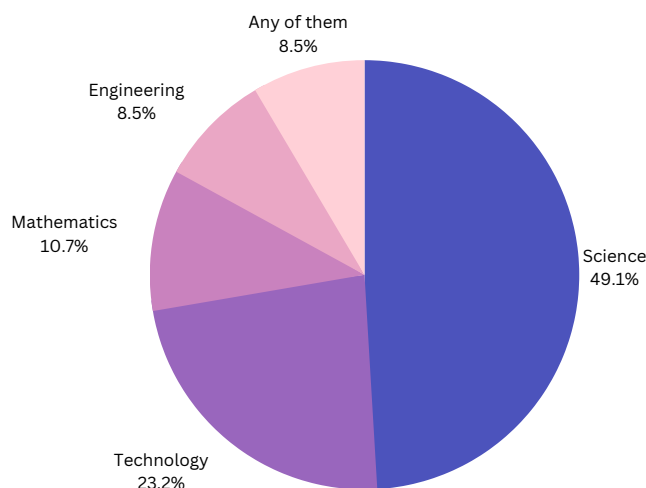


TABLE 10
Chart of respondents' relative answers to question Q4.

Most of the respondents (88.6%) declared that the contents learned in the STEM subjects will be useful in their live.

With regard to students' academic achievement in STEM disciplines, most participants stated that it is good, as shown in the table below:

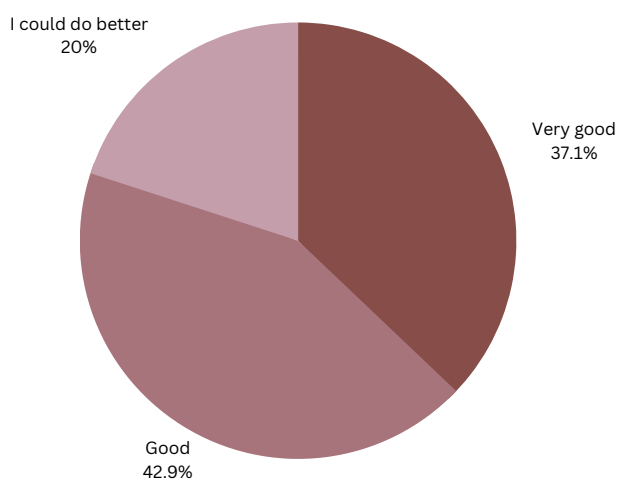


TABLE 11
Chart of respondents' relative answers to question Q7.

91.4% of respondents confirmed that they have already had the opportunity to carry out a school activity in cooperation with members of their local community (Q8).

Some of them described the 5-day workshops carried out in cooperation with Zagreb Zoo where they had the opportunity to observe the animals, feed them, and learn a lot about them. They particularly liked being outside and implement practical activities.

Some respondents also described the activities implemented in collaboration with the Maksimir Park where they studied trees and some others also mentioned the activities carried out with the foreign volunteers of O.A.Z.A. The students liked these activities very much because they were engaging and gave them the opportunity to improve their communication skills in English. Some of the respondents also mentioned the cooperation with the local Garden Festival and the workshops held with many other members of the local community.

The chart below summarizes the frequency of use of experiments and practical activities (e.g. project based learning, authentic tasks etc.) in class (Q9).

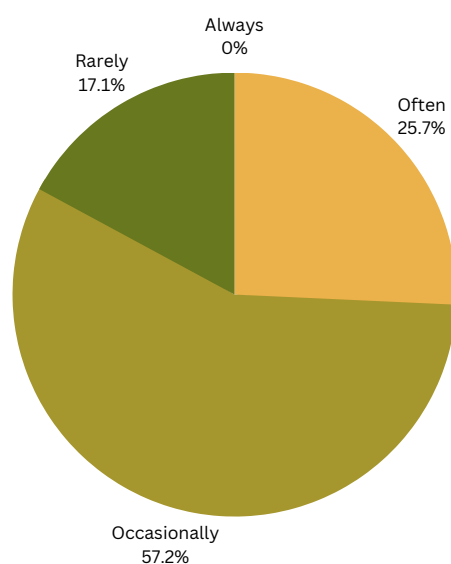


TABLE 12

Chart of respondents' relative answers to Q9 in relation to the frequency of use of experiments and practical work in their learning practice.

100% of respondents stated that during the PA they tested the "Biodiversity educational activities".

With regard to what the respondents liked most about this activity (Q11), they mentioned:

- making a bird feeder (this made the students feel important; they also liked this activity because they love birds and arts).
- getting to know and using the Mobile Bird App - presented during a workshop with the representatives of Maksimir Park.
- birdwatching with binoculars.
- identification of butterfly and tree species.
- building an insect hotel.

Most of the students (85,7%) claimed that the knowledge and competencies acquired through the activity of the EXPERIMENTA project can be very useful in their lives (Q12).

The respondents have extremely positive thoughts about the experimentation of the EXPERIMENTA project (Q13). They found it engaging and they liked the educational activities implemented, especially those connected to science and art. They stated that they acquired both practical knowledge (making feeders and preparing food for birds in winter, using tablets as an educational aid and using a Mobile App to identify bird species) and theoretical knowledge (what birds eat, how to distinguish them, how to recognize and plant plants, how to observe nature).

Some of the respondents provided their feedback about the EXPERIMENTA Pilot Action (Q14). All the comments are positive, and they underlined how much they enjoyed the activities. Almost all of them suggested that these kinds of activities should be more frequent, especially those that take place outside the school premises.

With regard to the strengths and weaknesses of the EXPERIMENTA methodology (Q15) based on the collaboration with the local communities, project-based learning and implementation of authentic tasks , the table below shows the feedback provided by the respondents:

	
• Interesting and entertaining activities. • The learning process is easier and more effective. • Promotion of teamwork. • Developing creativity. • Getting out of the classroom and Into nature.	• Timing (some of the activities took place outside of school hours).

TABLE 13
Table of respondents' relative answers to question Q13

“

—

The advantage of this type of activity is to better understand nature. Learning was easier and I felt more active while learning.



Chapter 3

Cross-country analysis

3.1 The findings of the evaluation

3.1 The findings of the evaluation

Teachers' feedback in Italy and Croatia

All the 9 teachers officially involved in the EXPERIMENTA Pilot Action agreed that the educational activities of the Booklet are very interesting and useful to develop students' motivation and acquisition of STEM subjects. 100% of respondents found the educational activities included in the EXPERIMENTA Booklet really interesting and effective in the teaching/learning process.

The cross-country analysis shows a common weaknesses found by respondents in both countries. In fact, they stated that it is difficult to implement such activities within their national curricula, due to the teaching hours that must be dedicated to each subject. Indeed, all respondents claimed that in the future they will refer to the EXPERIMENTA Booklet again to identify the most suitable educational activity and adjust it to the time available for its completion.

The cross-country analysis highlights the high value of the EXPERIMENTA methodology, with a particular focus on promotion of two key aspects: **experiential learning** and **open schooling**. With regard to open schooling, although the Croatian teachers are experienced in the field of open-schooling whereas their Italian colleagues are not so familiar with it, all respondents recognized the high-value of this approach.

The cross-country analysis reflects a very high degree of satisfaction towards EXPERIMENTA methodology and its innovative approach. The only weaknesses identified are related to the involvement of teachers and the difficulties they (usually) face in integrating these activities within the curricula due to the limitations set by the national educational systems.

Students' feedback in Italy and Croatia

STEM EDUCATION & BOOKLET

Majority of students from Italy and Croatia involved in the PA showed their interest toward STEM subjects. They also stated that their academic performance studying STEM subjects is good. In addition to this, they declared that most content taught in STEM classrooms is and will be useful for their life. Indeed, they stated that the STEM activities implemented during the PA played a key role in developing a variety of skill sets, including creativity and 21st-century skills.

Although the students tested different educational activities provided in the EXPERIMENTA Booklet, they liked those educational activities based on:

- creativity (e.g. creating of bird feeders and the use of an application to discover bird species).
- hands-on learning with real-world application: acquisition of new knowledge through practical work and experimentation and outside the classroom.
- teamwork and communication.
- digital literacy (e.g. how use of Mobile App, edit a video etc).

According to the majority of respondents involved in the PA, this methodology allows students to "learn new content more easily and remember it better".

OPEN SCHOOLING

The majority of respondents from Italy has never implemented open schooling activities, before implementing the EXPERIMENTA project, while students from Croatia had this opportunity several times.

Croatian students' perceptions and attitudes toward open schooling is extremely positive, as they found these activities engaging and gave them the opportunity to explore their imaginations.

EXPERIMENTA

The cross-country analysis shows a very high degree of satisfaction towards the project methodology. The students participating the PA stated that hands-on learning combined with open schooling has the following pros:

- it improves students' **active role**.
- it boosts students' **motivation and creativity**.
- it helps students **learn better, faster and easier** and connect what they learnt to **real-world situations**.
- it supports learners to **learn more their local area**.
- it enhances **teamwork**.

The feedback provided by the students reveals that this methodology should be systematically integrated into the school curriculum. This could play a key role in overcoming the weakness identified by a very low number of students and related to school's poor organization of the activities and timing of implementation.

Conclusions

The cross-country analysis underlines the high-degree of satisfaction with the EXPERIMENTA methodology. Indeed, the findings indicate that the project methodology is highly appreciated. Both teachers and students involved in the Pilot Action expressed great interest in our methodology for STEM education which is characterised by the combination of two key approaches:



Open schooling

The respondents (Croatian students and teachers) who have been previously involved in educational activities implemented in cooperation with the stakeholders of their local community recognized the high-value of this approach. Although the Italian respondents are not so experienced in the field of open schooling, they liked very much cooperating with the members of their local community for the implementation of the authentic tasks.



Experiential learning

The Pilot Action implemented in Italy and Croatia confirms that by engaging students in hands-on experiences and reflection, they are better able to connect what they learn at school to real-world situations.

In relation to the gaps observed during the Pilot Action by teachers (challenges faced in involving teachers and the difficulties usually experienced in integrating these activities within the curricula due to the limitations set by the national educational systems) and students (school's poor organization of the activities and timing of implementation), they could be overcome through incorporating such innovative approaches into the school curricula.

To do this, national curricula should provide a wider, more flexible range of activities, in line with the policy recommendations (e.g. [Rethinking Education: Investing in skills for better socio-economic outcomes](#)) designed by the European Commission aimed to give a new impetus to education policy in the EU Member States.



Annexes

1. Pilot Action Evaluation Questionnaire Templates

ANNEX 1.

Pilot Action Evaluation Questionnaire Templates

EXPERIMENTA Evaluation of the PA (EN)

This questionnaire is addressed to the teachers involved in the Pilot Action of the EXPERIMENTA project.

1. 1. What is your country? *

☐ Italy

☐ Croatia

2. 2. Name and Surname *

3. 3. What subject do you teach? *

☐ Physics

☐ Mathematics

☐ Chemistry

☐ Biology

☐ ICT

☐ Technical culture

☐ Other

4. If you have selected other, please specify:

5. 4. Do you easily achieve motivation for learning your subject in students? *

- ☐ Yes
- ☐ No
- ☐ So and so

6. 5. Estimate the average students' success rate of students in acquiring the subject you teach. *

- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Very fair

7. 6. How often do you use experiments and practical work (e.g. project based learning, authentic tasks etc) in class? *

- ☐ Almost every hour
- ☐ Often
- ☐ Occasionally
- ☐ Rarely

8. 7. In the past, have you ever had the opportunity to carry out a school activity in cooperation with a member(s) of your local community (associations, private organizations, municipality etc.)? *

- ☐ Yes
- ☐ No

9. If you selected YES to the previous question, please provide further details.

10. 8. Which activity from the Booklet did you like the most?

- ☐ If social network had ever existed - ancient Rome edition
- ☐ Achieving European ICDL licenses
- ☐ #4 food delivery fast Mercurius save
- ☐ We talk Spanish!
- ☐ Noise
- ☐ Energy efficiency
- ☐ Construction and safety
- ☐ Biodiversity

11. 9. Which educational activity could contribute the most to improving student performance in the subject you teach? *

- ☐ If social network had ever existed - ancient Rome edition
- ☐ Achieving European ICDL licenses
- ☐ #4 food delivery fast Mercurius save
- ☐ We talk Spanish!
- ☐ Noise
- ☐ Energy efficiency
- ☐ Construction and safety
- ☐ Biodiversity

12. 10. Did you get a desire and/or an idea for a stronger connection of the subject * you teach with the everyday life of the students?

☐ Yes

☐ No

13. 11. By reading the Booklet, did you get an incentive to include the * EXPERIMENTA methodology (e.g. open schooling activities, that is the collaboration between the school and the local community; more project based learning activities - reality tasks; experiments and practical assignments) in your teaching practice?

☐ Yes

☐ No

14. 12. Do you have any comments on this?

15. 13. In your opinion, what are the strengths and weaknesses of the Booklet?

16. 15. Please describe your thoughts about the experimentation of the EXPERIMENTA project. *

Questi contenuti non sono creati né avallati da Google.

Google Moduli

EXPERIMENTA Evaluation of the PA (EN)

This questionnaire is addressed to the students involved in the Pilot Action of the EXPERIMENTA project.

1. What is your contry? *

☐ Italy

☐ Croatia

2. Are you..? *

☐ A girl

☐ A boy

☐ Prefer not to say

3. How old are you? *

4. Which STEM subject do you like to study? *

- ☐ Science
- ☐ Technolog
- ☐ Engineering
- ☐ Math
- ☐ none

5. How useful will the content you learn in the above subjects be in your life? *

- ☐ Molto
- ☐ Abbastanza
- ☐ Un pò
- ☐ Molto poco

6. Are you easily motivated to study most of the above subjects? *

- ☐ Yes
- ☐ No
- ☐ So and so

7. How would you evaluate your academic achievement in STEM? *

- ☐ Very good
- ☐ Good
- ☐ Poor
- ☐ I could do better

8. In the past, have you ever had the opportunity to carry out a school activity in cooperation with a member of your local community (associations, private organizations, municipality etc)? *

☐ Yes

☐ No

- . If you selected YES to the previous question, please provide further details.

9. How often do your STEM subject teachers use experiments and practical work in class? *

☐ Every hour

☐ Often

☐ Occasionally

☐ Rarely

10. What activity/activities did you test in your class during the experimentation of the EXPERIMENTA project? *

- ☐ If social network had ever existed - ancient Rome edition
- ☐ Achieving European ICDL licenses
- ☐ #4 food delivery fast Mercurius save
- ☐ We talk Spanish!
- ☐ Noise
- ☐ Energy efficiency
- ☐ Construction and safety
- ☐ Biodiversity

11. Which phase of the activity/activities selected above was the most interesting for you? Please explain why. *

12. How useful in your life is the new knowledge acquired through the EXPERIMENTA project? *

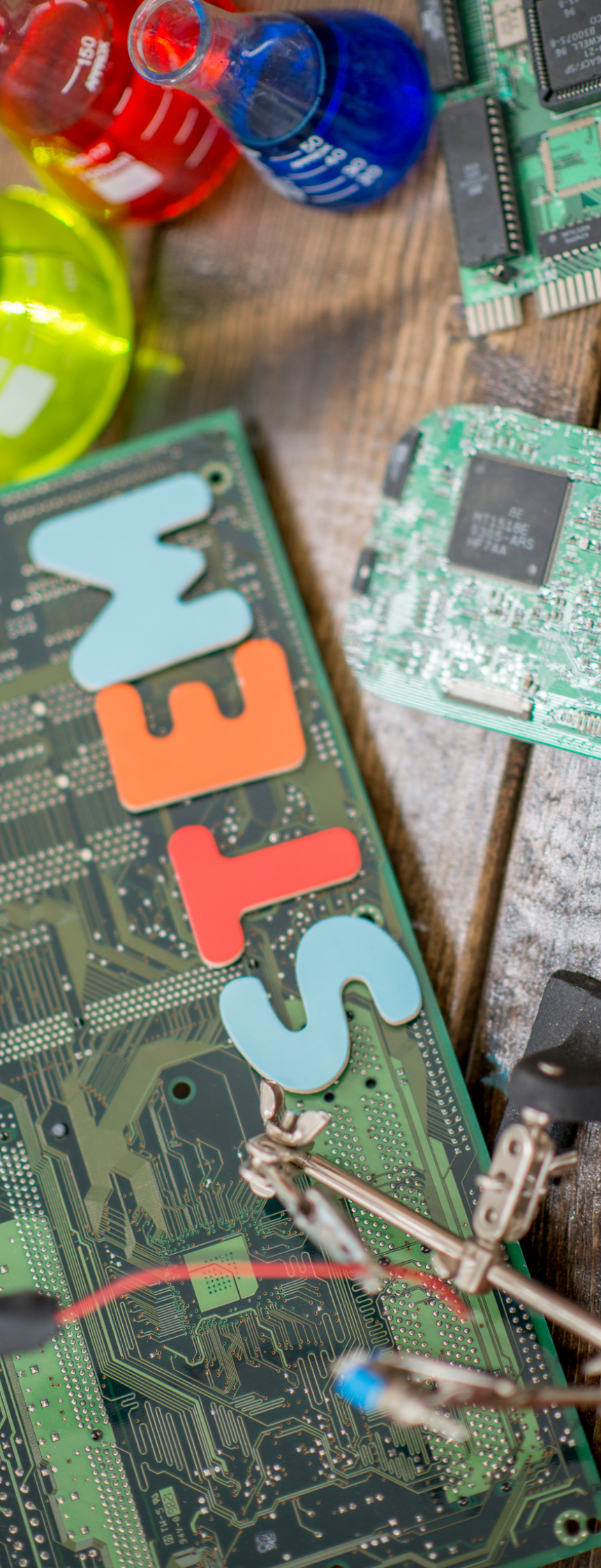
- ☐ Very much
- ☐ Enough
- ☐ A little
- ☐ Very little

13. In your opinion, what are the strengths and weaknesses of this way of learning (collaboration with the local communities, practical activities such as reality tasks etc. ? *

14. Additional comments *

Questi contenuti non sono creati né avallati da Google.

Google Moduli



Co-funded by
the European Union

unded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

Project: "EXPERIMENTA: a community-based approach to STEM Education"

Nr. 2021-2-IT02-KA210-SCH-000050323
2020-1-IT02-KA204-079809.



This document is licensed under the
Creative Commons Attribution-
NonCommercial-ShareAlike 4.0
International (CC BY-NC-SA 4.0)