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Intellectual Output 5

Recommendations for the adoption and exploitation

of CONNECT Approach

Exploitation Plan



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Intellectual Output 5

Recommendations for the adoption and exploitation

of CONNECT Approach

I. Exploitation Plan

This Intellectual Output provides recommendations on the ways the CONNECT approach could be exploited to ensure that the benefits of the CONNECT project will be perennial. This output is devoted to educators and policymakers that aspire to upgrade education, recognizing the value of the CONNECT approach. The specific Intellectual Output was developed under the auspices of the CNR-ITD.

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1. Introduction

Lifelong Learning Programme 2007-2013, Leonardo da Vinci, Transfer of Innovation, Project Handbook defines Exploitation as:

Exploitation means making use of and deriving benefits from a result. In the context of project results it primarily involves "sustainability" and the process of "mainstreaming":

- Sustainability means that crucial activities and results are maintained and continue to deliver benefits to the target group, structure, sector, or system after the end of the EU funding. Sustainability can be best achieved within the consortium because the take-up of the project results outside the project environment (...) is not within the control of the consortium.
- Mainstreaming is the planned process of transferring the successful results (...) to a wider context: policy-makers, stakeholders, and "end-users" outside the original project environment (...) adopt, for example, tools or practices developed by the project."

This exploitation plan aims to provide an overview of the activities put in place by the CONNECT project partnership to ensure that CONNECT outputs will be widely used by secondary schools as well as other stakeholders at European, national, regional, and local levels. This plan will provide an overview of the activities carried out in each nation of the partnership and provide a roadmap of activities to multiply the impact of the project results.

The exploitation plan presents the activities to be undertaken to ensure exploitation during and beyond the life of the project and aims to reflect on the potential for integrating the project results into a wide range of educational settings for the best benefit of potential users in the target group (Teachers, Schools, Education, and Training Centers).

Finally, the operational purpose of this document is to provide the overall framework for the exploitation activities of CONNECT project results, establish guidelines for the approach to be followed, define the tasks to be developed and key dates related to planned events and actions, to ensure that the appropriate audiences are reached on time and by the most effective means.

2. Goals of the Exploitation Plan

The exploitation plan defines the strategy and actions needed to maximize the use and impact of a project's results. The main objective of an exploitation plan is to ensure that the results are accessible, usable, and beneficial to the target audience, including potential users in the target context, organizations, and affected communities. An exploitation plan must reflect the specific needs of the target group and identify opportunities for use.

In this regard, this document is proposed as a tool to promote and exploit the CONNECT results developed to enhance the potential of teachers and help them to incorporate digital online technology and develop digital pedagogical competencies for online education.

The CONNECT project proposes an innovative teaching model based on the use of flipped classroom and blended learning by integrating them with digital tools and resources.

In the remainder of this document, the activities necessary to ensure the dissemination and use, in a wide range of educational settings, of the teaching model, teaching resources, and all outputs produced throughout the life of the project will be identified.

First, is defined the target audience (ex. teachers of a specific subject area or students of a specific age group, etc.). Next, the specific needs of the target audience and the opportunities for using the educational model in specific educational settings are identified.

The specific objectives that this plan aims to address are:

Definition of the target audiences of the educational model: the exploitation plan will indicate who the target audiences of the project results are, such as students, teachers, or trainers.

Definition of objectives: the exploitation plan will specify the objectives that you want to achieve with the instructional model.

Definition of evaluation methods: the exploitation plan will indicate some methods for evaluating the effectiveness of the teaching model and proposed scenarios, such as tests, questionnaires, etc.

Definition of resources needed: the exploitation plan will list the resources needed to implement the teaching model, e.g. teaching materials, technological tools, space, etc.

Definition of communication strategies: the exploitation plan will indicate some communication activities and strategies to inform the recipients of the educational model, their families, school staff or other stakeholders.

Among the activities already put in place for the exploitation of project results are:

1. Creation of teaching materials: A wide range of teaching materials, such as guides, exercises and activities, has been created to enable teachers to use the CONNECT model effectively. These materials are available online and some are in printed form.

- 2. Teacher training: Training was provided to some teachers on the CONNECT methodology through Learning Training and Teaching Activities intervention, which provided teachers with basic information on the methodology and how to use the teaching model effectively in the classroom.
- 3. Promotion of the teaching model: Multiplication events of project results were held to promote the teaching model, and during the life of the project, partner communication channels such as websites, social media, and newsletters were used to promote CONNECT. This ensured greater dissemination of the educational model.

3. Target Groups

This plan to exploit the results of the CONNECT project is aimed at several distinct target groups:

- 1. secondary school students and teachers in public and private sectors,
- 2. policymakers involved in mathematics, physics, and foreign language education pedagogical institutes,
- 3. ministries of education at the national level and all authorities responsible for school education and primarily for mathematics, physics, and foreign language,
- 4. networks, organizations, and associations at the national and European level with direct activities and involvement in school education (former Etwinning ambassadors, Erasmus ambassadors, the network of principals...)

Throughout the Connect project activities, there has been close interaction with the target groups who have been involved not only for needs analysis, development of educational scenarios, training through in-person meetings and MOOC, and piloting but also as a source of information for the drafting of this document being personally impacted in daily education.

To ensure that target audiences are reached efficiently, all project partners created a contact database and presented it in the appendix (Excel sheet with stakeholder contacts).

4. Exploitation Methodology

The 5W model [1];[2] was used for the creation of this exploitation plan.

A 5W model is an approach used in communication and information gathering. The model consists of five main questions, which we will answer in the following paragraphs, which we briefly set out to drop into the CONNECT context below:

What? - In this paragraph, it will be clarified what project outcomes are intended to be explored;

Who? (who?) - This paragraph will detail who are the actors that will in charge of the process of exploiting CONNECT results;

Where? (where?) - This paragraph will detail where the exploitation initiatives are intended to be launched;

When? (when?) - This paragraph will detail the timing of the exploitation activities;

Why? (why?) - This paragraph will detail the rationale for producing the following model starting from needs that have emerged from stakeholders.

The 5W model is useful for organizing information clearly and systematically to communicate effectively and to be sure to have all the needed information. As an extension of the 5W model, a sixth question has been added HOW? In which how to carry out exploitation activities will be specified.

4.1. Intellectual Outputs to exploit (What)

The following paragraphs list and propose a brief description of the target project results of this exploitation plan.

4.1.1. IO1: "Pedagogical Framework"

This Intellectual Output is freely downloadable at <u>https://connect-erasmusproject.eu</u>, under "Intellectual Output -> IO1 Pedagogical Framework is composed of two parts. In the first part, an analysis of the data collected during the first period of the project within secondary schools in the involved nations is made, and in the second part, the CONNECT pedagogical framework is described.

As part of the project, questionnaires were developed and semi-structured interviews and focus groups were done to investigate the challenges and opportunities of online learning during the COVID-19 pandemic. Issues that have arisen due to the shift from face-to-face to online teaching, as well as strategies and solutions adopted by schools and educational institutions to maintain students' interest and motivation, were discussed with teachers.

In particular, the quantitative analysis of the data collected through the questionnaires made it possible to assess the challenges and opportunities of online learning for students, teachers, and parents. In Italy, 41 questionnaires completed by teachers were collected. Analysis of the data revealed that distance learning contributed positively to teachers' flexibility in managing resources and activities, as well as to the empowerment of students and the development of 21st-century skills. However, teachers experienced difficulties in supporting the learning process for each student and in maintaining a social-psychological bond with distance learners. In Greece, 51 were collected. Data analysis revealed that teachers used a variety of digital tools to provide teaching materials to their students during the pandemic. However, many teachers found it difficult to use these digital technologies due to a lack of proper training. In Cyprus, 27 questionnaires completed by teachers were collected. Data analysis revealed that, even in Cyprus, teachers used a variety of digital tools to provide teaching materials to their students during the pandemic. However, even in Cyprus, many teachers declare that the use of digital technologies was hard due to a lack of proper training.

In general, the analysis of data collected in Italy, Cyprus, and Greece highlighted the need to provide training to teachers in the use of Digital Media.

The second part of the paper focuses on the CONNECT pedagogical framework, which was developed to support distance learning from the experience gained during the COVID-19 pandemic. The CONNECT framework is based on three main pillars: educational scenario design, the use of digital tools, and the implementation of innovative teaching practices, including flipped classroom and blended learning. Educational scenario design is a key element of the CONNECT framework. Educational scenarios provide teachers with practical guidance for creating engaging and meaningful teaching activities for students. Educational scenarios have been developed for the subjects of foreign language, mathematics, and physics. The use of digital tools is another important element of the CONNECT framework. Teachers are to be encouraged to use a wide range of digital tools, including online platforms, mobile applications, and educational software. The goal is to enable teachers to provide students with a stimulating and interactive learning environment in which to learn.

The third key element is the implementation of innovative teaching practices. The implementation of the flipped classroom has been one of the teaching practices promoted by the CONNECT framework. The flipped classroom is a pedagogical approach that involves the inversion of the traditional classroom teaching model: students study the content at home through multimedia materials (videos, podcasts, presentations) prepared by the teacher, while in the classroom they engage in activities to deepen, discuss and apply the

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concepts learned. This approach enables students to gain greater autonomy in learning and to develop critical and creative skills through collaborative learning. The implementation of blended learning has been another of the innovative teaching practices promoted by the CONNECT framework. Blended learning is a pedagogical approach that combines online learning with teaching in presence. In this approach, students have access to online learning materials and participate in distance learning activities, but they also meet with the teacher and classmates in the classroom for activities to discuss, deepen, and apply the concepts learned. This approach enables students to acquire digital skills and self-directed learning, while at the same time maintaining a social connection with classmates and the teacher. Implementing flipped classroom and blended learning allows teachers to develop engaging and meaningful teaching activities for students using a wide range of digital tools. For example, teachers can take advantage of the use of online platforms such as Moodle or Google Classroom to provide teaching materials to their students, organize online discussions or assign homework. In addition, teachers can use digital tools such as Kahoot or Quizlet to create interactive quizzes or educational games that make learning more fun and effective. Overall, the CONNECT pedagogical framework has provided teachers with practical guidance for implementing distance learning during periods such as those experienced during the COVID-19 pandemic. The implementation of the CONNECT framework enabled teachers to address the challenges of distance learning and provide their students with a stimulating and interactive virtual environment in which to learn.

4.1.2. IO2: "Educational Scenarios":

Criteria for evaluation educational scenarios

This document can be freely downloadable at <u>https://connect-erasmusproject.eu</u>, under "Intellectual Output -> IO2. Educational Scenarios" and provides detailed guidance for evaluating educational scenarios, which are designed to provide an engaging and meaningful learning experience for students. Educational scenarios consist of a series of activities and tasks that students must complete, often in collaboration with their classmates.

The document provides a set of evaluation criteria that can be used to assess the quality of educational scenarios. These criteria include the identity and general design of the scenario, matching the age and cognitive level of the students, the indicative duration of the scenario, the proposed infrastructure and classroom organization appropriate for the scenario, the necessary prerequisite knowledge of the students, and the general description of the scenario.

In addition, the document provides information on how to provide feedback to the scenario creator. Feedback is an important element of the educational scenario design process because it allows creators to improve existing scenarios or create new, more effective scenarios. Feedback can be provided through a variety of modalities, including online questionnaires or individualized interviews.

The document also emphasizes the importance of using digital tools in the design and implementation of educational scenarios. Digital tools can be used to enrich traditional teaching and support distance learning. The paper provides an assessment of satisfaction with the use of digital tools, which may be useful for educational scenario creators who wish to integrate digital tools into their projects.

The following are the main evaluation criteria:

Identity and overall design of the scenario: this criterion focuses on the consistency and clarity of the identity and overall design of the scenario, including the title, general description, intended learning objectives, and proposed activities.

Correspondence of students' age and cognitive level: this criterion focuses on the correspondence of students' age and cognitive level with the proposed educational scenario.

Indicative duration of the scenario: this criterion focuses on the indicative duration of the proposed educational scenario, which should be appropriate for the age group of the students.

Proposed infrastructure and classroom organization appropriate for the scenario: this criterion focuses on the proposed infrastructure for the educational scenario (e.g., the use of digital technologies) and the classroom organization appropriate for the scenario.

Necessary prerequisite knowledge of students: this criterion focuses on the necessary prerequisite knowledge of students to participate in the educational scenario.

General description of the scenario: this criterion focuses on the clarity of the general description of the educational scenario, including the intended learning objectives and proposed activities.

Use of digital tools: this criterion focuses on the use of digital tools to enrich traditional teaching and support distance learning.

Student assessment: this criterion focuses on the assessment of students during the educational scenario, including the assessment methods used and consistency with the intended learning objectives.

4.1.2.1. Instruction for preparing and developing an educational scenario

This document can be freely downloadable at <u>https://connect-erasmusproject.eu</u>, under "Intellectual Output -> IO2. Educational Scenarios", is a handbook that provides detailed information on designing effective and engaging educational scenarios, with the aim of integrating information and communication technologies (ICT) into the educational process. The manual focuses on the design of educational scenarios, using the educational methodology developed within the CONNECT project.

The manual describes the basic principles for the design of CONNECT educational scenarios. In particular, it focuses on three main approaches to the design of educational scenarios: the support and enrichment of face-to-face/synchronous teaching through "blended learning," the flipped classroom approach through role and process reversal, and the exploitation of digital distance/asynchronous learning platforms.

In addition, the manual provides detailed information on the structure of CONNECT educational scenarios. CONNECT educational scenarios are described as systematic work plans that describe the educational process of an instructional unit within the school curriculum. Scenarios include specific learning objectives, specific teaching methods, flow of learning activities, teaching materials, and tools to achieve them. In addition, CONNECT educational scenarios describe the role of the teacher and students at each stage of the educational process.

The manual also provides detailed information on the process of developing CONNECT educational scenarios. Specifically, it describes the steps in the CONNECT educational scenario development process and provides useful tips for creating engaging activities. The manual also provides detailed instructions on how to start creating a CONNECT educational scenario, as well as tips on how to integrate collaborative, cooperative activities and digital tools.

Scenarios

At this link <u>https://connect-erasmusproject.eu</u>, under "Intellectual Output -> IO2. Educational Scenarios", you can find the 27 teaching scenarios developed by the CONNECT partnership. The scenarios are in English, Greek, and Italian and are designed for secondary and junior high school courses in foreign languages, math, and physics. The scenarios were designed by teachers involved in the CONNECT project and were evaluated by peer reviewers at various times. A highlight of the evaluation was the Learning, Teaching and Training Activity event held in Athens where 30 teachers from the disciplines of foreign language, Mathematics, and Physics met and thoroughly evaluated the scenarios. The designed teaching scenarios total 27 :

- 9 Scenarios for Foreign Language,
- 9 Scenarios for Physics
- 9 Scenarios for Mathematics

The scenarios have been developed following the CONNECT learning model. In detail, the Flipped Classroom Approach has been underlined in the instruction of Mathematics, Physics and Foreign Languages (EN). The importance of digital tools is also accentuated in the CONNECT educational scenarios. Up-to-date educational practices have been highlighted in these scenarios.

4.1.3. IO3: "Online Courses – MOOC":

This Intellectual Output (<u>https://connect-erasmusproject.eu/mooc</u>) is the main output for teacher training and continuing education. As part of the Connect project, a Massive Open Online Course (MOOC) was developed exploiting the Moodle computer platform. The MOOC consists of six training courses in which the main elements of the connect methodology are offered and one course for access to CONNECT certification with evaluation to test to assess learning. The MOOC is available in English, Italian, and Greek and the six available courses are described below.

4.1.3.1. Course 1: "General Pedagogical Framework"

The "General Pedagogical Framework" course is a comprehensive guide for educators that provides valuable information on how to effectively use digital tools, principles of distance learning, differentiated instruction, and the need for 21st-century skills development.

The course covers different topics among which we highlight:

- Pedagogical use of digital tools, this section focuses on the use of digital tools such as simulations, videos, and interactive applications to enhance student learning. Specific examples are given of how these tools can be used in subjects such as Mathematics, Physics, and Foreign Languages
- 2. Principles of distance learning/emergency remote learning: this section provides information on how to manage distance learning in emergency situations, such as

the COVID-19 pandemic. Advice is provided on how to organize online classes, maintain students' motivation, and assess their learning.

 How digital tools can be used to personalize learning and enhance students' educational experience for developing the 21st-century skills needed to succeed in today's digital world.

4.1.3.2. Course 2: "Blended learning e flipped classroom"

The course "Blended Learning and Flipped Classroom" aims to provide teachers, university students, and professionals to deepen their knowledge of innovative teaching and learning methods. The course focuses on the application of Flipped Classroom and Blended Learning methods in teaching within the European CONNECT project. The course is structured to provide participants with a comprehensive overview of the key concepts of blended learning and flipped classroom. Blended learning combines online learning with traditional classroom teaching, while flipped classroom involves students acquiring background knowledge through online learning materials before classroom instruction, where they can apply this knowledge through hands-on activities. The course aims to highlight the benefits of blended learning and flipped classroom for teachers and students in light of recent events regarding the COVID-19 pandemic and suggests application in the future.

4.1.3.3. Course 3: " Online Assessment to Support Meaningful Online Teaching and Learning "

The course "Online Assessment to Support Meaningful Online Teaching and Learning" provides a comprehensive overview of online assessment and its relationship to teaching and learning. The course focuses on the objectives, features, and types of online assessment available, while also providing examples of some of the methodologies. Within the course, the relationship between online assessment and teaching/learning is explored, highlighting the benefits of this type of practice. The course is useful for those who wish to learn more about online assessment and improve their teaching practice. In particular, the course is aimed at teachers who teach mathematics, physics, or foreign languages and who wish to develop their digital skills as part of the CONNECT program. It also offers a reflection process on the teaching, learning, and assessment process, providing feedback on overall teaching practice.

4.1.3.4. Course 4: "Educational Scenarios"

Within the course "Education Scenarios", the 27 educational scenarios developed in the context of the CONNECT project are presented. The scenarios have developed on the methodological principles of teaching and learning in digital environments. The course provides a general overview of the goals of the CONNECT methodology, which aims to develop educational scenarios capable of providing an engaging and effective learning experience for students of mathematics, physics, and foreign languages.

Next, the identity of the scenario and a model describing it (subject, subject area, target age group, language level for the foreign language course), the expected duration of the teaching or study, the expected learning objectives, and the methodologies applied are described. Reference is also made to the soft skills that students will develop while studying the subject.

Finally, the course provides a description of the teaching scenarios developed, the specific objectives, the theoretical principles adopted, and the teaching choices made. In particular, the nine scenarios for mathematics, nine for physics, and nine for foreign languages (eight in English and one in French) are described. It is also pointed out that the teaching scenarios have developed with the aim of promoting students' critical reflection on their learning and study experiences.

4.1.3.5. Course 5: "Using digital platforms for delivering synchronous or asynchronous online courses"

Course 5, "Using digital platforms for delivering synchronous or asynchronous online courses" is a guide for trainers and tutors that details how to use online digital platforms such as Moodle, Google Meet, and Webex for synchronous and asynchronous distance learning.

The document opens with a brief introduction that explains the basic concepts related to synchronous and asynchronous online learning, and then the Moodle platform is described.

An overview is given of how a course works on Moodle and how a teacher can add resources and activities that will be completed by students. The basic structure of a Moodle course and the resources provided for creating engaging teaching resources are described. The course makes extensive use of videos offering a detailed and comprehensive step-by-step explanation of how to use the standard tools that Moodle provides. This course will enable teachers and tutors to gain the skills needed to choose the most appropriate activities and resources to achieve the learning objectives of a course such as creating a calendar to organize activities and student assessment. In summary, this course provides a comprehensive overview of Moodle's functionality for distance learning, providing practical tips and concrete examples for using the activities and resources available on the platform.

Also offered is an overview of the functionality of Webex, Google Meet, and some of its tools that are very useful to teachers such as Breakout Rooms, Question & Answer, and Polls.

4.1.3.6. Course 6 "Online Safety"

The "Online Safety" course offers information and tips on how to keep children safe online. The course is divided into several topics such as online safety, tips on preventing cyberbullying, privacy protection, child seduction, phishing, and the risks of online gambling. In addition, a guide for safer use of social networking services is provided. The course stresses the importance of the role of educators in ensuring children's online safety. Teachers are often the first to notice when a child is having trouble online and can help prevent potentially dangerous situations. The course provides practical advice on how to protect oneself and how to protect others online. In particular, it emphasizes the importance of paying attention to information shared on various websites, using the blocking and reporting abuse options offered by websites, paying attention to emails received and sent, being careful about what you send or promote online, and contacting the authorities in case of cyberbullying. It also stressed the importance of digital education for children. Young people need to be taught how to use the Internet responsibly and safely. This includes teaching them how to protect their privacy online, how to recognize cyberbullying, and how to avoid falling victim to online scams. Overall, this course is a useful tool for parents and educators who wish to protect children from the risks of the digital world.

4.1.3.7. Course 7 "Self-assessment | MOOC evaluation | Certification"

This course aims to provide a tool for self-assessment of the learning of the content of the six MOOC connect courses and provide certification of the learner's education. The course involves choosing one of the topics taught (Math, physics, or foreign language) within each topic the following self-assessment tests are contained:

- Quiz: Introduction to CONNECT pedagogical framework
- Quiz: Flipped Classroom model in a Blended Learning approach

- Quiz: Assessment and digital tools
- Quiz: CONNECT educational scenarios for blended learning
- Quiz: Using digital platforms for delivering synchronous or asynchronous online courses
- Quiz: Online safety

There is also a Quiz that simulates the test to obtain certification containing questions from all 6 CONNECT courses. Within Course 7 also there is a survey to evaluate the educational scenarios present within Course 4 and a survey to get feedback on the enjoyment of the entire MOOC course

4.1.4. IO4: "Teachers Guide"

This intellectual output is freely downloadable at https://connect-erasmusproject.eu, under the section "Intellectual Output -> IO4 Teachers Guide." The guide is divided into two main parts: the general pedagogical framework and the piloting procedure. Within the general pedagogical framework, the CONNECT approach is described and a comprehensive overview of its pedagogical applications is provided.

The guide was developed by a team of experts in pedagogy and educational technology and is designed to help teachers use digital tools effectively to improve student learning.

The first part of the guide is based on Connect's four main pillars: the use of digital tools, formative assessment, peer review, and communities of practice. Each of the four pillars is analyzed and how they can be used to improve student learning is explained. The guide provides concrete examples of how teachers can use digital tools such as tablets, laptops, and interactive whiteboards to create engaging and interactive activities that help students better understand key concepts. In addition, information is provided on how to use social media and other online platforms to create learning communities and encourage collaboration among students. Formative assessment is a key pillar of the CONNECT approach. A detailed overview of how teachers can use formative assessment to monitor student learning in real-time and provide immediate feedback is provided within the document. Tips are also provided on how to use digital tools to create formative assessment activities, such as online quizzes and surveys.

An in-depth topic within the paper is peer review. Concrete examples of how teachers can use peer review to help students develop their critical analysis and communication skills are provided. Teachers can also find suggestions on how to use digital tools to facilitate peer review, such as online platforms that allow students to collaborate and provide feedback to each other. Finally, the last pillar covered is communities of practice and specifically online communities of practice used to encourage collaboration among students and foster the exchange of ideas and information. Concrete examples are also provided for communities of practice, such as some communities created by teachers around the world.

The second part of the guide focuses on the procedure for piloting the CONNECT approach. This section provides an overview of the objectives of experimentation and guidelines for its implementation. In particular, general recommendations for piloting are provided and the methodology of piloting is described. Piloting is a process of testing the CONNECT approach in a real-world learning environment and was used to test the effectiveness of the approach and to identify any problems or challenges that may arise during implementation. The piloting procedure is divided into several phases. The first stage is the selection of piloting participants. Teachers participating in the piloting have made themselves available to experiment with new pedagogical approaches and adapt to new digital tools. Once the participants were selected, the next phase focused on implementing the scenarios developed in the classroom and completing some surveys to assess the liking and quality of the methodology.

Once the implementation phase was completed, teachers were asked to reflect on the piloting process and the results obtained by going through a reflection diary and selecting good teaching practices. Finally, the data collected in the surveys were evaluated and the results are illustrated to evaluate the Connect approach.

The final section of the document contains teaching materials and educational resources that fit the Connect model and were designed by the project's pedagogical experts.

Moreover, the teacher guide highlights a series of important lessons learned from piloting various educational scenarios. These lessons provide significant insights for improving student learning and optimizing teaching processes.

First and foremost, there is a need to invest in students' collaborative skills and offer them autonomy in the learning process. This means promoting activities that foster teamwork, idea exchange, and the ability to work in groups. At the same time, the pedagogical use of digital tools is crucial. Teachers should act as facilitators, enabling students to learn according to their style and pace.

The role of the teacher as a facilitator of the learning process has been emphasized. In addition to being a source of knowledge, the teacher should foster students' autonomy and encourage them to take ownership of their learning. However, when students struggle to

assume this responsibility, a more traditional and direct form of instruction may be necessary.

Collaboration with IT teachers has been deemed essential in laboratory courses. This synergy allows for the integration of theoretical and practical knowledge, providing students with a more comprehensive and meaningful learning experience.

Another important lesson learned pertains to the role of home-based theoretical learning. This approach can be a valuable tool for optimizing in-class time, allowing teachers to focus on consolidating practical skills and applying the concepts learned at home. Furthermore, addressing students' misconceptions has been found to promote their development and improvement of skills.

In the specific context of mathematics education, it has been observed that the combination of Flipped Classroom and Blended Learning represents the best educational practice for achieving meaningful results. This approach enables students to acquire theoretical knowledge at home, while class time is dedicated to practical application and concept deepening.

In the teaching of physics, it has been found that investing in critical thinking, cooperation, and communication during laboratory experiments is essential. This fosters a deeper understanding of physics concepts and develops crucial practical skills.

Lastly, in the context of foreign language education, important lessons have been learned. Instruction in theoretical knowledge at home has been deemed vital. Addressing students' misconceptions has led to an improvement in their language skills. Additionally, peer feedback has been shown to increase student engagement, while peer review fosters critical thinking.

4.2. Partners will do the exploitation? (Who)

4.2.1. Regional Directorate of Primary and Secondary Education of Attica

The Regional Directorate for Primary and Secondary Education of Attica (RDPSEA) is a government agency responsible for the administration, supervision, and development of primary and secondary education in the Greek region of Attica operating under the jurisdiction of the Ministry of Education, Research, and Religious Affairs.

RDPSEA was established in 2011 in correspondence with a major reform of the Greek educational system aimed at creating a decentralized system of decision-making to increase the autonomy of local educational authorities. Its mission is to ensure that all students in the Attica region receive a high-quality education that prepares them for success in higher education and the workforce.

RDPSEA is responsible for educational activities in the Attica region related to primary and secondary education, including:

- Curriculum development: RDPSEA is responsible for curriculum development for primary and secondary schools in the Attica region. This includes setting educational standards, designing instructional materials, and developing assessment tools.
- Teacher training and development: RDPSEA provides training and professional development opportunities for teachers in the Attica region. This includes workshops, seminars, focus groups, and other forms of continuing education.
- School inspections: RDPSEA conducts regular inspections of primary and secondary schools in the Attica region to ensure that they meet educational standards and provide a safe and healthy learning environment for students.
- Student Support Services: RDPSEA provides a range of support services to students in the Attica region, including counseling, special education services, and extracurricular activities.
- Coordination with other educational authorities: RDPSEA works closely with other educational authorities in Greece, including the Ministry of Education, Research and Religious Affairs and other regional directorates, to ensure that educational policies are consistent and effective.

Overall, the Attica Regional Directorate for Primary and Secondary Education plays a key role in ensuring that the educational needs of students in the region are met.

RDPSEA is the largest Directorate, in terms of the number of experts, schools, students, and teachers, in Greece. RDPSEA collaborates with 14 Primary and Secondary Education Directorates, 13 Centers of Educational and Counseling Support, 6 Regional Centres for Educational Planning, 4 Environmental Education Centres, and 20 Educational Coordinators of Refugee and migrant students. RDPSEA also involves seconded educators who offer scientific expertise in actions and programs, nationally and EU-funded. RDPSEA's pedagogical strategy embraces the whole school community under participatory approaches and initiatives on curricular-based practices, thematic priorities, pedagogical and ICT support for schools, online training for teachers, and students' skills reinforcement.

4.2.2. Computer Technology Institute and Press 'Diophantus' (CTI)

Computer Technology Institute and Press "Diophantus" (CTI) (<u>https://www.cti.gr/en/</u>) is a research and technology organization focusing on research and development in Information and Communication Technologies (ICT). Particular emphasis is placed on education, by developing and deploying both conventional and digital media in education and lifelong learning; publishing printed and electronic educational materials; administrating and managing the Greek School Network; and supporting the organization and operation of the digital infrastructure of the Greek Ministry of Education and Religious Affairs (MoERA) and all educational units.

Specifically, CTI is involved in a wide range of research activities, including computer science, mathematics, software engineering, computer security, artificial intelligence systems, robotics, and education. In addition, CTI is engaged in carrying out applied research projects and providing consulting and training services in these fields. Also, CTI is involved in various programs for training and upskilling teachers on ICT technologies.

In education, CTI is committed to promoting innovation and the use of information technology in schools, providing training and support to teachers, as well as developing technology-based educational solutions for the school community.

In the field of teaching and primary and secondary education, CTI has been involved in various research and development activities on innovative educational technologies. Some of the major projects in which CTI has worked include:

- The development of e-learning platforms for distance learning for teachers and students
- The design of interactive educational software and educational games for learning school subjects
- The implementation of virtual learning environments that allow students to interact with others and access online educational resources
- The development of tools for assessing students' skills and managing school activities

CTI has extensive experience in applying educational technologies in schools, designing and developing educational software and learning scenarios, managing large-scale national actions, and implementing pilot projects for the introduction of new ICT-based educational

methods. In addition, CTI has designed and coordinated national projects for the development of educational software and activities for both primary and secondary schools.

CTI plays an important role in managing the national educational intranet (Greek School Network, GSN), which connects all Greek schools and provides basic and advanced telematics services. Specifically, GSN (<u>http://www.sch.gr/en</u>) safely interconnects all the schools of Primary and Secondary education, including the educational units abroad, all the services and entities supervised by the MoE at the central and regional levels, all the service providers of lifelong learning, all the students and teaching staff, all other educators and entities of (MoERA). Through GSN, the MoE provides the educational community with e-learning, communication and collaboration services, e-government services as well as helpdesk and user technical support services. Therefore, GSN provides electronic services to more than 1.200.000 users.

Finally, CTI has close connections with schools and educational authorities at the national and european levels, through its involvement in various projects promoting transnational collaboration among schools like the eTwinning project (https://school-education.ec.europa.eu).

4.2.3. Institute for Educational Technology

The Institute for Educational Technology (ITD) of the National Research Council of Italy, is an interdisciplinary research center concerned with the study, development, and testing of technologies, methodologies, and models for innovation in education and training. The Institute for Educational Technology is the only public scientific institute in Italy entirely devoted to studying how ICT-based tools and methods can enhance and innovate teaching and learning processes. Over the years, the National Research Council of Italy has played a pioneering role in this field. The Institute for Educational Technology was established back in 1970, and the Institute for Education and Training Technologies was set up in 1993. These two institutes were merged in 2002 to form the current institute, with its headquarters in Genoa and a division in Palermo.

The institute's mission is to perform research and technology transfer activities focusing on:

 developing new models, technologies, and methodologies for education and training, using information and communication technologies (ICT) and multidisciplinary research.

- experimenting with and evaluating the effectiveness of the technologies and models developed to improve the quality of education and training.
- Promoting the use of ICT in education and training through the dissemination of research results and collaboration with public and private institutions.
- Providing technical and training support for the design, implementation, and evaluation of ICT-based educational solutions.

The ITD is involved in several research areas, including distance education and training, e-learning, gamification, multimedia teaching, learning assessment, modeling of learning processes, analysis of interactions in virtual learning environments, design of personalized learning environments, and information technology applied to education and training.

In addition, ITD collaborates with various public and private institutions nationally and internationally to develop research and training projects, promote the dissemination of best practices, and foster the development of educational innovation.

4.2.4. SEIT Laboratory of University of Cyprus

The Software Engineering and Internet Technologies (SEIT) Laboratory at the University of Cyprus is a research center specializing in the area of Software Engineering and Internet Technologies. The laboratory focuses on researching new methods, techniques, and tools for the design, development, evaluation, and maintenance of complex software systems and Web applications.

The main goals of the lab include promoting high-level research in the field of Software Engineering and Internet Technologies, identifying new research opportunities, and promoting international collaboration among researchers.

In terms of research activities, the lab focuses on several topics, including:

- Technology-enhanced learning and e-learning platforms: In this area, the lab focuses on the development of e-learning platforms in the context of the digital transformation of education,
- digital tools for learning to strengthen high-quality inclusive digital education.
- Design and development of Web systems and Web applications
- Software architectures, design patterns, testing, and formal verification

The lab has been involved in the design and development of creativity systems and platforms for effective lifelong learning of technical and practical skills. It uses its research

expertise to specify, design, and implement systems that support collaborative, creative, and personalized e-learning platforms. SEIT has defined, designed, and developed such systems and platforms while participating in many EU projects.

In education and training, the lab offers undergraduate and postgraduate courses in Software Engineering and Internet Technologies, to train highly qualified professionals in these disciplines. In addition, the lab also organizes workshops and seminars to promote continuing education for professionals in the field.

4.3. Scheduling of the exploitation activities (where and when)

The exploitation of the intellectual outputs of a project like CONNECT that created a new teaching methodology that exploits flipped classroom and blended learning can be done in different contexts and at different times.

We emphasize the exploitation phase began upon completion of the intellectual results with dissemination activities and presentation of the output to the school's stakeholders. In the section "Actions of Exploitation", it is possible to view all the exploitation actions carried out in the different countries and by the different partners during the first phase of projects.

Other possible contexts and times, when exploitation is planned, are:

School context: the project results can be presented and tested in secondary and junior high schools, so as to evaluate the effectiveness of the teaching methodology and gather feedback from students and teachers. This could be done starting in the next academic term.

Corporate context: the project could be presented to a company that provides training to its employees, so as to assess whether the teaching methodology can improve learning and reduce training costs. This could be done during a specific training program.

Vocational training context: the project could be presented to an organization that offers vocational training courses, so as to assess whether the teaching methodology can improve the effectiveness of training and increase participant satisfaction. This could also be done during an initiated training course.

Research context: the project can be presented at conferences or published in academic journals, so as to share the new teaching methodology with the academic community and receive feedback on the research. This can be following an evaluation with a finer granularity of the piloting results.

4.4. Reasons for engaging in exploitation? (Why)

Exploitation of project results such as Erasmus projects is a key step in maximizing the impact and benefits that the project brings to the community as a whole. This means that the results obtained during the project must be disseminated as widely as possible so that as many stakeholders as possible are reached and those results are used.

But why is it so important to disseminate the results of the Connect project? First, exploitation will help promote the CONNECT project and make its activities and results known to the public. This can lead to greater interest and support for the project, increasing its reputation. In addition, the exploitation of results allows the knowledge gained during the project to be disseminated to a wider audience, thus creating greater awareness and understanding of the issues addressed.

But exploitation of results is not only important for promoting the project and spreading knowledge. The results obtained from the project can be used to support the development of new policies and strategies at the local, national, and European levels. This means that the exploitation of results can support the development of new policies that can have a positive impact on people's lives. In addition, the exploitation of results can foster cooperation between organizations working on the same issues. Exploitation can create new opportunities for partnership and exchange of best practices among organizations. This can lead to greater synergy among organizations and greater efficiency in achieving common goals.

Finally, exploitation helps to ensure that the results achieved by the project are not lost after its conclusion, but are sustainable and continue to have a positive impact on the communities involved. This means that the results of the project can be used to create new training and development opportunities for the people involved, thus creating a lasting and positive impact on people's lives.

In summary, we will exploit Connect results to:

- 1. **Increase the visibility and reputation of the CONNECT project:** Exploitation helps promote the project and make its activities and results known to the public.
- 2. **Disseminating knowledge:** The exploitation allows the knowledge gained during the project to be disseminated to a wider audience, thereby creating greater awareness and understanding about the issues addressed by the project.
- Foster the development of new policies: The results obtained from the project can be used to support the development of new policies and strategies at the local, national, and European levels.

- 4. **Stimulate cooperation among organizations:** Exploitation can foster cooperation among organizations working on the same issues, creating new opportunities for partnership and exchange of best practices.
- 5. **Foster sustainability of results:** Results exploitation helps to ensure that the results achieved by the project are not lost after its conclusion, but are sustainable and continue to have a positive impact on the communities involved.

4.5. Exploitation interventions (How)

The partnership participants have prepared a list of activities performed or to be performed for the valorization of the results of the Connect project and which we list in the following paragraphs.

4.5.1. Exploitation of project results

To ensure the sustainability of the project results, the website and e-learning platform will be maintained for at least five years after the end of the project to facilitate long-term exploitation by potential users.

To stimulate the mainstreaming process, by the end of the project, the partners will organize meetings with policymakers, decision-makers, training organizations, and possible end users at the local/regional level, to transfer the results and experiences to a broader context beyond the partnership environment.

Research partners will present CONNECT results in other projects in which they are involved and focused on educational and innovative didactic methods.

National and international networks of all partners will also be involved in mainstreaming efforts.

More detailed exploitation plans per partner are presented hereafter, focusing on the following central issues:

- Date/Period of the exploitation activity
- List of Intellectual Outputs that have exploited
- Description of the target group reached by the exploitation activity
- Purpose / Description of the exploitation activity
- Results achieved/expected
- Barriers to exploitations
- Recommendations

In this point, it is important to point out that all partners will contribute to the exploitation of the project's results. The exploitation strategy developed by each country is fully aligned with the CONNECT vision and is endorsed by all partners. Therefore, all partners assumed an important role in the exploitation strategy presented in a country-oriented approach.

4.5.2. Exploitation in Italy

4.5.2.1. IO1 Exploitation

Side-by-side sessions will be planned between project target teachers and colleagues not yet involved to share the core pedagogical methodology of the Connect project. During the shadowing, the benefits obtained from the use of this methodology with students and the feedback received from them will also be shown. Subsequently, this sharing approach will also be provided among the classes of students involved in the project and a selection of those not involved in a peer-education perspective.

The results obtained from these activities will be brought to the attention of the board of teachers who will consider whether to extend the Connect methodology to the rest of the school.

Finally, twinning with a school of the same educational address is planned to show the advantages of using this pedagogical methodology, and to organize shadowing sessions with the aim of adhering to the method.

Specifically, three meetings are planned: at the beginning of the school year, a member of the ITD will organize a meeting attended by the project target teachers and the principals of the relevant schools. On this occasion, the possibility and modalities of organizing a meeting between project target teachers and teachers potentially interested in further experimentation will be discussed. In the logic of peer-to-peer sharing, the teachers already involved will become a reference point for colleagues.

Therefore, the second meeting will be attended by teachers who joined the initiative during the first meeting and those who have become willing to the new experimentation; the project, results, and benefits obtained will be presented. The methodology will be exposed and its application to the classes that did not take part in the experimentation will be proposed; then the functioning of the framework will be explained and all the information for its implementation in the newly selected classes will be provided, thanks also to the teacher guide; finally, the beginning of the experimentation period and that of collecting the data obtained will be planned. The third meeting will be attended by the project target teachers and those involved in the new experimentation to collect feedback on the activities carried out and make an initial elaboration on the results achieved.

4.5.2.2. IO2 Exploitation

Project target teachers will be invited to continue using the scenarios created within the project and to create new ones using the same methodology. To this end, the CONNECT ambassador will be involved and will raise awareness among the project's target teachers but also those belonging to other institutions; he will also work to expand the participation in the CONNECT community of practice of teachers, created during the piloting and experimentation phases. During the side-by-side activities, planned and described above, the benefits of using educational scenarios will be shown. In particular, emphasis will be placed on the goal of creating opportunities for students to play an active role online, communicating their thinking through discussion and thus facilitating an online educational activity. In addition, the methodology, for the creation and enjoyment of the scenarios, may be tested for both first- and second-year secondary school courses, as well as for courses other than the three included in the project. This is to explore new potentials and benefits from the Connect method for new disciplines.

4.5.2.3. IO3 Exploitation

To exploit the MOOC developed within the project to as wide a target audience as possible, the possibility of including the courses produced within the SOFIA platform is being considered.

The SOFIA (Sistema Operativo per la Formazione e l'Innovazione Amministrativa) platform of MIUR (Ministry of Education, University and Research) is an information system developed to support the organization and management of training and administrative activities of the Ministry to which Italian teachers belong. SOFIA is designed to facilitate the management of training and refresher training processes for MIUR staff, offering tools for planning, managing, and evaluating training activities.

The SOFIA platform also offers a range of tools for monitoring training and administrative activities, including an advanced reporting system, which allows for the generation of detailed reports on various areas of interest, such as training participation, evaluations, and upgrading. The SOFIA platform offers a wide range of online training courses for the professional development of teachers, to improve the quality of teaching and instructional activities in schools of all levels.

The training courses on the platform are developed by experts in the field and cover various subject areas, including the use of digital technologies in education, inclusive teaching, learning assessment, active citizenship education, and many others.

The courses are accessible via a web link to the platform site and can be taken online, either synchronously or asynchronously, depending on the needs of the teacher. The platform also offers the ability to monitor the progress of the training, thanks to a learning tracking system, which allows for verification of actual participation and completion of the course.

In addition, the SOFIA platform also provides trainers with a range of learning materials, such as handouts, video lectures, and practical exercises, to support the learning and implementation of concepts learned during training courses.

Taking a course on the SOFIA platform brings numerous benefits to the lecturer, including:

- Professional development: Courses on the SOFIA platform are developed by experts in the field and cover a wide range of topics, providing teachers with the opportunity to deepen and update their professional skills.
- Flexibility: Courses are accessible online, allowing faculty to take classes synchronously or asynchronously, depending on their needs and availability.
- Monitoring and tracking: The SOFIA platform offers a course progress tracking system, allowing faculty to check their level of participation and completion of scheduled activities.
- Instructional materials: The platform provides course participants with a wide range of instructional materials, including handouts, video lectures, and practical exercises, which can help teachers learn and practice new skills.
- Accreditation

In terms of credits, the SOFIA platform offers the possibility of acquiring professional development credits for teachers. However, the amount of credits depends on the specific course and the rules set by the school administration. In any case, the SOFIA platform allows teachers to obtain a certificate of participation at the end of each course, which can be used as proof of training and gives advantages in their career progression.

Every year tens of thousands of teachers access Sofia and view the catalog of courses offered for this reason this showcase can be very important for the exploitation of the MOOC developed within the CONNECT project

4.5.2.4. IO4 Exploitation

Teachers, in using the educational scenarios, will be assisted by the dedicated guides for delivering online courses (for math, physics, and language subjects) in addition to classroom activities based on the CONNECT approach. The guides will be shared during side-by-side time with other teachers and at teacher councils. The guides, and especially the CONNECT methodology, represent a starting point for providing the school system with innovative tools that can improve teaching efficiency, lighten the workload of teachers and improve students' logical, organizational, and expressive skills.

For these reasons, moments of confrontation will also be organized in the presence of the actors involved in various capacities in the decision-making processes of school and educational planning such as school leaders, regional and provincial General Directorates as well as the Ministry of Education, University and Research. The goal is to share the CONNECT methodology, improve it, further customize it to the needs of our school system, and propose it to the institutional leadership to make it a standard in the teaching of our schools.

4.5.3. Exploitation in Cyprus

The exploitation of the CONNECT outcomes and approach in Cyprus aims to explore and implement innovative teaching approaches in education. Flipped classroom and blended learning are instructional methodologies that combine online and in-person learning activities to enhance student engagement and learning outcomes.

In the context of Cyprus, the project focused on leveraging these methodologies to improve the educational experience of students and enhance teaching practices. Here are some potential ways in which the project could have been exploited:

Implementation in schools: The project team could have collaborated with local schools in Cyprus to implement flipped classroom and blended learning approaches in various subjects and grade levels. This would involve training teachers on the methodologies, designing appropriate online learning resources, and creating a supportive learning environment for students.

Teacher training and professional development: Workshops, seminars, and training programs could have been organized to train teachers in Cyprus on the principles and best practices of flipped classroom and blended learning. Teachers would learn how to develop and deliver online learning materials, facilitate interactive in-person sessions, and assess student progress effectively.

Curriculum development: The project could have contributed to the development of curriculum resources that incorporate flipped classroom and blended learning methodologies. This would involve creating guidelines, lesson plans, and resources for teachers to integrate online and in-person activities seamlessly into the curriculum.

Research and evaluation: The project could have conducted research and evaluation to assess the impact of flipped classroom and blended learning approaches in Cyprus. This would involve gathering data on student performance, engagement, and satisfaction, as well as collecting feedback from teachers and parents. The findings could inform further improvements and adaptations of the methodologies.

Dissemination and knowledge sharing: The project team could have organized conferences, symposiums, or online platforms to share the knowledge and experiences gained from the project. This would facilitate collaboration among educators and stakeholders in Cyprus and beyond, encouraging the adoption of flipped classroom and blended learning practices.

Policy advocacy: The project's outcomes and findings could have been used to advocate for educational policy changes in Cyprus. The project team could engage with policymakers, education authorities, and institutions to promote the integration of flipped classroom and blended learning approaches into the education system, potentially leading to broader adoption and sustainability.

It's important to note that the specific exploitation strategies would depend on the local context in Cyprus.

EXPLOITATION ACTIVITIES

4.5.3.1. IO1 Exploitation

The exploitation of a pedagogical framework that includes the main principles of the philosophy of online learning and teaching in Cyprus could contribute to the advancement of education in the country. The pedagogical framework could be used to design training programs and professional development courses for teachers in Cyprus. These programs would focus on equipping educators with the knowledge and skills necessary to effectively teach online and leverage the principles of online learning. Teachers would learn about instructional design, online engagement strategies, assessment methods, and digital tools to enhance their online teaching practices. The pedagogical framework could be integrated

into the curriculum development process in Cyprus. Educators and curriculum developers could use the framework's principles to guide the design of online learning experiences and the selection of appropriate digital resources. This integration would ensure that online learning is aligned with the broader educational goals and objectives in Cyprus.

The pedagogical framework could serve as a guide for the development of high-quality online learning resources. This could include the creation of interactive multimedia content, virtual labs or simulations, discussion forums, and other digital tools that facilitate collaborative and engaging learning experiences. These resources would be made available to teachers and students in Cyprus to support their online learning endeavors. The pedagogical framework could be used as a reference for quality assurance processes and evaluation of online learning initiatives in Cyprus. It would provide a set of standards and criteria against which the effectiveness and impact of online learning programs and resources can be assessed. This would help ensure that online learning experiences in Cyprus meet high-quality standards and deliver positive educational outcomes.

The pedagogical framework could serve as a basis for research and innovation in online learning and teaching. Researchers and educational institutions in Cyprus could conduct studies to explore the effectiveness of different pedagogical approaches, instructional strategies, and digital tools within the framework. This research could contribute to advancing the understanding of online learning in the local context and inform future pedagogical practices. The pedagogical framework could facilitate collaboration and knowledge sharing among educators, institutions, and stakeholders in Cyprus. Workshops, conferences, and online platforms could be organized to bring together educators who are implementing online learning, allowing them to share their experiences, challenges, and best practices. This collaborative environment would foster continuous improvement and innovation in online teaching and learning.

4.5.3.2. IO2 Exploitation

The exploitation of the educational scenarios can be through workshops and training sessions for Language, Mathematics, and Physics teachers in Cyprus secondary schools. These sessions should provide teachers with guidance on how to effectively implement the educational scenarios in their classrooms. Teachers can learn about instructional strategies, lesson planning, and assessment methods aligned with the scenarios. Collaboration with curriculum developers and educational authorities to integrate the educational scenarios into the official curriculum for Language, Mathematics, and Physics. This ensures that the scenarios align with the learning objectives and content standards set by the education

system in Cyprus. The scenarios can be included as suggested activities or as part of a broader pedagogical framework. Moreover the development of additional resources to support the implementation of the educational scenarios. These resources can include lesson plans, worksheets, interactive online activities, and multimedia materials. Teachers can access these resources to enhance their teaching and provide students with engaging and relevant learning materials.

Incorporate formative assessment strategies within the educational scenarios. Encourage teachers to use a variety of assessment methods, such as quizzes, projects, presentations, and group discussions, to gauge student understanding and progress. Provide constructive feedback to students to guide their learning and support their development. lastly the continuous evaluation and improvement of the educational scenarios through feedback from teachers, students, and other stakeholders. Collect data on student performance, engagement, and attitudes toward learning. Use this information to refine and improve the scenarios over time, ensuring they remain relevant and effective in meeting the educational goals of Language, Mathematics, and Physics education in Cyprus.

4.5.3.3. IO3 Exploitation

The exploitation of Massive Open Online Courses (MOOCs) in Cyprus aims to leverage digital technology to provide accessible and high-quality educational opportunities to learners across the country. This description outlines the key features and benefits of MOOCs, their relevance to the Cyprus educational landscape, and the strategies for their effective implementation. MOOCs in Cyprus are designed to cater to a diverse range of learners, including students, professionals, and lifelong learners. The target audience includes individuals seeking to expand their knowledge, acquire new skills, or enhance their professional development. The flexibility and accessibility of MOOCs make them suitable for learners of various age groups and backgrounds. To ensure the effectiveness and continuous improvement of MOOCs in Cyprus, it is essential to gather feedback from learners and educators. Feedback mechanisms, such as surveys, focus groups, or online reviews, can be implemented to assess learner satisfaction, gather insights on course quality, and identify areas for improvement.

4.5.3.4. IO4 Exploitation

The Teachers' Guide in Cyprus is a valuable resource developed specifically for educators in Cyprus. This guide aims to provide practical guidance and support for teachers in implementing blended learning and flipped classroom methodologies in their classrooms. By
leveraging these innovative approaches, teachers can enhance student engagement, promote active learning, and improve educational outcomes in the Cyprus educational context. The Teachers' Guide in Cyprus will be distributed through multiple channels to ensure widespread availability and accessibility. It will be disseminated through online platforms, educational institutions, teacher training programs, and collaboration with educational associations and organizations. The guide can be accessed digitally, allowing teachers to engage with its content at their convenience. To support implementation, professional development programs will be organized, including workshops and training sessions facilitated by experienced educators and instructional technology specialists. These programs will provide opportunities for teachers to deepen their understanding of the guide's content, engage in hands-on activities, and collaborate with peers to share experiences and best practices.

4.5.4. Exploitation in Greece

4.5.4.1. RDPSEA

MOOC and LTTA training familiarized educators to a great extent. The validity of this argument was proved by the success of the pilot venture. Teachers managed to implement the "Connect" Flipped Classroom educational scenarios. A great number of students responded positively to this educational practice. In parallel, teachers made valuable comments helping to ameliorate the piloting process. Most of these comments could potentially be used not only to improve the next pilot but also to enhance the entire "Connect" approach. The teachers' comments (elicited from the piloting process, and the interviews) pointed out that the "Connect" approach is practical, and could be adopted at schools.

However, both teachers and other stakeholders pointed out that the way has not been paved for implementing the "Connect" approach at schools. Such a process calls for a change of mentality. Additionally, the technological infrastructure should be upgraded before implementing modern educational practices. Finally, teachers should be well-equipped to use the new technology and parental involvement is needed so that a good climate could be created.

In a nutshell, both piloting and interviews indicated that educators and other policymakers are willing to implement the "Connect" approach. Nevertheless, the extent to which the "Connect" approach will be exploited is heavily dependent on the degree of dealing with the aforementioned barriers.

EXPLOITATION ACTIVITIES (AFTER THE PROJECT'S CULMINATION)

To monitor the exploitation of the "Connect" approach at schools the RDPSEA has planned the below generic exploitation activities:

1. Educational coordinators and other specialists will visit schools periodically to exchange ideas about how the "Connect" approach can be exploited. In parallel, educational coordinators will monitor the exploitation progress at schools that were involved in the pilot.

2. Questionnaires will be sent to schools and administrative offices and both teachers and policymakers will have the opportunity to fill them out, stressing the project's results' exploitation efforts. A proper analysis of these questionnaires will indicate the progress of the exploitation process.

3. Online meetings will be held under the auspices of the RDPSEA, where keynote speakers will discuss exploitation ways, underlining the benefits of adopting the "Connect" approach.

The success of the aforementioned exploitation activities depends on the effective dealing with specific barriers, such as providing educators with the incentive to implement the "Connect" approach at schools, persuading teachers who are tired out from piloting to continue occupying themselves with the "Connect" project, persuading educational coordinators (not being on the roll) to continue pursuing the "Connect" interests, and coordinating the entire exploitation monitoring process.

Additionally, the RDPSEA has planned specific exploitation activities oriented to each intellectual outcome.

4.5.4.1.1. IO1 Exploitation

The RDPSEA is going to research the reverberation of the pedagogical background included in the "Connect approach" at any educational level. In detail, qualitative research will be conducted to examine the impact of the "Connect" pedagogical background on the educational policy-making process. Teachers, educational policy-makers, coordinators, and other educational entities will participate in the research. The research will start in September 2023.

4.5.4.1.2. IO2 Exploitation

Educational coordinators will monitor the implementation of the "Connect" Flipped Classroom scenarios at schools after the project's culmination. Educational coordinators will create a network (educational communication channel) through which educators and other policy-makers will exchange ideas about implementing the "Connect" educational scenarios at schools. The RDPSEA official web page will be embellished to answer this purpose. This activity will start in September 2023.

4.5.4.1.3. IO3 Exploitation

Educational coordinators will continue advertising the "Connect" approach material uploaded to the MOOC in an attempt to persuade educational policymakers into integrating this material into the respective courses' curriculum. In parallel, educational policymakers will urge educators to use "MOOC" material, conducting meetings and training programs revolving around the integration of "MOOC" material into the daily-teaching process. This activity will start after the impending election period in Greece.

4.5.4.1.4. IO4 Exploitation

Working in the same way as the IO3 exploitation activities' strategy, educational coordinators will try to promote the lessons learned from piloting and the other keynote approaches encompassed in the IO4 output to the Ministry of Education, and other administrative offices to ask for the integration of the IO4 outcome into the generic educational policy-making strategy. In this spirit, educational coordinators will continue sending specific letters to schools and administrative offices highlighting the keynote aspects of the IO4 outcome. This activity will start after the impending election period in Greece.

4.5.4.2. Computer Technology Institute and Press "Diophantus"

Exploitation and dissemination activities delivered

Since the beginning of the CONNECT project, CTI Diophantus initiated specific activities for the dissemination of the CONNECT project, including the design and implementation of the project's website, formulation of newsletters and promo icons, online presentations, and so on. Specifically:

Project site: The CONNECT website is available at https://connect-erasmusproject.eu/index.php/en/newsletteren/43-newsletter-2 and outlines the purpose and the goals of the project as also a roadmap for CONNECT development process. Through the website, stakeholders can have access to the deliverables of the project as also to promo material (i.e., CONNECT logos, presentation, tri-folds, and posters) and easily redirect to the MOOC platform.

Newsletters: The first newsletter of the CONNECT project was drafted by the CTI team in close collaboration with the partners and uploaded in the project web-site, available https://connect-erasmusproject.eu/. This newsletter typically covers the period from the

kick-off meeting (April 2021) until the TPM at Nicosia, Cyprus (June 2022). The second one covers the period from the TPM at Palermo, Italy (July 2022) until December 2022 and is available https://connect-erasmusproject.eu/index.php/en/newsletteren/43-newsletter-2.

Promo icons: CTI designed the promo icons related to CONNECT developments (i.e., the release of IO1 and IO2 deliverables, IO3 MOOC enrollment) and the various project events (i.e., Transnational Project Meetings at Nicosia, Palermo, and Athens, Learning Teaching, and Training Activity and European Multiplier Event in Athens). The promo icons were provided to all partners to use them in their various communication channels and dissemination activities.

Online MOOC Platform presentation: An online presentation was delivered on November 15, 2022, through the Webex platform and more than 100 Greek educators were informed about the CONNECT online courses (MOOC) available https://connect-erasmusproject.eu/mooc/. CTI Diophantus presented the MOOC platform and its functionalities and RDPSEA delegates initiated a fruitful discussion with the participants. The online presentation was successful, considering that right after, educators started registering on the MOOC platform.

European Multiplier Event: CTI participated in the European Multiplier Event at Athens, Greece (15 December 2022) organized by the RDPSEA. In this event the CONNECT MOOC platform and the available online courses were presented as also the workflow for the registration and course enrollment in order for the stakeholders to receive the CONNECT certification.

Exploitation and dissemination activities after project completion

Project website and MOOC platform: CTI will maintain and keep up to date the project website and MOOC platform as well and ensure long-term security and availability. A regular backup system will protect website and MOOC platform data and the backup process will be tested periodically to ensure data can be restored if needed.

3rd Newsletter of CONNECT project: Right after the completion of CONNECT project the final (third) newsletter will be delivered highlighting the activities performed from January 2023 until June 2023, thus including the National Multiplier Events that took place in Palermo, Italy, and Nicosia, Cyprus respectively as also the completion of Intellectual Outputs 4 and 5. The final newsletter will be also available on the CONNECT website.

9th Panhellenic eTwinning Conference: <u>eTwinning</u> is an EU initiative since 2005, which thousands of teachers all over Europe and beyond have embraced with great enthusiasm. It is undoubtedly the most exciting learning community in Europe. Working on a safe platform

teachers and students have the opportunity to communicate, collaborate, develop projects, connect and share with like-minded people. Each year, the National eTwinning conference is organized by the Hellenic NSO, where thousands of teachers are attending keynotes and workshops. For the 9th National eTwinning conference a special presentation will be organized so that teachers can be further introduced to the CONNECT project. Apart from that, a workshop will be held, in which teachers will have the chance to learn and experience the flipped classroom methodology of the CONNECT project and familiarize themselves with the educational scenarios developed.

CONNECT-oriented eTwinning webinars: It is well-known in the eTwinning community that teachers (i.e., eTwinners) are offered plenty of free and continuing professional development opportunities of the highest quality, reap the benefits of well-organized seminars, workshops, MOOCs, get fresh ideas and inspiration by shared good practices and consequently improve their teaching methodologies and develop as role models for their school colleagues (more info is available http://www.etwinning.gr/). Webinars on various educational topics are organized throughout each year for the eTwinners. In that context a webinar will be organized, to present the flipped classroom methodology of CONNECT project to eTwinners and allow them to apply it in the learning procedure. Moreover, eTwinners will be introduced to the MOOC platform, so that they can enroll in the available online courses and receive CONNECT's certification.

Frequent announcements through the sch.gr portal and eTwinning communication channels: The <u>Greek School Network</u> is the national network of the Ministry of Education and, Religious Affairs which safely interconnects more than 15.973 schools of Primary and Secondary education, including educational units abroad, services and entities supervised by the Ministry of Education and Religious Affairs at central and regional level. The GSN provides services to 1.257.526 students, teaching staff, other educators and other entities of the Greek Ministry of Education and Religious Affairs (MoE). Through GSN the MoE provides the educational community with e-learning services, communication, and collaboration, e-government services as well as helpdesk and user support services. As explained previously, eTwinning is also another huge community of teachers. Having this vivid audience, these channels are ideal places for promoting CONNECT's methodology and deliverables. Frequent announcements about CONNECT project and related educational activities will be done in the sch.gr and etwinning.gr portals, with news and upcoming educational events to be announced on the first pages of these portals.

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Tweets and posts through the official CONNECT social networks (#ConnectErasmusProject):

Since the beginning of the CONNECT project, two social communication channels have been created, on <u>Twitter</u> and <u>Facebook</u> respectively, for promoting project's developments and further inform teachers and all stakeholders about CONNECT news and upcoming events. These two communication channels will continue to provide updated information to the school community about related activities (i.e., raise awareness of the importance of flipped classroom and blended learning) and several posts will be presented periodically, when there are news or announcements related to CONNECT or similar projects, thus encouraging collaboration and innovation in education.

5. Exploiting the Piloting

The CONNECT piloting was a huge educational milestone. A lot of schools were involved in this joint venture. For instance, 10 pilots were conducted in Italy, and 3 schools were involved. In the case of Greece, 6 schools were involved, and 19 pilots were carried out. Similar statistics hold for Cyprus. The piloting indicated that the Flipped Classroom Approach is feasible. At a European level, this method should be accentuated. Partners of the CONNECT project will examine the implementation of Flipped Classroom at schools after piloting. In detail, educational coordinators and other policymakers will contribute to the Flipped Classroom reverberation at Schools. In parallel, communities of practices have been underlined as the cardinal method that made educators succeed in the piloting venture. Therefore, the effect of this method should not be mitigated.

Additionally, reflection was another key-ingredient to the piloting success. The partners of the CONNECT project encourage teachers to keep reflecting on their instruction. Educational coordinators and school authorities will help teachers to continue reflecting. The CONNECT Piloting has also accentuated the role of digital media in the daily instruction. European teachers are urged to continue incorporating digital media into the learning process. However, the frequency and the quality of the use of digital media in the daily teaching should be monitored and examined. Curriculum amendments in Mathematics, Physics and Foreign Languages (EN, FR) might be needed to ensure the successful implementation of the Flipped Classroom approach at schools.

6. Exploiting the CONNECT project's Events and Meetings

The CONNECT project's Events (LTTA and ME), held in Greece, Italy, and Cyprus proved to be educational milestones. The importance of critical didactic incidents, problem-solving, blended learning, collaborative learning, differentiated instruction, and peer review has been underlined in these events. In one sense, the aforementioned techniques contribute to the success of the Flipped Classroom Approach. These events have gone down in history. However, their effect is perennial. European School authorities are encouraged to examine the implementation of these methods at all educational levels.

The CONNECT approach has indicated that the employment of these methods can upgrade the educational status of Mathematics, Physics and Foreign Languages. The partners of the CONNECT project will continue monitoring the reverberation of these educational approaches at schools.

However, some dissemination activities could also be included in the CONNECT project's Events. For instance, partners organized meetings to advertise MOOC. Although these activities were oriented towards the dissemination of specific CONNECT achievements, the discussion with educators and other educational stakeholders during these meetings indicated areas of improvement. In this sense, the CONNECT Intellectual Outcomes were embellished in light of the attendees' comments. As an illustration, the RDPSEA organized a meeting for disseminating MOOC in November, (November 15, 2022) where partners from CTI Diophantus contributed to the success of this meeting. The educator comments provided the MOOC development team with the incentive to ameliorate MOOC Courses and facilitate the registration process. Similar meetings were held by partners in Italy and Cyprus.

In parallel, the RDPSEA organized online meetings with an agenda revolving around cardinal aspects of the CONNECT approach, such as inclusion, differentiation, student's learning autonomy, online assessment and many others. These meetings examined in real time and in real cases, the employment of the CONNECT teaching approaches at schools. As it has been explained above, such meetings indicated the pros-and cons of the CONNECT approach and thus the CONNECT approach was shaped and ameliorated according to the feedback received. In one sense, these meetings proved to be a structural element of the CONNECT approach.

The RDOSEA, as a leader of many European Erasmus Projects organized Erasmus days (October 25,2021, October 13, 2022), presenting the keynotes of the most important

European Erasmus Projects. The feedback that was acquired, helped the RDPSEA to guide partners to shape the CONNECT approach in a more beneficial way. Therefore, the aforementioned activities played an important role in the CONNECT project development. Since the effect of the CONNECT project is perennial, the potential of such activities is everlasting. RDPSEA and partners of the CONNECT project have decided to continue exploiting such meetings in order to monitor the application of the CONNECT approach at schools.

7. Exploiting the Interviews' Outcome

A set of interviews was conducted to explore the preconditions for the exploitation of Connect's methodology and products. The interviews investigated ideas of stakeholders on barriers and opportunities of the Connect integration at school and ideas about the exploitation of Connect results. (see appendix A for questions)

7.1. Methodology

Twenty-three interviews were conducted by the partnership and are distributed as follows:

- 6 Interviews from the Italian partner
- 15 Interviews from the Greek partners (RDPSEA and CTI)
- 6 Interviews from the Cypriot partner

The methodology adopted for the interview administration and analysis activity is outlined below:

Definition of interview questions: starting from the research objective, eight open-ended questions were defined to be answered by stakeholders in school education and training.

Interview: was conducted by partnership staff and included an initial phase of describing the CONNECT project and its results. The interview was recorded in Google form in English.

Coding: key themes and concepts that emerged from the interviews were identified, labeled, and categorized.

Data analysis: During data analysis, similarities, differences, trends, or patterns were looked for within the data that provided information about the Connect project.

Presentation of results: Finally, the following sections describe information that emerges from interviews.

7.2. Barriers, obstacles, opportunities, and benefits

The 27 stakeholders interviewed belong to a wide area of professions related to school education and training. In addition to teachers being the most represented group, employees of ministries of education and education, researchers in the field of education

and training, employees of teacher training institutions, and school leaders were also interviewed. Respondents' experience in education varies from a few years to several decades of experience providing an overview of views that can range from the newly hired to the deeply experienced person at the end of his or her career.

Shown in the figure below is the word cloud created by the responses given to questions about the benefits brought by the CONNECT model.



Most respondents agree on the potential of the Connect model to bring benefits to the school, and the main benefits identified pertain to students and teachers and emphasize the goodness of student-centered educational approaches such as CONNECT. However at present learning in the Greek educational system does not foster collaboration and active learning, making it difficult to implement the CONNECT methodology. Interviewees acknowledge the potential benefits of the methodology, such as improved learning and the development of autonomous learning skills, but it also highlights obstacles, including the need for infrastructure, limited student acceptance, and time constraints within the curriculum. Overall, the CONNECT methodology is considered promising, but its full integration into the school system may take time, changes in mindset, and adequate support and training for educators.

The main benefits identified are:

Personalized learning: Students have the opportunity to learn at their own pace and review difficult concepts as many times as needed. They can focus their attention on areas where they need more support, allowing for a customized learning experience.

Increased student engagement: The classroom becomes more interactive and participatory. When students have a better understanding of the material through pre-learning, they are more likely to engage in class discussions and activities, leading to higher levels of engagement.

More efficient use of class time: By having students learn new content outside of class, teachers can optimize class time for activities that reinforce learning, such as collaborative projects and individualized support. This maximizes the effectiveness of in-person instruction.

Increased teacher-student interaction: Flipped learning enables more one-on-one interaction between teachers and students. With class time freed up from lectures, teachers can provide personalized support and feedback to each student, strengthening the teacher-student relationship.

Improved academic achievement: The CONNECT approach aims to create a more engaging and personalized learning experience, which can result in improved student achievement.

Professional development for teachers: The application of the CONNECT approach allows teachers to familiarize themselves with various methodologies, tools, and strategies. This expands their repertoire of teaching techniques and enhances their professional development.

Integration of technology: The use of digital tools and resources is incorporated into the CONNECT approach, preparing students for the digital age. By leveraging technology, students develop digital literacy skills and become more adept at using technology for learning and collaboration.

Collaboration and teamwork: The CONNECT approach promotes collaborative learning and teamwork among students. Working in groups allows them to learn from and support each other, fostering a cooperative and inclusive learning environment.

Flexibility and accessibility: The flipped classroom model offers flexibility in terms of when and where students access instructional materials. This allows for self-directed learning, accommodates different learning styles, and promotes accessibility to education.

Preparation for the future: By integrating modern teaching methodologies and digital tools, the CONNECT approach helps prepare students for the 21st-century workforce. They develop essential skills such as critical thinking, problem-solving, collaboration, and digital literacy, which are highly valued in today's society.

Regarding the possibility of integrating the approach in the classroom, respondents agreed in reporting several obstacles such as:

Resistance to change: Some teachers may be reluctant to adopt a new teaching approach, especially if they are unfamiliar with the benefits of student-centered methods or if they are comfortable with traditional classroom methods.

Student motivation and accountability: The flipped classroom requires students to take greater responsibility for their learning, which can be difficult for some students who may struggle with motivation or lack the necessary self-discipline.

Time constraints: the flipped classroom requires teachers to invest more time in creating and curating online resources, which can be challenging if they have little time or resources available.

Lack of access to technology: flipped learning relies heavily on technology, and many schools may not have the resources to provide students with access to computers, tablets, or high-speed Internet at home.

lack of time in the school curriculum.

need for a change in mindset on the part of teachers, students, and parents

Interviewees highlight that to successfully integrate CONNECT results into the school, a well-planned strategy must be followed and implemented consistently.

It is crucial to communicate the results to other teachers to inform them of the potential benefits of the CONNECT approach. Communities of practice could be created where teachers share experiences, participate in workshops, and receive one-on-one support to learn how to use technology, design interactive activities, and create engaging content.

A key aspect is to ensure that teachers and students have access to the necessary technology. This may require investment in the schools' technology infrastructure, ensuring that classrooms are equipped with devices and reliable Internet connection.

In addition, it is important to involve parents in the process, as flipped learning is a new concept for them. Organizing meetings, providing information about the method, and

encouraging parental involvement can help create a supportive environment for CONNECT implementation.

In addition, to integrate the results of CONNECT into the Greek education system, broader changes need to be made, such as reducing the curriculum by subject, reducing the number of comparative exams for students, and changing the system of access to higher education. It is also important to ensure large availability of digital support materials for each subject scenario and provide funding for schools to set up modern and well-equipped computer labs.

8. Partners' Actions of Exploitation

8.1 Italy

Action 1	Exploitable project results
Partner	Italy
Date/Period of the exploitation activity	October 2023
List of IOs that have exploded	IO 1
Description of the target group reached by the exploitation activity	Stakeholder, teachers
Purpose / Description of the exploitation activity	Using frameworks for old and new teachers and new schools
Results achieved/expected	Use of framework by new students and teachers
Barriers to exploitations	Availability of new teachers to use the methodology
Recommendations	The CONNECT ambassador will have to motivate new teachers about the validity of the methodology and its advantages

Action 2	Exploitable project results
Partner	Italy
Date/Period of the exploitation activity	April 2023 - May 2023 (COMPLETED)
List of IOs that have exploded	10 3
Description of the target group reached by the exploitation activity	About 200 Teachers are involved in an ITD project called "Artificial Intelligence for Teachers" (AI4T)
Purpose / Description of the exploitation activity	Presentation and awareness of the use of MOOC courses on the CONNECT platform
Results achieved/expected	Teacher enrollment in MOOC Connect courses.
Barriers to exploitations	Many teachers have no time cause end of the scholastic year
Recommendations	

Action 3	Exploitable project results
Partner	Italy
Date/Period of the exploitation activity	March 2023 - On going
List of IOs that have exploded	10 3
Description of the target group reached by the exploitation activity	Italian Teachers
Purpose / Description of the exploitation activity	Inclusion of MOOC Connect Courses within the SOFIA platform managed by the Italian Ministry of Education and Research
Results achieved/expected	Teacher enrollment in MOOC Connect courses.
Barriers to exploitations	Courses must meet the Ministry's criteria for inclusion in the SOFIA platform.
Recommendations	

Action 4	Exploitable project results
Partner	Italy
Date/Period of the exploitation activity	January - March 2024
List of IOs that have exploded	10 2-4
Description of the target group reached by the exploitation activity	Teachers
Purpose / Description of the exploitation activity	Use of educational scenarios for the teaching of mathematics, physics or language; dissemination and use of the teacher guide
Results achieved/expected	Use of scenarios by new classes; use of the teacher guide
Barriers to exploitations	Availability of new teachers for the use of scenarios
Recommendations	The CONNECT ambassador will have to motivate new teachers about the validity of the scenarios and their advantages

8.2 Greece (RDPSEA)

Action 1 (MOOC TRAINING)	Exploitable project results
Partner	RDPSEA
Date/Period of the exploitation activity	November 2022-April 2023
List of IOs that have exploded	102, 103
Description of the target group reached by the exploitation activity	Educators
Purpose / Description of the exploitation activity	This activity took advantage of the educational scenarios developed in the context of the IO2 intellectual outcome to enable educators to deepen into the flipped classroom approach. The activity also exploited the MOOC (IO3 outcome) to familiarize educators with modern educational practices and enable them to carry out the piloting.
Results achieved/expected	A great number of Greek educators took advantage of this training and many educators were also certified.
Barriers to exploitations	It was not easy to recruit teachers to register at the MOOC.
Recommendations	Greek educators stressed the need for extra training time and asked for an easier certification process.

Action 2 (LTTA TRAINING)	Exploitable project results
Partner	RDPSEA
Date/Period of the exploitation activity	December 2022 (12-14)
List of IOs that have exploded	102
Description of the target group reached by the exploitation activity	Educators
Purpose / Description of the exploitation activity	This activity took advantage of the educational scenarios developed in the context of the IO2 intellectual outcome to enable educators to deepen into the flipped classroom approach. The activity also aspired to familiarize educators with modern educational practices and enable them to carry out the piloting.
Results achieved/expected	Greek and Foreign educators took advantage of this training and the majority of them were satisfied with the training experience.
Barriers to exploitations	Planning a training session that combined theory and practice was difficult.
Recommendations	LTTA participants asked for a more practice-oriented training approach.

Action 3 (PILOTING)	Exploitable project results
Partner	RDPSEA
Date/Period of the exploitation activity	January-March 2023
List of IOs that have exploded	102, 103
Description of the target group reached by the exploitation activity	Educators
Purpose / Description of the exploitation activity	This activity took advantage of the educational scenarios developed in the context of the IO2 intellectual outcome to enable educators to implement the flipped classroom approach. The activity also aspired to indicate the practicability of the overall "Connect" approach. The material mounted on the project's website along with the handbook provided extra help.
Results achieved/expected	Greek educators took advantage of the LTTA training, and they managed to carry out the pilot successfully. The "Connect" approach reverberated at the school level.
Barriers to exploitations	Tuning, controlling, and monitoring the piloting process was not easy.
Recommendations	Teachers underlined the practicability of the flipped classroom scenarios but they indicated specific amendments so that the educational scenarios could be more easily implemented. Teachers also showed the way the "Connect" approach could be propagated at schools.

Action 4 (Interviews)	Exploitable project results
Partner	RDPSEA
Date/Period of the exploitation activity	March 15- April 20, 2023
List of IOs that have exploded	102, 103, 104
Description of the target group reached by the exploitation activity	Educators, and Educational Policy Makers
Purpose / Description of the exploitation activity	This activity took advantage of all intellectual outcomes to enable educators, and other stakeholders to contemplate the ways the entire "Connect" approach could be exploited,d indicating benefits, and possible barriers in the exploitation process.
Results achieved/expected	A sufficient number of teachers and other stakeholders responded to fill out the interview questionnaire.
Barriers to exploitations	Recruiting teachers to participate in the interviews was difficult. In parallel, teachers were not prepared to contemplate the benefits of the "Connect" approach implementation at schools.
Recommendations	Teachers and other stakeholders underlined the practicability of the "Connect" approach, but they indicated that the implementation of the "Connect" approach at schools calls for extra training, student motivation, and parental involvement.

8.3 Greece (CTI)

Action 1	Exploitable project results
Partner	CTI Diophantus (Greece)
Date/Period of the exploitation activity	Ongoing (after project's completion)
List of IOs that have exploded	101, 102, 103, 104, 105
Description of the target group reached by the exploitation activity	School community, all potential stakeholders
Purpose / Description of the exploitation activity	Regular maintenance and updates will ensure that the project website and MOOC platform as well remain secure, up to date and user-friendly.
Results achieved/expected	Ensure long-term security and availability of the project web-'site and MOOC platform as also end-user satisfaction.
Barriers to exploitations	Allocate human resources for the regular updates, monitoring, testing backups etc
Recommendations	-

Action 2	Exploitable project results
Partner	CTI Diophantus (Greece) in close collaboration with partners
Date/Period of the exploitation activity	July 2023
List of IOs that have exploded	IO4, IO5, National Multiplier Events in Italy and Cyprus
Description of the target group reached by the exploitation activity	School community, all potential stakeholders
Purpose / Description of the exploitation activity	The third (final) newsletter of CONNECT will be delivered in July 2023, highlighting the activities performed from January 2023 until June 2023, thus including the National Multiplier Events that took place in Palermo, Italy and Nicosia, Cyprus respectively as also the completion of Intellectual Outputs 4 and 5. The newsletter will be produced by CTI Diophantus in close collaboration with the consortium.
Results achieved/expected	The broader school community as also potential stakeholders will be informed about the latest achievements and deliverables.
Barriers to exploitations	-
Recommendations	The final newsletter will be available on CONNECT website (EN, EL and IT versions)

Action 3	Exploitable project results
Partner	CTI Diophantus (Greece)
Date/Period of the exploitation activity	October-November 2023
List of IOs that have exploded	101, 102, 103
Description of the target group reached by the exploitation activity	Greek teachers, eTwinning community, students
Purpose / Description of the exploitation activity	CONNECT presentation and workshop at the 9th Panhellenic eTwinning Conference (dates TBA)
Results achieved/expected	Familiarization of the participants with the CONNECT methodology and the enrollment process in the MOOC platform.
Barriers to exploitations	-
Recommendations	The CONNECT approach and the related deliverables should be presented in a structured and motivated way to the eTwinners so that they can act as multiplier actors of CONNECT methodology to the broader school community.

Action 4	Exploitable project results
Partner	CTI Diophantus (Greece)
Date/Period of the exploitation activity	Ongoing (after project's completion)
List of IOs that have exploded	101, 102, 103
Description of the target group reached by the exploitation activity	Greek teachers, eTwinning community
Purpose / Description of the exploitation activity	CONNECT oriented webinars through the eTwinning ecosystem.
Results achieved/expected	Introduction of teachers to the flipped classroom methodology of CONNECT project and informing them how to apply it in the learning procedure. Familiarization of the participants with the enrollment process in the MOOC platform.
Barriers to exploitations	Teachers and participants need to allocate time for the webinars as also to exploit CONNECT's methodology.
Recommendations	An evaluation survey can be performed so that participants can provide their feedback and potentially provide further improvements.

Action 5	Exploitable project results
Partner	CTI Diophantus (Greece)
Date/Period of the exploitation activity	Ongoing (after project's completion)
List of IOs that have exploded	101, 102, 103
Description of the target group reached by the exploitation activity	Greek school community, teachers, school advisors, parents, students
Purpose / Description of the exploitation activity	Frequent announcements through the sch.gr and etwinning.gr portals and eTwinning communication channels
Results achieved/expected	Informing schools, teachers, students and parents about CONNECT project and related educational activities.
Barriers to exploitations	-
Recommendations	-

Action 6	Exploitable project results
Partner	CTI Diophantus (Greece)
Date/Period of the exploitation activity	Ongoing (after project's completion)
List of IOs that have exploded	101, 102, 103, 104, 105
Description of the target group reached by the exploitation activity	Greek school community, teachers, school advisors, parents, students
Purpose / Description of the exploitation activity	Frequent announcements through the official social media channels (Twitter and Facebook) of CONNECT project.
Results achieved/expected	Informing schools, teachers, students and parents about CONNECT project and related educational activities.
Barriers to exploitations	Increase the visibility and accessibility of the available social media accounts
Recommendations	These announcements can be performed in parallel with the developments of related educational EU projects to promote collaboration and synergies.

8.4 Cyprus

Action 1	Exploitable project results
Partner	UCY
Date/Period of the exploitation activity	02/2022 - 06/2022
List of IOs that have exploded	Project purpose / IO1
Description of the target group reached by the exploitation activity	Secondary teachers on English language, Mathematics and Physics
Purpose / Description of the exploitation activity	Description of the CONNECT aim and Pedagogical Framework
Results achieved/expected	Creation of the Scenarios
Barriers to exploitations	time duration
Recommendations	if applicable

Action 2	Exploitable project results
Partner	UCY
Date/Period of the exploitation activity	12/2022 - 03/2023
List of IOs that have exploded	Project purpose / IO1 / IO2 / IO3
Description of the target group reached by the exploitation activity	Training in Athens
Purpose / Description of the exploitation activity	Training 10 teachers on Connect approach and implementation in their schools
Results achieved/expected	Training and implementation of CONNECT approach
Barriers to exploitations	if applicable
Recommendations	if applicable

Action 3	Exploitable project results
Partner	UCY
Date/Period of the exploitation activity	05/2023
List of IOs that have exploded	Multiplier event in Cyprus
Description of the target group reached by the exploitation activity	Multiplier event in Cyprus
Purpose / Description of the exploitation activity	A national multiplier event will be organized in Nicosia, Cyprus to highlight progress made so far, and to further increase school community involvement, while heading to the final phase of the CONNECT project.
Results achieved/expected	Learn about the CONNECT project
Barriers to exploitations	if applicable
Recommendations	if applicable

9. Accentuating the European Dimension of the CONNECT Approach

Qualitative dimensions of the CONNECT project and European sustainability

The implementation of the CONNECT project in the partner countries has highlighted significant educational outcomes and benefits that go beyond their national boundaries. Some qualitative dimensions of the European sustainability of the project that are expected to stimulate future development and exploitation of the scenarios, training activities, tools and practices are the following.

Student autonomy and self-regulation during the first-phase flipped classroom

The implementation of the flipped classroom scenarios in Mathematics, Physics and Foreign Languages by teachers in Greece, Cyprus and Italy Junior Secondary Education constitute innovations strengthening students' independence and self-regulation as well as providing flexibility in terms of learning time and pace. Before face-to-face teaching, the students made use of asynchronous digital learning tools, familiarizing themselves with appropriate learning content (video lectures, online activities, digital games, quizzes, etc.) followed by relevant tasks and activities with clear instructions and steps further expanding the lesson's main concepts. Students were encouraged to take notes while watching videos or presentations and they could occasionally stop watching in order to answer interactive questions filling in the blanks. During the first phase of the flipped classroom, skills related to understanding digital content, critical thinking and problem solving skills, communication skills, etc. were required by students so that they were well prepared for the face-to-face classroom teaching phase. The structure of pre-class activities provided scaffolding for students, and helped manage teaching resources thus leading to increased classroom participation, self-assessment and self-regulation of learning. It is worth clarifying that the aforementioned can be as well applied in every educational environment and not exclusively in the three partner countries.

The second face-to-face classroom teaching phase

The implementation of the flipped classroom scenarios in Mathematics, Physics and Foreign Languages by Junior Secondary Education teachers in partner countries reinforced interaction motivating students to participate in active and experiential learning. In the flipped classroom teaching model, students were introduced to new lesson material at home, hence having more time available in class for creative activities exploiting face-to-face classroom time. Useful teaching practices were group work, experiential activities, exploratory learning, project work, problem solving in everyday life, interactive digital media, etc., as well as formative alternative assessment. The use of technology was engaging, boosting learners' motivation to succeed in the learning process overcoming any difficulties in classroom lessons content. Students understood the concepts and skills within the time allotted by each activity instructions. During the flipped classroom, students actively participated in classroom individual or group work activities. In addition, the flipped classroom stimulated students' interest in learning, supporting the development of the cognitive processes by promoting a student-centered environment with students as classroom protagonists, reversing teacher and student roles, thus fostering academic success. Undoubtedly, this innovative teaching methodology and approach must be permeated within the European Union in order to become sustainable in a broader educational context [3];[4];[5].

Collaboration and communication of students

Collaboration and communication amongst students emerged as key issues in the evaluation of the impact of the flipped classroom regarding participation, engagement and performance of Junior High School students in Mathematics, Science and Foreign languages. Students were willing to work together, shared their enthusiasm for success in the flipped classroom, and attributed its success to opportunities for daily collaboration with their peers. Students had the opportunity to continuously interact with their teacher and felt that communication improved in the flipped classroom model. They discussed contemporary issues in Foreign Languages, explaining their opinions, presented arguments, evaluated hypotheses in Physics and shared conjectures and multiple solutions to Mathematics problems. Meaningful group discussions led to increased student engagement in the teaching and learning process. Participating students critically evaluated each other's opinions and suggestions during group work. The increased use of group work and communication had a positive impact on students' active engagement and achievement of learning outcomes proving to be a good practice that should be widely accepted.

Inclusive learning environment

Research has shown that there are a number of students who, while attending school, consistently show difficulties in learning Mathematics, Physics and Foreign Languages, uneven performance and low self-confidence. These findings were confirmed by empirical observations during the Pilot Implementation in both asynchronous and synchronous learning of the CONNECT project. Teachers were asked to create a safe, inclusive and safe learning environment, to commit to the active inclusion of all learners and to uphold human rights. Every learner, regardless of background and identity, was given equal opportunities and developed the best possible academic performance. In every classroom in the above-mentioned subjects in the three partner countries, it was vital to recognise the multiple social and cultural identities of the students. Teachers developed learning conditions that responded to the abilities, needs and diverse cultural and linguistic experiences of students and set high expectations for everyone. As they developed differentiated multimodal practices, they maximize learning opportunities for all. In addition, teachers reported that alternative forms of assessment contributed positively to student assessment and personalized feedback and the degree to which students mastered the expected learning outcomes was really satisfactory. In this light, the inclusive learning environment ensured during the CONNECT pilot implementation is a fundamental pedagogical principle at European level and is of major importance for its sustainability in Europe.

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Communities of practice for teachers

During the Pilot Implementation the secondary school teachers teaching Mathematics, Physics and Foreign Languages, formed Online Communities of Practice sharing their common interest in participating in the CONNECT Pilot Implementation. The teachers expressed satisfaction with the achievement of the teaching objectives, the active participation of the students, the satisfaction of the students, the success of the methodology followed while implementing the scenarios, the teaching tools used and the procedures applied. The teachers were pleased with the conduct of the Pilot Implementation, gaining rich experiences. Teachers enjoyed their collective participation in the community of practice, developed relationships of trust and accountability, and collaborated productively to develop knowledge and skills, supporting continuous learning and development. Through a variety of learning activities, teachers acquired new knowledge about teaching methods and developed skills for working individually as well as collaboratively with colleagues. Community members interacted informally with each other developing knowledge through participation and collaboration. They shared the teaching material they implemented or drew from the CONNECT project platform. They shared projects/activities, resources, digital tools, sample teaching scenarios, methods, critical teaching events and teaching practices, deepening their understanding. Teachers used the digital scenarios developed as a basis. They designed and implemented their lessons according to the curriculum of each country, trying to adapt teaching to the needs of the classes, taking into account the socio-cultural context and the pre-existing mathematical knowledge and experiences of the students. The scientific and pedagogical background of the teachers determined the design of their lessons and the way they were implemented in the specific classrooms, some of which were multicultural and multilingual. Noteworthy was the increased interest from students in the learning process. In general, the communication and exchange of experiences and ideas between them took place in a warm climate of acceptance, trust and mutual respect. The exchange of experiences was a valuable source of knowledge for the professional development and empowerment of teachers. The aforementioned are good practices that can contribute to the sustainability of the CONNECT project.

Collaboration and peer evaluation of teachers

Key professional development practices used by teachers in the CONNECT Project Pilot in Mathematics, Science and Foreign Languages were collaborative teaching, peer observation, teaching through inquiry and peer evaluation. The activities included in the aforementioned subjects were designed in collaboration with other teachers of the same or similar subject in Junior Secondary School. Peer evaluation strengthened learning communities in schools, sharing good practice, developing self-awareness of their teaching quality, promoting changes in teaching practices and enhancing teachers' professional empowerment. Teachers focused on their own needs, made the most of their potential, communicated, collaborated, received constructive feedback by colleagues, observed each other's teaching practices and learned from each other. The exchange of views and experiences to jointly formulate teaching objectives and select appropriate activities proved very useful and constructive. Before and after conducting the experimental lessons, there was interaction and reflective dialogue between teachers in groups. The selection of the most appropriate activities and digital tools, those that lead to reflection and exploration, gaining new experiences in creative research and reflection resulted in enhanced scientific and professional development giving teachers a sense of security and confidence. The aforementioned practices were part of a culture of collaboration, mutual trust and respect between teachers, thus contributing to improving their teaching and pedagogical practices. Peer evaluation was not limited to simply observing each other's teaching, but was a holistic learning process of transformation and critical reflection. The focus was on the quality of learning as an ongoing process of enhancing teachers' professional development contributing to the students' benefit. These collaborative peer evaluation practices should be applied by European teachers in the context of the future sustainability of the project.

Recommendations and concluding reflections on the European perspective of the CONNECT project

The Covid-19 outbreak has created a new social and educational context. The application of modern and asynchronous e-learning, as a counterbalance to the suspension of face-to-face traditional physical settings, is considered a good practice for the CONNECT teaching methods and materials, which guarantee the European sustainability of the project in the

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post-pandemic era. The digital flipped classroom scenarios, based on the blended learning model, attracted the attention of European students in Mathematics, Physics and Foreign Languages in the three partner countries. Some conclusions drawn from the piloting of the CONNECT project are: i) increased student engagement, ii) the development of positive attitudes towards the CONNECT approach, iii) learner control over the pace of learning; and iv) autonomy in managing learning pace and teaching time, (v) enhancing teachers' digital skills; (vi) teacher professional development and empowerment, collaboration and peer evaluation through communities of practice. All these are fully in line with the scientific results of other relevant research and support the importance of the European sustainability of the CONNECT project.

The CONNECT approach is a good example of how the digital scenarios implemented for the three subjects can be used to improve the teaching and learning process while upskilling teachers' digital competences. Results showed that students were engaged, and actively participated in the flipped classroom model compared to the traditional lecture approach. Students experienced quality instruction that was student-centered and had students as the protagonists. The flipped classroom allowed for productive use of class time using various instructional strategies, in face-to-face and distance teaching and learning. The implementation of the exploitation plan and recommendations provide valuable insights into the model's impact on student engagement and performance. Although the flipped classroom is a relatively new learning model, the CONNECT approach was effective in improving middle school students' participation and performance in the aforementioned subjects. Choosing appropriate activities and creating a conducive environment for discussion within this mixed CONNECT approach can be a useful stimulus in the context of European sustainability.

There is no doubt that in the school of the future, digitalisation will be of major importance. The COVID-19 pandemic has already accelerated digital transformation in the partner countries. Schools have been equipped with appropriate digital resources and tools for synchronous and asynchronous e-learning, which can be used in combination with face-to-face teaching. However, although the infrastructure has increased at European level, the pedagogical use of digital technology in schools remains underdeveloped. Enriching the

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necessary infrastructure with modern technological equipment is not enough when the use of digital tools in everyday teaching remains weak and anemic. Therefore, reforming the teaching and learning process at school in Mathematics, Physics and Foreign Languages requires the existence of a rich innovative environment for the effective pedagogical use of digital technology. In this light, the CONNECT approach can be used as an example of online learning using asynchronous and modern methods and tools aimed at upskilling teachers' digital skills, for the partner countries, Greece, Cyprus and Italy, which have comparable environments and challenges. Ongoing training and quality enhancement of teachers' digital skills should have the reform of online education as a central objective. Further, this pedagogical change aims to consolidate a European culture of taking teaching initiatives, pedagogical experimentation, teamwork between students and teachers, reflective dialogue and enriching the Mathematics, Physics and Foreign Language Curricula with the experience of pedagogical relationships and 'good practices' that encourage active learning of students in the new 'normality' after the pandemic.

10. Recommendations and Suggestions

Some recommendations and suggestions to exploit and disseminate the results of the CONNECT project in education include:

- 1. **Provide training and professional development opportunities:** Offer workshops, seminars, and online courses to educators to familiarize them with the CONNECT methodology and its implementation. This will help teachers gain the necessary skills and knowledge to effectively utilize digital technology in the classroom [6];[7].
- Foster collaboration and sharing of best practices: Create communities of practice where educators can share their experiences, ideas, and resources related to the CONNECT project. This collaborative environment can encourage innovation and continuous improvement in teaching practices [8].
- 3. **Support and resources:** Ensure that educators have access to the necessary technological resources and support to implement the CONNECT methodology effectively. This includes providing access to devices, software, and technical support, as well as ongoing guidance and mentorship.
- 4. Adaptation to local contexts: Recognize that each educational setting is unique and may require adaptations to the CONNECT methodology. Encourage educators to tailor the approach to fit the needs and characteristics of their students, curriculum, and resources.
- 5. **Continuous evaluation and improvement:** Establish mechanisms for ongoing evaluation and feedback to assess the impact of the CONNECT project. This feedback can be used to identify areas for improvement and guide future iterations of the methodology [9];[10].
- 6. Dissemination of results: Share the outcomes and success stories of the CONNECT project with the wider educational community. This can be done through conferences, publications, online platforms, and other means to raise awareness and inspire others to adopt similar approaches.
- Collaboration with educational authorities: Work closely with educational authorities, such as Ministries of Education or local school boards, to promote and support the integration of the CONNECT methodology into educational policies and practices.
- 8. **Student and parent involvement:** Engage students and parents in the learning process by informing them about the benefits of the CONNECT methodology and

involving them in collaborative activities. This can enhance student motivation and support parental involvement in education.

- 9. Long-term sustainability: Develop strategies to ensure the long-term sustainability of the CONNECT project, such as integrating it into teacher training programs, curriculum frameworks, and educational policies. This will help to embed the methodology into the education system and ensure its continuity.
- 10. **Research and evaluation:** Encourage research and evaluation studies to further investigate the impact and effectiveness of the CONNECT methodology. This will contribute to the evidence base and provide insights for future improvements and adaptations.

In conclusion, to effectively exploit and disseminate the results of the CONNECT project in education, the stakeholders give the following suggestions. Firstly, providing training and professional development opportunities for educators is crucial to familiarize them with the CONNECT methodology and its implementation. This will equip teachers with the necessary skills and knowledge to effectively utilize digital technology in the classroom.

Additionally, fostering collaboration and sharing of best practices through communities of practice can encourage innovation and continuous improvement in teaching methods. Supporting educators with necessary technological resources, such as devices, software, and technical support, is vital for successful implementation. It's important to recognize that each educational setting is unique, thus allowing educators to adapt the CONNECT methodology to fit the specific needs of their students, curriculum, and available resources.

Continuous evaluation and feedback mechanisms should be established to assess the impact of the CONNECT project and identify areas for improvement. Dissemination of project outcomes and success stories through conferences, publications, and online platforms can raise awareness and inspire others to adopt similar approaches.

Collaboration with educational authorities is crucial to promote and support the integration of the CONNECT methodology into educational policies and practices. Involving students and parents in the learning process and informing them about the benefits of the CONNECT methodology can enhance student motivation and parental involvement.

Long-term sustainability can be achieved by integrating the CONNECT project into teacher training programs, curriculum frameworks, and educational policies. Encouraging research and evaluation studies will further contribute to the evidence base and provide insights for future improvements and adaptations.

Overall, by implementing these recommendations, the CONNECT project can effectively disseminate its results, empower educators, foster collaboration, support implementation, adapt to local contexts, continuously improve, raise awareness, collaborate with educational authorities, engage students and parents, ensure long-term sustainability, and contribute to research and evaluation.

11. Exploiting the CONNECT approach at European Level

At the European level we can take advantage of the European Digital Education Hub (<u>https://education.ec.europa.eu/focus-topics/digital-education/action-plan/action-14-europ</u> <u>ean-digital-education-hub</u>). The European Education Area (EEA) is a European Union (EU) initiative whose main purpose is to promote cooperation and mobility in education and training among European countries. The fundamental objective of the EEA is to improve the quality of education and learning by making education more inclusive, accessible, and adaptable to individual needs.

The EEA is based on four fundamental principles:

- Inclusion and accessibility: the EEA aims to ensure that everyone has the opportunity to access quality education, regardless of socioeconomic background, gender, ethnicity, or other personal characteristics.
- Quality learning and teaching: the EEA promotes excellence in teaching and learning by supporting teacher training, pedagogical innovation, and the use of new technologies in education.
- Recognition and transparency of skills: the EEA facilitates the recognition of qualifications and skills acquired in different European countries, thereby facilitating the mobility of students, teachers, and workers within the EU.
- Sustainability and digitization of education: the EEA promotes the adoption of digital technologies in education to improve the efficiency, accessibility, and sustainability of education systems.

The EEA was launched in 2017 as part of the European Education Area development process and is an integral part of the EU strategy for education and training, known as Education and Training 2020 (ET 2020). EEA's long-term goal is to create a Europe in which education and training are connected, interoperable, and of high quality, enabling students, teachers, and researchers to move freely within the EU and benefit from a wide range of educational opportunities. One resource the EEA makes available is the European Digital Education Hub within which several opportunities stand out, including a community of practice of teachers from all European nations who engage in daily discussions on issues concerning educational innovation, exchange of resources, and new methodologies. Teachers involved in the Connect project will be invited to join this community to exploit the project results to the maximum. Also of fundamental importance is the role of researchers and education experts who can confront each other within workgroups in the Working Groups section of the EEA strategic framework.

12. The Added Value of Exploiting the CONNECT approach

The successful implementation and dissemination of CONNECT project results in education require a holistic approach involving various actions and actors. The recommendations and suggestions provided offer valuable guidance to exploit the full potential of the project and ensure a lasting impact on education.

First, it is critical to provide training and professional development opportunities for educators. Workshops, seminars, and online courses can help teachers become familiar with the CONNECT methodology and acquire the skills needed to effectively use digital technology in the classroom. Teacher preparation is the foundation on which the success of the project is built.

In addition, promoting collaboration and sharing best practices are key elements in fostering innovation in the educational setting. Creating communities of practice in which educators can exchange experiences, ideas and resources related to the CONNECT project stimulates the collaborative environment and fosters continuous improvement of teaching practices.

It is also important to ensure the support and resources educators need to implement the CONNECT methodology effectively. This involves providing access to devices, software, and technical support, as well as providing ongoing guidance and mentorship. Only through strong support can educators tap the full potential of the methodology and achieve meaningful results.

At the same time, it is critical to recognize that each educational context is unique and may require adaptations to the CONNECT methodology. Educators must be encouraged to customize the approach to fit the needs and characteristics of their students, curricula, and available resources.

The key element in ensuring the long-term sustainability of the CONNECT project is integration into teacher training, curricular frameworks, and educational policies. Only through full integration into the structure of the education system can the CONNECT methodology become an integral part of educational practice and continue to produce benefits over time.

Especially, in the field of Mathematics, Physics and Foreign Languages, the implementation of the CONNECT approach will continue upgrading the status of these didactic objects. Additionally, the employment of the educational techniques included in the CONNECT approach will lead to an amelioration of the learning process. In parallel, students' participation will be increased, and students' collaboration will be fostered. Teachers' professional development and upskilling will also be ensured.

Finally, dissemination of the results obtained from the CONNECT project is essential to inspire and engage the broader educational community. Sharing success stories, through conferences, publications, and online platforms, will raise awareness of the importance of integrating digital technology into education.

The development team of this outcome urges all educators and policymakers, at a European Level to embrace the CONNECT approach, working shoulder-to-shoulder with the CONNECT partners to upgrade education. Educational policymakers are encouraged to read this Intellectual outcome, contemplating ways to exploit the CONNECT approach, enhancing the educational setting. Piloting has proved that the CONNECT approach is feasible. Mathematics, Physics and Foreign Languages are important courses in any educational curriculum. It's about time to upgrade them!

The partners of the CONNECT project will be happy if the CONNECT approach motivates all entities involved in education to make changes. The CONNECT approach exploitation leads to a "mentality change" and this is the main added value of the CONNECT venture. The CONNECT approach revolves around secondary education. However, our events have proved that the CONNECT approach could be generally applied to all educational sectors. In parallel, the exploitation and the dissemination of the CONNECT project's results will be to the avail of the entire educational foundation.

In this spirit, the development team of this outcome believes that the CONNECT project paves the way for a new educational era!

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Appendix : Structured Interview A5.1 CONNECT

STRUCTURED INTERVIEW A5.1 CONNECT



- 1. Define your field of expertise in education.What is your experience in education? What are your activities in education or training?
- 2. What do you think about the CONNECT methodology and products? Is it possible to integrate the methodology as a daily practice within the school CURRICULUM? Is it possible to use the products inside the schools? (This question investigates the respondent's personal opinions about CONNECT products)
- 3. In your opinion, what could be a good strategy to integrate the Connect results at school?
- 4. Considering how flipped classroom and blended learning methodologies are currently used in educational institutions, what do you think is the added value and innovation of the CONNECT approach?
- 5. What do you think are the benefits that the application of this model could bring to schools?
- What do you think are the obstacles and barriers to adopting this model at school? (This question investigates the respondent's opinions considering the regulations of the current school system)
- 7. Do you have any recommendations on how to exploit the Connect results in education?
- 8. Do you have any advice on how to exploit the results of the CONNECT project?













