

How to Adopt a Transdisciplinary Approach in English for Specific Purposes

A Guide

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Limassol, Cyprus
November 2024

This guide is the result of the RESPITE (Revising English for Specific Purposes in Transdisciplinary Environments) project. The project was funded under the “Small internal programmes for the development of educational materials and the improvement of teaching practices” scheme of the Learning and Development Network of the Cyprus University of Technology. Two phases of the project were funded: the first one in July-November 2023 and the second in July-November 2024.

The project received approval from the Cyprus National Bioethics Committee (Application number: EEBK ΕΠ 2024.01.66).

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RESPITE website: <https://sites.google.com/view/respitoproject/home>

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Introduction

As the world is constantly and rapidly changing with various social, economic, political and technological developments, the challenges that humanity faces increase as well. This is reflected in all aspects of life including education. To cope with all these changes and to address societal needs that are generated from all these changes, in 2011 UNESCO introduced the concept of Global Citizenship Education (GCED) a term which is now more vital than ever driven by the idea of international solidarity (UNESCO, 2023). Global Citizenship Education is based on the idea that we are connected not just with one country but with a broader global community. Later on in 2015 the United Nations introduced the UN 2030 Agenda for Sustainable Development with the 17 SDGs (United Nations, 2024), which need to be a shared blueprint guide for peace and prosperity for people and the planet, now and into the future. In this context of enduring evolution, the idea of transdisciplinarity in education is becoming more popular, since there is common understanding that the challenges that the world faces today demand the collaboration of all disciplines.

This guide is the result of The Revisiting English for Specific Purposes in Transdisciplinary Environments (RESPITE) project which was inspired by today's challenges and related to the adoption of a transdisciplinary approach to the teaching of two different English for Specific Purposes (ESP) courses and the enrichment of their curricula with materials and tools that would upgrade and enhance students' learning experience. The project was funded by the Learning and Development Network of the Cyprus University of Technology and aimed at promoting Goal 4 (Quality Education) of the United Nations 17 Sustainable Development Goals. Its purpose was to improve the quality of language education provided to the students and sensitize the students towards targeting more sustainable ways of living and suggesting innovative action in different fields and industries and the society in general.

The purpose of the guide is to help Higher Education ESP instructors to implement the concept of transdisciplinarity in their ESP teaching practices. It aspires to guide ESP instructors through the design and implementation of transdisciplinary learning experiences that engage students from different disciplines, foster language proficiency, enhance transversal competences, and promote awareness of sustainability through the lens of the United Nations' 17 Sustainable Development Goals (SDGs).



Why adopt a transdisciplinary approach in ESP?

This guide defines transdisciplinary research as research that integrates knowledge across academic disciplines and with non-academic stakeholders to address societal challenges. It is guided by the principle that ‘scientific rigor meets societal relevance’ (Utrecht University, n.d.). The features of many pressing societal challenges mean disciplinary approaches, in isolation, are no longer enough. Multiple disciplinary perspectives provide partial and often incompatible explanations of the structures, causes or effects that matter. And often, many possible solutions are available to address these issues, but there is uncertainty or disagreement about what to prioritise or avoid. In such cases, a singular field of study may be insufficient to produce outcomes that are socially impactful.

Language teaching and learning nowadays should not deal with issues that are viewed from multiple disciplines in an effort to investigate different aspects of a phenomenon, but should involve a synthesizing of perspectives to understand the phenomenon. In other words, language education should approach issues through an integrated, holistic approach rather than a fragmented, multidisciplinary one. This is what Nicolescu (1998) calls transdisciplinary, an approach which is between, across and beyond disciplines. Research and practice in language teaching and learning presents issues for understanding transdisciplinary as a phenomenon in applied linguistics. In much thinking about transdisciplinary, it is understood as an interaction between disciplines in the form of a dialogue between specialists in particular paradigms to create multidimensional responses to understanding the complexity of phenomena being researched (Nicolescu, 1998).

Nowadays, ESP is flourishing. Since the 1950s when ESP emerged, there has been an enormous increase in the number of ESP courses, publications, ESP professional associations and events organised on ESP. ESP courses today aim at equipping learners with 21st century skills and transversal competencies needed in order to be able to survive in the contemporary society. Despite the disciplinary nature of ESP, which stems from the fact that it serves the needs of learners who are studying the language to carry out a particular role within a particular discipline, ESP cannot remain unaffected by the fact that the idea of transdisciplinarity is applied in language education. As today’s citizen needs to have a comprehensive and spherical knowledge of what is happening in the world, and an active role in society, ESP needs to expand its horizons and embrace concepts of transdisciplinary interest, such as sustainability and societal change.



Designing the learning experience

Backward design

One of the most prominent approaches to curriculum development in recent years is the backward design or 'understanding by design' framework initiated by Wiggins and McTighe (2005), according to which, course designers should first decide on the desired results and then specify the content and methods of the curriculum (Figure 1); in other words, the curriculum design process starts with setting the learning outcomes. The learning outcomes or the desired results should be decided after an analysis of the learners' needs, and the content, materials and assessment procedures will be determined by the learning outcomes and expected student performance which need to be set beforehand. The researchers support that this kind of design provides learners with a better understanding of the learning outcomes and performance goals and makes them more aware of whether these goals have been achieved or not, and how they can be better achieved.



Figure 1. Backward design process (Adapted from Wiggins and McTighe, 2005)

Following are the three stages of the backward design process and how these can be adjusted to the adoption of a transdisciplinary approach in an ESP context.



1. Identifying desired results

This stage involves designers setting established goals and considering what they want students to understand and frame those understandings in terms of questions. Finally, designers are requested to consider how these understandings fit the larger context of the curriculum.

Bloom's taxonomy

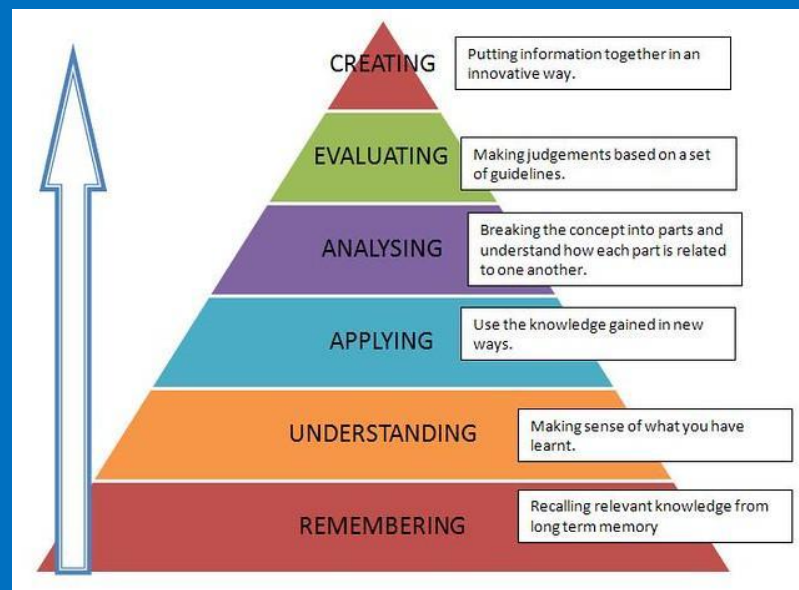


Figure 2. (Source: https://live.staticflickr.com/5075/7095644699_bf3dcfc0ea_z.jpg)

Bloom's taxonomy (Figure 2) has been around for decades and is widely used as a framework for defining learning outcomes. According to Bloom, learning outcomes can be classified into 3 domains: The Cognitive Domain, The Emotional Domain and the Psychomotor Domain. Each domain consists of specific learning functions and as we move up the pyramid we encounter more and more advanced learning functions.

On the right side of the pyramid there are verbs that one can use to formulate learning outcomes, depending on the learning function they aim for.



2. Determining acceptable evidence

This stage involves designers considering a variety of assessment methods that constitute evidence for students' understanding. By evidence of desired results, we mean evidence gathered through formal and informal assessment during the course which could include performance tasks, creation of artifacts, and students' self-assessment.

A variety of assessment methods should be used, both formative and summative. Performance tasks could involve:

- ★ Oral presentations accompanied by slides
- ★ Articles
- ★ Videos
- ★ Discussions
- ★ Debates
- ★ Simulations
- ★ Critical Reviews
- ★ Reports
- ★ Quizzes
- ★ Role-plays, etc.

Formative assessment, a tool to monitor learning progress, can help both students and teachers.

For teachers, formative assessment:

- Tracks student progress: It helps identify where students stand in relation to their learning goals.
- Optimizes instruction: It guides teachers in allocating time effectively and predicting the time needed for student learning.
- Provides targeted feedback: It allows teachers to offer specific feedback to help students improve.

For students, formative assessment:

- Fosters self-reflection: It encourages students to reflect on their learning and how it aligns with their goals and efforts.
- Clarifies progress: It helps students understand their current standing in relation to their learning goals.
- Guides learning decisions: It empowers students to identify research areas and actions to achieve their goals.

In assessment and evaluation attention should focus on assessing mainly students' language skills, critical thinking abilities, and problem-solving skills. Other 21st century skills, such as teamwork, public speaking, etc. can also be assessed.

The feedback provided to the students should be specific, constructive, and focused on student improvement.



3. Planning learning experiences and instruction

The final stage involves planning learning experiences and activities that facilitate the achievement of desired results.

3.1 Embracing Active Learning



Active learning is supported by teaching methods that engage students in the learning process rather than passively receiving information. These approaches encourage students to think critically, solve problems, and apply knowledge.

3.1.1 Problem-Based Learning

Problem-based learning (PBL), a form of active learning, is a method of teaching where students are presented with a real or realistic problem, such as a case study or hypothetical situation, and use inductive reasoning to learn both information about the topic and how to think critically about it. Instead of passively listening to lectures, it encourages self-directed learning through the exploration of complex, open-ended problems where the instructors facilitate and guide rather than teach.

To include PBL in your course, you should start by presenting students with a realistic problem that they might encounter outside of a classroom. Do not prepare them for the specific problem, but do explain the process you will go through (Center for Instructional Technology and Training - University of Florida University of Florida, n.d.)

This approach allows students to be the protagonists of self-directed learning, which promotes the acquisition and production of knowledge. Active and meaningful learning is thus adopted, in which students become more involved in the learning process because they are more engaged and therefore motivated.

PBL, as in project-based learning, it is not just a project you do at the end of the unit. It should be the central framework which classroom activity is based on. Here are some things to know about PBL:

- It combines theoretical knowledge with practical application.
- It creates more interactive and interesting learning experiences.
- It stimulates deeper thinking and problem-solving abilities.
- It involves ongoing evaluation and final assessment. (Southern Regional Education Board, 2024)

PBL can be a powerful tool for implementing a transdisciplinary approach to ESP. Here's how it can be done:

a. Real-world problem selection:

- Choose problems that are relevant to students' lives and interests.
- Select problems that require the integration of multiple disciplines, such as language, education, medicine, technology, history, science, art, etc. These problems can be connected to the 17 SDGs.
- Ensure the problem is complex enough to require research and critical thinking.

b. Collaborative group work

Collaborative group work works best with PBL. Remember that two heads are better than one!

c. Research and investigation:

- Encourage students to research the problem from multiple perspectives.
- Provide access to a variety of resources, including books, articles, websites, and experts' opinion.
- Guide students in developing effective research skills, such as note-taking, summarizing, and synthesizing information.

d. Language use and development:

- Create opportunities for students to use the target language to communicate their ideas and findings.
- Encourage students to use the language in authentic contexts, such as presentations, debates, and written reports.
- Provide feedback on language use and offer opportunities for improvement.

e. Critical thinking and problem-solving:

- Guide students in analyzing the problem and identifying potential solutions.
- Encourage students to evaluate different perspectives and consider the implications of their decisions.
- Help students develop the skills to think critically, creatively, and systematically.

f. Interdisciplinary connections:

- Connect the problem to other subjects and disciplines.
- Encourage students to draw on their knowledge from other subjects to inform their solutions.
- Facilitate discussions about the interrelationships between different disciplines.

By implementing PBL in a transdisciplinary approach in ESP, language teachers can create engaging and meaningful learning experiences that promote critical thinking, problem-solving, and intercultural understanding.

3.2 Choosing appropriate learning tools

PBL is a powerful pedagogical approach that engages students in authentic, real-world problem-solving. To maximize the effectiveness of PBL, technology can be a valuable tool to facilitate collaboration, inquiry, creativity, and reflection.

3.2.1 Facilitating Collaboration and Communication

Virtual Classrooms: Learning Management Systems (LMS) such as Google Classroom, Microsoft Teams, or Moodle can create virtual spaces for students to share ideas, files, and feedback.

Real-time Communication: Tools like Zoom, Microsoft Teams, Google Meet or Slack enable synchronous communication, including video conferencing, chat, and screen sharing.

3.2.2 Supporting Inquiry and Problem-Solving

Question Generation: Inquiry tools like MindMeister or Coggle can help students generate, organize, and refine their research questions.

Problem Analysis: Tools like Miro can be used to create visual representations of problems, such as fishbone diagrams or flowcharts.

3.2.3 Fostering Creativity and Innovation

Students can use tools like Canva, Prezi or Google Slides to create multimedia presentations, infographics, or interactive prototypes.

3.2.4 Enhancing Reflection and Feedback

Peer and Self-Assessment: Tools like Google Docs or Microsoft Word can be used for peer review and self-reflection.

Formative and Summative Assessment: Digital tools like Kahoot! or Quizizz can provide immediate feedback on student understanding. Tools such as Google Slides could be used for the preparation of oral presentations, Google docs can also serve as a tool for recording the progress of any project students are engaged in, e.g. articles, reports on the topic, etc. Depending on the nature of the task, the appropriate tool should be utilized.

By strategically integrating technology into PBL, educators can create dynamic and engaging learning experiences that prepare students for the 21st century.

3.3 Organising the class

There are different modes of classroom organisation. In a PBL context, collaborative group work is what usually works best. Students can meaningfully use the target language to exchange ideas and knowledge. Grouping students can be a routine task, but it doesn't have to be boring! Here are some methods to keep your students engaged:

Teacher's Choice: While familiar, this method offers flexibility for the teacher. However, students may find it less engaging.

Student Choice: Allows for collaboration with friends, but risks groups forming exclusively based on friendship or leaving some students out.

Alphabetical Order: Line students up by first name, then count off to create groups. Simple and efficient.

Random Name Generator: Let technology provide the excitement! Use online tools like "Wheel of Names" to randomly select group members.

3.4 Creating a Supportive Learning Environment

Establishing a warm and welcoming atmosphere for students in the classroom is really important for fostering learning. Classroom atmosphere should be positive and inclusive and students should feel safe, valued, and respected. Positive reinforcement must be used to encourage desired behaviors and motivate students. This is very important in transdisciplinary projects, since students come from different groups and different educational backgrounds. The relationships built between students and the instructor and between students themselves should be based on trust, empathy, and understanding.

3.5 Providing constructive Feedback

Constructive feedback is vital for the development of proficiency. Provide feedback that is specific, actionable, and focused on student improvement. Feedback should also be timely. Therefore, try to deliver feedback promptly to maximize its impact. Students may be Involved in the feedback process to promote self-reflection and goal-setting.



Implementing the learning experience

1. Introducing students to the learning experience

Introducing students to the learning experience is one of the most important steps of the learning process. A strong introduction can set the stage for a successful learning experience. In order to engage students from the start, a series of effective strategies need to be employed.

First of all, the instructor needs to hook the interest of the students either by posing thought-provoking questions to spark curiosity or by relating the topic to students' personal experiences or current events. Visual stimuli (images, videos, or demonstrations) can capture attention.

Secondly, students need to be informed about the goals and learning objectives of the learning experience, in other words, what they will learn by the end of the lesson, and why it is useful to learn it. This will make the learning experience meaningful, purposeful and it will provide students with motivation for learning.

Students then will need to be provided with clear instructions on what exactly the project(s) is about and the steps they will have to follow to complete it. They will also need to be informed about the tools that they will need to use in order to complete the project(s) and they have to be explicitly explained the tasks that they will have to complete and the criteria on which they will be assessed.

2. Organising student groups

As aforementioned, in the PBL context, collaborative group work is more effective since it gives students the opportunity to interact and propose solutions to real problems collaboratively. In this way, students can meaningfully use the target language to exchange ideas and knowledge.

Group work can work following these steps:

- Bringing students of two or more different ESP disciplines together.
- Dividing students into diverse groups to encourage collaboration and the exchange of ideas. Try to formulate mixed-ability groups for purposes of uniformity. You may follow any of the techniques of group formulation listed in section 3.3 Organising the class.
- Assigning specific roles within each group to foster teamwork and accountability.
- Providing opportunities for students to share their knowledge and perspectives with their peers.

3. Getting to know each other

To kickstart a new project, it's crucial to foster enthusiasm and gather essential information about your students. Icebreakers and get-to-know-you activities are effective ways to build rapport, understand students' backgrounds, and create a welcoming environment. These activities can help students connect with each other and feel more comfortable sharing their thoughts and ideas. By understanding your students' interests, learning styles, and prior knowledge, you can tailor your instruction to meet their individual needs.

To differentiate instruction, assess students' prior knowledge and skills through quizzes, surveys, or discussions. This information will help you identify students' strengths and weaknesses and provide targeted support.

Remember, a strong start can significantly impact the overall success of a project. By creating a positive learning environment, building relationships with students, and setting clear expectations, you can set the stage for a productive and rewarding learning experience.

4. Brainstorming

Brainstorming in a PBL context is an essential activity. With every method of brainstorming, the most important thing to remember is to follow the rule of quantity over quality. Brainstorming is aided by accepting all ideas, however seemingly unrealistic or irrelevant they might be. The goal is to create a large enough pool from which to pull the best ideas or combine ideas for the best solution or strategy.

To facilitate the brainstorming process the following tools may be used:

Mind Mapping Software: Tools like MindMeister or Coggle can be used to create visual mind maps.

Collaborative Whiteboards: Tools like Miro allow students to work together on a shared digital whiteboard.

Online Discussion Forums and Word Processors: Platforms Padlet, or Word processing tools such as Google docs or Word can be used for both synchronous and asynchronous discussions and idea sharing.

Brainstorming should be a shared activity within the group of students who come from different ESP disciplines (e.g. English for Medicine and English for Law).

5. Creating artifacts

A driving question in Problem-Based Learning (PBL) does more than just spark interest. It should motivate students to apply their knowledge to solve real-world problems. To ensure that student-created artifacts effectively demonstrate learning, there should be a clear connection between the learning outcomes, the driving question, the artifacts, and the core concepts and practices that the creation of the artifacts involves.

In other words, learning goals need to be aligned with artifact features. By focusing on real-world problems and creating authentic artifacts, students can develop both academic skills and a sense of purpose. The process of creating and presenting these artifacts to a public audience can further enhance student learning and showcase their abilities.

6. Setting deadlines

When filling your PBL component with activities, you will need to consider the following questions:

- How long does it take to get started on the project: introduction, group organisation process, getting to know each other, knows/need to knows, task lists, etc.?
- How long will students need to conduct research on the existing problem they have decided to work on?
- How long will students need to work on the end product(s)?
- How much time will you as an instructor need to monitor students' work or provide them with feedback?

The answers to these questions may have an impact on the length of your project. Some of them are not part of the planning for a traditional classroom. In order to be efficient in setting deadlines, it may be useful to break down the project into smaller, manageable tasks/ steps with specific deadlines. To monitor the progress of the students, you could schedule regular check-ins to and provide feedback. Sometimes, providing flexible deadlines may be advisable to accommodate individual student needs and unforeseen circumstances.

Furthermore, you may use Visual Tools to Track Progress through the following:

- Project Calendars: Create visual representations of the project timeline.
- Checklists: Use checklists to break down tasks and monitor progress.
- Project Management Tools: Utilize digital tools like Trello to organize tasks and deadlines.

For positive reinforcement you may celebrate the completion of milestones by acknowledging and rewarding students for meeting deadlines and achieving milestones. If this celebration is public, it could motivate other students.

7. Reflecting on and evaluating the learning experience

Reflection and revision are at the heart of good formative assessment practice. Similarly, evaluating the learning experience is also important, since evaluation provides valuable feedback on the effectiveness of teaching methods, materials, and strategies. This information helps educators identify areas for improvement and tailor instruction to better meet learners' needs.



Reflection

Through reflection, students take the time to think critically about their experiences, and this way they can deepen their understanding, develop problem-solving skills, and improve their future performance. PBL, even more than other kinds of learning environments, has the potential for empowering students to develop this practice authentically because students work on artifacts over a number of weeks to answer a driving question.

Reflection is the process that provides insight to the “knowledge-in-action” and thus facilitates self-development and improvement. Through reflection understanding is enhanced, problem-solving skills are improved, self-awareness is increased, motivation is enhanced and critical thinking can be improved through the analysis of information and the drawing of conclusions.

There are different ways to implement reflection in the learning process:

- Encourage students to regularly write about their learning experiences, thoughts, and feelings.
- Provide opportunities for students to evaluate their own work and progress.
- Facilitate peer feedback sessions where students can provide constructive criticism and suggestions.
- Create opportunities for students to discuss their learning with their peers.
- Use prompts to guide students' reflections, such as "What did I learn today?", "What challenges did I encounter?", and "How can I improve next time?"

By incorporating reflection into your teaching practices, you can help students become more engaged, motivated, and successful learners.



Evaluation

Evaluation of learning helps educators make informed decisions about resource allocation, curriculum development, and also professional development opportunities. In a transdisciplinary approach to teaching ESP, the process of evaluation could be the source of valuable data, since such an endeavor requires careful planning on behalf of the instructor. Evaluation is a cyclical process that fosters continuous improvement. By regularly assessing learning experiences, educators can identify areas for growth and implement changes to enhance future learning opportunities.

Evaluation can be implemented through the use of the following:

- Learner Surveys /Questionnaires
- Focus Groups
- Knowledge Tests
- Skill Demonstrations

- Performance Evaluations
- Observation
- Reflection
- Tracking learner progress
- Identifying knowledge gaps



Showcase

RESPITE

This section will focus on the example of the project which was the impetus behind the compilation of this guide. The project, titled **Revisiting English for Specific Purposes in Transdisciplinary Environments (RESPITE)** (RESPITE, n.d.) implemented a transdisciplinary approach to the teaching of ESP at the Cyprus University of Technology. It received funding under the “Small internal programmes for the development of educational materials and the improvement of teaching practices” scheme of the Learning and Development Network of the Cyprus University of Technology (CUT) in the academic years 2023-2024 and 2024-2025.

RESPITE relates to the adoption of a transdisciplinary approach to the teaching of two different English for Specific Purposes courses and the enrichment of their curricula with materials and tools that will upgrade and enhance students’ learning experience. The idea behind RESPITE programme is that in the context of their ESP courses, students of English for Agricultural Sciences, Biotechnology and Food Science and students of English for Commerce, Finance and Shipping, collaborate for 6-7 Weeks (out of the 13 Weeks of the semester) on making suggestions on possible solutions to real-life problems faced either in the local community or more widely, so that sustainability and societal change is promoted.

The project developed in two phases. The first phase took place in the Spring Semester of 2023-2024 and it involved research of existing literature, the design of the intervention following the Backward Design approach (Wiggins & McTighe, 2005), the implementation of the intervention and finally evaluation. This first phase was followed by a second phase, which took place in the Fall Semester of 2024-2025. During the second phase, the intervention was improved based on the feedback received by the students in the first phase, and the improved version was implemented and evaluated. The results of the two phases of the study led to the creation of this guide on the implementation of a transdisciplinary approach to the teaching of Languages for Specific Purposes in Higher Education contexts.

The project was in line with Sustainable Development Goals, as these are described in the 2030 Agenda of the United Nations, especially with Goal 4 which is dedicated to Quality Education, since the main aim of the project was to improve ESP students’ learning experience. More specifically, the project aimed at improving the quality of language education provided to the students and their transversal competences and also sensitizing the students towards targeting more sustainable ways of living and suggesting innovative action in different fields and industries and the society in general. The project also aimed at contributing to the wider body of knowledge through the creation of this guide.

Learning outcomes

The programme was governed by a set of learning outcomes. After the completion of the RESPITE component in their ESP courses, students should be able to:

- Comprehend and produce spoken English texts related to topics from students’ academic and future professional life, including sustainability and societal change.
- Understand and use lexis and concepts as well as grammatical and syntactical structures related to their field of study in the four basic language skills.
- Comprehend written English texts and produce written texts related to their field of studies and their professions, including sustainability and societal change.
- Develop sufficient academic research skills, such as looking for information on the internet, paraphrasing, citing sources, creating a references list.
- Develop 21st-century skills/ transversal competences, such as problem-solving, critical thinking, public speaking, collaboration, creativity and digital literacy skills.

Project Timeline

The programme timeline, as it was formulated in the 2nd phase of the project (Fall 2024), appears in Table 1, which presents the preparation stage, the implementation stage and the evaluation/ drawing the final conclusions stage of the programme. In the implementation stage you may see the activities students were engaged in during the programme, the tools they used in order to complete them and whether the class was common between the two departments or not.

Table 1. RESPITE stages

PREPARATION STAGE						TIME
1.	Material refinement based on experience from phase 1 (Reviewing and refinement of teaching material, creation of new Google Classroom)					2- 13 September 2024
2.	Refinement of research tools					
3.	Planning the implementation phase (organization of groups, planning common classes, etc.)					
PROJECT IMPLEMENTATION						16 September – 18 October 2024
	Weeks of semester	Stages	Activities	Tools	Classes	
Step 1	Weeks 3	Preparation of students for the project	Instructions explained, familiarisation with technology tools, arrangement of common classes.	- Google Slides/ PPT - Google Classroom - Google Sites	Two Departments separately	
Step 2	Week 4	Students’ organisation into groups and	Icebreakers (creation of a slide/poster to introduce	- Canva (poster portrait template)	Common class	

		getting to know each other	themselves to their colleagues). Later uploaded on the site.		
Step 3		Brainstorming	Students do a brainstorming session. They visit the links to get ideas. Creation of group folders.	-Group folders in G Drive (shared within the group) -Google docs -Internet Browsers	
Step 4	Weeks 5	Students' collaborative work on the project	Students reaching their conclusions.	-Group folders in G Drive -Google docs -Google slides	Common class
		Students' collaborative work on the project	Students working collaboratively to prepare their presentations and articles.	-Group folders in G Drive -Google docs -Google slides	
Step 5	Week 6	Students' presentations and articles submission	Students present their work and submit their articles for feedback. Students' work posted on website.	-Group folders in G Drive -Google docs -Google slides -Google sites	Common class
Step 6	Week 7	Reflection and evaluation	Students respond to the questionnaire and write their reflections	-Google Forms -Google docs	Two Departments separately
FINAL CONCLUSIONS & COMPILATION OF GUIDE					
1.	Analysis of quantitative results (from Students' Questionnaire)				21 October – 11 November 2024
2.	Analysis of qualitative results (from Students' Reflections)				
3.	Compilation of Guide				

Theoretical foundations

RESPITE was based on the learning theories of Social Constructivism (Vygotsky, 1978) and Connectivism (Siemens, 2005). Therefore, ideas such as collaboration, interaction, problem-solving and networking were prominent in the programme. Moreover, the programme was also based on the idea that learners

learn best when they are exposed to authentic and meaningful language use, and problem solving. Finally, reflective practice was also adopted in the programme, as this was described by Bassot (2013).

Methods of instruction

The following methods of instruction were used:

- ✓ Interactive onsite instruction
- ✓ Class discussions and dialogic engagement
- ✓ Collaborative work
- ✓ Active participation in interactive tasks through the use of technology
- ✓ Autonomous study

Assessment methods

Both formative and summative assessment were used. As far as formative assessment is concerned, students' progress was monitored on a weekly basis and feedback was provided. With regards to summative assessment, students had to produce the following artifacts:

- a) An oral presentation with the help of Google Slides, which they had to deliver as a team at the end of the programme, and
- b) Individual articles on the problems they addressed and the solutions they found.

Finally, constructive feedback by the facilitators and peers and self-assessment took place through self-reflection.

Technology tools

The following technology tools were used for the delivery of the RESPITE programme:

- Moodle
- Google Workspace for Education tools (Google Classroom, Google docs, Google Sites, Google Drive)
- Canva

Reference List

- Center for Instructional Technology and Training - University of Florida University of Florida. (n.d.). *Problem-Based Learning*. <https://citt.ufl.edu/resources/student-engagement/adopting-active-learning-approaches/problem-based-learning/>
- Nicolescu, B. (1998). The Transdisciplinary Evolution of the University Condition for Sustainable Development. CENTRE INTERNATIONAL DE RECHERCHES ET ÉTUDES TRANSDISCIPLINAIRES. <https://ciret-transdisciplinarity.org/bulletin/b12c8.php>
- RESPITE. (n.d.) <https://sites.google.com/view/respitoproject/home>
- Siemens, G. (2005). Connectivism: A Learning Theory for the Digital Age. *International Journal of Instructional Technology and Distance Learning*, 1, 1–8. <https://doi.org/10.1.1.87.3793>
- Southern Regional Education Board. (2024). *Project-ing Your Teaching: 10 Steps to Beginning a Project-Based Learning Unit in Your Class*. <https://www.sreb.org/blog-post/project-ing-your-teaching-10-steps-beginning-project-based-learning-unit-your-class>
- UNESCO. (2023). *What you need to know about global citizenship education*. <https://www.unesco.org/en/global-citizenship-peace-education/need-know>
- United Nations. (2024). *The 17 Goals*. <https://sdgs.un.org/goals>
- Utrecht University. (n.d.). What Is Transdisciplinary Research? <https://www.uu.nl/en/research/transdisciplinary-field-guide/get-started/what-is-transdisciplinary-research#:~:text=Transdisciplinary%20research%20is%20part%20of%20valorisation%20but%20it%20is%20specifically,that%20directly%20engages%20external%20stakeholders.&text=Creating%20and%20applying%20knowledge%20together,robust%20and%20socially%20desirable%20outcomes.>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher mental processes*. Harvard University Press.
- Wiggins, G., & McTighe, J. (2005). *Understanding by Design* (2nd ed.). Association for Supervision and Curriculum Development.