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TRANSFORM4EUROPE: THE EUROPEAN UNIVERSITY FOR KNOWLEDGE ENTREPRENEURS

MILESTONE MS27 INVENTORY OF INNOVATIVE TEACHING METHODS

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Executive summary

This inventory and analysis **aim** to achieve the following goals across the *Transform4Europe* alliance:

- o To identify the academic staff's current use of innovative teaching methods, tools, and approaches.
- o To share the best practice experiences using innovative teaching methods.
- o To foresee the significant possibilities and challenges in innovative teaching methods, tools, and approaches within the Alliance.

Innovative teaching methods are not necessarily the newest methods, but they have yet to be applied to our problem (e.g., student engagement). The use of innovative teaching and learning methods and tools in the study process in higher education is an integral part of the work of a modern teacher. Research studies (e.g. Freeman et al., 2014; Deslauriers et al., 2019) have shown that innovative teaching methods and tools can improve the teaching process. However, implementing innovative teaching strategies is a challenging task. When applying new techniques, we may encounter student resistance, experience failure, and fail to achieve teaching objectives. However, experimenting with new methods and strategies can improve student engagement, motivation, and achievement. Therefore, it is necessary to strengthen and invest in the professional development of academic staff. In a renewed EU agenda for higher education (2017), the European Commission states that too many higher education teachers still need pedagogical training.

The report presents an analysis of the data addressing the questions provided above; it also comments on current challenges and possibilities within the Alliance. The inventory and analysis are based on the WP5 questionnaire results and the data provided by the Transform4Europe alliance academic staff members. One of the study's most significant limitations is the disproportionate participation of respondents from different universities. The aggregated information from all Alliance universities is presented in the following report.

The current state of **innovative teaching methods** within the Alliance:

- **Active teaching methods:** *Team-based, problem-based, and cooperative learning* are the most widely used strategies within the Alliance. Evidently, the Flipped classroom strategy is increasingly recognised and applied in the academic field. It is possible that the implementation of the “Activating students in online classes” project may have contributed to the extended use of the strategy. The data show that flipped classrooms are more used in humanities (e.g. philosophy, cultures, languages), while *problem-based learning* – in technical sciences (e.g. engineering). Data also show that there is room for more active use of *Gamification, Game-based learning, and Design thinking* strategies. Meanwhile, a similar trend can be observed when analysing the used teaching methods. *Case studies, projects, and discussions as teaching methods are the most common*

methods that academic staff use. Games, Learning diaries, Learning stations, Learning centres, Jigsaw, I-Search, and Learning Contracts are listed as least applicable to the teaching and learning process in HE. Actually, *direct instructions* are dominant (i.e., only 8,2 % never use it) in HE. There was significant ($p < .05$) evidence of an association between applying innovative teaching methods and various demographic variables. For example, *learning diaries* are used more in the Humanities (e.g. philosophy, cultures, languages), *experimentation* – in Natural (life) sciences (e.g. biology, chemistry, physics), *debates* – in the Humanities (e.g. philosophy, cultures, languages) and Social Sciences (e.g. economics, psychology, sociology, education). Summing up, not all teaching methods provided in this inventory are well-known by academic staff members. Also, there are some misunderstandings about what active teaching is and its application in practice. Moreover, at the *Transform4Europe* alliance level, there is room to strengthen the understanding and use of innovative teaching methods in HE practices.

- **Digital learning technologies:** It can be observed that except for *Mentimeter*, *Google Drive tools*, *YouTube*, and other tools, most cases are unrecognisable for survey participants. A similar trend can be observed in the application of AI tools. Only ChatGPT is more recognisable among participants. In the answers to the questionnaire, we often find that students use these tools but not the academic staff in their teaching process. Nevertheless, academic staff members mentioned other AI tools they use in their teaching practice: *elicit.org*, *perplexity.ai*, *leonardo.ai*, *colossyan*, etc. Although the questionnaire did not ask about augmented reality, we believe this should also be a focus of the Transform4Europe Open Learning Hub.
- **Co-teaching and co-creation:** According to the data provided by all partner universities, co-authorship in teaching and learning is most often achieved through opportunities for students to *choose the topic of their research project* (76,2%). Alternatively, students also *influence the content of the curriculum* (35,9%). There is space for curriculum co-creation in choosing materials for studies, co-designing assessments, or even forming the basis of the curriculum. Another focus on co-creation could be the co-creation of the learning experience, including the collaborative development of curricula and teaching materials and their shared use with faculty colleagues. Only 25 % of participants in this survey stated that they use co-teaching in their practice. The most used co-teaching strategy is *team teaching*, when both teachers are equally active in the front of the classroom, sharing the responsibilities while leading instruction. Meanwhile, *Alternative (Differentiated) Teaching*, as one of the co-teaching strategies, has the potential to be used in HE teaching practice.
- **The good practices** of partner countries on innovative teaching methods, it is necessary to point out that all universities have submitted 11 cases of good practices. Best practices have been tested longer (e.g., UA, VMU, etc.). The teaching methods applied within the Alliance present a broad and varied spectrum, including *game-based learning*, *problem-based learning*, *project-based learning*, *research-based learning*, *peer learning*, *hands-on activities*, *work*

in small groups, group discussions and critical approaches, collaborative learning, experiential learning, flipped classroom, blended learning, portfolio, simulation, role-playing, visual thinking and sketchnoting, design thinking method, etc. A few cases incorporated elements of AI into the teaching process, such as designing AI-enhanced lessons that cater to diverse learning needs, using innovative tools to engage students actively, and developing strategies that promote a creative and inclusive learning environment. This method empowers educators to transform traditional classrooms into dynamic collaborative and adaptive learning spaces. Based on practices, using AI facilitates immersive learning experiences and enables students to grasp complex subjects more effectively. Overall, the shift to a more dynamic and inclusive educational model fosters a collaborative and empowering learning environment, preparing students more effectively for real-world challenges. These experiences involve different target groups: students, teachers, researchers, etc. The practices are primarily applied in undergraduate studies. It is noteworthy that most of the good practices are implemented involving stakeholders, such as NGOs and performers. Some of these practices have received awards or been recognised as deserving attention within or beyond a specific university.

At the same time, inventory analysis shows the most beneficial topics for academic staff professional development (PD) training programmes. The possible list of most beneficial topics are: The use of AI in higher education teaching; Active teaching methods in higher education; Innovative teaching methods in higher education; Teaching and learning methods for students engagement, motivation and activation; Teaching strategies: design-based, project-based, problem-based learning, etc.; Assessment: strategies, methods, feedback; Innovative teaching and learning methods in multicultural and multilingual environments; Gamification and game-based learning in higher education; The use of digital technologies and tools for different educational purposes. As the information provided in this report indicates, there is much space within the Transform4Europe alliance's PD activities to strengthen academic staff knowledge and skills about innovative teaching methods and tools.

Introduction

Over the last 20 years, the European context has concentrated on creating a common higher education area that focuses not only on mutual recognition of qualifications but also on ensuring and improving the quality and relevance of learning and teaching (e.g., *the Bologna Process*). Despite international and national efforts, it is acknowledged that "the transition from the traditional (*teacher-centred model*) to a more flexible (*student-centred model*) has been slower than most policymakers expected" (Navickienė et al., 2017, p.8). Therefore, one of the vital tasks of the Transform4Europe alliance is to create the *T4EU Open Learning Hub*, which intends to enable the whole community of teaching staff to upskill in innovative teaching, co-teaching and co-creation principles/ practice/ activities. The rationale of this document is to provide the background for that.

The analysis reflects the key strategic objectives and initiatives of the *European Commission*. One of four common EU objectives in the *Education and Training 2020* strategy (ET2020) is enhancing creativity, innovation, and entrepreneurship in higher education. The European Education Area, up to 2025, will be developing specialised education programmes of advanced digital skills related to cutting-edge technologies, such as artificial intelligence and high-performance computing. The central points are inclusion, innovation, connectivity, digital and green readiness, and international competitiveness (*Council Resolution on a Strategic Framework for European Cooperation in Education and Training towards the European Education Area and Beyond (2021-2030)*, 2021).

As mentioned above, innovations are one of the key objectives in the European Education Area. Generally, innovation is "a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)" (OECD/Eurostat, 2018). Educational organisations (e.g. schools, universities, training centres, education publishers) contribute to **product innovation** when they introduce new or significantly different products and services, such as new syllabi, textbooks or educational resources, or new pedagogies or educational experiences (for example e-learning or new qualifications) (Vincent-Lancrin et al., 2019). They contribute to **process innovation** by significantly changing organisational processes to produce educational goods or services. For example, they may change how teachers work together, how they group students and manage other aspects of their learning experience; they may collaborate with other entities, use new marketing and external relations methods, new forms of communication with students and parents, etc. In the case of services such as education, products and processes may also be challenging to tell apart (Vincent-Lancrin et al., 2019)

Meanwhile, the *Bologna Process (2020 Rome Communiqué)* aims to implement student-centred learning and teaching by 2030. The relevance of "high-quality, learner-centred and innovative learning and teaching" and "role of teaching staff in supporting high-quality, learner-centred and innovative learning and teaching" is, once again,

reinforced in the Tirana communiqué (2024). In this sense, innovative teaching comes to the arena. It must be noted that innovative teaching strategies do not always mean introducing the latest and most advanced technology. Innovative teaching is the process of proactively integrating new teaching strategies and methods into a classroom. In education, teaching methodologies and innovative ideas are seen as two sides of a coin. Effective teaching methodologies depend on students' needs and the adequacy of the content (Hashim et al., 2019), while "innovative" is defined as behaviour that can be described as a process in which new ideas are generated, created, developed, applied, promoted, realised, and modified by employees to benefit role performance. Zhang (2012) pointed out that education must adopt innovative teaching ideas and methods, reform the traditional teaching model, and build a new innovation-oriented education to achieve the objective. Therefore, innovation can also be defined as modifying an existing idea to benefit a target group and be impactful (Hashim et al., 2019).

Summing up, innovative teaching methods are not necessarily the newest methods, but they have yet to be applied to our problem (e.g., student engagement).

The use of innovative teaching and learning methods and tools in the study process in higher education is an integral part of the work of a modern teacher. Research studies (e.g. Freeman et al., 2014; Deslauriers et al., 2019) have shown that innovative teaching methods and tools can improve the teaching process. However, implementing innovative teaching strategies is a challenging task. When applying new techniques, we may encounter student resistance, experience failure, and fail to achieve teaching objectives. However, experimenting with new methods and strategies can improve student engagement, motivation, and achievement. Therefore, it is necessary to strengthen and invest in the professional development of academic staff. In a renewed EU agenda for higher education (2017), the European Commission states that too many higher education teachers still need pedagogical training.

This **inventory and analysis aim** to achieve the following goals across the *Transform4Europe* alliance:

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- To share the best practice experiences using innovative teaching methods.
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1. Methodological approach

The inventory aimed to collect information and identify the characteristics of innovative teaching and learning methods across the Alliance. A quantitative approach was chosen to achieve this aim.

1.1 The method of inventory and analysis

All Transform4Europe partner universities developed, approved, and used the questionnaire (see Appendix 1). Each partner university is obligated to share this survey with its academic staff. Task leads prepared the invitation letter (see Appendix 2) for academic staff, inviting them to participate in the study—all participants (academic staff) completed an online survey.

The 5.2 task leader, Vytautas Magnus University, examined all the data. Transform4Europe partner universities approved the analysis.

The inventory of innovative teaching methods, with a focus on co-teaching, co-creation, digital tools, AI, etc., as well as data analysis (D5.2), will benefit the Alliance in integrating the best practices and further development of the joint teaching methods/training and satisfying the different project needs. Also, it will be instrumental in preparing the training programmes for the academic staff and help in setting up the Transform4Europe Open Learning Hub.

Inventory sample

A total of 256 academic staff members from all Alliance partner universities participated in this study. The most significant proportion of respondents was from **UP** (N=74), and the lowest proportion was from **JMU** (N=2), **USaar** (N=4), and **SU** (N=4) (see Figure 1).

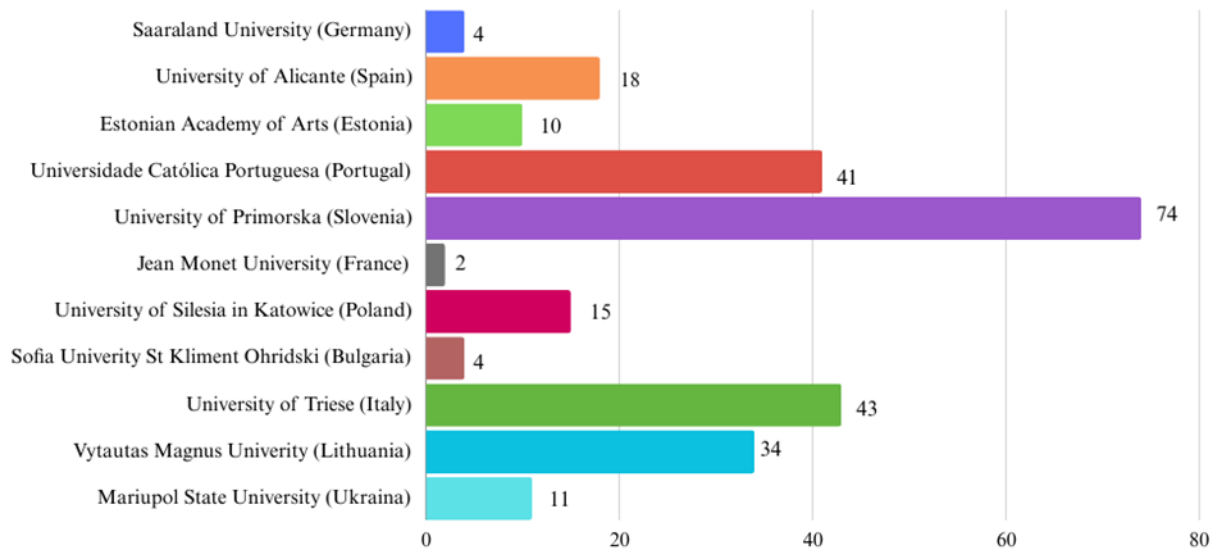


Figure 1. Institutions

Most of the respondents were associate professors (N=94) with more than 21 years of teaching experience (N=95), mainly representing social sciences (N=108) (see Table 1.).

Table 1. Characteristics of respondents

Characteristic	n	%	
Academic position	Assistant/lecturer	56	22
	Senior Lecturer/ Assistant Professor	57	22
	Associated Professor	94	37
	Professor	43	17
	Scientific employee	6	2
Scientific field	Natural Sciences/life science (e.g. biology, chemistry, physics)	46	18
	Social Sciences (e.g. economics, psychology, sociology)	108	42
	Humanities (e.g. philosophy, cultures, languages)	38	15
	Formal sciences (e.g. mathematics, theoretical computer science)	18	7
	Technical sciences (e.g. engineering)	22	9

	Other	24	9
Teaching experience	Less than 10 years	83	33
	Between 11-20 years	78	30
	More than 21 years	95	37
Teaching level	BA	181	37
	MA	177	35
	PhD	123	25
	(Non) Academic staff	12	2
	Other	6	1
Number (average) of students in one semester through the last two academic years	Less than 50	56	22
	Between 51-70	47	19
	Between 71-99	60	23
	More than 100	93	36
Dominated form of study	Blended	25	10
	Hybrid	34	13
	Face-to-face (on campus)	191	75
	Other	6	2
Teaching language	National language	147	57
	English	27	11
	English and national language	75	29
	Other	7	3

As can be seen from Table 1, face-to-face teaching (N=191) dominates, and courses are delivered in national languages (N=147). It is necessary to mention that in this survey, different teaching experiences are represented: junior (less than 10 years), advanced (between 11 and 20 years), and senior (more than 21 years).

Limitations

One of the study's most significant limitations is the disproportionate participation of respondents from different universities. Thus, the small sample size of some universities does not allow for a comprehensive, university-by-university analysis. Therefore, aggregated information from all Alliance universities is presented in the following parts.

2. Results

The *Education and Training 2020 strategy* (ET2020) states that enhancing creativity and innovation at all levels of education and training is a common EU objective. Moreover, the *Bologna Process (2020 Rome Communiqué)* aims to implement student-centred learning and teaching by 2030. In this sense, innovative teaching comes to the arena as a necessity in HE, too. Technologies such as artificial intelligence, machine learning and robots, and virtual and augmented reality have the potential to improve the quality and equity of learning (OECD, 2023) and students' academic achievements (Freeman et al., 2014; Deslauriers et al., 2019), as well as their practical skills.

2.1 Active teaching and learning methods

Teaching strategies are a collection of different methods the teacher uses to teach the subject material, which may vary from lesson to lesson. Meanwhile, **teaching methods** are a selection of methods (e.g. Jigsaw) used by the teacher to teach the subject material. Therefore, academic staff members were asked to share their experiences and practices in applying active teaching strategies in HE (see Table 2).

Table 2. The application of active teaching strategies (%)

Active teaching strategy	Always	Often	Sometimes	Never
Team-based learning <i>(a structured form of small-group learning that emphasises student preparation out of class and application of knowledge in class. Students are organised strategically into diverse teams of 5–7 students that work together throughout the class)</i>	12,5	31,6	39,8	16,0
Flipped classroom <i>(an organisational instructional content approach) balances didactic and active learning modalities. Students review information-rich materials (e.g., lectures, reading, etc.) in advance and use class time for active application of concepts and creative engagement with the subject matter)</i>	5,1	22,7	46,5	25,8
Gamification and game-based learning <i>(an approach where instructional materials are designed like games to make learning fun and engaging for students)</i>	2,0	13,7	35,9	48,4
Design thinking <i>(a non-linear, iterative process that teams use to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. It is most beneficial to</i>	4,3	17,2	29,3	49,2

tackle ill-defined or unknown problems and involves five phases: Empathise, Define, Ideate, Prototype and Test)				
Problem-based learning (a student-centred approach in which students learn about a subject by working in groups to solve an open-ended problem. This problem is what drives the motivation and the learning)	16,4	39,5	31,3	12,9
New American Lecture (is an iteration of the classic style of verbally delivering information. The strategy is enhanced by incorporating key elements into the process that honour brain science and improve retention)	0,4	9,0	12,9	77,7
Scenario-based learning (an immersive training environment where learners meet realistic work challenges and get realistic feedback as they progress since everything that happens reflects the learner's choices)	4,3	23,0	31,6	41,0
Phenomenon-based learning (a multidisciplinary, constructivist form of learning or pedagogy where students study a topic or concept in a holistic approach instead of in a subject-based approach)	3,9	12,9	33,2	50,0
Cooperative learning (involves students working together in small groups on a structured activity. The members of the groups learn to work as a team to accomplish a specific goal, to solve a problem, to complete a project, or to develop a product. Teachers hold students accountable individually but also assess group work. Students are responsible not only for learning the material but also for ensuring that the other members of the group also learn the material)	10,5	25,8	39,1	24,6

Team-based, problem-based, and cooperative learning are the most widely used strategies within the Alliance. Evidently, the *Flipped classroom* strategy is increasingly recognised and applied in the academic field. It is possible that the implementation of the "[Activating students in online classes](#)" project may have contributed to the extended use of the strategy. Pearson's Chi-Squared test was carried out to assess whether the application of active teaching strategies and the scientific field were related. There was significant evidence of this association between flipped classrooms ($p=0.018 < 0.05$) and problem-based learning ($p=0.045 < 0.05$). The data show that flipped classrooms are more used in humanities (e.g. philosophy, cultures, languages), while *problem-based learning* - in technical sciences (e.g. engineering). Table 2 shows that there is room for more active use of *Gamification*, *Game-based learning*, and *Design thinking* strategies. Meanwhile, a similar trend can be observed when analysing the teaching methods used (see Table 3). *Case studies*, *projects*, and *discussions* as

teaching methods are the most common methods that academic staff use. Games, Learning diaries, Learning stations, Learning centres, Jigsaw, I-Search, and Learning Contracts are listed as least applicable to the teaching and learning process in HE. Actually, direct instructions are dominant (i.e., only 8,2 % never use it) in HE.

Table 3. The application of teaching methods (%)

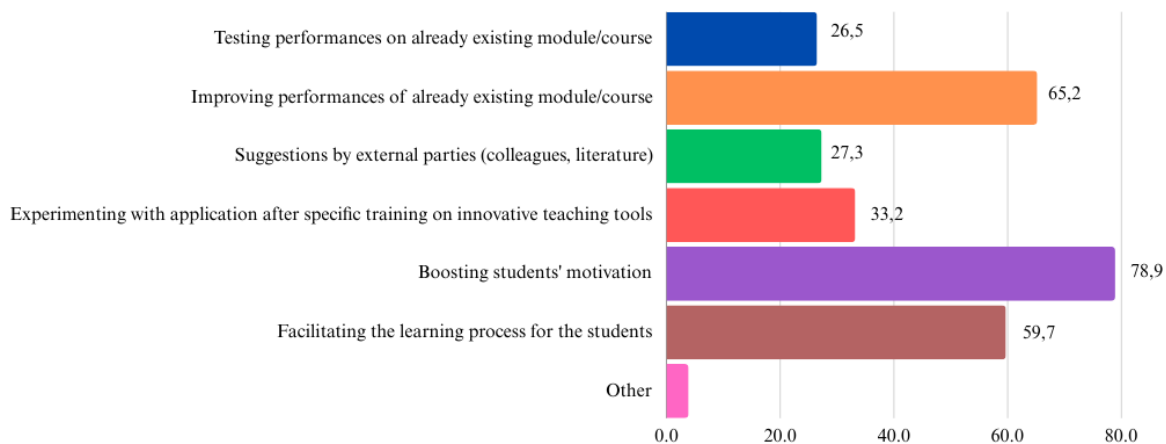
Teaching method	Always	Oftens	Sometimes	Never
Teach-back	9,0	21,9	40,2	28,9
Games	2,3	13,3	36,0	48,4
Study visits	0,8	18,0	43,0	38,2
Peer Learning	5,5	30,1	43,4	21,0
Simulation and modelling	3,9	29,7	35,9	30,5
Teamwork	23,0	38,3	30,9	7,8
Case study	14,5	43,7	29,3	12,5
Project	16,0	32,4	32,4	19,2
Role-playing	2,7	21,9	35,2	40,2
Brainstorming	15,6	30,5	35,9	18,0
Learning diaries	2,7	10,5	24,6	62,2
Experimentation	7,8	21,1	28,5	42,6
Discussions	37,5	41,0	15,6	5,9
Critical review method	15,2	28,2	32,0	24,6
Video review and discussion	7,0	29,3	44,2	19,5
Debates	12,1	35,9	33,6	18,4
Concept maps	3,9	15,3	35,9	44,9
Interactive strategies/lecture	7,4	23,0	36,3	33,3
Learning stations	3,9	9,0	23,0	64,1
Group investigations	7,4	25	35,2	32,4
Jigsaw	1,2	5,5	17,2	76,1
I-Search	0,8	5,9	25,0	68,3
Learning contracts	1,2	5,9	17,2	75,7
Direct instruction	27,3	43,4	21,1	8,2
Peer-assisted learning	2,3	28,2	44,1	25,4
Learning centres	0,8	7,4	21,5	70,3
Storytelling	6,3	21,1	32,4	40,2

It must be mentioned that not all teaching methods listed in Table 3 are well-known by academic staff members (e.g. "I don't know I-search"; "I'm not sure what an interactive lecture is"). Also, there are some misunderstandings about what active teaching is and its application in practice (e.g. "Most of the options listed don't suit the natural science teaching, in which it is needed to learn and understand formulas and understand how to apply them in calculations and lab practice").

Chi-square tests for independence were computed to determine whether innovative teaching is independent of various demographic variables (academic position, teaching experience, number of students in courses, field of studies, level of studies working with, etc.). There was significant ($p < .05$) evidence of an association between applying

innovative teaching methods and various demographic variables. For example, there was substantial evidence of an association ($p=0.029 < .05$) between the application of *video review and discussion* and the number of students in one semester. The data reveal that a minority (21,88 %) of our respondents work with less than 50 students per semester. Most interestingly, *video reviews and discussions* afterwards are used more frequently by those working with more students in one semester. Using *teamwork* as a teaching method is related to teaching experience (those with more than 21 years of experience are less likely to use it). Another provocative result was found about participants' academic position and the application of *role-playing* ($p=0.023 < .05$) and *simulation and modelling* ($p=0.003 < .05$). Simulation and modelling as teaching methods are used more by associated professors and professors, meanwhile role-playing – by assistants/lecturers and senior lecturers/assistant professors. Moreover, there is an association between the study field and the use of different teaching methods, such as *learning diaries* ($p=0.028 < .05$), *experimentation* ($p=0.000 < .05$), and *debates* ($p=0.007 < .05$). For example, *learning diaries* are used more in the Humanities (e.g. philosophy, cultures, languages), *experimentation* – in Natural (life) sciences (e.g. biology, chemistry, physics), *debates* – in the Humanities (e.g. philosophy, cultures, languages) and Social Sciences (e.g. economics, psychology, sociology, education).

The analysis shows different reasons for using innovative teaching methods in HE (see Figure 2).



Figure

2. Motivation to use innovative teaching and learning methods (%)

As can be seen in Figure 2, it is mainly related to *boosting students' motivation* (78,9 %), *improving the performance of already existing modules/courses* (65,2 %), or *facilitating the learning process for the students* (59,7 %).

Summing up, at the *Transform4Europe* alliance level, there is room to strengthen the understanding and use of innovative teaching methods in HE practices.

2.2 Digital learning technologies

The Digital Education Action Plan (2021–2027) is a renewed European Union (EU) policy initiative that sets out a shared vision of high-quality, inclusive, and accessible digital education in Europe and aims to support the adaptation of Member States' education and training systems to the digital age. Following this Action Plan, we sought to collect data on digital learning technologies embedded in classrooms across the Alliance.

Table 4 shows that most of the listed digital tools for interactive work with students are used only *sometimes* or *never*.

Table 4. The application of digital tools (%)

Digital tools	Always	Oftens	Sometimes	Never
Mentimeter	4,7	11,7	27,3	56,3
Socrative	0,8	2,7	7,4	89,1
Elever	-	0,4	3,9	95,7
Preguntados	-	0,4	2	97,6
Cerebriti	-	0,8	2,7	96,5
Kahoot	2,0	11,3	32,4	54,3
Brainscape	-	1,6	3,9	94,5
Educaplay	0,4	2,7	3,1	93,8
Quizlet	1,6	6,6	17,2	74,6
Google Drive	12,1	29,3	28,5	30,1
YouTube	13,7	34,4	36,7	15,2
Prezi	2,0	8,2	18,8	71,0

We observed that except for *Mentimeter*, *Google Drive* tools, *YouTube*, and other tools, most cases are unrecognisable for survey participants (“I have never heard of most of these technologies”). Chi-square tests for independence were computed to determine whether using previously mentioned tools is independent of various demographic variables (academic position, teaching experience, number of students in courses, field of studies, level of studies working with, etc.). There was no significant evidence of an association ($p > .05$) between these tools and the number of students in one-semester academic positions. Meanwhile, a substantial ($p=0.003 < .05$) association was found between teaching experience and the use of *Mentimeter* (those with 11–20 years of experience are more likely to use it). The same goes for the study field and use of *YouTube* ($p=0.000 < .05$) (which is more applied in the Humanities (e.g. philosophy, cultures, languages) and Social Sciences (e.g. economics, psychology, sociology, education)).

Meanwhile, participants in the inventory survey added many other tools (see Table 5).

Table 5. Tools listed by survey participant

<ul style="list-style-type: none"> • Moodle tools • Slack 	<ul style="list-style-type: none"> • Padlet • Coggle 	<ul style="list-style-type: none"> • Thinglink • Wordwall
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<ul style="list-style-type: none"> • Vimeo • ChatterKid • Zotero • Edpuzzle • Directpool • Tricider • Genially 	<ul style="list-style-type: none"> • Miro • Cloud • BlooKet • Nearpod • Quizziz • Wooclap • GoSoapBox 	<ul style="list-style-type: none"> • Typeform • MemesGenerator • Canva • Clipchamp • Lucidspark • Slido • EdX
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A similar trend can be observed in the application of AI tools (see Table 6). Only ChatGPT is more recognisable among participants. In the answers to the questionnaire, we often find that students use these tools but not the academic staff in their teaching process.

Table 6. The application of AI tools (%)

AI tools and resources	Always	Often	Sometimes	Never
ChatGPT	1,6	14,8	39,5	44,1
Bing AI	0,8	3,9	9,8	85,5
Google Bard	0,8	5,1	21,5	72,6
Copilot	0,4	2,3	9,4	87,9
DALL-E 3	0,4	2,7	10,2	86,7
Midjourney	-	1,2	6,6	92,2
ASReview Lab	-	0,8	2,7	96,5
ResearchRabbit	-	1,2	5,8	93,0
SciSpace	-	2	6,3	91,7
Gen-1 Runway	-	0,4	2,7	96,9
Invideo	0,4	2,3	4,3	93,0
AIVA	-	0,8	2,0	97,2
Soundful		0,4	1,6	98,0
Mendeley	2,7	5,9	14,8	76,6
Otter.ai	1,2	1,6	7,4	89,8

Nevertheless, academic staff members mentioned other AI tools they use in their teaching practice: [elicit.org](https://www.elicit.org/), [perplexity.ai](https://www.perplexity.ai/), [leonardo.ai](https://www.leonardo.ai/), [colossyan](https://www.colossyan.com/), etc. Although the questionnaire did not ask about augmented reality, we believe this should also be a focus of the Transform4Europe Open Learning Hub. "Simulators, virtual and augmented reality may allow learners, especially those in vocational education and training programmes, to develop practice-oriented skills in a safe environment which mimics the workplace" (OECD, 2023).

2.3 Curriculum co-creation and co-teaching

The data provided by the academic staff on the teaching/learning methods used suggests a shift towards a student-centred learning process. One way to organise student-oriented studies could be curriculum co-creation with students. Considering Bovill's (2019) co-creation of teaching and learning typology, we have identified different practices (see Figure 3).

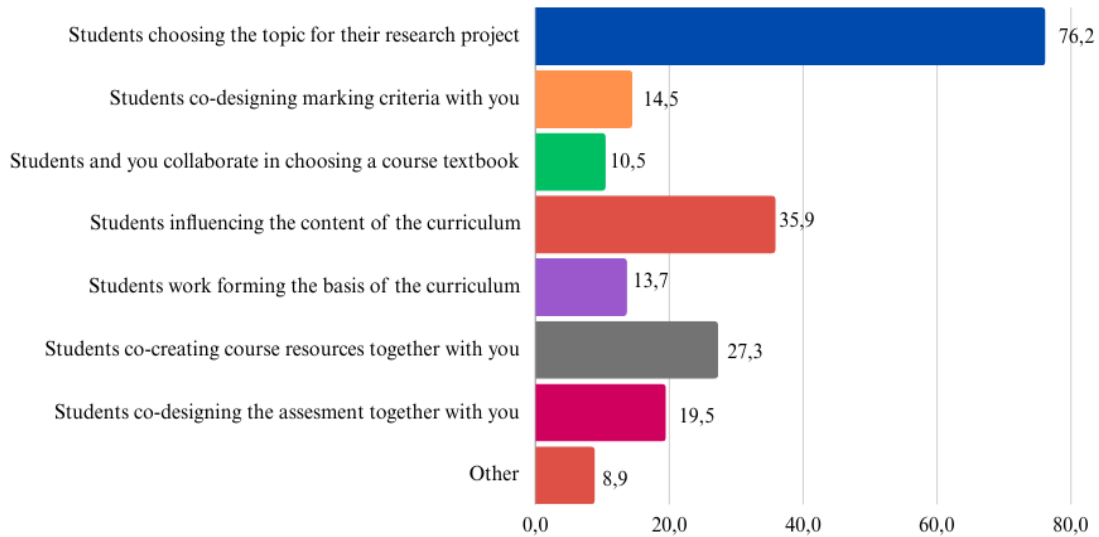


Figure 3. The curriculum co-creation practices (%)

According to the data provided by all partner universities, co-authorship in teaching and learning is most often achieved through opportunities for students to *choose the topic of their research project* (76,2%). Alternatively, students also *influence the content of the curriculum* (35,9%). As seen in Figure 3, there is space for curriculum co-creation in choosing materials for studies, co-designing assessments, or even forming the basis of the curriculum.

Another focus on co-creation could be the co-creation of the learning experience, including the collaborative development of curricula and teaching materials and their shared use with faculty colleagues. Only 25 % of participants in this survey stated that they use co-teaching in their practice. As can be seen in Table 6, the most used co-teaching strategy is *team teaching*, when both teachers are equally active in the front of the classroom, sharing the responsibilities while leading instruction. Meanwhile, *Alternative (Differentiated) Teaching*, as one of the co-teaching strategies, has the potential to be used in HE teaching practice.

Table 7. The employed co-teaching strategies (%)

Strategy	Always	Often	Sometimes	Never
One Teach, One Assist (One teacher acts as the primary teacher, while the	9,5	17,9	26,3	46,3

<i>other assists and supports the learners. The co-teacher assists by monitoring student work, addressing behaviour issues, answering student questions, etc.)</i>				
One Teach, One Observe <i>(One teacher acts as the primary teacher while the other gathers specific observational information on student learning, such as students' academic, behavioural, and social skills in the classroom.)</i>	-	8,9	25,6	65,5
Station Teaching <i>(Co-teachers divide their class into small groups to provide instruction at separate stations.)</i>	4,5	11,3	21,3	62,9
Parallel Teaching <i>(Co-teachers divide the class in half and instruct them on the same material; groups do not rotate.)</i>	5,4	9,8	17,4	67,4
Alternative (Differentiated) Teaching <i>(One teacher manages a large group of students while the other instructs a small group for a specific instructional purpose.)</i>	1,1	7,9	15,7	75,3
Team Teaching <i>(Both teachers are often in the front of the classroom, sharing the responsibilities of leading instruction, with equally active, but possibly different, roles in a lesson.)</i>	11,7	18,1	19,1	51,1

Scientific studies (e.g., Simpson Steele, Cook, Wook Ok, 2021) show limited co-teaching practices in HE education. In the thematic report, the European University Association (2023) listed six main challenges related to co-teaching:

- The added value of CTP may need to be more evident to teachers or students.
- Teachers can be reluctant to share materials, highlighting the tension between collaboration and competition.
- Intercultural differences and varied teaching styles
- Many teachers need more time, space, and funding to develop the skills needed for CTP.
- Using digital technologies for collaborative teaching in inter-institutional partnerships involves many technical and logistical challenges.
- Institutions encounter numerous legal issues, notably data protection and intellectual property rights, when using digital technologies for collaborative teaching.

Therefore, we see the possibility of strengthening not only co-teaching practice at the university level but also cross-country co-teaching among the Transform4Europe academic community.

2.4 Overall use of innovative teaching methods

As mentioned, the survey participants do not recognise most innovative teaching methods and digital technologies. So, it is no wonder that direct instructions are mostly used in conjunction with different learning environments (see Table 8).

Table 8. Links between the learning environment and the use of direct instruction (%)

Learning environment	Always/Often	Sometimes	Never
Blended (traditional learning in person, including online segments)	83,7	15,7	0,7
Hybrid (e.g. in-person and virtual learning, allowing some students to attend physical classes while others participate remotely)	14,1	18,5	67,4
Virtual learning environment (e.g. Moodle)	84,6	14,7	0,6
Out-door (e.g. museums, schools)	81,7	12,5	0,4

As seen in Table 8, direct instructions are used in traditional in-person learning, including online segments and virtual learning environments. Meanwhile, team-based learning and practical/laboratory activities are applied in a hybrid teaching model of group work. At the same time, inventory analysis shows the most beneficial topics for academic staff professional development (PD) training programmes. The possible list of most beneficial topics are:

1. The use of AI in higher education teaching;
2. Active teaching methods in higher education;
3. Innovative teaching methods in higher education;
4. Teaching and learning methods for students engagement, motivation and activation;
5. Teaching strategies: design-based, project-based, problem-based learning, etc.;
6. Assessment: strategies, methods, feedback;
7. Innovative teaching and learning methods in multicultural and multilingual environments;
8. Gamification and game-based learning in higher education;
9. The use of digital technologies and tools for different educational purposes.

As the information above indicates, there is much space within the Transform4Europe alliance's PD activities to strengthen academic staff knowledge and skills about innovative teaching methods and tools.

3. Application of the best practices

The main objective of this inventory is to collect best practices across the Alliance. 11 academic staff members voluntarily have shared their best practice experiences concerning the use of innovative teaching methods. This practice represents 6 out of 11 Alliance universities. The application of the best practice experiences is presented and discussed further.

1.1.1. AI inspiration for more interactive exercises

Sofia University "St. Kliment Ohridski" (Bulgaria)

Big picture. Before and during classes, the teacher consulted AI tools to suggest suitable interactive exercises for students. As a rule, she takes the chance to discuss and test different cases of using AI tools with students. More specifically, she seeks to prepare students to be more critical and realistic about the pros and cons of AI tools. AI tools can be very effective but must be used carefully. So, in her classes, Albena usually specifies the context very carefully. In most cases, she prefers to organise some interactive activities, making students work in groups, collaborate and work together while sharing ideas. Sometimes, there is competition between the groups, and sometimes, students have ideas to use AI tools or whatever they need to research and work on their problems.

The teacher uses the same approach in many of her courses. She used GenAI tools for the "Human-Computer Interaction" classes in this practice. Students have to discuss the problem of the customer and define some basic functionalities for an application. First, they generate some features and functionalities of their platforms in groups. Then, they ask for GenAI tools (of their choice; they can use several) to generate PERSONA for their case. Later, they discuss in groups and identify some positive and negative issues of using AI generators. They discovered many new ideas and issues, but after asking several groups to share their insights, students realised the solutions were more or less similar. This way, students were able to figure out some good practices for using AI in the idea phase when deciding how to design new projects for the HMI course. This best practice was implemented in 2023 by lecturer Albena Antonova. The target groups were teaching staff.

Keywords: Human-computer interaction, group work, collaboration, using GenAI for generating data, ideas, persona, functionalities.

Implementation. This best practice was implemented in the academic year 2023. The course "Human-Computer Interaction" is designed for BSc level students (3rd year)

studying Software Engineering or Informatics at Sofia University, Faculty of Mathematics and Informatics. The course aims to present all the phases of designing user-centred solutions, covering UI/UX, design thinking methodologies, iterative design methodologies, and exploring user research techniques. During the semester, they work on one group project, developing it step-by-step. GenAI companions may be instrumental and effective, but at the same time, students have to realise that their role is to use them creatively and professionally.

In this course, many **innovative teaching and learning methods** have been employed:

- GenAI,
- group discussions and critical approaches for testing and verifying multiple opportunities.

Results. This was the first year of implementing the activity, so students' projects were much better structured and designed than in previous years. The essential success factors in this course were the students' critical thinking, creativity and research capacity.

Training students on how to use and implement GenAI tools in their professional work is significant. GenAI's impact on the future of work will be more significant for some professions than others.

1.1.2. Collaborative learning

University of Silesia in Katowice (Poland)

Big picture. Fostering student collaboration through group projects, peer teaching, cooperative learning activities, and online discussion forums. Collaborative learning is an educational approach that involves students working together in small groups to achieve shared learning goals. This method encourages active engagement, critical thinking, and knowledge sharing among students. Unlike traditional teaching methods that often rely on passive learning, collaborative learning fosters a dynamic classroom environment where students learn from each other through discussion, problem-solving, and teamwork.

This best practice was implemented in 2016 by University professor Marta Mamet-Michalkiewicz. The target group was students.

Keywords: Collaboration, active learning, peer interaction, critical thinking, teamwork, knowledge sharing.

Implementation. Group Formation: Divide students into small, diverse groups to ensure a range of perspectives and skills. Groups can be formed randomly or based on specific criteria relevant to the task.

Task Design: Create tasks that require interdependence among group members. These tasks should be challenging, open-ended, and relevant to the course material, promoting discussion and cooperation.

Roles Assignment: Assign specific roles within each group (e.g., facilitator, recorder, presenter) to ensure that all students participate actively and have clear responsibilities.

Guidance and Support: Instructors should provide guidance and support throughout the process, facilitating discussions, addressing conflicts, and helping groups stay on track.

Assessment: Use both individual and group assessments to evaluate the learning outcomes. This can include peer evaluations, group presentations, and reflective essays.

Results. Implementing collaborative learning has shown several positive outcomes:

-*Enhanced understanding:* Students gain a deeper understanding of the material by explaining concepts to peers and engaging in discussions.

-*Improved Critical Thinking:* Collaborative tasks encourage students to think critically and solve problems collectively.

-*Increased engagement:* Students are more engaged and motivated when actively involved in their learning process.

-*Development of social skills:* Working in groups helps students develop communication, teamwork, and conflict-resolution skills.

-*Higher achievement:* Research indicates that students in collaborative learning environments often achieve higher academic performance than in traditional learning settings.

With greater engagement among students during classes and an understanding that collaborative learning adds value to studying overall, collaborative learning transforms the educational experience by making it more interactive, inclusive, and effective in preparing students for real-world challenges.

1.1.3. Analysis and reflection of experience

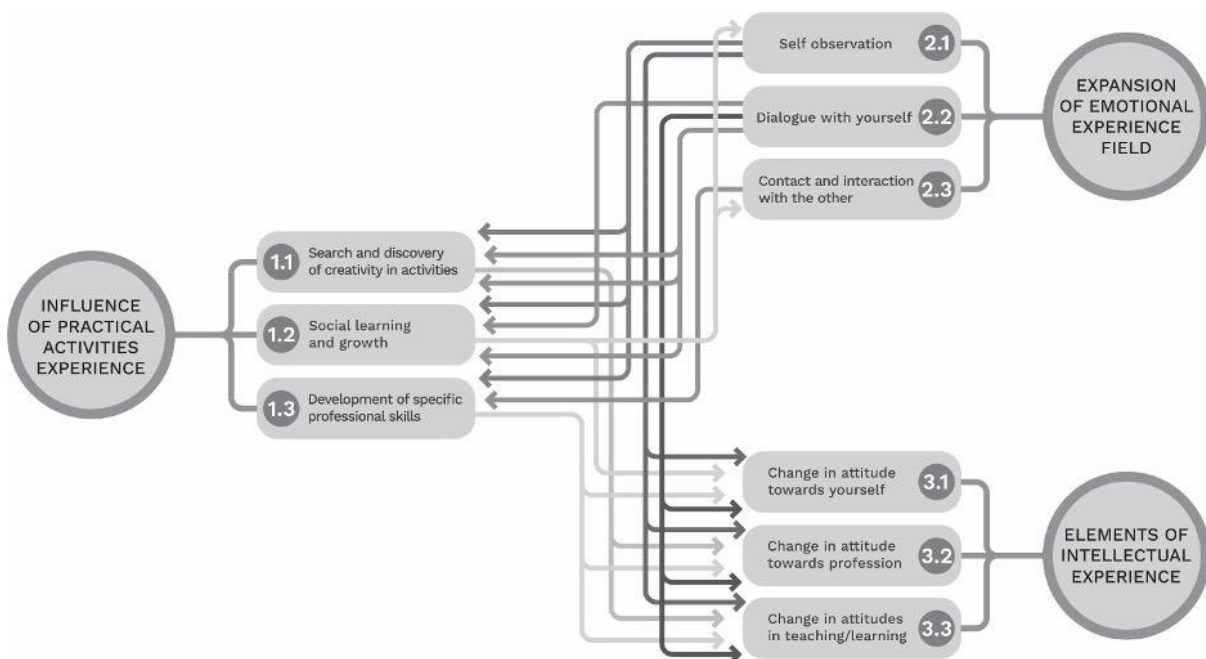
Vytautas Magnus University (Lithuania)

Big picture. The search for self-development involves reflecting on the experience, interaction with others, and changes in attitudes towards oneself, the profession, and the learning process. Perceptual development means an individual begins to see, understand, and think anew. This change turns the activity into an act of expression, a sign of a meaningful experience. As a learning tool, the e-diary allows students to perform various tasks and share their daily experiences and discoveries, which are later analysed and discussed. The description of problematic situations creates the preconditions for students to move to the level of reflective assessment to avoid the same mistakes in the future and to reconceptualise their ideas of teaching and learning. This best practice was implemented in the academic year 2021 by Associate Professor Ilona Tandzegolskienė-Bielaglovė. The target groups were students and teaching staff. More information can be found at

<https://portalcris.vdu.lt/server/api/core/bitstreams/6d759fc9-30ed-441c-912d-003973b099e9/content>

Keywords: Experiential learning, diary structure, electronic diary (e-diary).

Implementation. The course concept emerged due to the change from face-to-face to online teaching because of the Coronavirus pandemic. The interactive work in the seminar is based mainly on the e-diary method. As a system of learning tools, e-diary has created opportunities to go systematically through all experiential learning stages: observation and identification of the experienced situation, reflective assessment of the activity, and change in practical activities.



Picture 1. Interaction of experience structure elements

Reflection on learning and teaching practice, such as how a lesson is planned versus implemented, often contributed to finding the solution in problematic situations. Analysing the situations recorded in the e-diary has made it possible to identify event development tendencies and forecast the changes in one's behaviour in the learning/teaching process as a novice teacher or another participant. In response to the experience of writing a diary during practice, my colleague and I transferred this tool to the lectures. The benefit is excellent; students have worked together on a group task or project throughout the semester.



Picture 2. Experience structure

The e-diary becomes a vital learning platform to reveal an accurate picture of the situation or an individual and personalised description of the daily routine. For consistency and completeness, it is essential to identify the scene and describe the experience daily so that details and important emotional considerations are remembered. Moreover, the e-diary allows you to collect natural data by taking instant information. Based on this experience, the e-diary is a good tool for retrieving pedagogical curriculum data and situations. Another good feature of the e-diary is that it is possible to submit not only documents and texts for analysis but also photos and visual samples.

Results. This tool is described in several co-authored articles. It was also presented to colleagues of the VMU Education Academy as a tool. The decisive success factor of this tool is that the experience-based learning model was implemented by developing a system of tools for students for the systematic recording, reflexive observation, and analysis of specific practical situations. This system of tools consisted of an electronic diary form, a support-counseling system, and an electronic semi-structured diary analysis form. The relevance of this system of recording experiences has become particularly apparent when students were confronted with new and unusual practical situations for which they needed more experience and also found it challenging to choose models and/or strategies for responding to new situations.

In this case, learning, as a continuous process based on experience, takes place when experiencing, as the initial stage of learning, is recorded, reflexively monitored, and analysed to achieve systematic and conscious change in practice. In this way, learning from experience takes place through the interaction of different types of activities: concrete and abstract and/or active and reflexive. This interaction combines all that has been experienced with new reflexive insights and allows the transition to a higher level of conscious activity.

1.1.4. CURIoSA

University of Trieste (Italy)

Big picture. The main objective of CURIoSA was to promote awareness of significant risk factors in cancer and cardiovascular diseases among preadolescents and adolescents, using innovative and captivating media and communication tools. We wish to engage young individuals and stimulate their active participation during all activities. Six main topics were identified: Human papillomavirus, smoking, alcohol, sport, diet and genetics. We created a “discussion game” for every topic, played in Zoom or Google Jamboard, depending on COVID-19 restrictions. Participants increased their knowledge on different aspects of each topic, provided through scientifically verified sources. They discussed possible interventions to promote a healthy lifestyle in small groups and then commented on their choices with experts. In parallel, two cycles of interactive meetings entitled “Science & The City Young” were organised in the main square of the University of Trieste, in a theatre and during a science fair in the Trieste city centre to facilitate the participation of a young audience, both in the presence and live streaming. Participants collaborated with a professional visual thinker and an illustrator to design a comic strip summarising the main concepts discussed at each event. This best practice was implemented in 2020–2023 by Associate Professor Serena Zacchigna. The target group was *students*. More information can be found at <https://www.icgeb.org/curiosa-comunicare-per-crescere-in-salute/>.

Keywords: Discussion games, Google Jamboard, visual maps.

Implementation. CURIoSA was developed in the framework of a long-lasting collaboration with middle and high schools in our territory. Since 2013, our group has organised numerous initiatives for the promotion of healthy lifestyles and cancer prevention campaigns among preadolescents and adolescents (such as “Oral cancer and young people”, as well as several cycles of “Trieste Science & The City Young” talk shows), with results published in the *Journal of Cancer Education* (Rupel et al., 2020). The format further developed for CURIoSA: six discussion games have been prepared with the collaboration of science dissemination experts, both for hands-on (with informative cards and intervention cards with a recognisable graphic setting and a printed dashboard) and online use (using pdf cards and an interactive dashboard on Google Jamboard). The project results include training young science communicators who acquired the skills to produce new discussion games and showing teachers at different school grades a stimulating and innovative way to promote literacy on health issues.

The teaching and learning methods used in this best practice were *discussion games*, activities with rules, a goal, and an element of fun to stimulate the students to talk and develop imagination and interest to learn. To what extent do genetic factors determine the risk of cancer? What are the actual dangers of electronic cigarettes? How can a viral infection determine the development of cancer? And which public interventions would you suggest to reduce their impact? These were some of the debate topics. After our

first classroom experiences, COVID-19 restrictions induced us to re-think the format of our discussion games to perform them in a completely online modality, maintaining the same efficacy. These events were all welcomed with enthusiasm, ending often with lively talks. When restrictions eased, participants were invited to attend live events where they interacted personally with experts and contributed to the design of comic strips, which are currently in distribution among the target audience of the same age range (11-19 years). The format is innovative and designed for middle and high schools; it stimulates participants' creativity, provides scientifically accurate health information, and is suitable for online settings and international translation.

Materials (discussion games in various languages, stories, stickers) are available upon request to szacchigna@units.it.

Results. The consumption of false health information determines individual and social harm. CURloSA aims to develop innovative communication tools to transfer knowledge of non-modifiable and modifiable risk factors to young individuals using evidence-based, scientifically verified information. Impact and efficacy indicators of the initiative include the following: in 2020 and 2021, 10 events were performed in collaboration with 16 classes in 4 middle and high schools of the Friuli Venezia Giulia region, including both public schools with Italian and Slovene (minority) language; a total of 308 students were involved, having an age range of 11-19; 10 live meetings were organised with more than 500 participants; the results of appreciation surveys provided to both participants and teachers showed that 98% of respondents liked the initiative; 6 discussion games on different topics (HPV, tobacco smoking, alcohol abuse, sport, nutrition and genetics) were prepared and are ready for further use; 6 comic strips regarding the same topics, designed by young participants, were printed and are ready for online dissemination. Finally, a questionnaire to test the effectiveness of the increase in knowledge and awareness will be provided one year after the end of the events.

The activity received the EU Health Award 2023. Key success factors were cooperation between professionals from multiple sectors and the active engagement of the young generation.

The format developed can be easily transferred to other territories. The preparation of all material outputs results from an interdisciplinary group of professional figures, including physicians, professors, biologists, oral pathologists, scientific disseminators, scientific communication experts, project managers and graphic designers. The scientific information included is accurate and verified, and all sources are listed and readily available for further study. Materials are currently in Italian but include data referring to both European and World young populations, particularly about the prevalence of unhealthy dietary habits, smoking and alcohol consumption. From different activities, we learned that the most effective approach was first to provide essential facts and scientific evidence and then to leave students some time to discuss autonomously and democratically to find an agreement on a common solution, with silent supervision by the organisers. We clearly felt that active and spontaneous discussion was more appreciated and more effective in acquiring knowledge and opening new ways of thinking to participants. Thus, the materials necessary to play our

discussion games could be quickly translated into multiple languages and duplicated in other Member States or at the EU level.

1.1.5. Sharing data

University of Trieste (Italy)

Big picture. Sharing data is crucial in academic research and industry, but traditionally, academic teaching focuses on individual learning. A new Good Practice may be sharing data gathered during laboratory experiences. My experience regards laboratory data for pharmaceutical drug characterisation and identification (IR spectra and reactive tests). This procedure involves the students in the essential steps of producing high-quality data and annotating data into shared tables arranged as a set of paper panels, which the teacher then converts into an electronic format. These steps are general and could be adapted to other data-sharing examples. This best practice has been implemented since 2022–2023 by Associate Professor in Medicinal Chemistry Carosati, Emanuele. The target group is the students. More information can be found at https://unitsfarmaceutica.shinyapps.io/app_IR_2023/.

Keywords: Data sharing, web applications, numerical data, tabular data, drug characterisation, drug identification.

Implementation. Before implementing this practice, each student tested 5–10 substances and was aware of only that data.

In this course, many innovative teaching and learning methods have been used. Students need to be familiar with the data they will share, confident in the data produced, and critical of data produced by other(s); therefore, they practice self-evaluation of produced data, peer-reviewing, and tabular representation of data. They also use the shared data to help themselves during the experiments. So, these actions can be classified as jigsaw, interactive strategies, and cooperative learning.

Results. During the practical lessons and three days of lab testing, each student has the opportunity to work extensively on approximately 5–10 drug substances. Remarkably, each student uses about 30–50 reactive tests on a limited number of substances. Sharing data allows one to acquire knowledge on much more data.

–Decisive success factors: Open access data is the key to third-millennium research, and creating high-quality data is essential for becoming a good team player. Evaluating data from other(s) is a significant aspect of team leadership. Thus, the activity helps create the mentioned soft skills, and students realise these aspects (I can consider this a fundamental success factor of the activity).

In addition to utilising innovative tools, students gain valuable experience in the strength of data sharing. Thanks to the shared contributions of their peers, they can perform high-quality data interpretation, fostering a sense of inclusivity when sharing their data. Consequently, students not only acquire crucial competences for their future but also

grow in their understanding of responsibility. A web app was developed with data shared by students (IR spectra) and is currently used by students to prepare themselves for the exam.

1.1.6. Service-learning

Catholic University of Portugal (Portugal)

Big picture. Service-learning is a pedagogy integrating academically relevant service activities that address human and community needs into a course. Students connect knowledge and theory to practice by combining service with reflection in a structured learning environment.

Assistant Professor Müller, Naíde, has implemented this best practice since 2023. The target group is students. More information can be found at <https://www.ucp.pt/node47546/catolica-opens-applications-refugee-scholarship-programme-0>.

Keywords: Service learning, refugee students.

Implementation. This project was conducted at the Faculty of Human Sciences of the Catholic University of Portugal (UCP) during the 2nd Semester of 2023 with 62 Public Relations students from the Undergraduate Programme in Social and Cultural Communication Studies, 2nd year. The Service-learning project was called "Welcoming, protecting, promoting and integrating UCP Refugee Students". The advocacy plan to be developed by the PR students should present strategic communication proposals that help the Catholic University's Initiative Support for Refugee Students 1) to establish partnerships to raise material and socio-cultural support and 2) to engage the academic community with the initiative and the promotion of intercultural dialogue. Stakeholders: Galp; UCP; ACNUR Portugal – UN Refugee Agency.

Innovative teaching and learning methods have been used, including direct contact with those who will receive the service of "Welcoming refugee students."

Results. The most important outcomes are the projects developed by students and their perceptions of acquired skills. The initiative was presented within the scope of the second cycle of the "Católica Learning Innovation Lab."

The most important factors for the success of this activity are:

–*Assessment of motivations:* The motto to start this dynamic was the famous statement by German dancer and choreographer Pina Bausch (27 July 1940 – 30 June 2009): "I'm not interested in how people move but what moves them."

–*Personal interactions and storytelling:* On the 8th of March 2023, International Women's Day, students participated in a session with refugee students from Russia, Ukraine, Iran, Afghanistan, and Syria. In a safe environment promoted by the faculty, stories were shared in the first person about the inability to navigate bureaucratic labyrinths alone, young dreams shattered by war and conflict, forced separation from

families, the confusion and insecurity of navigating new, unknown social realities, loneliness, and fear. There were tears, many questions and hopes in this sharing that brought together professors, students with refugee status and Public Relations students trying to understand how their advocacy plans could help these colleagues.

-Sharing with specialised professionals: We sought to maintain the connection to the professional practice of public relations through the use of concepts such as “client briefing”, that is, without losing sight that our mission as public relations professionals was to respond to a briefing (with specific objectives) from our client, in this case, the Catholic University of Portugal’s scholarship programme to integrate refugee students. To establish bridges between theory and practice and keep students engaged, Diogo Sousa, Head of Communications & CSR at Galp Portugal, was invited to share his knowledge and experience in a class on March 29, 2023.

-The best practice impacts are 1) overcoming students’ challenges in linking theory and practice, 2) pedagogical approaches that promote greater engagement in social justice advocacy, and 3) students’ perceptions of the skills acquired in the context of service learning in PR.

1.1.7. Implementation of research results into the educational process

Mariupol State University (Ukraine)

Big picture. Using research results to illustrate trends in labour market development, analysing labour supply situations worldwide, and forming tasks for students to conduct research.

This best practice was implemented from 2023 to 2024 by Kalinina Svitlana, the Dean of the Faculty of Economics and Law of Mariupol State University. The target group is teaching staff and students. More information can be found at <https://ampua.org/wp-content/uploads/2024/02/Analiz-migraciynoi-politiki-derzhav-orientiri-dlya-Ukraini.pdf>.

Keywords: Migration policy, labour market.

Implementation. Monographs and research project results have been prepared, used in the educational process, and placed on Moodle. Innovative teaching and learning methods have been employed, including the research teaching method.

Stakeholders: All-Ukrainian Association of International Employment Companies, International Renaissance Fund.

Results. The research results presented at the national level allowed us to generalise the international experience of migration policy and to develop recommendations for improving the migration policy of Ukraine. The results made it possible to use information about the latest migration and labour supply trends at the international and national levels in the educational process. Students had the opportunity to discuss the research results directly with the authors regarding the setting of tasks, the conclusions

obtained, their practical direction within the framework of the labour market regulation policy, etc. The study results were presented to the National Information Agency of Ukraine UKRINFORM.

-*Key success factors*: the presence of a scientific school, cooperation with stakeholders, and the relevance of the research topic.

-*Best practice's most significant impact*: With the stakeholder—the All-Ukrainian International Employment Company—a series of round tables was organised, the participants of which are representatives of the Verkhovna Rada of Ukraine, ministries, business associations, and public organisations.

1.1.8. Beyond boundaries: Creative strategies in education

Vytautas Magnus University (Lithuania)

Big picture. The "Beyond Boundaries: Creative Strategies in Education" workshop explores the integration of Artificial Intelligence in educational settings, fostering inclusivity and applying creative methodologies. Participants will learn how to design AI-enhanced lessons that cater to diverse learning needs, use innovative tools to engage students actively and develop strategies that promote a creative and inclusive learning environment. This hands-on workshop empowers educators to transform traditional classrooms into dynamic spaces for collaborative and adaptive learning.

The project was planned and executed excellently with teaching staff, researchers, administrative personnel, and students interested in enhancing educational practices through innovative and inclusive teaching methods. The project was implemented in 2023–2024 by lecturer Balaišis, Augustinas. More information can be found at: www.advertising.lt

Keywords: Innovative education, creative teaching methods, inclusive learning, artificial intelligence in education, flipped classroom, blended learning, gamification in learning, project-based learning, competency-based education, adaptive learning technologies, digital education tools.

Implementation. Before implementing these best practices, educational environments often faced challenges with student disengagement, one-size-fits-all teaching approaches, and limited resource accessibility. Traditional lecture-based methods dominated, leading to passive learning and a lack of personalised instruction. This conventional approach struggled to accommodate diverse learning styles and failed to leverage technology, resulting in underwhelming educational outcomes and a widening gap in student capabilities and performance.

Innovative teaching methods have been used: flipped classroom, blended learning, gamification, PBL, etc.

Results. Implementing these innovative teaching practices will lead to significant achievements: enhanced student engagement and participation, improved academic

performance, and greater adaptability to diverse learning styles. Educators will report higher satisfaction with teaching methods that allow for more creative and personalised instruction. The use of technology, such as AI, will facilitate immersive learning experiences, enabling students to grasp complex subjects more effectively. Overall, the shift to a more dynamic and inclusive educational model will foster a collaborative and empowering learning environment, preparing students for real-world challenges more effectively.

Key success factors for implementing innovative teaching practices include strong leadership support, ongoing professional development for educators, and robust infrastructure for technology integration. Effective staff communication and collaboration are crucial to adapting and refining teaching methods. Additionally, aligning educational goals with student needs and interests ensures the curriculum remains relevant and engaging. Ensuring accessibility and inclusivity in all teaching strategies also plays a vital role in achieving successful outcomes. Finally, continuous evaluation and feedback mechanisms help to monitor progress and make necessary adjustments, driving sustained improvement in educational practices.

The impact of these innovative teaching practices will be profound. Students will demonstrate increased engagement and improved academic performance across various subjects. Educators will experience renewed enthusiasm and effectiveness in teaching, empowered by tools that cater to diverse learning styles. Integrating technology like AI will personalise learning, making education more accessible and effective. This transformation will not only enhance student preparedness for future challenges but also foster a more inclusive and adaptive educational environment, positively affecting the broader educational landscape.

1.1.9. Using a portfolio method in teaching psychology and pedagogy - from theory to practice

University of Silesia in Katowice (Poland)

Big picture. In this teaching activity for a forensic psychology course, the portfolio method was employed to enhance student learning and engagement. Students were tasked with creating a comprehensive portfolio that included various tests and segments of forensic opinions they developed throughout the course. After each submission, students received detailed feedback, allowing them to refine their skills and understanding progressively. The course culminated in students completing a full forensic opinion and a reflective essay, which helped them integrate their knowledge and demonstrate their competency in applying psychological principles to legal issues. This method not only reinforced theoretical expertise but also honed practical skills crucial for their future careers in forensic psychology. The course lecturer is Assoc. Prof. Bożek, Maciej.

Keywords: Portfolio, transversal skills, psychology.

Implementation. Before the intervention, the forensic psychology course primarily consisted of traditional lectures and repetitive exercises that failed to fully engage students or deepen their understanding of the material. The learning environment was largely passive, with students receiving information but having limited opportunities for practical application or interactive learning. This approach often left students feeling disconnected and unenthusiastic about the subject matter, hindering their ability to effectively apply theoretical knowledge in real-world contexts.

The methods used:

- portfolio,
- simulation,
- role-playing,
- flipped classroom.

Results. After implementing the portfolio method in the forensic psychology course, significant achievements and positive outcomes were observed. Now better equipped and deeply engaged, the students have developed into budding forensic experts, praised for their analytical skills and practical knowledge. Their enthusiasm and competence have dramatically increased, leading them to actively praise the course for its innovative and interactive approach. The key success factor behind implementing the portfolio method in the forensic psychology course was a multifaceted approach centred around innovation, dedication, and overcoming institutional indifference. The transformative results of the course can be attributed mainly to the instructor's persistent efforts and strong work ethic, who championed this change. Despite the unsupportive environment and the awareness that their efforts might not be openly acknowledged or rewarded, the instructor devoted considerable time and energy to revamping the course. This commitment was driven by a profound dedication to enhancing educational quality and outcomes for students.

The success was also due to the careful integration of practical and interactive elements into the curriculum, which aligned well with the needs of the students and the demands of the field. The instructor's ability to adapt to feedback and continuously refine the course, ensuring that the educational methods used were effective and engaging, further contributed to the positive outcomes. Despite the lack of immediate recognition or support from the institution, this dedication to improving education underscores the importance of commitment and resilience in achieving significant educational innovations. The instructor's approach not only enhanced the learning experience for students but also set a higher standard for educational practices within the field of forensic psychology.

The impact of introducing the portfolio method in the forensic psychology course was significant, though it manifested differently across various aspects of the educational and professional landscape. Within the realm of teaching practices at the institution, the influence remained mainly confined to the course itself. The instructor was the sole adopter of this innovative approach, leading to enhanced engagement and outcomes within their classes but not spreading to other courses or colleagues. This limited

internal adoption highlights the challenges of instituting change within rigid educational structures.

However, the broader impact on the forensic field was substantial. The method dramatically improved the competence of forensic psychology graduates, restoring trust among courts and legal professionals in the reliability and expertise of forensic psychologists. This renewed confidence has significant implications, enhancing the quality of expert testimony and contributing positively to the judicial process.

For the instructor personally, the initiative brought a deep sense of fulfilment and purpose in teaching. Despite the lack of institutional support and recognition, the satisfaction derived from seeing students transform into proficient professionals and the positive feedback from the legal community affirmed the value and impact of their dedication. This personal achievement underscores the profound influence committed educators can have, shaping their field and positively affecting broader professional practices.

1.1.10. Visual thinking and sketchnoting, a design thinking method

University of Silesia in Katowice (Poland)

Big picture. *Visual thinking and sketchnoting:* Participants acquire knowledge and skills on various aspects and manifestations of visual thinking (sketchnoting, graphic recording, explainer video, mind maps, bullet journal, etc.). They can be used to collect, organise, process, or present content from any field and academic discipline in various professions and personal lives. Participants learn the alphabet of visual thinking and construct and gradually enrich individual icon banks, which is helpful while creating visual notes.

-Design thinking: “Design thinking is a human-centred approach to innovation that draws from the designer’s toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.” – Tim Brown, CEO of IDEO.

This best practice was implemented in the academic year 2023–2024 by the lecturer assoc. prof. Magdalena Christ, with the target group of students.

Keywords: Drawing, visual thinking, sketchnoting, explainer video, graphic recording, communication, five stages of the design thinking method.

Implementation. Visual thinking and sketchnoting or design thinking method classes don’t need a particular background. The innovativeness of using visual thinking in teaching and learning is based on the primary human ability to communicate through images, presenting it in a contemporary version accessible to everyone. In turn, the innovativeness of the proposed course of introducing students to the world of visual thinking consists in developing a universal path, enabling the participation of people with different interests, skills, and knowledge, taking into account the principles of individualisation of the educational process (celebrating the richness of diversity), combining theory with practice in a balanced way, classical drawing (a sheet of paper

and markers) with modern technologies (graphic tablets), using online resources (tutorials, a rich database of recordings of TED talks from all over the world, etc.).

The methods used:

- visual thinking and sketchnoting;
- design thinking method.

The course is awarded the Innovative Teaching Award 2023 (T4EU alliance) for visual thinking and sketchnoting. Sample visual notes of Polish and international students are available at <https://tiny.pl/cqv22>.

Results. *Visual thinking and sketchnoting:* The classes aim to familiarise participants with the theories underlying visual thinking, as well as the representatives of sketchnoting and their work as inspiration for their development in this area. During the course, students acquire skills in creating visual notes as a form of organisation and presentation of thoughts and ideas, which can be used to improve the learning process and in various branches of professional life.

Design thinking method: Empathetic design of solutions to real problems – developing projects using design thinking and design for change methods.

Visual thinking has a wide range of applications in various fields and businesses. A visual note can be made from a speech/lecture, seminar, panel discussion, training/workshop, debate, audio recording, podcast, TEDx, meeting, gathering, brainstorming, book, e-book, online course, personal experience, article, magazine, webinar, idea mapping, presentation, film, TV show, etc. Through an explainer video, we can present, for example, complicated legal regulations, the operation and advantages of a product, a summary of a campaign or project, a company jubilee, a summary of an NGO's activities, a strategy carried out, a description of how medications work, the implementation of new technologies, a social campaign, a city promotion, educational programmes, a museum exhibition, etc.

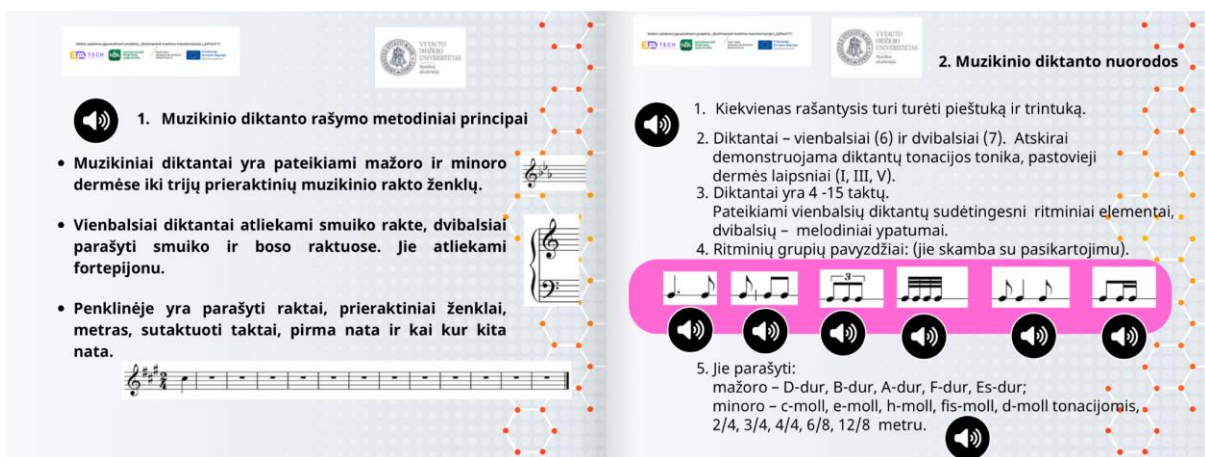
1.1.11. Digital Music Dictation

Vytautas Magnus University (Lithuania)

Big picture. This best practice was implemented in the academic year 2023/2024 with the target group of BA students. Various teaching methods have been applied to the course. The lecturer used audio and video recordings and offered their comparative analysis for training the hearing exercises and recording, as studying the music is ongoing practical work. Explicit evaluation schemes and an assessment system have been set for the course, together with the study plan and specific homework (analysis of music pieces). Communication with students is one of the most important factors of a successful course. This practice is implemented by lecturer Jolanta Sukovienė. The open book is available at: <https://read.bookcreator.com/PJ7WtX1lHDZknqhPjYfhz1uWGq1/viV53qC4SzWYsapL6KjJ3A/OuatEO2PTJivEvimLpz3Ywh>

Keywords: Music, edtech, solfège.

Implementation. This best practice goes under the course “Ear Training (Solfeggio)” at the BA programme “Performing Arts: Singing”. The course content includes solemnisation, interval, chord, musical structure, hearing and analysing, and writing a musical dictation. This course takes four semesters, during which rhythm and scale understanding and intonation are taught because there is a lack of digital tools, such as music dictation in Lithuanian. So, the main aim of this digital book was to provide students with an opportunity to improve their solfeggio skills by self-practice. The preparation process depends on the subject of study, so the first step is to look for quality textbooks that focus on the maximum development of student knowledge. Practical tasks are used to present the theory. The analogy method has been used to create a digital book where students can find 13 dictations (six monophones and seven diphones). The assessment has been based on individual progress and development.



Picture 1. Musical dictation

Results. The primary outcomes of this way of working with students are subject/content skills and transferable competences. In the music specialisation, they already feel strong when performing the text, when they can intonate and understand what is written. The students will have a broader understanding of the subject because they will have more opportunities to meet the performing colleagues to show their improvement, develop the skills to translate perceived musical images into explicit aural representations, and quickly capture them in musical notation. Students will improve their musical hearing, develop musical memory, the ability to hear and recognise musical structures, and put theoretical knowledge into practice. Also, students can get used to the sound of the metronome. Key factors of the success:

1. With the development of technology, traditional music dictation takes on a different form and new demands from students.
2. Content specificity and the provided plan for each topic: explicit, detailed, with specific pages and accountable work.
3. Relevance of the material according to student level and current requirements of professional work.

1.1.12. Conclusion of the Best Practices

In summarizing the good practices of partner countries on innovative teaching methods, it is necessary to point out that all universities have submitted 11 cases of good practices. Best practices have been tested longer (e.g., UA, VMU, etc.).

The teaching methods applied within the Alliance present a broad and varied spectrum, including *game-based learning, problem-based learning, project-based learning, research-based learning, peer learning, hands-on activities, work in small groups, group discussions and critical approaches, collaborative learning, experiential learning, flipped classroom, blended learning, portfolio, simulation, role-playing, visual thinking and sketchnoting, design thinking method, etc.*

A few cases incorporated elements of AI into the teaching process, such as designing AI-enhanced lessons that cater to diverse learning needs, using innovative tools to engage students actively, and developing strategies that promote a creative and inclusive learning environment. This method empowers educators to transform traditional classrooms into dynamic collaborative and adaptive learning spaces.

Based on practices, using AI facilitates immersive learning experiences and enables students to grasp complex subjects more effectively. Overall, the shift to a more dynamic and inclusive educational model fosters a collaborative and empowering learning environment, preparing students more effectively for real-world challenges.

These experiences involve different target groups: students, teachers, researchers, etc. The practices are primarily applied in undergraduate studies. It is noteworthy that most of the good practices are implemented involving stakeholders, such as NGOs and performers. Some of these practices have received awards or been recognised as deserving attention within or beyond a specific university.

4. The key possibilities, concerns, and obstacles of innovative teaching within Transform4Europe

All the areas analysed in this document present several challenges, but they also offer new opportunities for the Transform4Europe alliance to revise and modernise teaching practice (see Table 9).

Table 9. The key possibilities, concerns, and obstacles

The key possibilities	The main challenges
Reducing contact hours.	Technological and infrastructure limitations, lack of available software—

<p>To develop good quality online training programmes for the professional development of the academic staff.</p>	<p>classrooms are already overscheduled. Physical spaces, e.g., classrooms, have been designed for traditional, expository classes.</p>
<p>To foresee the needed number of hours to develop the new knowledge, improving the teaching quality.</p>	<p>Time available to be invested in improving teaching content and methods, a lack of time to learn how to use the tools, prepare more complex active learning scenarios, and acquire more capabilities in AI and other digital technologies.</p>
<p>To start using free demo versions. If the tool works well, consider using it further.</p>	<p>Online tools are not free to use.</p>
<p>To establish sustainable motivation and recognition systems for teaching development programmes. Offering well-focused, needs-based courses perceived as necessary is essential. Then, interest and participation might increase.</p>	<p>Lack of motivation to adopt new technology by losing personal touch.</p>
<p>To develop good quality online training programmes for the professional development of the academic staff. To develop a good knowledge of the innovative teaching methodology for <i>innovative language teaching, co-coaching, co-creation, etc.</i></p>	<p>The relatively older age group may need to be more adaptable in embracing new ideas and technologies. Poor teacher knowledge and inflexibility. Fear of technology use.</p>
<p>Creating an integral and systematic innovative professional development programme would allow the partner universities to meet changing social and economic needs.</p>	<p>Innovative teaching methods often require training, technology, and infrastructure investment, which some institutions may struggle to allocate due to budget constraints.</p>
<p>To base the professional development programmes on the latest research and the newest material resources. To provide support for the academic staff not only for the scientific but also for the teaching development.</p>	<p>Resources and lack of knowledge on incorporating innovative teaching methods into a predefined curriculum.</p>

<p>Offering well-focused, needs-based courses perceived as necessary is essential. Then, interest and participation might increase.</p>	<p>Concerns about the effectiveness or reliability of innovative approaches and how to measure the results.</p>
<p>To systematically promote a teaching competence development culture among researchers and teaching staff.</p>	<p>Lack of support from administration to be assisted in designing and implementing innovative methods.</p>
<p>To look for innovative ways of delivering online lectures within specific fields, e.g., arts, music, biology, etc. To review the institutional and national regulations for delivering the courses entirely online, as in some countries -- a defined number of hours must be delivered face-to-face.</p>	<p>Students' perceptions and acceptance. Sometimes, students are not proactive and prefer to maintain the classes traditionally.</p>
<p>More training on new innovative methods and short practice-based seminars for academic staff. To systematically promote a teaching competence development culture among research and teaching staff. Discipline diversity must be considered when developing the standard norms of professional development in the partner universities.</p>	<p>Teaching methods are the themes of education experts; other teachers are only sometimes aware of all the modern methodological practices. What to use and how to use it is essential to every teacher in terms of methods, and now, the education sector is waiting for AI tools to become familiar with them and know what and how to use them. There is a lack of best practice sharing. There is a need for more teacher training programmes.</p>
<p>Resources: More time is needed for project lessons, an assistant teacher, support from technical staff, and the possibility of splitting the class into small groups.</p>	<p>Barriers related to the language. Most of digital tools are in English language.</p>
<p>To systematically promote a teaching competence development culture among researchers and teaching staff.</p>	<p>Conservative teaching culture, lack of collaboration among teachers.</p>

Glossary

A teaching method is a selection of methods (e.g., Jigsaw) the teacher uses to teach the subject material.

Teaching strategies are a collection of different methods the teacher uses to teach the subject material, which may vary from lesson to lesson.

Generative AI is a type of AI system that generates text, images, or other media in response to user prompts.

Digital technologies. We refer to digital learning technologies encompassing communication, information and technological tools that facilitate improved teaching, development and assessment.

Annexes

Annex 1. Letter of invitation

Dear Sir or Madam,

We kindly request your participation in a survey on innovative teaching methods across the Transform4Europe alliance. We invite you to share your teaching and learning experience in higher education by assisting us in identifying the challenges that we need to tackle.

By sharing your experience, you will contribute to creating the T4EU Open Learning Hub, which intends to enable the whole community of teaching staff to upskill in innovative teaching, co-teaching, and co-creation principles/practices/ activities.

You can start the survey by following this link: [survey here](#).

The survey is anonymous. Any processing of the data provided will ensure the anonymity of the individual respondents by aggregating the data. The information collected will only be used for project purposes.

It takes approximately 10 minutes to complete the survey.

Thanks for your time and consideration in completing the survey despite the lack of compensation! Please do not complete the survey more than once (even if you receive multiple invitations). Still, we do encourage you to share this invitation with any colleagues who might be interested.

If you have any questions or concerns about the survey, please get in touch with the survey coordinators at assoc. prof. dr. Rasa Nedzinskaitė-Mačiūnienė (rasa.nedzinskaite-maciuniene@vdu.lt); assoc. prof. dr. Vaida Jurgilė (vaida.jurgile@vdu.lt)

Thank you very much for your support!

Annex 2: Questionnaire

INNOVATIVE TEACHING METHODS IN HIGHER EDUCATION QUESTIONNAIRE (for teachers)

Deadline for submission: April 30, 2024

Welcome, and thank you for helping us to inventory innovative teaching methods across the Transform4Europe alliance. We invite you to share your teaching and learning experiences in higher education. You will help us identify the challenges that we need to tackle. We will publish a report on the results and incorporate the findings into our Strategy. By sharing your experience, you will contribute to creating the *T4EU Open Learning Hub*, which enables the whole community of teaching staff to be upskilled in innovative teaching, co-teaching, and co-creation principles.

Thank you.

1. **General information:**

- Institution:
 - Saarland University (Germany)
 - University of Alicante (Spain)
 - Estonian Academy of Arts (Estonia)
 - Universidade Católica Portuguesa (Portugal)
 - University of Primorska (Slovenia)
 - Jean Monnet University (France)
 - University of Silesia in Katowice (Poland)
 - Sofia University "St. Kliment Ohridski" (Bulgaria)
 - The University of Trieste (Italy)
 - Vytautas Magnus University (Lithuania)
 - Mariupol State University (associated partner)

- Academic position:
 - Assistant/Lecturer
 - Senior lecturer/Assistant professor
 - Assoc. Professor
 - Professor
 - Scientific employees

- Scientific field:
 - Natural Sciences/life science (e.g. biology, chemistry, physics)
 - Social Sciences (e.g. economics, psychology, sociology)
 - Humanities (e.g. philosophy, cultures, languages)
 - Formal sciences (e.g. mathematics, theoretical computer science)
 - Technical sciences (e.g. engineering)

- Other, please specify:

- Teaching experience:
 - less than 10 years
 - between 11-20 years
 - more than 21 years

- Teaching level (choose several if needed):
 - BA
 - MA
 - PhD
 - (Non) Academic staff
 - Other, please specify:

- Number (average) of students in one semester throughout the last 2 academic years:
 - Less than 50
 - Between 51-70
 - Between 71-99
 - More than 100

- What form of study dominates in your teaching:
 - blended
 - hybrid
 - face-to-face (on campus)
 - Other, please specify:

- What is the teaching language of your courses?
 - National language
 - English
 - English and national language
 - Other, please specify:

- How is the teaching setting usually structured in your courses?

	Always	Often	Sometimes	Never
Direct instruction				
Group work (i.e. the students are divided into small groups and work together on specific tasks/activities; each student will submit the final report/product and be assessed individually)				
Teamwork (i.e. the students are divided into teams that work together on specific tasks/activities; the team will submit the				

final report/product and it will receive an overall assessment)				
Practical activities (Laboratory activities)				
Other, please specify:				

- Please identify the primary learning outcomes of your courses (*please indicate as many as needed*):
 - Soft skills (e.g. problem solving, self-direction, adaptability, flexibility)
 - Transversal skills (e.g. leadership, teamwork, time management)
 - Profession-specific skills (e.g. foreign languages, programming languages, healthcare)
 - Other, please specify:

2. Teaching methods and tools

2.1. Please score what and how often you use the active teaching strategies listed below in your courses.

Active teaching strategies	Always	Often	Sometimes	Never
Team-based learning				
Flipped classroom				
Gamification				
Design thinking				
Service learning				
Problem-based learning				
New American Lecture (also known as "interactive lecture")				
Scenario-based learning				
Phenomenon-based learning				
Cooperative learning				
Any other (<i>please indicate as many as needed</i>)				

2.2. Please score how often you use the active teaching methods listed below in your courses.

Teaching methods	Always	Often	Sometim es	Never
Teach-back				
Game-based learning				
Study visits				
Peer learning				
Simulation and modelling				
Teamwork				
Case study				
Project				

Role-playing				
Brainstorming				
Learning diaries				
Experimentation				
Discussions				
Critical review method				
Video review and discussion				
Debates				
Concept maps				
Interactive strategies				
Learning stations				
Group investigations				
Jigsaw				
I-Search				
Learning Contracts				
Direct Instruction				
Peer-assisted learning				
Learning centres				
Storytelling				
Any other (please indicate as many as needed)				

2.3. Please score how often you use the generative AI tools and resources listed below in your courses.

AI tools and resources	Always	Often	Sometim es	Never
Chatgpt				
Bing AI				
Bard				
Copilot				
DALL-E 3				
Midjourney				
ASReview Lab				
ResearchRabbit				
SciSpace				
Google Bard				
Gen-1 Runway				
Invideo				
AIVA				
Soundful				
Mendeley				
Otter.ai				

Any other (please indicate as many as needed)				
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2.4. Please score what and how often you use the digital technologies listed below in your courses.

Digital technologies	Always	Often	Sometimes	Never
Mentimeter				
Socrative				
Elever				
Preguntados				
Cerebriti				
Kahoot				
Brainscape				
Educaplay				
Quizlet				
GoogleDrive				
YouTube				
Prezi				
Any other (please indicate as many as needed)				

2.5. What is your motivation to use innovative teaching and learning methods?

- Testing performances on already existing modules/courses
- Improving performances of already existing modules/courses
- Suggestions by external parties (colleagues, literature)
- Experimenting with the application after specific training on innovative teaching tools
- Boosting students' motivation
- Facilitating the learning process for the students
- Other, please specify:

2.6. What practices of co-creating curriculum and in curriculum do you use? (choose several if needed):

- students selecting the topic for their research project
- students co-designing marking criteria with you
- students and you collaborate to select a course textbook
- students influencing the content of the curriculum
- students' work forming the basis of the curriculum
- students co-creating course resources together with you
- students co-designing the assessment together with you
- Other, please specify:

2.7. Do you use co-teaching in your practice?

- Yes (if yes, please go to question 2.8)
- No

2.8. What co-teaching strategies do you use?

Strategy		Always	Often	Sometim es	Neve r
One Teach, One Assist	<i>One teacher acts as the primary teacher, while the other assists and supports the learners. The co-teacher assists by monitoring student work, addressing behaviour issues, answering student questions, etc.</i>				
One Teach, One Observe	<i>One teacher acts as the primary teacher while the other gathers specific observational information on student learning, such as students' academic, behavioural, and social skills in the classroom.</i>				
Station Teaching	<i>Co-teachers divide their class into small groups to provide instruction at separate stations.</i>				
Parallel Teaching	<i>Co-teachers divide the class in half and instruct them on the same material; groups do not rotate.</i>				
Alternative (Differentiat ed) Teaching	<i>One teacher manages a large group of students while the other instructs a small group for a specific purpose.</i>				
Team Teaching	<i>Both teachers are often in the front of the classroom, sharing the responsibilities of leading instruction, with equally active, but possibly different, roles in a lesson.</i>				

2.9. What learning environment do you use in your courses? (choose several if needed):

- Out-door (e.g. museums, schools)
- Virtual (e.g. moodle)
- Hybrid (e.g. in-person and virtual learning, allowing some students to attend physical classes while others participate remotely)
- Blended (e.g. traditional learning in person, including online segments)
- Other, please specify:

2.10. Which assessment method is usually (on average) used in your courses?

- Multiple choice exam
- Open-question exam
- Oral exam
- Written report
- Pitch competition
- Other, please specify:

2.11. Could you share your good practice of innovative teaching (choose one course and fill in the annex)?

- Yes. If yes, please fill out the template (Annex 1)
- No. If not, please explain why you cannot provide it.

3. Additional information

3.1. What are your institution's perceived concerns and obstacles to innovative teaching methods? (e.g.

3.2. What topics could you suggest for the teacher training programmes that would benefit you most?

3.3. Would you like to join the Transform4Europe alliance by participating in the Joint Open Learning Hub activities (e.g., developing and testing new teaching and learning approaches in higher education)?

3.4. If you have further comments on teaching methods, we invite you to include them here.

Annex 3: TEMPLATE for identifying innovative teaching methods and best practices within the Alliance

Best practice title	
University title	
Target Groups of this activity (administrative staff, teaching staff, researchers and/or students)	
Year of implementation	
PROFILE	
SHORT DESCRIPTION of the best innovative teaching methods and best practice (max. 800 characters)	
What innovative teaching methods have been used?	
BACKGROUND or situation before implementing this best practice (max. 800 characters)	
Were any stakeholders involved in this activity?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please indicate the stakeholders:
Key Words:	
IMPACT RESULTS OUTCOMES	
ACHIEVEMENTS and Main Outcomes (max. 800 characters)	
Has this activity received any AWARDS or gained University or broader recognition? If so, please tell us more about it. (max. 800 characters)	
KEY SUCCESS FACTORS (max. 800 characters)	
IMPACT (max. 800 characters)	
Do you have any visual material related to this activity? If so, please share.	
ADDITIONAL INFORMATION SOURCES	
Link to a WEBSITE for more information	
CONTACT DETAILS	
Surname, Name	
Position	
Institution	
E-mail	

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