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Creating a Cross-Institutional Virtual Exchange Experience for Higher Education Students

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Abstract

The Covid-19 pandemic presented higher education institutions with the challenges of suddenly having to switch to online and hybrid teaching and dealing with the initial collapse of physical student and teaching mobility. In the Erasmus+ project **VERSATILE – Virtual Education Readiness Semester – Adaptive Toolbox for an International Learning Experience,** four European higher education institutions are creating the necessary building blocks for a collaborative online semester abroad in the form of a guide to online teaching methods, a model curriculum of team-taught modules in the social sciences and guidelines for an administrative infrastructure. It enables deeper collaboration between the project partners and provides other higher education institutions with guidelines to develop online collaborative learning and teaching environments.

VERSATILE has four key objectives: 1) to create viable alternatives to physical student mobility during the pandemic, 2) beyond the pandemic to enable higher education institutions to offer new internationalisation-at-home possibilities to students who traditionally face mobility barriers, 3) to aid educators in developing their online teaching skills, and 4) to provide new ways in which educators can internationally exchange knowledge and methods.

The four universities of the VERSATILE strategic partnership are the lead partner Rhine-Waal University of Applied Sciences (HSRW, Germany), Tampere University of Applied Sciences (TAMK, Finland), University of Derby (UoD, UK), and the University of Masaryk (MUNI, the Czech Republic). Central to the collaboration of the four universities is the creation of a collaborative online semester abroad – a virtual exchange experience, which will be underpinned by the three intellectual outputs:

- Online Teaching Guide, including a Toolbox for hybrid education
- Joint curriculum of modules and
- Guidelines for developing a common administrative infrastructure for an online semester.

These outputs serve as the basis for intensifying collaboration within the international network to which the project partners belong, at the same time as providing tools and guidelines that other higher education institutions can use and learn from in developing their own online international collaboration.

VERSATILE will produce results that can be used by the project partners and other higher education institutions. These results can be extended to include further partners and other disciplines. The intellectual

outputs provide other higher education institutions with the key building blocks necessary for developing and delivering a collaborate online semester abroad.

Keywords: education, teaching, learning, hybrid, online, collaborative, virtual, cross-institutional, exchange, student administration

1. Introduction

During the Covid-19 pandemic higher education institutions were not only confronted with the challenge of implementing online and hybrid teaching but many also faced a complete interruption of internationalization activities within their study programs. Many higher education institutions had implemented internationalization elements in different forms (e.g. mobility windows, summer schools, international weeks etc.) as an integral part of curricula and were hence required to create replacement offers for students and teaching staff. As an immediate response many institutions allowed students to supplement physical mobility with virtual/online mobility activities offered by partner institutions once students were nominated for an exchange. As a further quick measure, a network of institutions (The Hague Network) created "The Hague Virtual Exchange Semester" allowing students to virtually participate in courses offered by the member institutions and to receive ECTS for these courses. This program was initiated as a quick response out of "The Hague Network", a network of institutions founded by The Hague University of Applied Sciences that share a common commitment to internationalization. Building on the experience of this low-level exchange program as well as prior cooperation in the "The Hague Network", four institutions out of the network initiated a strategic partnership project and applied for EU funding. The project VERSATILE (Virtual Education Readiness Semester – Adaptive Toolbox for an International Learning Experience) is developed by the lead partner Rhine-Waal University of Applied Sciences (HSRW, Germany) jointly with Tampere University of Applied Sciences (TAMK, Finland), University of Derby (UoD, UK), and the University of Masaryk (MUNI, the Czech Republic). The aim of the project is to build on the experiences of the existing virtual exchange program of "The Hague Network" and to expand this program utilizing the different strengths of the partner institutions to address the difficulties that were encountered by the participating institutions and especially by their students. Within the initial virtual exchange program, participating institutions were able to open their own online courses for students from partner institutions. This allowed students to choose courses from a vast course offer from different institutions. However, at the same time several administrative and academic challenges occurred. Especially differing enrolment requirements, different semester times as well as the use of different learning platforms posed significant problems. Furthermore, differing course formats, teaching styles and online teaching tools proved to be a challenge for the students and hence also for the success for the program.

In order to address these challenges, the partners of the VERSATILE project have chosen to develop a collaborative online semester abroad for the spring term 2023. In order to underpin this activity, three intellectual outputs are being produced: a guide for online teaching methods, guidelines for developing a common administrative infrastructure for an online semester as well as a joint curriculum of team-taught modules. These guidelines are intended to facilitate the offering of an online semester abroad by offering recommendations on how to tackle administrative obstacles especially when more than two partners are involved and how to cope with the challenges of an international class-room in an online setting. These guidelines are intended to enable higher education institutions to achieve four objectives:

1. To create viable alternatives to physical student mobility during the pandemic.

2. Beyond the pandemic, to enable higher education institutions to offer new internationalization-at-home possibilities to students who traditionally face mobility barriers.
3. To aid educators in developing their online teaching skills
4. To provide new ways in which educators can internationally exchange knowledge and methods.

2. Considerations on terminology

The VERSATILE higher education partnership is built on the solid basis of offering a transnational, cross-institutional virtual exchange option for students. The definition of **virtual exchange,** as presented by EU Erasmus+ programme, is very feasible for the purposes of the VERSATILE partners:

> *"Virtual exchanges projects consist of online people-to-people activities that promote intercultural dialogue and soft skills development. They make it possible for every young person to access high-quality international and cross-cultural education (both formal and non-formal) without physical mobility."* (European Commission, 2022).

The concept of virtual exchange can in most instances be used interchangeably with the concept of **virtual mobility**. Since the beginning of the millennium, and even earlier, the concept of virtual mobility has been widely in use referring to situations when educational institutions seek to offer a complement or alternative to traditional 'real', physical student mobility (Vriens et al., 2021).

The concepts of asynchronous and synchronous distance teaching are at the core of understanding the positions presented in this article. In the Online Teaching Guide (2022) published by the VERSATILE project team, online teaching is defined as "distance teaching conducted in a virtual learning environment with electronic study content designed for self-paced (asynchronous) learning". An online learning management system (LMS), such as Moodle or Blackboard, is a necessity in asynchronous education, as it acts as a hub for asynchronous online teaching and learning. The educational content on an LMS should be structured in a logical way, since the students are expected to work independently, getting only limited support.

The concept of synchronous teaching does no stipulate where the teaching and learning can take place. The Open Learn platform defines synchronous teaching as follows:

> *"Synchronous teaching is where the teacher is present at the same time as the learner(s). This is almost always the case in a face-to-face environment. Synchronous teaching can also take place via online learning, through the use of video conferencing and live chat or instant messaging."* (Open Learn, 2022)

In the collaboration between the four VERSATILE universities, the typical modes of synchronous teaching and learning consist of virtual and hybrid modes, which are discussed further in this article.

3. Joint curriculum of learning modules for four institutions

The goal of the VERSATILE project is to develop an attractive curriculum offering a virtual internationalization experience to students with diverse backgrounds in terms of study programs, academic experiences, IT-skills, technical resources and cultural backgrounds. In order to cope with this high degree of diversity and to utilize the differing backgrounds of students and teachers as a valuable resource in the classroom setting, the project partners have decided to develop an interdisciplinary curriculum under a common theme in the field of social sciences: European Scenarios in Business, Politics and Societal Change for the Next Decennium.

In the Hague Network Virtual Exchange, each university offers a single online bachelor-level course, each in different general subjects such as Marketing, Hospitality, Project Management and Intercultural

Communication, that students may take and transfer ECTS to their home university. Opening up existing courses posed administrative problems that could not be solved on a short- term basis. The courses that are offered in The Hague Network Virtual Exchange semester are designed and exclusively offered for students of the partners. However, they do not form an academically consistent set of courses and are very general in nature. This, in turn, has led to problems concerning ECTS transfer so that there is not yet a full online alternative to a physical semester abroad.

In the VERSATILE project, the curriculum includes eight courses of five ECTS each: four modules are related to political sciences and four to business studies. Each of the four partner organizations contributes two 5 ECTS modules to the joint curriculum based on their preferences, their academic profile, cooperating degree programs and available resources. Each module of the curriculum is developed by two educators from two partner institutions. Based on the above-mentioned allocation, each partner organization is responsible for the development of two modules. In order to ensure a broader view and enable cross-fertilization, one further educator from a different partner institution is assigned to each module. The educators work in a collaborative manner using virtual communications building on their academic and teaching expertise.

One of the main objectives of VERSATILE is to enable the partners to work together and jointly design, prepare and deliver courses that revolve around the same subject. Such courses can be delivered in a combination of some weekly classes and block workshops in order for example to ease timing issues. The focus is again on bachelor-degree programs with enough of an interdisciplinary approach to incorporate different theoretical and empirical viewpoints but also with a strong central theme to attract many different students. This approach motivates educators to participate in the development of new courses in which they are interested, to learn from international colleagues and, together with their students, to apply and extend their knowledge on current European affairs.

The subject 'European Scenarios in Business, Politics and Societal Change for the Next Decennium' was selected as one of several options, as it was the one where most Hague Network partners are able to join based on the programs they offer in English at bachelor level. Even though modules are newly designed for the online semester, they need to be complementary to existing curricula, in order to be able to draw on existing expertise and be sustainable. Partners chose current European affairs as so many developments are of interest and offer interdisciplinary approaches. Issues such as economic development, taxation, immigration, the need for skilled workers, cybersecurity, sustainability all form very relevant developments within the framework of European integration and form the foundation of an online semester that has relevance for young people and will motivate students. In addition, the last few years have seen a rising scepticism against the ideas of the European integration and the values of the European Union. This broad framework allows for an interdisciplinary discussion of these tendencies.

The innovative approach of using a central theme to create a collaborative curriculum for an interdisciplinary online semester serves as a direct response to the lost mobility option due to Covid-19 and also opens up vast opportunities for several target groups. Educators from partner institutions are motivated to work together, broaden their methodological and topical approaches, as well as their skills with regards to curriculum development. Students of the partner organizations receive additional course options and are able to benefit from the courses. The international and interdisciplinary approach allows students to further develop 21st century skills. Administrators and degree program managers receive an additional attractive element to complement their existing programs and collaborate with the participating institutions on the level of curriculum development. The broad topical approach and the online format that exposes students to an

international environment can be leveraged as part of an internationalization-at-home strategy. It can thus motivate students to more readily select mobility options in future. This format can be easily supplemented or expanded to also include physical mobility options in the future.

Prior to developing the curriculum, several administrative issues needed to be agreed upon to ensure attractiveness of the program for prospective students. These include specifically the agreement on a common IT-platform to provide course materials, a common format for course descriptions, common assessment forms and an agreed time frame for delivery. The last point was especially challenging as every institution follows their own academic calendar and teaching times are not streamlined. Within the project a period of roughly three months lasting from March until May was identified for course delivery. As courses may be delivered using a blend of synchronous and asynchronous elements, a timetable for the courses is going to be designed ensuring no overlap of courses, meeting the timing restrictions of instructors and reflecting the fact that this program is offered by institutions within Europe from three different time zones.

4. Common administrative infrastructure

As already stated earlier, the goal of the VERSATILE project is for students to be able to study at several institutions across several borders at the same time and by doing so letting students profit from Virtual Exchange to the fullest extent possible. A key aspect of the project is that students from four different institutions in four different countries study together during a single semester. This is different from a ring structure between more than two institutions, such as the ERASMUS Blended International Program (BIP) or some European University Alliance projects, in which every semester a different institution acts as the single receiving institution in which the students are enrolled. The fact that these types of single-semester multilateral virtual exchange opportunities are relatively rare, even after a surge of new projects funded during the Covid pandemic exploring different aspects of international virtual exchange, may already indicate the downside of such a scenario. Multilateral exchange means additional legal restrictions cross cutting through several national borders with different administrations, a far more complex constellation of colleagues working at different, non-comparable organizational units, in faculties as well as administration, and generally a greater likelihood for intercultural miscommunication in organization, teaching and learning. Different from bilateral virtual exchange or a ring structure, the multilateral single-semester approach places participating institutions against serious administrative challenges since students will need to enroll at each individual institution at which they will take part in the modules. By doing so, it is assured from the outset that all administrative and legal requirements at each institution are being covered and students can be guaranteed to be able to receive study credits from each institution that can be transferred to their home institution, thus making sure that the online semester has the additional advantage of a multilateral exchange for them.

In order to offset the administrative burden for the students, the project created an administrative infrastructure by setting up separate exchange agreements between partner institutions, creating an inventarisation of administrative procedures of each partner institution and setting up a joint administrative procedure for the nomination, registration and enrolment of students by means of a central registration portal. This will enable students to use the portal as a one-stop-shop registration to all modules at all partners. The portal will be hosted by one coordinating institution that will collect and distribute the information received through the platform so that the actual enrolment of the students can subsequently be done in the back office by the administration of the respective institutions.

It will be clear that this approach is not really a common administrative structure but rather an effort by partners to lift the additional administrative burden from the students to the institutions' administration and

enhance the attractiveness of the online semester. The willingness of universities to invest in the additional capacities needed for coordinating separate student administrations is however crucial to the success of the project and, unfortunately, without a feasible alternative for the time being. Such an alternative would need to come from the possibility to share students' information and by doing so to set up a transnational structure. Within the EU there is a clear willingness to do so, which can be seen for example by EU funded initiatives such as the development of a European student ID or the current Key Action 3 call for applications that would look for the possibilities to use existing European legal possibilities to do exactly this. It is however realistic to expect that it will take some time before universities will have a shared administrative framework that is practicable enough to replace the national systems.

5. Online teaching guide

5.1. The rationale for an Online Teaching Guide

An Online Teaching Guide (2022) was created in the VERSATILE partnership to assist educators, both beginners and experienced, in designing cross-institutional international online teaching effectively and flexibly. Furthermore, the VERSATILE Online Teaching Guide was designed to support not only the VERSATILE partnership institutions, but any European higher educational institutions in implementing virtual exchange. Additionally, the Online Teaching Guide may prove useful in planning and executing domestic cross-institutional teaching and learning.

An essential part of the Online Teaching Guide is an Adaptive Toolbox, which contains the descriptions of the educational tools that are recognized to be relevant for the participating universities when implementing their courses for the common cross-institutional course catalogue. The Adaptive Toolbox will be discussed further below in this article.

The Online Teaching Guide takes a practical approach and a pedagogical view to virtual exchange and cross-institutional teaching and learning. The universities of the collaboration partnership do not provide identical educational resources, facilities or tools for their students and staff. To create a coherent experience for the students doing their cross-institutional studies, the Online Teaching Guide has been a necessity.

5.2. Four teaching modes: virtual, hybrid, online, and collaborative

In the post-Covid situation the question remains, what exactly do the different teaching modes constitute? Based on a state-of-the-art analysis conducted in the partner universities of the VERSATILE partnership, the project actors decided to focus mainly on four distant teaching situations, which we call teaching modes, namely **Virtual, Hybrid, Online and Collaborative** teaching. We should be aware that there are various definitions for these teaching modes, and they can be partially overlapping, and they may even be used interchangeably. To avoid this kind of confusion in terminology, the VERSATILE Online Teaching Guide is using the following definitions.

Virtual teaching

Within the VERSATILE partnership, virtual teaching is defined as distance teaching conducted in a virtual learning environment with digital study content designed for live web-conferencing, **synchronous** online teaching and tutoring. As Barbour et al (2020) suggest, virtual teaching is also referred to as remote teaching (or emergency remote teaching) which typically uses a video conferencing platform and allows for a teacher to deliver lesson plans much as they would in a traditional classroom setting. Students can ask questions, garner needed clarity, and interact with academic content instantaneously with the support of a teacher.

When engaging in a live online session, there are a few guidelines to consider. The recommendations for educators and students for attending a live web conference session in a virtual learning context are divided in the Online Teaching Guide as follows:

- Recommendations for educators
    - before engaging in a session
    - during engaging in a session
    - after engaging in a session
- Recommendations for students
    - before engaging in a session
    - during engaging in a session

These recommendations can be found in more detail in the Online Teaching Guide (2022), and they are practical and easy to even print out on paper.

Hybrid teaching

With the concept of hybrid teaching, we mainly rely on the definition by the Tampere Universities' Teaching and Learning Centre:

> *"The term hybrid teaching refers to a classroom session that is attended remotely by some participants and in-person by others. Teaching takes place simultaneously but is not location dependent."* (TLC, 2022a)

In hybrid teaching and learning, regardless of how students and lecturers attend the session, remotely or on campus in a classroom, there should be a live experience of one, unified group. Hybrid teaching is another mode of **synchronous** teaching. Hybrid teaching provides a highly flexible alternative to participation for both students and the staff, but it requires a great deal of effort and updated pedagogical skills from the educators.

Online teaching

Many scholars have defined online learning in various ways, but in the context of the virtual exchange opportunities organized in the VERSATILE project, we follow Johnston's definition of online learning as an

> *"institutional or instructor-directed learning experience using technology that connects students to pre-developed content, where students have less autonomy but more flexibility to learn asynchronously, and they contact the teacher as needed."* (Johnston, 2020, p.3)

Essential prerequisites for successful online teaching and learning include well-functioning and pedagogically designed web-based tools and learning platforms. They allow lecturers to upload resources and create assignments online for the students to navigate and complete independently. This mode involves a self-driven, **asynchronous** approach to exploring content, in which the student is responsible for traversing the coursework individually.

Collaborative teaching

Collaborative teaching as such has a long history. It has been used to refer to any teaching practice that involves working in teams to deliver learning. More recently, with the increasing use of technology, collaborative teaching has expanded to the co-delivery of teaching across international borders. In the context of VERSATILE virtual exchange practices, the concept of collaborative teaching – or co-teaching – is defined as "teaching virtually, online, or hybrid together with two or more universities."

According to this definition, collaborative teaching can be either online, virtual or hybrid if co-delivered by several institutional actors across international borders. It should not be mixed with "collaborative learning", which refers to a learning process where all group members have a common assignment and goal and where they attempt to build shared meaning, commitment, and understanding while interacting with others. The idea of VERSATILE collaborative teaching or co-teaching is illustrated in figure 1.
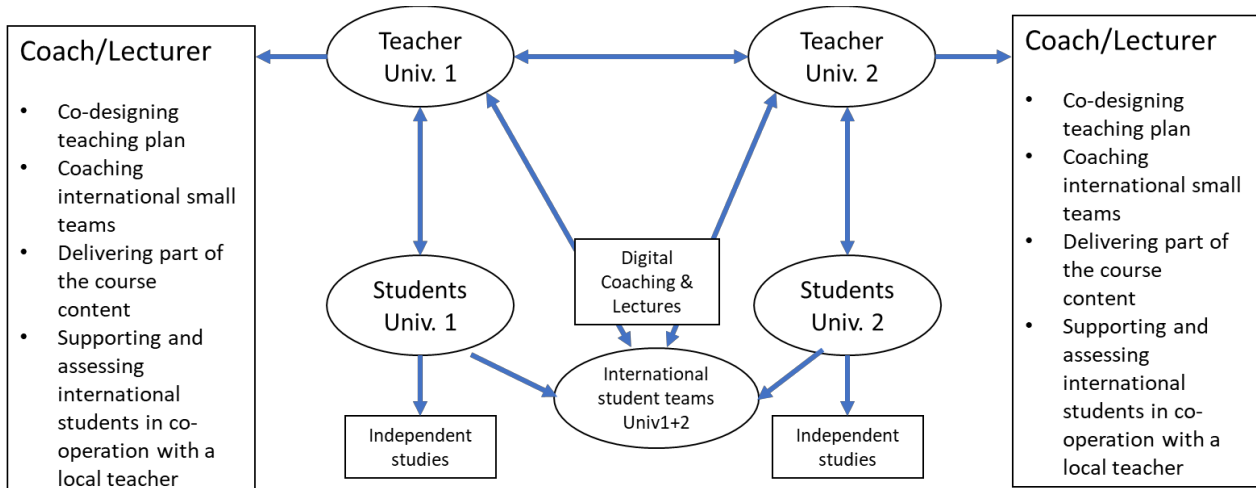

Figure 1: VERSATILE Co-teaching Model (Online Teaching Guide, 2022).

The VERSATILE Co-teaching model is based on a model for digital collaborative teaching introduced by Hao, Zhu, and MacLeod in their conference paper in 2016. They define co-teaching as "a course, which is formally co-designed, with equal teacher participation, and co-delivered by two or more teachers that may be geographically in different locations within one or more combinations of different educational entities" (Yang, Zhu & McLeod, 2016).

5.3. Pedagogical models

The VERSATILE project team understands the concept of a pedagogical model primarily as a way of organizing teaching and learning activities so that it helps students to learn in a pedagogically sound and structured manner. There are a plenty of different pedagogical models, which are influenced by the current understanding of the nature of learning. Pedagogical models facilitate the planning of teaching, as well as creating and directing the learning and teaching process.

The pedagogical models discussed in the Online Teaching Guide include:

- Case-based learning
- Challenge-based learning (CBL)
- Dialogical learning, or dialogue in learning
- Flipped learning
- Project-based learning
- Problem-based learning
- Cooperative learning
- Collaborative learning
- Game-based learning
- Simulation pedagogics

All the models listed above are considered applicable in their appropriate contexts of cross-institutional learning. In the section of the pedagogical models, the Online Teaching Guide gives credit to the Teaching and Learning Centre (TLC) of the Tampere University and Tampere University of Applied Sciences for its numerous citations and references. (TLC, 2022.)

5.4. Process of distance teaching

When planning a course in a distant teaching format, basically the same planning steps are required as for a course taking place onsite:

1. Determination of teaching plan
2. Determination of learning outcomes
3. Analysis of learning environment
4. Consideration of administrative requirements
5. Selection of tools and methods
6. Assessment
7. Preparation of course documents

However, when choosing a distant teaching mode, we need to focus more on the learning environment and the teaching methods and tools and ensure a consistent alignment of these. If the course is delivered in a collaborative setting, these steps and aspects deserve even more careful consideration. The seven steps discussed in the Online Teaching Guide are presented in figure 2. These steps are partially interrelated, and they may require a feedback loop.

Pedagogical
- Determine learning outcome
- Determine assessment
- Determine your teaching plan
- Prepare course description

Administrative
- Analyse learning environment
- Consider adminsitrative requirements
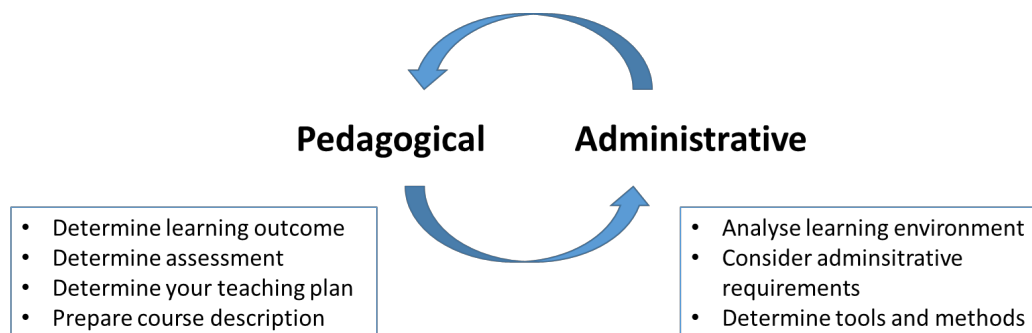- Determine tools and methods

Figure 2: Seven steps of planning distance teaching (Online Teaching Guide, 2022).

In the Online Teaching Guide each of the steps is briefly introduced. Descriptions of the steps are provided in a way that they are not focusing on practices of any specific university. Defining the steps quite generally, but on the other hand, including the necessary details relevant for the collaboration partnership of the universities makes the process of distance teaching presented in the Online Teaching Guide useful for a wider audience.

5.5. Good practices

In the Versatile collaboration, experiences and good practices of cross-institutional international teaching have been shared in the project meetings online and in a face-to-face session in Finland. At the time of publishing this article, two videos of shared good practices are openly available.

In the first video Tuula Andersson, Senior lecturer in Business and Media at Tampere University of Applied Sciences (TAMK), Finland, shares her valuable 10-year experience of running a course on International Brand Management with partner universities in the Netherlands, Belgium and the Czech Republic. The student groups were mixed having students from all four universities. In another video Fabian Dargel, M.Sc., Scientific

assistant from Hochschule Rhein-Waal, Germany, shows a concrete example of how to structure an online course on Moodle platform. These videos can be found as a part of the Online Teaching Guide, at https://versatile-erasmus-project.eu/online-teaching-guide/good-practices/.

6. Adaptive Toolbox for cross-institutional education

6.1. Purpose of the Toolbox

Designing and organizing studies for virtual exchange can be challenging for both the lecturers, professors, teachers and students. Within the Versatile collaboration partnership, student groups are mixed, consisting of students from four institutions: Hochschule Rhein-Waal (HSRW, Germany), Tampere University of Applied Sciences (TAMK, Finland), Masaryk University (MUNI, Czech Republic) and the University of Derby (UoD, UK). The academic staff is also mixed, as two educators, each from different universities, are co-teaching during each course implementation.

An Adaptive Toolbox was created to help these key actors, as well as educational designers to select pedagogically functioning digital tools for their cross-institutional courses. The Toolbox is a practical tool designed to facilitate mainly all the teachers' work in an everyday context. The Adaptive Toolbox (2022) can be found on the Versatile project website.

6.2. Criteria, filtering and layout

The versatile project members have agreed on the criteria, the taxonomy to sort out the educational tools in this context. The concept of a 'tool' is understood quite broadly. Tools can include digital applications that are freely available, open-source or hosted by a university. In our understanding also resources such as learning design models, simulations, videos etc. can be classified among tools.

In the Versatile project partnership, the following classifications of tools were agreed on, and they were applied as search criteria in the Toolbox application:

1. **Learning type:** Acquisition / Collaboration / Discussion / Investigation / Practice / Production. These six criteria are provided by the widely used ABC Learning Design (2022) model created by Clive Young and Nataša Perović.
2. **Purpose of the tool:** This is a category, which includes values like Teamwork/Co-creation, Meetings, Audiovisual creation, Games, Presentation, Production etc.
3. **Licence type:** Free / Freemium / Commercial

In the Toolbox, the user will initially have a grid view of all the tools included in the Toolbox. The user will be able to restrict the set of tools by selecting values of the Toolbox categories (Figure 3).
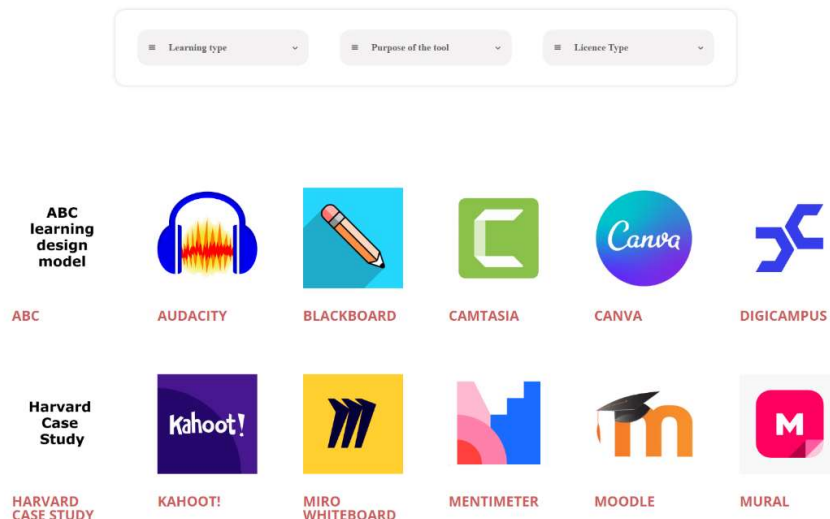
Figure 3: The user's selections in the drop-down lists: Learning type / Purpose of the tool / Licence type, will define which tools appear in the grid view (Adaptive Toolbox, 2022).

When clicking on a tool in the grid, the user will land on a tool card page, where a description of the tool is provided. The tool card shows the following information about the tool in question:

- Tool name
- Learning type (according to ABC learning design)
- Purpose of the tool
- Short description of the tool
- License type
- Teacher quotes
- External links
- (An option for) embedded video, image or slideshow

The Adaptive Toolbox will be openly available at https://versatile-erasmus-project.eu/toolbox/.

7. Conclusions

At this stage we do not have the student experience yet, as the courses are about to start in the Spring term of 2023. However, with the development of the online teaching guide and the toolbox as well as the guideline for administrative infrastructure, the major challenges to offering a collaborative online semester abroad have been identified and potential solutions have been developed. The two guides provide extensive guidance for academics and administrators alike who seek to develop virtual exchange opportunities. The extensive writing phase allowed a lot of knowledge-sharing and cross-fertilization between the project partners, involving not only academic but also administrative staff. Often academics seek to internationalize their programs but are quickly confronted with administrative obstacles. These obstacles usually increase the more partners are involved. Our guides assist higher education institutions in designing virtual mobility elements beyond fairly standard COIL projects. This enables institutions to utilize the benefits of online teaching for their internationalization activities. Currently a short pilot course will be provided collaboratively by Tampere University of Applied Sciences (Finland) and University of Derby (UK) with 20 students, 5 students from each collaborating HEI. During this course, first student experiences will be collected, and further critical issues may be resolved.

8. References

ABC Learning Design. (2022). https://abc-ld.org/

Adaptive Toolbox. (2022). https://versatile-erasmus-project.eu/toolbox/

Barbour, M. K., LaBonte, R., Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., Bond, M. A., Hill, P. and Kelly, K. (2020). Understanding pandemic pedagogy: Differences between emergency remote, remote, and online teaching. *State of the Nation: K-12 e-Learning in Canada.*

European Commission. (2022). *Virtual Exchanges in higher education and youth.* Erasmus+ EU programme for education, training, youth and sport. European Commission. https://erasmus-plus.ec.europa.eu/programme-guide/part-b/key-action-1/virtual-exchanges

Johnston, J. P. (2020). Creating better definitions of distance education. *Online Journal of Distance Learning Administration*, 23(2), 1-6.

Online Teaching Guide. (2022). https://versatile-erasmus-project.eu/online-teaching-guide/

Open Learn (2022). *Synchronous and asynchronous modes of teaching.* The Open University. https://www.open.edu/openlearn/mod/oucontent/view.php?id=77528&section=1

TLC. (2022). *Teaching and Learning Centre.* Tampere University and Tampere University of Applied Sciences. https://www.tuni.fi/tlc/en/home-en/

TLC. (2022a). *Hybrid teaching.* Teaching and Learning Centre. Tampere University and Tampere University of Applied Sciences. https://www.tuni.fi/tlc/en/hybrid-teaching/

Versatile project website. (2022). https://versatile-erasmus-project.eu/

Vriens, M., Van Petegem, W., Op de Beeck, I., & Achten, M. (2010). Virtual mobility as an alternative or complement to physical mobility. In *EDULEARN 2010. 2nd International Conference on Education and New Learning Technologies* (pp. 6695-6702). International Association of Technology, Education and Development (IATED); Spain.

Yang, H. H., Zhu, S., & MacLeod, J. (2016). Collaborative teaching approaches: Extending current blended learning models. In *International Conference on Blended Learning* (pp. 49-59). Springer, Cham.