Report of InCompEdu IO1 Multiplier Event - Challenges and best practices in remote and hybrid academic teaching

Time: Wednesday 16 February 2022, 9.00-15.00 CET

An online workshop *Challenges and best practices in remote and hybrid academic teaching* was organised by the Brahea Centre at the University of Turku, Centre for Maritime Studies. The workshop was moderated by Timo Halttunen, Head of Unit, Areal Research and Development, Brahea Centre at the University of Turku.

An opening address was held by *Piia Björn, Vice Rector (Education), University of Turku*. Mrs Björn welcomed the participants to the event. She noted that with or without Covid-19, learning is in process of major changes, with possibilities and challenges: how to learn, teach and develop in the practically limitless world. Principals of learning remain the same. Online teaching needs variation in tools to enhance higher level thinking and learning, starting from knowledge built on basics. Knowledge is applied and integrated, as well as is the learning environment. Mrs Björn mentioned the role of learning in solving global ecological, cultural, societal and economical challenges, and solutions offered by the HEIs. Excellent remote learning mechanisms and applications are needed also in wider society. Meeting and interacting with people, emotionally and caring pedagogically, wise combination of remote and meaningful face-to-face meetings is the key to succesfull learning. Differently built learning entities and modules are needed. Björn concluded with the quote „*Variatio Est Mater Studiorum*" [1] - Variation is the mother of learning.

The morning session was focused on online teaching during pandemic.

Views to the progress of higher education studies in Finland in the pandemic times. *Kati Isoaho, Senior Evaluation Advisor, Finnish Education Evaluation Centre (FINEEC)*. FINEEC is responsible for external assessment of education at all levels in Finland.

In 2020, FINEEC carried out a survey on the impacts of the exceptional teaching arrangements, on the realisation of equality and equity at different levels of education (FINEEC 8:2021). A survey for all the HEIs was conducted in September 2020. Available data on the study progress in 2017-2020 (completed degrees and ECTS credits) was used in evaluation as a baseline and comparing the developments during the pandemic.

Almost seven HEIs out of ten considered that Covid-19 pandemic has had an effect on the equal opportunities of learning among students. The need for the support had increased most among the students who have learning disabilities. All the HEIs reported that already before the pandemic they had electronic guidance services, and new services were developed. In particular, support for newcomers was discussed in the Finnish HEIs. Almost nine out of ten institutions considered that students´ contacts to the guidance services remained on the

---

[1] Marton, F. & Trigwell, K. (2010)

www.incompedu.ug.edu.pl

University of Gdańsk · UNIVERSITY OF RIJEKA FACULTY OF TOURISM AND HOSPITALITY MANAGEMENT OPATIJA, CROATIA · UNIVERSITY OF TURKU · UP · UAB UNIVERSITATEA 1 DECEMBRIE 1918 · TOR VERGATA UNIVERSITY OF ROME

normal level or increased to some extent, and they had been able to respond to the contacts well or in an excellent manner. Discussion took place whether the need for support had been more visible in the student health care services, and had all students been able to seek for help.

As an indicator of study progress, first the number of completed degrees per 1 000 students who had registered as "attending" was selected. In Finland, the students register each year as attending or not attending. Another indicator created was an average of completed ECTS credits per student. Universities and universities of applied sciences were studied concerning years 2017-2020, on the bachelor-level and master-level degrees. No remarkable changes were found concerning completed bachelor degrees in 2020 compared with the previous three years in the universities of applied sciences. In the universities, there was decrease in the autumn term 2020. A possible reason behind the result might be that there was support for new students but perhaps lack of support for those finishing their bachelor`s studies. Whether the number of students who registered as "attending" changed remarkably has not yet been investigated.

At the universities of applied sciences the completion of the master`s degrees increased in 2020, whereas at the universities there was an increase in an autumn term. Reasons for this may be weakened labour-market situation, which forced part of the student body, working adults, to study faster for their master degrees at the universities of applied sciences. Similarly, at the universities many students are usually working part-time. In addition, Mrs Isoaho questioned master level studies being so independent that they were easily transferred into distance studies.

Regarding the average of the ECTS credits per student in spring term 2020, most of the HEIs belonged to the group where the average followed the trend of the past years. However, at the institution level there was variation, both increase or decrease. The number of degrees may have increased in the groups of students who are working adults or those who are working part-time. At the moment, it cannot be said whether the extensive and well-developing offer of electronic services has benefitted most those learners who have best skills and self-motivation, or has the situation between different learners become more equal. It has been noted that there is polarisation among the students. In some regions of Finland, the pandemic has had an impact on possibilities for practical training, which is part of studies at the universities of applied sciences.

Moderator Timo Halttunen added that pandemic has had an impact on international students of the University of Turku. According to a study, students with lower socio-economic status did not consider online education suitable for them. For example, the students do not necessarily have access to multiple kind of devices, for example to follow a lecture in a laptop and chat via a smart phone as asked by a lecturer. The attendees of the workshop commented that also sharing of devices takes place, with other members of the household who are also either working remotely or siblings also participate in distance learning.

Mrs Isoaho noted that international students have been an important customer group for universities. Equal services are understood differently: one option is that the same services are being offered for all, another viewpoint is that there are different arrangements for students according to their needs.

Emergency online teaching or pedagogical success stories? *Satu Hakanurmi, Head of Development, Educational Support Services, University of Turku.*

Mrs Hakanurmi started by launching a poll asking the participants about their favorite tools in teaching. Three most preferred tools by the attendees were 1. Webmeeting tools (Zoom, Teams etc.) 2. Learning Management System (Moodle etc.) 3. Interactive tools (Flinga, Miro, HowSpace, Kahoot etc.).

While the lockdown started, Satu Hakanurmi worked at the Teacher Support Unit at the University of Turku. According to Mrs Hakanurmi, the problems now remain the same, but the infrastructure is different. While the lockdown started there were three days to change into online mode at the University of Turku. Quick and cheap emergency remote teaching took place. Zoom was recommended as teaching tool and exams took place via Moodle. Online exam rooms were closed. Later on, they were opened for a restricted number of students. In the University of Turku, the Teacher Support Unit had been organized before the pandemic with technological and pedagogical expertise. An intranet website had been established for teachers, aimed to support becoming a good teacher, including recommendation of tools for online teaching.

Towards the autumn 2020, there was a move from transferring of teaching towards learner centered solutions. Different kinds of solutions were identified:
- Peer support
- Planning before teaching, better quality
- Increase in use of videos from 1 800 videos in 2019 to over 5 000 videos in 2020. Flipped learning as a teaching method became more common.
- Teachers asked pedagogical questions concerning big groups, seminars, poster exhibitions, evaluation during the process.
- New tools for activation and participation: Kahoot, increased use of Flinga (Finnish tool), Howspace, Miro.
- Questions on well-being of students
- Electronic exams, which are common in Finland

Mrs Hakanurmi mentioned that there has been much technology driven pedagogy. Also, there is confusion on the concept. It may be understood as 1) Synchronous studies, where simultaneously part of the students is in the classroom and part of the students participate with Zoom, Teams etc., or 2) Studies include both asynchronous self-study and synchronous collaborative studies. The concept tends to cause confusion, and people may understand it differently.

Mrs Hakanurmi likes the illustration of Bates and Sangra (below), in which there is no clear difference between the concepts but the share of e-learning differs in different options. Currently, digitality is included in all teaching. Since autumn 2021, Learning Design is something all teachers need to consider. In an online mode, it was not possible to lecture only, and the learner's view was considered more. Flexible learning means learner centered thinking and learning design. More information is available at e.g. Learning Design Toolkit (Akseli Huhtanen, FITech) https://fitech.io/en/about-fitech/for-teachers/

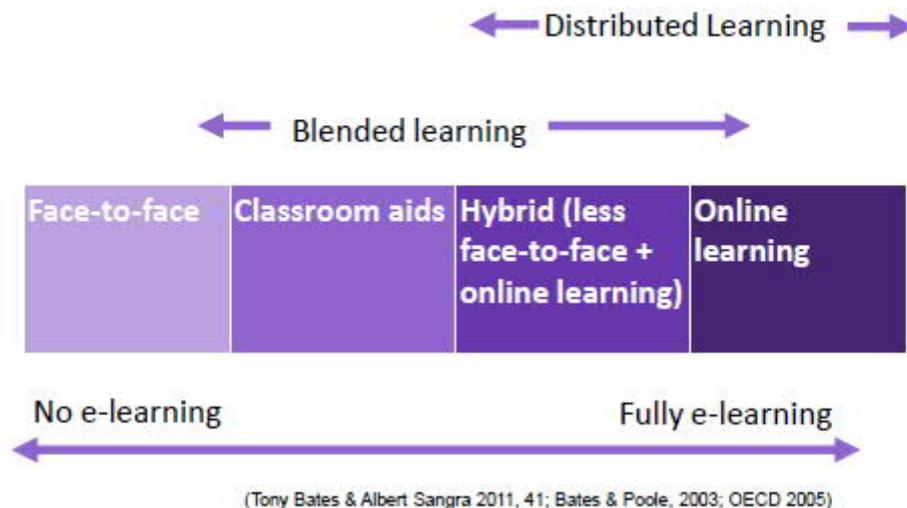(Tony Bates & Albert Sangra 2011, 41; Bates & Poole, 2003; OECD 2005)

Figure 1. Variations of e-learning. Adapted by Hakanurmi.

An example from a teacher at the University of Turku was that students liked a clear structure, deadlines and the variety of assignments. Students do what the assessment methods expect them to do. Interesting activities (e-tivities), assignments, project, capstones, cases etc. are a backbone for every blended/hybrid online course in the future. One of the questions is whether we will have synchronous or asynchronous learning sessions. According to a study, students rated higher a course with a synchronous component (Snyder, T. & Garner, B. 2020. Engaging Faculty to Connect with Online Learners in Real Time). The component may be e.g. real-time feedback. Tips for lecturing include options for course welcome online, or office hours in Zoom. New paradigm of teaching includes multiple options, for example blended and HyFlex.
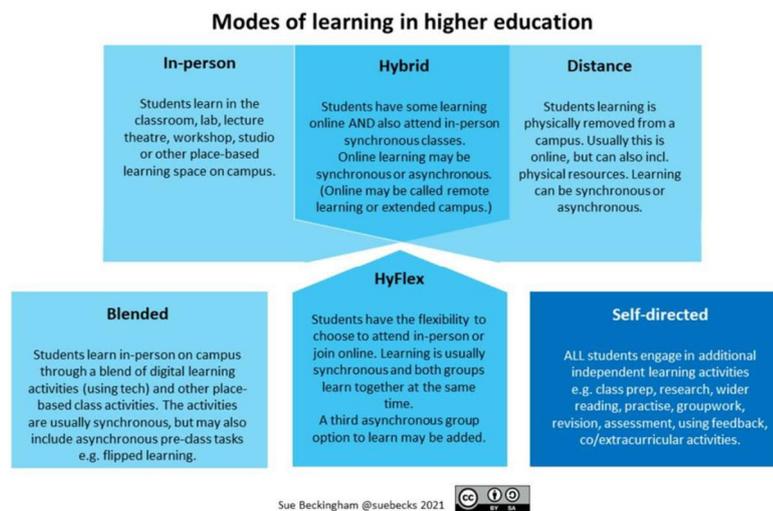
Figure 2. Modes of e-learning in higher education

According to Mrs Hakanurmi, currently there are more options to organize teaching than ever in the history. The third poll in Mrs Hakanurmi's presentation concerned the participants' own experiences: What is your favourite model to teach in the future? It is up to the organisations' decisions too, which modes they will offer. The participants chose Face2face most often. Other options were Hybrid (self-study + collaborative study); "Pandemia-Hybrid" (synchronous combination of f2f and distance participation); Hyflex (combination of previous two). Mere online learning was not supported by the attendees. It needs to be noticed which kind of learners there are, e.g. full-time or continuing education. Entrance exams have been a very difficult problem to solve during pandemic. An example of commercial exam-software is https://proctorio.com/

Innovative Competence in Online Higher Education – idea and goals of the project. *Olga Dębicka, University of Gdańsk, InCompEdu project*

Mrs Dębicka hopes that the deliverables of the project InCompEdu will benefit the teachers as well as students with presenting tools and examples on innovation for online education. A need analysis was done for the project. A reshaping of the future of education takes place, and there is a need to reflect the change on the future courses. Experiences and good practices from online courses are shared. In developing academic courses there is a need to combine digital skills with knowledge of educational psychology. The aim is more inclusive, engaging and effective education. We need to apply different pedagogy for distance learning, which is a challenge for online teaching.

The project partners are universities from Poland, Croatia, Finland, Italy, Romania and Slovenia. We aim to share the knowledge and experience gained during Covid-19 pandemic, to improve digital competences of academic teachers, including use of online platforms in higher education. New competences are developed also in creating innovative curricula in online education. The main target groups are academic teachers and university authorities responsible for study programmes. We will share information about IT tools, for example tools for online exams, which can be used by the teachers. Mrs Dębicka also pointed out that we

need to inform university authorities about the challenges faced by the teachers, and on the other hand on the good practices, and which methodologies have been used.

The project's intellectual outputs are the following:
- IO 1. Identification of problems and good practices with transferring academic teaching to on-line mode, led by the University of Turku, Centre for Maritime Studies.
- IO 2. Building the digital competences in the academic community of tomorrow, led by the University of Primorska.
- IO3. Reimagining on-line courses for the future of high education, led by the University of Gdańsk.

Regarding IT solutions, InCompEdu project will provide some recommendations on available solutions and how they can be used smartly. User needs will be focused on. Design thinking methodology will be used. Model lectures will be held in the Design thinking workshops in Slovenia, Italy and Romania. Scenarios will be tested by partners.

Challenges and best practices in online teaching. Preliminary results of InCompEdu survey. *Riitta Pöntynen, University of Turku.*

A questionnaire on identified challenges and problems and best practices was part of the IO1, Identification of problems and good practices with transferring academic teaching to on-line mode. Interviews are ongoing. Based on the interviews and the results of the questionnaire, a publication on Good examples - teacher stories will be compiled. The workshop is an important tool to have feedback and interaction on the results.

The situation before the COVID-19 pandemic and the experience of teachers in online teaching and teaching methods used were first mapped in the questionnaire. Regarding the sudden shift to online teaching, the main challenges and how they were solved were asked from the respondents. The respondents were also asked about the main challenges, teaching methods and best practices at the time of the survey, which was May 2021 – October 2021. Finally, future perspectives such as the planned share of online teaching and activities were surveyed.

Before the COVID-19 pandemic, the share of online teaching was relatively low in many of the countries surveyed. Students' access to teaching materials online was the most often reported online teaching type in all the countries surveyed. When the shift to online teaching took place in spring 2020, the most often mentioned challenges were engagement of students during lessons, increased workload due to organisation of online teaching and fatigue from prolonged activities on screen, followed by ergonomics in remote working. There were different views on the use of cameras, some of teachers had made that obligatory while some considered it a sensible issue. Some respondents stated that online teaching is not at all suitable for academic teaching. In spring/summer 2021, the main challenges remained the same, however the percentage of those who considered those as significantly or moderately challenging decreased. In spite of that, for example engagement of students during lessons was still considered significantly or moderately challenging by as many as 59% of the respondents. ICT-related challenges were reported less often than challenges previously

mentioned. The main challenges were reported on conducting examinations. Verifying student identity was also considered a challenge.

Even 261 respondents gave examples on overcoming the most critical challenges. The most often chosen solutions were finding information online and help from colleagues. Teachers had also advice and assistance from the university, their faculty or department or from ICT department. It is positive that a minority of the respondents reported that they could not solve the most critical challenges at all. Challenges related to teaching online certain skills and contents for students covered quite evenly the proposed options: teaching online general skills as well as learning and study skills. Content related with laboratory or field work were considered most often as significantly challenging. Several teaching subjects were mentioned as challenging by the respondents.

The most often used online teaching methods before and during the pandemic were presentations. The most increase was noticed in the use of online discussions during a lesson, real-time. Use of online whiteboard increased, as well as asynchronous online discussions.

Best practices were reported by multitude of respondents. The themes may be classified for example as follows:

- Preparing for the lessons/lecture; e.g. guidelines and procedures, pre-recorded lectures
- Collaboration with colleagues; e.g. teaching, testing
- Platform/software-related solutions; various possibilities, combining tools and applications during a lecture
- Teaching methods, various examples
- Activation and communication with students
- Students' communication with each other
- Verification of knowledge/evaluation

On the average, the respondents in all the partner countries would double the working time online or remotely. Besides personal preferences, the plans of the university matter, or whether there are plans for online teaching. Some respondents would like to teach online, but they assume that online teaching from home would not be supported by the university.

Working groups

The aim of the working groups was to discuss the methods which were used during the pandemic in online teaching, which are there benefits and challenges and which experiences and recommendations the participants of the working group have. Discussion on teaching methods started with selection of interesting teaching methods with the help of Flinga Wall. The moderators had chosen examples on teaching methods based on the results of the questionnaire and interviews. First, the participants gave their likes to interesting methods. Then, the participants could add interesting methods or IT tools. Discussions on the chosen methods continued with the help of a Flinga Whiteboard. Three working groups were planned to take place, however due to lower number of participants than expected, we combined Group 1. and Group 3. into the same Breakout room.

1. Online teaching methods. *Moderated by Riitta Pöntynen and Sari Nyroos, University of Turku.*

The benefits of gamification include that it is possible to reduce monotony and keep students' attention, as well as increase their involvement and motivation. Possible methods are for example Kahoot and Escape room. A challenge mentioned was that it takes time to learn the method and design that properly. Another challenge is difficulty to find or develop resources. In addition, pedagogical and technical support might be necessary.

In smaller groups, it is easier to discuss. There is also possibility to focus the discussion on specific interests. First year students can get to know each other easier. Involvement of students is also easier and results may be presented in the groups. Challenges consist of age dependency; older students may dominate the discussion. Some students will not discuss. A moderator is needed for the group. Possible solutions to active discussion in the groups are for example Breakout rooms and use of note catching documents. It is recommended to give roles for the students, as well as extra points for active participation.

Small group discussions
♡ 4
Gamification
♡ 4
Group work online
♡ 4
Flipped learning
♡ 3
Polls
♡ 3
NanoLearning - divided the lectures into small portions
♡ 2
More breaks during the lessons, shorter teaching periods than in on-site teaching
♡ 1
Teaching with a colleague

Figure 3. Result of vote in Flinga about teaching methods

Group 2. Digital tools, platforms and programmes used in teaching. *Moderated by Olga Dębicka and Adam Borodo, University of Gdańsk.*

In the second group, the discussion focused on the possibility of using IT tools and programmes to support remote or hybrid learning in higher education. The workshop

participants agreed that the listed systems are important, and suggested adding a few new ones to the list. They emphasized the enormous potential of using IT programs, such as pools and games, to engage and activate students. The discussion also focused on the potential benefits of using IT tools, mentioning among them learning flexibility and adding interactivity to lessons. It has been pointed out that using IT tools will be more interesting for the future students who will be accustomed to using technological solutions, while also giving them access to already available materials (e.g. materials and courses from other Universities or in MOOCs) and increasing students' employability through improvement of their digital skills on the other hand.

In addition, the participants have recognized the challenges posed to teachers and students by the use of new technologies, mentioning among them securing intellectual property rights to the courses created and made available to students, increased workload for both students and teachers (in preparing coursework). Maintaining student attention is also an important issue, due to the possibility of other online distractions.

It was also emphasized that it is necessary to develop official strategies for the use of these tools and acquisition of commercial digital tools which have more features than the free versions.
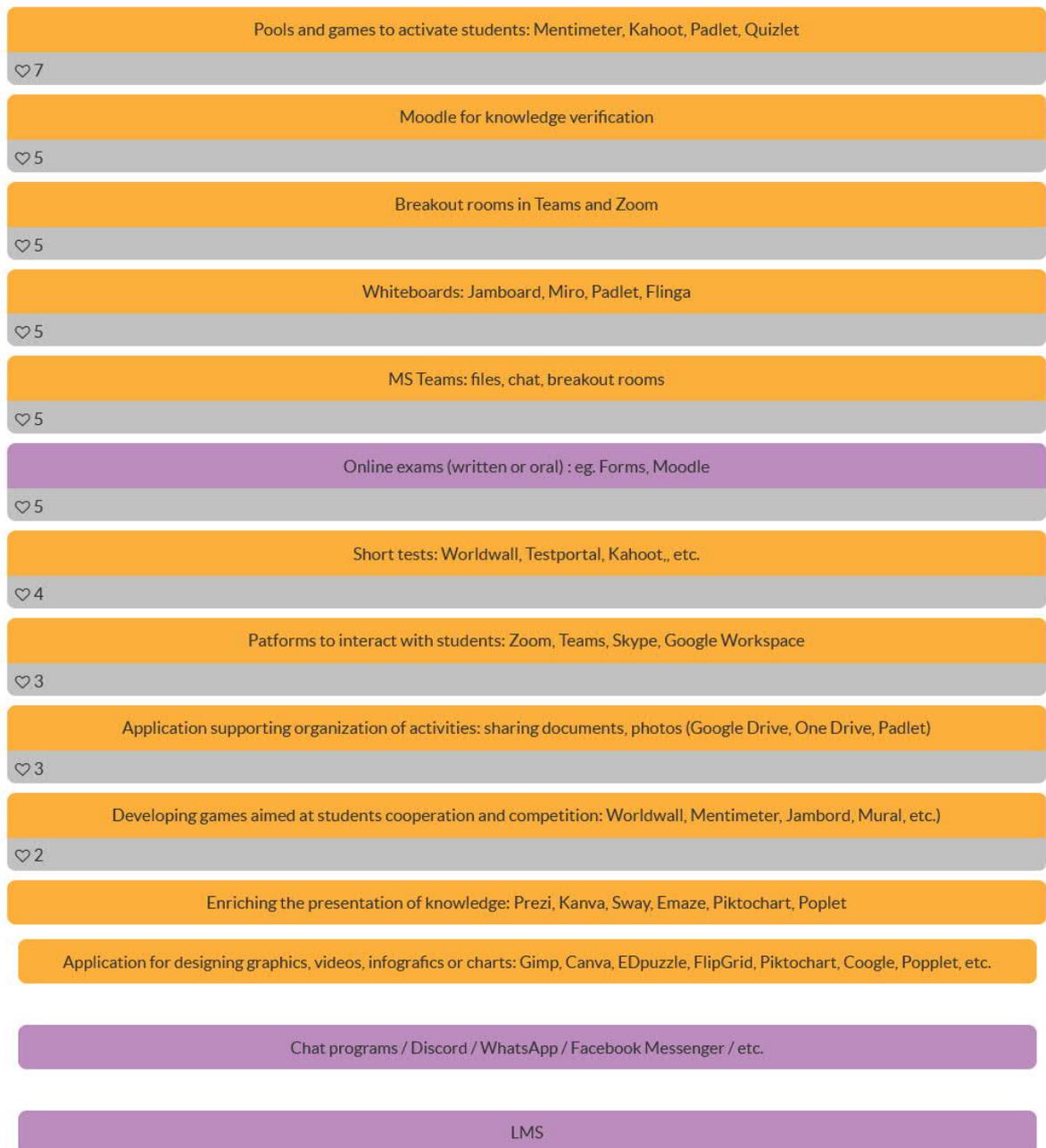
| Pools and games to activate students: Mentimeter, Kahoot, Padlet, Quizlet |
| ♡ 7 |

| Moodle for knowledge verification |
| ♡ 5 |

| Breakout rooms in Teams and Zoom |
| ♡ 5 |

| Whiteboards: Jamboard, Miro, Padlet, Flinga |
| ♡ 5 |

| MS Teams: files, chat, breakout rooms |
| ♡ 5 |

| Online exams (written or oral) : eg. Forms, Moodle |
| ♡ 5 |

| Short tests: Worldwall, Testportal, Kahoot,, etc. |
| ♡ 4 |

| Patforms to interact with students: Zoom, Teams, Skype, Google Workspace |
| ♡ 3 |

| Application supporting organization of activities: sharing documents, photos (Google Drive, One Drive, Padlet) |
| ♡ 3 |

| Developing games aimed at students cooperation and competition: Worldwall, Mentimeter, Jambord, Mural, etc.) |
| ♡ 2 |

| Enriching the presentation of knowledge: Prezi, Kanva, Sway, Emaze, Piktochart, Poplet |

| Application for designing graphics, videos, infografics or charts: Gimp, Canva, EDpuzzle, FlipGrid, Piktochart, Coogle, Popplet, etc. |

| Chat programs / Discord / WhatsApp / Facebook Messenger / etc. |

| LMS |

Figure 4. Result of vote in Flinga about IT tools and applications.

Group 3. Interaction with and motivation of the students in online environment. *Moderated by Jelena Dorčić and Helga Maškarin Ribarić, University of Rijeka.*

Chat, polls and other interactive tools are good examples of how to engage students more during lessons. Polling provides immediate feedback that helps to identify learning problems and disrupts the monotony of a lesson by breaking up the content flow. Chat is good for students who have great ideas but are usually quiet during discussions or debates. However, for teachers who need to both teach and follow chat conversations, chat can be distracting.

Flipped learning is a method that helps teachers focus on active learning during class time by assigning lecture material and presentations for students to watch at home or outside of class. This method can improve student engagement but relies on student preparation. All students must complete the assignments before the class. To use this method properly, it is necessary to give clear instructions and take extra time to create collaborative workspaces and activities.

Figure 5. Result of vote in Flinga about interactive teaching methods

Peer learning is a collaborative learning method where classmates work together to learn from each other. This method encourages students to think critically and learn how to give feedback. This method is a little challenging for both students and teachers. It increases the workload of the students, depends heavily on the attitude of the students and their ability and responsibility to meet deadlines. During the discussion in the working groups, it was noted that this method is especially problematic when the group is not homogeneous (e.g. cultural, age, gender and ethnic differences). For example, older students tend to participate more than younger ones. It is a useful method if students have to prepare a research paper individually during the course and then get feedback on their work from other classmates. It is useful to provide a template for the feedback and ask students to identify problems as well as positive aspects.

Permanent contact with students proved very important during the pandemic, as most students felt they were being left alone. Even though it is difficult for teachers to be available 24 hours a day, 7 days a week, this is crucial for student motivation, satisfaction and support during the learning process.

Personal online meetings are a great way for students to get quick answers to their questions

and reduce their anxiety about the course. It is also a great opportunity for teachers to get to know their students better and offer them support and guidance. It is advisable to set up rules for communication and, for example, provide students with time slots where they can put the meeting with the teacher in their calendar.

Summarizing the day, Mr Timo Halttunen raised up a few issues. First, it is clear that the pandemic situation forced us all to increase flexibility in learning and teaching; a variety of tools and methods were integrated in learning processes in order to help teachers and students to tackle the situation. A clear design of the learning process is a key factor when various tools and methods are used. A student needs to know which tools and methods are used, why they are used and what is expected from the students in each phase of the learning process. In the end, variation in the use of tools and methods as well as use of different types of assignments and assessment methods in teaching increase the quality of teaching and enhance deep learning. Teachers for their part benefit from sharing and developing tools and methods with peers.

Mr Halttunen also emphasized that it is important to keep everyone onboard; no student should be left behind. Permanent support should be available for students according to their needs. Some students are more self-directive than others. Equality should be kept in mind, and more support offered for those who need it. It is also important to gather feedback from students during a course, not only at the end. When feedback is received during the course, the teacher can take action and modify the methods during the course.

Further, Mr Halttunen also pointed out that assessment of a course has an effect on student engagement. In addition to diagnostic assessment in the beginning of a course, formative assessment to help the students to carry on and summative assessment at the end of a course, as well as integrative assessment can be applied during a course. Integrative assessment concerns life-long learning skills and can take forms of peer assessment or self-reflection. A recent study at the University of Turku shows that the use of integrative assessment methods in teaching increases the students' engagement and preparedness to support others in learning, as well.

Concluding the day, the project coordinator, Mrs Olga Dębicka highlighted the clear change that is going on to move towards online and hybrid modes of teaching and the necessity of universities and university teachers to modify their courses accordingly. The findings from the discussions today, including challenges identified in online teaching as well as different perspectives from different scientific disciplines will be integrated in the intellectual outputs of the InCompEdu project. The project activities help teachers to face the challenges and overcome them in the future.