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e-DESK

Digital & Entrepreneurial Skills
for European teachers

TOOLKIT/GUIDE FOR EDUCATORS



LUT
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TOOLKIT/GUIDE FOR EDUCATORS

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INTRODUCTION TO THE TOOLKIT

Tool to guide teachers in the implementation of hybrid, blended and online modes of delivery.

As of July 2020, 98.6% of learners worldwide were affected by the pandemic. It is estimate of 1.725 billion students from pre-primary to higher education in 200 countries were affected by lockdowns (United Nations, 2020). The teachers and their teaching practices widely changed from traditional face-to-face to different modes of digital learning and teaching.

The [e-DESK programme](#) is targeted for the higher education teachers to skill up entrepreneurship education competences in online teaching methods and practices, to develop their online teaching skills and to enhance the entrepreneurial competences for their learners. The objective of the e-DESK programme is to introduce the future of education trends in an online environment. Participating teachers are introduced to concrete entrepreneurship methods, and online tools that may be applied in their teaching practices to enhance their learners' entrepreneurial skills, competence, and mind-set in a [hybrid context](#).

At this point, it is important to clarify what we mean by [modes of delivery](#), [methodologies](#) and [methods](#).

We designate by [modes of delivery](#) the pedagogical formats carried out in specific learning environments. For example, online, hybrid, blended and face-to-face.

By [methodologies](#), we will address the activities implemented during a pedagogical session. For example, group work, lectures, presentations, oral reports.

The set of pedagogical approaches, with their own outcomes and aligned forms of assessment, will be designated by [methods](#). For example, Problem Based Learning/Project Based Learning, Team Based Learning or Challenge Based Learning.

This document will focus on the [hybrid mode of delivery](#), presenting approaches, recommendations and helpful resources to implement this pedagogical format. Please note that part of this content can also be useful for other modes of delivery.

Also, this document is meant to be used in a very practical way. You will find cross-links between sections to the different materials such as the methodology, the MOOC and resources whenever necessary, in order to make it accessible along the entire document.

INTRODUCTION

ABOUT

METHODOLOGY
AND MOOC

GENERAL
CONSIDERATIONS

DELIVERY

HOW TO?

RECOMMENTATIONS

CONCLUSIONS

ABOUT THE PROJECT

The **e-Desk – Digital and Entrepreneurial Skills for Teachers** is a European learning project for higher education teachers implemented in the period 2021-2023 within the ERASMUS+ programme. Its objective was to provide European higher education teachers with the required digital skills and entrepreneurial mind-set in teaching to succeed in the 21st century teaching and teaching environments.

e-Desk combines the expertise of 4 European universities (University of Cantabria - Spain, NOVA University of Lisbon - Portugal, University of Zagreb - Croatia and LUT University of Finland) and the International Entrepreneurship Centre of Santander – Spain (project coordinator) which have expertise in online training, curricula design and entrepreneurship education.

The continuous training of teachers is central to e-Desk, as the enhancement of their digital and entrepreneurship skills, by designing a hybrid methodology, in which face-to-face teaching and digital environments are combined. The goal of e-DESK was to bring education closer to all students, to understand their way of using technology so that education adapts to new uses and takes advantage of the digital environments.

THE METHODOLOGY AND THE MOOC

The entrepreneurial and digital competences for Educators

The main purpose of the **e-Desk methodology**^[1] is to generate knowledge by evidence research practices in applying entrepreneurship education to the online digital teaching environment, namely in the **hybrid and blended teaching format**.

The project's goal is to provide tools, methods and means to enhance online teaching practices that are needed as a response to the current educational challenges, enhancing **entrepreneurship and digital teaching and learning processes**, in an online environment.

The development of the e-DESK methodology arises from the results of an initial survey, applied in four European countries, addressing the needs of the target group: HEI teachers. The initial survey itself is developed in cooperation with all partners of the e-DESK project. Results were published in research paper [\[8\]](#).

As the current experience shows, teachers are no longer simple lecturers that deliver scientific contents in front of their students, in a typical classroom. In fact, not only the teacher, but also the entire academic community, must display another set of skills, which relate, for example, to the ability to adapt to increasingly less homogeneous target audiences.

Solutions for distance learning have developed rapidly, especially during the last couple of years. The imposition of an emergency remote teaching, from the previous pandemic situation, has accelerated the demand to deliver a class virtually.

These new challenges require new competences, aimed at mastering digital tools and methods. The importance of using educational technologies grows and therefore the need to use new forms of pedagogical interaction and learning assessment.

This new digital education requires to know how to apply technological resources, not only as mere tools, but also as a way of effectively achieving learning outcomes.

Regarding this scenario, the **European Framework for the Digital Competence of Educators**^[2] was created and suggests six main areas (Professional Engagement, Digital Resources, Teaching and Learning, Assessment, Empowering Learners and Facilitating Learners' Digital Competence), which enclose the competences that can help teachers in approaching digital teaching in an innovative way. This framework represents a guide to support teaching in different learning environments, namely, to contribute to the design of a successful remote or hybrid experience, which is the goal of this project.

Following these requirements, a Massive Open Online Course (MOOC) was created, to help HEI educators develop entrepreneurial and digital skills, as well as providing resources for the implementation of hybrid and blended methodologies:


[MOOC: Digital and Entrepreneurial Teachers for a Fast-Changing World.](#)

This MOOC was designed to give the needed competences and tools for educators to successfully manage their teaching activity on a digital environment and the design of an adaptable, transversal, scalable and

replicable high-quality hybrid education methodology that places students at the centre of the teaching process.

The MOOC counts with ten modules focused on entrepreneurial and digital competencies, learning design, innovative pedagogical approaches and useful tools and materials to ease the introduction of the technology in your classroom.

GENERAL CONSIDERATIONS



The development of this toolkit comes as a practical guide, resulting from the previous work developed on the context of this project, such as the [e-DESK Methodology](#) and the [MOOC: Digital and Entrepreneurial Teachers for a Fast-Changing World](#).

This project outputs will provide educators with a deep understating on how to implement and/or improve the quality of classes and therefore better prepare students and future generations in the skills required by the society.

Prior to continue to explore this toolkit we strongly suggest you check our [previous stated materials](#) to make sure you have a better understating on how to successfully implement a hybrid methodology in your own context.

THE DELIVERY MODES



Brief description

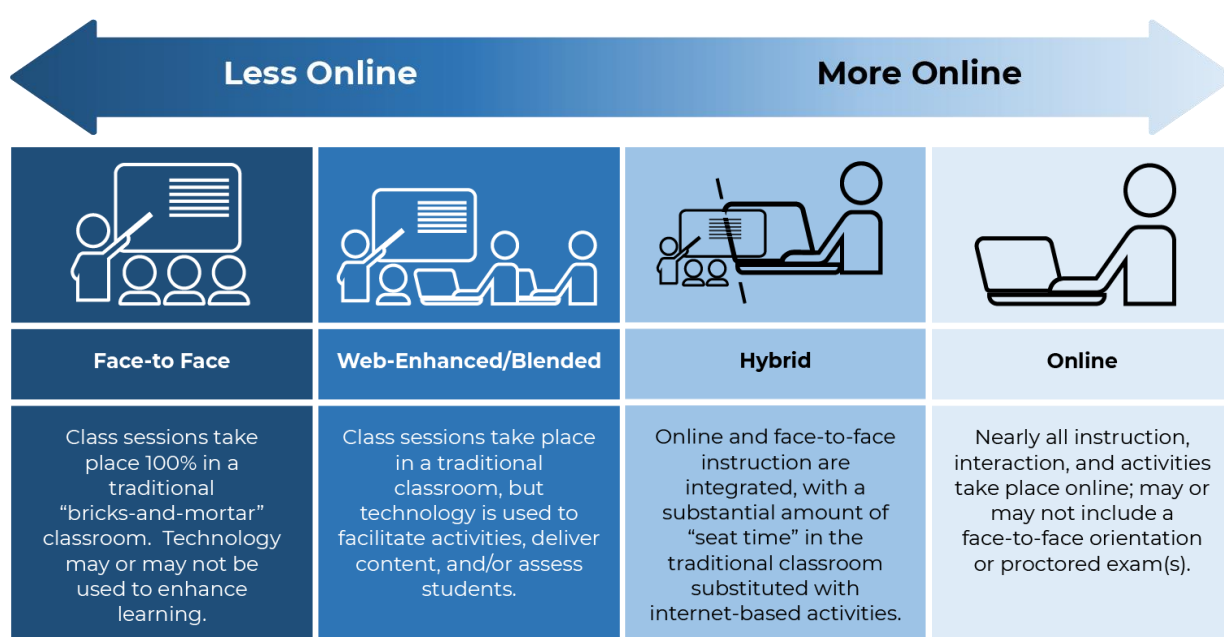
The e-Desk project defines the online delivery mode concept as follows:

Full digital - in full digital learning, the student completes the course entirely online. Full digital does not require the presence of the student on campus.

Blended learning - Blended learning can include many different teaching methods and their applications. The learning environment consists of an online environment and contact teaching.

Hybrid learning - In hybrid teaching, participants are **simultaneously** present in the same classroom either/or remotely over a network connection.

Though blended and hybrid teaching modes are today distinguished from each other, it needs to be noted, that still quite recently they have been used interchangeably in the same context.



Source: *An Introduction to Hybrid Teaching, College of DuPage*

Hybrid learning – first approach:

- The hybrid approach combines both face-to-face and online teaching to create a unified learning experience^[3].
- The teaching delivery is simultaneous distributed between the two formats, and it is important to ensure the attention is given as much as possibly equally in both formats ^{[3][8]}.
- The hybrid model has fewer physical in-person sessions than a typical face-to-face course, which makes the time spent together between students and their instructor more valuable^[3].

- In a hybrid course, students are frequently given content-related assignments to be completed online, and they use their face-to-face time to conduct a deeper approach to the material, by analysing, deconstructing, and collaborating to generate new ideas^[3].

Things to take into account

Hybrid is different from blended learning. Hybrid learning is designed to maintain an equilibrium between online and offline learning, while blended learning is designed to give face-to-face students online material to complement their in-class experience.

The hybrid approach does not create a distinction between the digital and on-campus groups and does not merely involve a combination of online and offline learning activities.

Achieving a balance between pedagogy and technology is a critical component of hybrid learning, often requiring a trade-off between the two^[4].

Best practices

Regarding the activities:

- In face-to-face classes, the instructor presents lectures and guides class discussions, while students work on online assignments related to the classroom activities. These assignments are subsequently shared on asynchronous discussion forums for online discussions^[3].
- The instructor shares lectures online through using PowerPoint or streaming media for students to review. In the classroom, students use these initial online resources to engage in small group activities and discussions^[3].
- Students collaborate on small group projects online, share them on discussion forums for review and discussion, and eventually present them during face-to-face classes for final discussion and evaluation^[3].

Schedule

- A common approach is for the instructor to conduct face-to-face classes for a few weeks, followed by a week of online instruction^[3].

- Alternatively, the initial weeks of the course could involve face-to-face preparation, followed by an extended period (such as a month or longer) of online coursework^[3].
- In a night class (after normal working hours) that typically meets in person for three hours per week, each class session may be shortened by 45 minutes. The remaining time is allocated for students to complete online assignments instead of maintaining the full three-hour in-person class time^[3].

Few advices from practitioners:

The hybrid format might not have a straightforward implementation, so it is easier to take it step by step.

The **design of a course/class** is essential and it helps to plan in advance and anticipating challenges. The focus should be on the design, using the available resources - **technology will follow**.

It is important to manage the teacher's and students' expectations and establish a proper pedagogical contract before the course starts.

There is also the tendency to overload a hybrid course by simply adding additional online components to the work from the traditional course (**course-and-a-half syndrome**). The teacher has to organize the learning outcomes according to the hybrid format demands. In this context, as said before, reskilling the **teacher's digital competences** can represent an effective exercise. It is productive not to do it alone and resort to collaborative groups or communities of practice.

The following table gathers a set of resources, which are used in today's digital teaching and which can be applied in a hybrid pedagogical session. These can be useful not only for the hybrid format, but also for other **delivery modes**.

These resources have been organized by categories and feature links to websites or video tutorials about each of the listed tools.







RESOURCE BOX



▪ Learning Design tools

BDP  	OULDI 	ABC  
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▪ Digital presentation tools

Powerpoint  	Prezi  	Google Slides  
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▪ Videoconference resources

Zoom  	Teams  	Google Meet  
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▪ Learning Management Systems

Moodle  	Blackboard  	Canvas  
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▪ Collaboration platforms

Google Classroom  	Sharepoint  	Padlet  
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▪ Gamification tools

Kahoot!  	Gimkit  	Quiziz  
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▪ Polling tools

Mentimeter  	Poll Everywhere  
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▪ Surveys

Microsoft Forms  	Google Forms  
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HOW CAN I PROCEED?

Design

What is learning design?

Learning design determines which activities, and in which conditions, teachers and learners need to undertake them, so to enable learners to achieve the intended learning outcomes. It describes the order of learning tasks, resources and support developed by teachers for their students, as well as the student workload, mode of delivery, assessment and feedback.

There are tools that can support learning design. According to the **MOOC [\(Digital and Entrepreneurial Teachers for a Fast-Changing World\)](#)**, it is suggested the **[Balanced Learning Design Planning \(BDP\)](#)**^[5] platform, available through the link and free to use.

The **BDP tool** is a research-based, innovative, constructive-alignment oriented and modular solution based on learning outcomes and learner workload as foundations of learner-centered learning approach. This tool was created by the Faculty of Organization and Informatics – University of Zagreb. ^[9]

To learn more about learning design and to get some practical tips on how to use the **BDP tool**, you can access the **MOOC e-Desk** and visit the corresponding module: **[Learning design concept and tool](#)**.



The preparation of learning design starts with the definition of the **learning outcomes**. If the learning outcomes are not defined correctly, the learning design does not have any value and, finally, the validity of assessment is questionable.

How to define learning outcomes?

It is important to distinguish between **general objectives** and **learning outcomes**. The general objectives concern what must be achieved or accomplished at the end of a module, curricular unit or course.

Learning outcomes establish in detail what the student should be able to know and know how to do, in order to successfully complete a certain learning process. It is as if the general objectives unfold into learning outcomes. These should refer not only to the content to be learned, but also to the way in which that content should be used by the student. Learning outcomes should be established from the student's perspective, using action verbs that appeal to different cognitive levels and that lead to observable and evaluable behaviours.

To support the course planning, we suggest the following sequence of videos. These videos are a part of the **Pedagogical Training for Faculty course**^[6], created by Professor Patrícia Rosado Pinto and NOVA Forma – NOVA University Lisbon, and they explain the different steps of planning a course, by completing a curricular unit file. To present these contents, a fictional course and teacher were created. Note: The videos are in Portuguese and have English subtitles.

CURRICULAR UNIT FILE: ORIGAMI – HOW TO MAKE A CRANE



1. Introduction



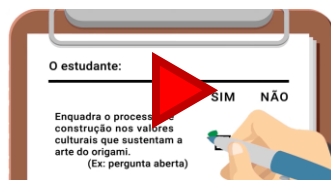
2. Learning Outcomes



3. Course content



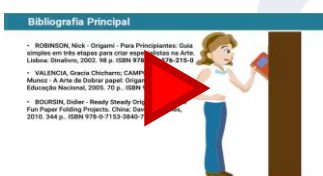
4. Teaching Strategies



5. Assessment Methods



6. Alignment



7. Bibliography

To systematize this planning, we suggest the following table, based on the presented fictional course:

Name of the teacher responsible:	<i>e.g. António Imagi</i>
Institution:	<i>e.g. NOVA University Lisbon - NOVA School of Social Sciences and Humanities</i>
Course title:	<i>e.g. ORIGAMI</i>
Course level:	<i>e.g. graduate</i>
Course duration (total):	<i>e.g. one semester</i>
ECTS credits (total):	<i>e.g. 6 ECTS</i>
Regular mode of delivery of the entire course:	<i>e.g. face-to-face</i>
Learning outcome(s) (to be included in the pilot):	<i>e.g. DESCRIBE the origins of origami. IDENTIFY the cultural values underlying the art of origami. IMITATE the folding steps, from viewing a demonstration. APPLY the folding technique autonomously.</i>
Topic(s):	<i>e.g. How to make a crane</i>
Mode of delivery:	<i>e.g. hybrid mode</i>
Duration of the experience:	<i>e.g. 4 weeks</i>

Implementation

As a teacher, implementing a well-designed learning experience can be an exciting opportunity to engage and inspire your students. Whether you have designed a learning experience from scratch or adapted an existing one, the mode of delivery plays a crucial role in ensuring its success.

This section aims to support teachers who are implementing a learning experience they have already designed and are using one of these modes of delivery. By following the steps outlined below, you can effectively navigate the challenges and maximize the benefits of hybrid, blended, or fully online learning environments. Let's dive in!

1. Review the learning experience design:

Take a moment to review the learning experience you've designed. Make sure that it's well-structured, engaging, and appropriate for the delivery mode you've chosen. If you feel like there are any areas that need improvement, adjust as necessary. If you have been using the BDP tool, please refer to the Design Analytics to see the possible areas for improvement.

2. Prepare the necessary materials:

Depending on the delivery mode, you may need to prepare different materials. For a hybrid delivery mode, you may need to create both online and in-person materials. For a blended delivery mode, you'll need to create a mix of synchronous and asynchronous materials. For a fully online delivery mode, you'll need to create all materials in a digital format. Ensure all the materials are easily accessible and in a well-organized manner.

3. Test the technology:

Before starting the learning experience, make sure you test the technology you'll be using to deliver it. Ensure all the links, files, and tools you'll be using are functioning correctly.

This includes testing any video conferencing tools, learning management systems (LMS), and any other online tools you'll be using. Please make sure to share with your students any additional technology-related instructions. They could appreciate to receive it in advance.

4. Communicate with your students:

Ensure you communicate clearly with your students before the learning experience begins. Let them know what to expect and what they need to do to be successful in the experience.

Provide them with clear instructions on how to access the materials and the schedule for the learning experience.

5. Start the learning experience:

Whether you're delivering it in a hybrid, blended, or fully online mode, make sure you're engaging with your students, providing them with opportunities for interaction, and monitoring their progress. Consider using formative assessments and checking for understanding regularly.

6. Monitor and adjust as necessary:

Throughout the learning experience, make sure you're monitoring your students' progress and adjusting the experience as necessary. If something isn't working, make adjustments to ensure your students are getting the most out of the experience.

Remember that the specific implementation details may vary depending on the context, resources, and constraints. Flexibility, adaptability, and continuous communication with students will be key to successfully implementing the learning experience in a hybrid, blended, or online mode.

FINAL CONSIDERATIONS/ RECOMMENDATIONS

Recommendations

Inclusive environment ^[7]

Tips to promote a sense of belonging among remote learners and a feeling of unity between those who attend face-to-face and those who participate remotely:

- Use icebreaker activities (asynchronously or synchronously during class sessions via [videoconferencing tools](#))
- Establishing a contract with the group to manage the expectations of both face-to-face and remote students.
- Avoid videoconferencing fatigue, cognitive overload, and disconnect with interactive activities.
- Welcome all learners prior to the start of the course (through email for example).
- Acknowledge remote students' presence by looking into the camera while talking to them.

Accessible materials and activities ^[7]

Create the necessary materials and types of learning activities, considering when and where these course materials will be made available.

- Materials from synchronous sessions should be available (e.g., presentations, articles, resources).
- Apply instructional technologies proven effective for both you and your students, in previous experiences.
- Reuse existing instructional materials and resources to support all learners during a course.
- Record the online sessions and add it to the shared materials.
- Make sure the materials are inclusive and accessible to different groups of students.

Student engagement ^[7]

Ways to engage equally face-to-face and remote students, within the course content and with each other.

- Plan opportunities for remote students to communicate with face-to-face students, using collaborative digital platforms. This should work for synchronous and asynchronous activities.
- Provide equal learning opportunities, with accessible activities, for both remote and face-to-face students.
- Use the proper **digital resources** to support this learning environment.

Students' success in a hybrid course ^[7]

It is important to support the students, balancing the teacher's presence between the face-to-face and remote learners, managing their expectations.

- Analyse the students' needs and digital skills before the course starts, during class sessions and early on or mid-course to check what is working or not for the hybrid experience.
- Establish pedagogical contracts with the students, explaining what the learning outcomes are, how they are going to be achieved and assessed.

- Host virtual meetings to provide resources and to support both face-to-face and remote students.

Classroom set-up ^[7]

Requirements for setting-up the physical classroom and the virtual environment to adjust to the planned activities.

- Choose the proper resources to support the activities.
- It is essential to have technical professionals to help setting-up the course.
- Plan in advance the most effective usage of the learning environment.
- Test the technological resources before the course starts.
- Practice and get to know all the resources to be used during the course.
- Arrive early to every synchronous class to set-up and test the classroom technology.

Revision/Assessment

To revise and assess the performance is a key element to identify the strengths and weaknesses of the learning experience designed. This is why it is recommended to have at least an internal assessment/revision when we implement something new. In this case, the recommendation is to get as much feedback as possible from students and peers. For example, it is important to have a time to reflect as a teacher how this experience has been and if it has accomplished one's own expectations and objectives.

However, getting feedback from the students is also key. By asking them about the learning experience the teacher will be able to compare with their own experience and conclusions and see the whole picture. In this case, it is suggested not to focus too much on quantitative questions but include some (not many either) open ended questions where students can freely express and detail their opinion.

Finally, if there is the possibility, it is recommended to get feedback from someone external, preferably another teacher.

The results gotten from the teacher's own analysis, students and even colleagues can be helpful for the design process of future experiences or even if replicating the same learning experience once again. This can be considered as the last step in the improvement circle.

CONCLUSIONS

Designing, implementing, and assessing learning experiences in hybrid, blended, or fully online delivery modes can be a transformative journey for both educators and students. By leveraging the flexibility and potential of technology, educators can create dynamic and engaging learning environments that cater to diverse learning needs.

Throughout this guide, we have explored the key considerations and strategies for designing effective learning experiences, successful implementation, and monitoring progress. It is crucial to remember that successful implementation requires continuous reflection, adaptation, and improvement. By actively seeking feedback from students, reflecting on their experiences, and making necessary adjustments, educators can enhance the quality and impact of their learning experiences.

As education continues to evolve, it is essential to embrace the possibilities offered by hybrid, blended, and fully online delivery modes. These modes provide opportunities for personalized learning, collaboration, and self-directed exploration. By harnessing the power of technology, educators can create vibrant learning communities where students can thrive and achieve their full potential.

Remember, the key to effective learning experiences lies in thoughtful planning, intentional design, followed by innovative teaching and learning strategies, continuous formative assessment, and meaningful feedback. By following the guidelines presented in this guide, educators can navigate the complexities of hybrid, blended, and fully online delivery modes with confidence, creating rich and meaningful educational experiences that empower students to succeed in the digital age.

Embrace the opportunities, adapt to the challenges, and continue to innovate as you design, implement, and assess learning experiences that inspire and empower the next generation of learners. Together, we can shape a future of education that is dynamic, inclusive, and transformative.

REFERENCES

List of links for the Resource Toolbox:

Learning Design tools			
	BDP	OULDI	ABC
Website	Balanced Design Planning	Open University Learning Design Initiative	ABC LD Tool Wheel
YouTube video	Tutorial for the BDP LD tool	-	Introduction to ABC Learning Design
Digital presentation tools			
	Powerpoint	Prezi	Google Slides
Website	PowerPoint for Windows training	Prezi Video tutorials	Get started with Google Slides
YouTube video	The Beginner's Guide to Microsoft PowerPoint	Prezi Tutorial For Beginners	How to Use Google Slides - Beginner's Guide
Videoconference resources			
	Zoom	Teams	Google Meet
Website	Getting Started with Zoom	Microsoft Teams video training	Get started with Google Meet
YouTube video	Zoom tutorial - How to use Zoom	How to Use Microsoft Teams Effectively	Google Meet for beginners - How to use Google Meet
Learning Management Systems			
	Moodle	Blackboard	Canvas
Website	Moodle Quickstart Guide	Blackboard – Getting Started	Canvas – Getting started
YouTube video	Learn Moodle 3.9 Basics	Blackboard Learn: For Instructors	Canvas Course Setup
Collaboration platforms			
	Google Classroom	Sharepoint	Padlet
Website	Get started with Classroom for teachers	Get started with SharePoint	How do I create a padlet?
YouTube video	How to Use Google Classroom	How to use Microsoft SharePoint	Padlet – Video Tutorials
Gamification tools			
	Kahoot!	Gimkit	Quizizz
Website	Getting started with Kahoot!	Create a kit from scratch	Quizizz - Getting started
YouTube video	How To Use Kahoot?	Gimkit Tutorial for Teachers	How to use Quizizz to make quiz and share it
Polling tools			
	Mentimeter	Poll Everywhere	
Website	Getting started with Mentimeter	Getting started with Poll Everywhere	
YouTube video	How To Use Mentimeter - Mentimeter Tutorial For Beginners	Quick PollEverywhere Tutorial	
Surveys			
	Microsoft Forms	Google Forms	
Website	Introduction to Microsoft Forms	How to use Google Forms	

YouTube video	How to use Microsoft Forms	Google Forms Tutorial
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- [9] Divjak, B., Grabar, D., Svetec, B. & Vondra, P. (2022) [Balanced Learning Design Planning: Concept and Tool](#). Journal of information and organizational sciences, 46 (2), 361-375 doi:10.31341/jios.46.2.6.

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