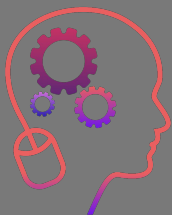


Continuing professional development in digital education for VET



COVET

Module 2: E-Learning for VET Teachers

Unit 2.3: Digital Learning Technologies for VET Teachers

(Using Online Resources and Online Discussion Tools)



Co-funded by the
Erasmus+ Programme
of the European Union

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This training material is a part of the
Continuing Professional Development (CPD) training program:
Digital Training Delivery in Vocational Education and Training.

Entire training program is available at: <https://www.covet-project.eu/>

Module 2: E-Learning for VET Teachers

Unit 2.3: Digital Learning Technologies for VET Teachers



At the end of this unit you will be able to:

...understand the online learning environment.

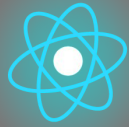
... design and facilitate online discussions.

Learning outcomes

... make informed decisions about which digital tools to use in your own context.

...manage the discussion forum feature in an online environment.





The second part represents a delving into the issue that collects suggestions, ideas, and more details to explore.



The third part is a collection of videos, testimonials, written documents, cartoons, etc. to explore the focused issue surfing the Internet.



The first part let you to focus on the issue by an analysis of the Unit key words and by an expositive short text.

Each Unit is composed of four parts



The fourth part is a testing section through which you can test yourself and reflect on what you learnt.

Content of the Unit

- Moving from face-to-face to online teaching
- The Learning Environment
- Tools and technologies for teaching and learning online
- Online Discussion Forums and tools



Synchronous and Asynchronous Learning



E-learning courses are web-based courses where content is offered synchronously and/or asynchronously.

Synchronous activities take place between teachers and learners, at the same time, for example, live classes and tutorials, lecture capture, online polls.

Asynchronous activities are not time-dependent, so learners can access them at a time that suits, for example, pre-recorded classes and forum discussions, interactive videos and learning resources.

Both types of teaching and learning have advantages and disadvantages and combining both elements can offer students the best learning experience. Providing students with the opportunity to access course content in their own time is one of the reasons why e-learning is so popular, as its design is centered on the interests of the learner.

Introducing this type of **learner-centred approach** will help to enrich the learning experience in your modules and can help to increase engagement in the activities you provide.



E-learning: What to consider

When teaching online, there are several things that we need to consider.



Your Students

- Who are your students?
- Is e-learning new to them?
- What digital access do they have?
- What digital skills do they have?
- What size is the student group?

Content and Activities

- Review learning outcomes
- Identify existing content that is reusable
- Consider how students will engage with content and activities
- Is your content accessible?

Communication and Engagement

- Communicate clear guidelines and expectations
- Make information clear and easy to find
- Choose appropriate tools for class communication

Assessment and Feedback

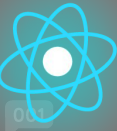
- Consider what types of assessment allow students meet learning outcomes
- Consider a variety of assessment formats
- Provide opportunities for online assessment

Knowing your students

Students come from different backgrounds and learn differently. E-learning offers many opportunities to ensure that everyone is included, but it is also important to acknowledge that your students may have issues that impact the pace of their learning or their ability to engage with the content.

Understanding the needs and profile of your students can help you create a more tailored learning experience which will improve student engagement.

Universal Design for Learning, developed by [CAST](#) provides a framework to allow teachers to offer their students choice and flexibility wherever possible. [Read more about UDL](#)



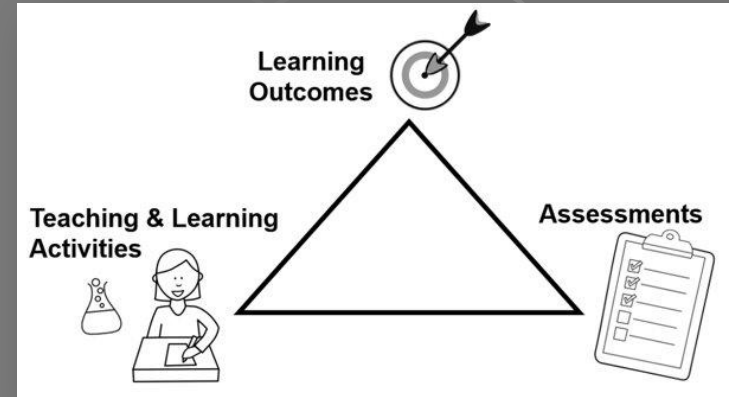
Learning Design

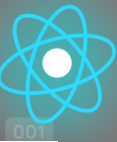
After you have considered who your students are, the next thing to do is to look at the learning outcomes for your module. The learning outcomes determine how you plan the learning activities and how you will assess the students.

This is called Outcomes-based design or **Constructive Alignment**.

Constructive alignment involves:

- defining the learning outcomes;
- selecting teaching and learning activities which will enable the students to meet the learning outcomes;
- assessing the students and grading their learning – have they proved they have met the learning outcomes?





Instructional Design

Gagné's Nine Events of Instruction provide a process for designing and delivering comprehensive and successful learning experiences. The student goes through each of the events or stages in their learning journey and the focus is on the student.

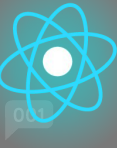
Reviewing each of these steps can help you design a lesson plan where and to decide what digital tools and resources you can use to help implement the events of your own instruction.



Image source: [Gagné-Nine-Events](#)



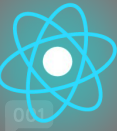
Examples



- **Gaining Attention** – use ice breakers, case studies, videos; use polls to ask questions which will get students thinking; post links to current events or news in discussion forums to spark interest
- **Informing learners of the objective** – post the learning objectives on the LMS and discuss these in the first class
- **Stimulating recall of prior learning** – use discussion forums to recall skills or knowledge previously learned and discuss these in class
- **Presenting the stimulus** – show and explain the material you want the students to learn. The content should be specific to the learning outcome. Use a variety of methods – readings, activities, multimedia and post these on the LMS
- **Providing learner guidance** – provide students with instructions on how to learn and make content as meaningful as possible. Include detailed information such as clear guidelines, timelines and grading rubrics. Use examples.



Examples



- **Eliciting performance** – allow students opportunities to apply and demonstrate skills and knowledge learned, in group or individual projects, assignments, practical work etc.
- **Providing feedback** – provide feedback on individual or group tasks and assignments. Explain what was done correctly, where improvements can be made and include explanations.
- **Assessing performance** – use a variety of assessment methods – exams, quizzes, assignments, practical exercises and projects – to ensure that learning has occurred.
- **Enhancing retention and transfer** – prepare students to apply information to personal or work experiences.



ADDIE Model

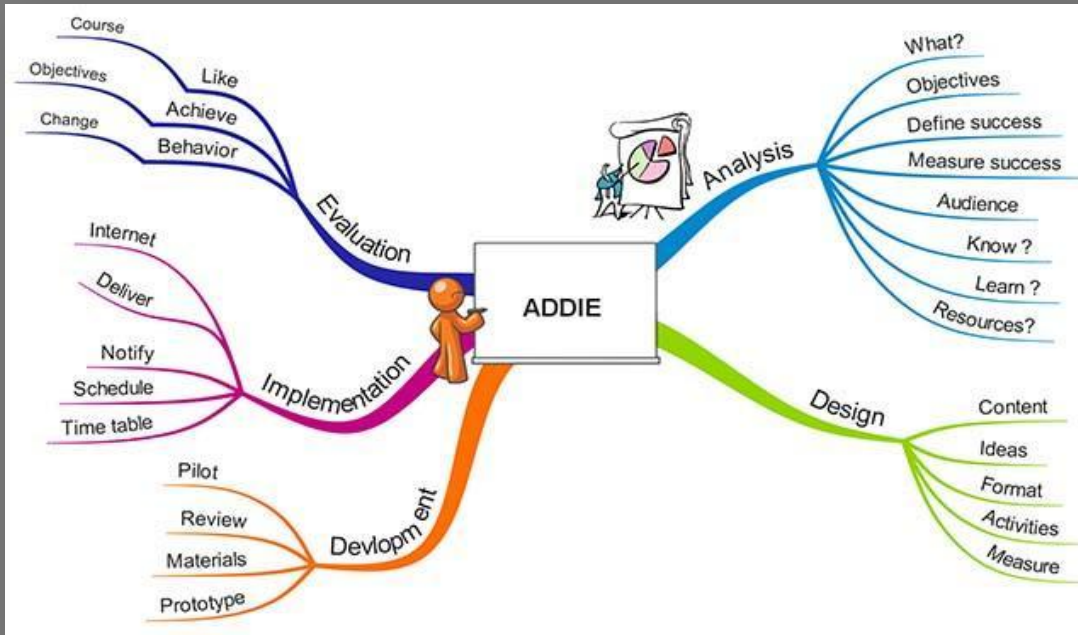


Image source: [ADDIE mindmap](#)

One of the most common models used for instructional design is the **ADDIE model**.

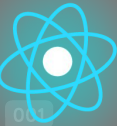
The model looks at 5 stages:

1. **Analysis**
2. **Design**
3. **Development**
4. **Implementation**
5. **Evaluation**

Each stage leads to an outcome that feeds into the next stage in the model.

[Learn more about the ADDIE model](#)

Moving your course online



Teaching online is not simply a matter of doing what you always did in a face-to-face class in an online space. It can be more difficult to hold the students' attention when you only meet them online. Therefore, online lessons are better if they are short, focused and include activities to ensure your learners are engaged.

This requires careful planning, designing your learning for online delivery and developing new ways of interacting with students, using digital tools for teaching and learning. The purpose of instructional design is to help people learn and to design content that makes learning more effective.

We will look at some of the ways you can move your teaching to an online environment using online resources and discussion tools.

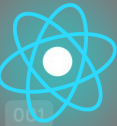
Digital methods to replace face-to-face teaching

Whether you have taught before or not, we have all have experiences of sitting in a classroom where we were taught face-to-face by a teacher, we have all completed assignments and written essays, and sat end of year exams.

When teaching online, we don't have the same opportunities to meet students face-to-face. Therefore, we need to use teaching strategies and digital tools to replace traditional classroom teaching.

We need to identify online activities which could take the place of traditional teaching methods by using digital alternatives. Many of these digital teaching methods will help you to deliver content, communicate with your students, and assist them in engaging with each other.

It is the teacher's role to trial these tools to establish which ones will help them to present the information using a variety of media and presentation formats, to bring their teaching alive and make it more engaging for the online student.

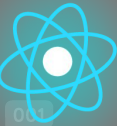


Selecting tools to use: what to consider

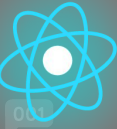
In this module, we will look at some of the more popular tools that are available, what they offer and how you might use them in your online teaching. There are countless tools and technologies available, and these are constantly changing but we have aimed to categorize some of these tools to help you understand their potential use.

Some considerations when choosing what tools to use include:

- The learning outcomes – technology must support the pedagogical outcomes, not determine them
- The students – their location, internet access, class size
- The activities/course content – do you need collaborative tools, live chat, file sharing, discussions?
- The teachers previous online experience
- Your school's policies and procedures on use of different online tools
- Costs of tools and technologies



Technical Competence



In order to design and deliver your e-learning courses you will need to have a good level of technical competence and be open to using and experimenting with new tools. You will need to be able to:

- Use the Learning Management System (LMS) to design and teach the course
- Use applications for creating content – e.g. presentation and screencasting tools
- Use applications for online synchronous delivery e.g. Zoom, MS Teams
- Develop audio and video materials – e.g. videos and podcasts
- Use collaborative technologies – polling tools, Padlet, Breakout Rooms
- Use tools for creating interactive learning resources e.g. H5P, MS Sway
- Use devices such as a webcam, headset, digital pen, graphics tablet, document camera etc.

Interesting Sources



[Benefits and Challenges of Online Learning – Lecturer Perspective](#)



[Gagné’s Nine Events of Instruction](#)



[Moving your course online: Five things to consider](#)



[ADDIE model Wikipedia](#)



[Instructional Design Models and Theories](#)

The Learning Management System (LMS)

The school where you teach may have a platform for delivering online learning called a **Learning Management System (LMS)** or **Virtual Learning Environment (VLE)**. The LMS is where you will make course related content and materials available to students, manage assessment and communicate with students.

This is the first place that your students will go to for course related information.

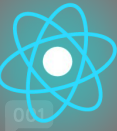
Examples of LMS' include Moodle, Canvas, Blackboard and Google Classroom.



Common Features of an LMS

- Lessons
- Discussion Forums/Announcements forum
- Course related content – text, video, audio files
- Quizzes
- Wikis
- Interactive content – (SCORM , H5P)
- Assignments and feedback tools





External and Discipline Related Tools

While much of your teaching will take place within the LMS, there are also many external digital tools that you can use in your teaching. You should experiment with and use these tools to develop content and share resources with your students. These tools may allow to integrate resources or ideas that you find which can complement your teaching online.

Your industry or discipline may also have specific platforms or web resources that students need, for example, [Duolingo](#) for language learning or [Github](#) for coding etc.

Your experience in this discipline will help you decide which resources are useful for your students and what is currently topical in your discipline.




Other platforms and technologies



 Microsoft 365 Office for Education



 Google Workspace for Education



 TED Talks



 YouTube



 LinkedIn Learning



 Blogs



 Social Media



 Podcasts

Content Creation Tools



Once you have decided on the content to create, you will need to identify what tools to use to allow students to access this material and to interact with it. These tools will allow you to produce interactive learning materials that can be made available online.

Many of these tools can be integrated with the LMS and the outputs can be shared to create a dynamic and engaging online learning experience.

The Google Workspace for Education and Microsoft Office 365 suite of apps allows teachers to share materials with their learners and collaborate on them together. Existing Word documents or PowerPoint presentations can be repurposed for the online environment by adding interactive elements such as audio, video etc. Document collaboration tools allow for multiple people to access and work on one electronic file or document together.

H5P, Microsoft Sway and Genial.ly are some tools that allow you to create interactive learning objects.

1.



Office 365 for Education provides a suite of apps that teachers can use to collaborate and share resources with students and fellow teachers. It is available for free to teachers and students.

Office 365 includes tools such as Word, Excel, PowerPoint, OneNote and Microsoft Teams.

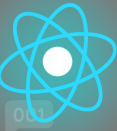
[Free Microsoft Office 365 for Schools & Students | Microsoft Education](#)

2.



Google provide a similar suite of free apps for teaching and learning, which include:

- Google Docs - Create, edit and share text documents. [Google Docs Training](#)
- Google Forms - Create and analyse surveys, quizzes and questionnaires. [Google Forms Training](#)
- Google Classroom - A free web service for sharing lesson materials and resources with learners, creating, grading and tracking assignments. [Google Classroom Training](#)
- Google Meet - Video calling tool for virtual meetings or online video lessons. [Google Meet Training](#)



3.



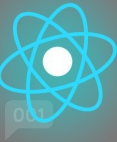
H5P allows you to create, share and reuse interactive HTML5 content in the browser. H5P makes it easy to create interactive content by providing a range of content types such as interactive videos, interactive images, full course presentations, multiple choice questions, drag and drop, flash cards and more. [Documentation | H5P](#)

4.



Genially is an online tool that allows you to create interactive images, presentations, infographics, maps, quizzes and add gamification to your modules.

[Genially training](#)



Communication and Collaboration Tools

Communication and collaboration tools are critical in e-learning to allow students to interact with both the teacher and their peers either in real-time (live classes and tutorials) or asynchronously (contributing to polls, discussions or posting ideas online). Web conferencing tools such as Microsoft Teams and Zoom provide the opportunity for synchronous online learning where a classroom type scenario can be replicated as well as providing opportunities for screen sharing and group work.

Using these tools can help you to develop an online relationship with your students and can allow them to interact with one another and build an online community.

Collaboration tools such as breakout rooms in Microsoft Teams, Zoom or BigBlueButton, polling tools such as Mentimeter and other tools such as Flipgrid and Padlet can help foster group work and further strengthen a sense of community among students who do not meet each other face-to-face. Students can work together on a shared task or project.

1.



Microsoft Teams is a collaboration platform that allows you to host online lectures, communicate and share files with students and other colleagues.

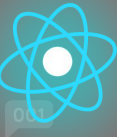
[Learn more about using Microsoft Teams](#)

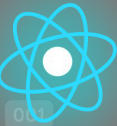
2.



Zoom can also be used to host online lectures and tutorials. The teacher and students log in simultaneously to a meeting where they can communicate with one another.

[Learn more about using Zoom](#)





3. **BigBlueButton**

BigBlueButton is virtual classroom software that has been designed around the real-world needs of teachers, students, and schools.

[Learn more about using BigBlueButton](#)

4. Polling Tools

Polling or audience response tools such as Mentimeter or Vevox are interactive presentation tools that help to engage students and allows them to contribute to polls and questions in real-time.

“You can use it to gauge student comprehension, test knowledge retention or as a fun way to break up learning”.

(Hanafin, 2020 [Mentimeter](#))

[How to make interactive presentations - Mentimeter](#)

5.

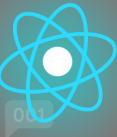
FLIPGRID.

Flipgrid is a video discussion platform that allows teachers to see and hear from every student in a class and foster a fun and supportive social learning environment.
[Get Started with Flipgrid | Easy, Video and Text Instructions](#)



6. padlet

Padlet is an easy-to-use tool that allows students to collaborate online by posting text, images, links, documents, videos and voice recordings.
[Padlet Knowledge Base & Support \(helpdocs.io\)](#)



Video/Screencasting Tools

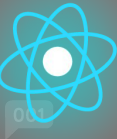
Screencasting is a digital video recording of your computer screen and usually includes audio narration to create instructional videos. A great way to teach or share ideas, screencasts can be used for creating video lessons, training videos, recorded presentations or tutorials.

There are several free screencasting tools available or your school may have a license for one of these applications.

Screencast-o-matic, Camtasia and Panopto are some of the more popular screencasting tools used in education. There are also many other free or paid-for tools which you can use.

You can also use YouTube or Vimeo to create your own videos.





1.

SCREENCAST  MATIC

Screencast-O-Matic is a screen capture application that allows teachers to share and record their screen with students who are studying online and by distance learning.

[Beginner's Guide to Screencast-O-Matic's Free Screen Recorder](#)

2.

 TechSmith Camtasia™

Camtasia is a screen recording software and video making solution used to create, edit and share videos. [Camtasia Training](#)

3.

 Panopto™

Panopto is a video platform that can be used for teaching, training and presenting.

[Learn more about getting started with Panopto](#)

Project Management & Planning Tools



As already mentioned, teaching online involves careful planning, scheduling and design of your course activities and assessments.

Project management tools such as Trello allow you to visually plan your course, organise your digital classroom and plan your teaching. You can organise your tasks and create a step-by-step plan of how you will deliver your course.

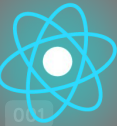
Slack can be used when collaborating with other teachers or students. It can be used to manage group projects, discussions or planning your e-learning course, using channels and instant messaging. Students can also use Slack to create an online community where they can communicate with one another and support each other's' learning.

1. Trello

Trello is a visual collaboration tool that allows you to plan and organise your coursework, your online classroom and collaborate with your colleagues. [Getting Started With Trello.](#)

2. slack

Slack can be used for planning your teaching curriculum and working on collaborative projects with your students or teaching colleagues. [Resources Library | Slack.](#)



Interesting Sources



Learning Management System
Wikipedia



The Ultimate Guide: What is Screencasting and Why Use it?



What is an LMS? A Guide to Learning Management Systems



Moving your course online: Five Things to Consider

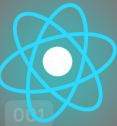


Tech tools to enhance online and blended education



Online Discussion Tools





Discussion forums

Discussion forums are a way for teachers to communicate asynchronously with their students. Forums are the most interactive part of the online classroom as they provide students with an opportunity to interact with one another and with the teacher. Teachers can use discussion forums to ask questions on a topic, prompt responses to course content and seek opinions and feedback from students.



This Photo by Unknown Author is licensed under CC BY

Creating engaging discussion forums can help to create a **sense of community** which is especially important in the online environment as students can often feel isolated or alone.

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Types of forums

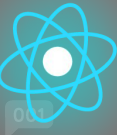
There are two main types of forums:

1. News/Announcement forums – This is where the teacher communicates important information or updates to students, for example, welcome messages, changes to timetable or activity, exam dates etc.

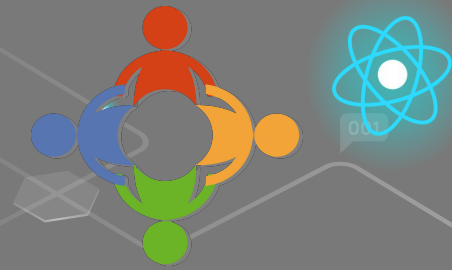
Most LMS's automatically create a news forum on each course page.

2. Discussion forums – where students can discuss a topic, interact with each other and share knowledge asynchronously.

Most LMS's have a Forum activity which teachers can set up to facilitate discussions.

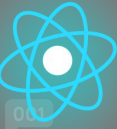


Benefits of using discussion forums



- Helps to establish a social presence and a sense of community, which encourages peer-to-peer interaction and helps to create emotional connections.
- Improves student learning and create greater feelings of satisfaction with the course.
- Encourages peer to peer interaction where students answer each others questions. This will also save the teacher time as they do not have to answer every individual query and everybody can see the responses.
- Provides a space where students can collaborate and provide feedback on each others' posts.
- Provides equal opportunities for students to actively contribute and share their views, opinions and knowledge.

Communication



In face-to-face teaching, non-verbal cues and gestures can let us know if information is being understood, if the students are interested or they need further clarification.

However, when teaching in an online environment we cannot rely on things like facial expressions, body language, tone of speech and reactions to tell us if students are interested or if they are struggling. This can lead to frustration, miscommunication and lack of engagement with the course.

In an online classroom, the teacher is required to take on the role of a facilitator or '**e-moderator**'.

“

“The essential role of the e-moderator is promoting human interaction and communication through the modelling, conveying and building of knowledge and skills”

- Gilly Salmon



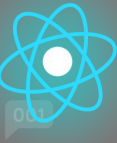
Promoting active participation



Active participation means asking students to do something that is directly related to the topic or module content. This increases their ability to retain and process information and demonstrate their knowledge on the topic. This also gives teachers a checkpoint so that they can provide feedback and guidance to the student on their learning.

Some ways to encourage active participation in discussion forums include:

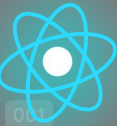
- Welcome students and outline the details of the module, including any supporting links or guides
- Highlight the importance of engaging with online tasks and contributing and responding to peers.
- Respond and react quickly to queries at the beginning to help students develop confidence.
- Use the LMS analytics to monitor activity, access, engagement etc
- Explain clearly how to engage online, eg netiquette guidelines and examples of a good post.
- Help students get to know one another - use ice-breakers, ask them to share a little about themselves etc
- Help learners see the value in what each other has to say by encouraging sharing of ideas
- Offer constructive and actionable feedback. Provide students with an opportunity to put feedback into practice.
- Ask students for feedback on their learning experience, use feedback to improve course design



Things to consider!

- Some students are reluctant to participate in discussions and prefer to observe because they do not feel comfortable presenting their ideas in writing.
- Others may post offensive messages or provoke an argument. This can create a negative environment and divert from the original discussion.
- Discussion forums can be difficult to manage if there is a large class.
- Some students may dominate the conversation.
- Managing and replying to forum posts can be time-consuming.
- Encourage the use of media in posts. It can potentially make a discussion more engaging. Consider a thread that is a video or audio recordings, images etc

Moderating Forums

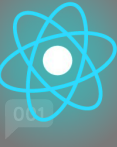


At the beginning of the course, it is good to establish rules for use of the forums and explain these so that students know how to use them correctly. Tell your students how to reply to other posts, how to create new topics and how to add attachments, how to start a new thread etc.

For these reasons, it is essential that forums are monitored by a moderator or facilitator who:

- Welcomes students and ensures that they can access all the resources
- Establishes rules for the use of discussion forums and communicates what is expected.
- Encourages use of, and contributes to forums with new posts to encourage participation of all.
- Appreciates and thanks students for their contributions.
- Engages students in the discussion by initially facilitating the discussion and then gradually taking a step back to allow students to interact and to share their knowledge with one another.
- Reviews and manages inappropriate messages and resolves these situations.
- Extract and summarise the main findings and points for further discussion and reflection.

Online Etiquette (Netiquette)



Netiquette is short for "Internet etiquette." It is defined as *"the rules of etiquette that apply when communicating over computer networks, especially the Internet."* ([Dictionary.com](#))

It is a code of conduct and good behaviour on the Internet and covers online communication associated with email, social media, chat rooms and discussion forums.

Providing a set of rules for engaging with discussion forums can help to reduce the number of misunderstandings and establish a more positive learning environment. Your school may have a template or guidelines that you can use, or you can create your own. Here are some resources that may help you:

- [Discussion Board Etiquette \(video\)](#)
- [10 Netiquette Tips for Online Discussions](#)
- [Online Etiquette: 14 Netiquette Rules Online Students Should Know](#)

Test yourself

Question 1:

A combination of synchronous and asynchronous learning provides the best learning experience.

- a) True
- b) False

Question 2:

What does UDL stand for?

- a) Understanding Digital Learning
- c) Universal Design for Learning**
- b) Universal Digital Learning
- d) Understanding Digital Literacy



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Test yourself

Question 3:

List the five steps in the ADDIE model:

1. Analysis

2. Design

3. Development

4. Implementation

5. Evaluation

Question 4:

Teaching online means doing the same thing you do in a face to face classroom in an online space:

a) True

b) False

Test yourself

Question 5:

Technology should support pedagogical outcomes, not define them

a) True

b) False

Question 6:

Creating engaging discussion forums can help to create a sense of community when learning online:

a) True

b) False



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Test yourself

Question 7:

Netiquette stands for 'Internet etiquette'

a) True

b) False

Question 8:

Providing a set of rules for engaging with discussion forums can help to reduce the number of misunderstandings and establish a more positive learning environment.

a) True

b) False



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Summary – key takeaways

In this unit we have looked at the using online resources and using discussion tools. You should now be familiar with the following:

1. Considerations when teaching online – your students and the design process
2. Moving your course online and using digital teaching methods to replace traditional classroom teaching and learning
3. Use of digital tools for creating and delivering online content, digital tools for communicating and collaborating, tools for planning and managing your teaching
4. The importance of online discussion tools in e-learning and how to manage/moderate online forums

Continuing professional development in digital education for VET

This training material is one of the outcomes of the Erasmus+ project: **“Continuing professional development in digital education for VET”** and it has been created to help teachers across Europe to address the challenging situation in online training delivery in VET.

The CPD program consist of three independent parts:

- Training modules
- Instruction set of sample online lessons
- Guide to the CPD training program

All project outputs have been produced by seven partners from seven European countries working together:

- ProEduca z.s., Czech Republic
- Archivio della Memoria, Italy
- Asociatia Pentru Sprijinirea Initiativelor Educationale, Romania
- Solution Based Training & Consultancy (SBTC), Turkey
- CEBEM FORMACIÓN PROFESIONAL SL (Daniel Castelao), Spain
- TUS Midwest, Ireland
- Northern Regional College, UK

All materials are available (downloadable) free of charge from the project web-page: <https://www.covet-project.eu/>





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Erasmus+

Continuing Professional Development
in Vocational Education and Training
2020-1-CZ01-KA226-VET-094350



Co-funded by the
Erasmus+ Programme
of the European Union

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