

In-service Training
Programme (Part B)
Manual for the tutors
for self-directed
learning



LEARNING CIRCLE

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Introduction

Background

The concept of online teaching and education has increased immensely in importance and necessity over the last decade, especially with the Covid-19 pandemic. Today, new and digital methods of education are being adopted by schools and teachers worldwide to engage students online. Teachers can teach in many innovative ways, and they can connect to students more easily and quickly than before.

Online learning, also known as e-learning, is a learning system in education in which students learn the things they would traditionally do, but in an entirely Internet-based environment. Although technology has always been there to support learning, the pandemic itself created an increase in the amount of digitized information and learning resources. While in traditional classrooms digital learning resources are used as a supplement to the primary course content, in virtual learning, digital resources actually constitute the 'content' of the class.

Online education proves beneficial for providing opportunities for collaborative learning in a multicultural environment, even between hostile cultures. In such environments, learners from different cultures and countries interact and learn together. Digital technologies provide a space for online encounters that contribute to better cultural understanding and inclusiveness and help immigrants, minorities, and marginalized groups, who are encouraged to learn and explore new languages and cultures.

As digital technologies become more prevalent in schools and in our lives, opportunities and new challenges for teaching and learning arise. Developing lifelong digital learning and intercultural competence and collaboration are important for both learners and educators. Learners need to develop skills that will enable them to create, communicate and collaborate, while educators will need to design and provide authentic and meaningful digital learning experiences.

Structure and objectives of the programme

This part of the In-service Training focuses on building the digital and pedagogic skills of VET professionals to enable them to provide a quality VET service through accessible and interactive online environments while building their self-confidence to work in remote learning environments.

The programme aims to provide VET tutors with an in-depth overview of the advantages and limitations of online learning, as well as the different teaching methodologies that can be applied in virtual educational environments.

To help VET tutors work confidently in online environments, the programme also provides a more practical knowledge of the main digital tools that can be used to create a wide variety of digital learning resources.

Overview

The document comprises the part B of the training:

- 21 hours of face-to-face instruction addressing the following topics:

- Module 1. Introduction to Online Teaching
- Module 2. Design of Online Curricula
- Module 3. Student engagement in online learning environment
- Module 4. Online Communication
- Module 5. Tools for the development of materials for online learning
- Module 6. Creating videos and quizzes for online teaching
- Module 7. Micro-learning
- Module 8. Designing infographics

This face-to-face content is presented as a series of lesson plans with accompanying PowerPoint slides, handouts, and activities delivered in practical and theoretical workshops. These resources are included as annexes of this handbook to support trainers in providing this face-to-face training.

- 14 hours of self-directed learning that VET tutors will be expected to complete as part of their autonomous learning, and which aims to further enhance their understanding of the same topics:

- Module 1. Introduction to Online Teaching
- Module 2. Design of Online Curricula
- Module 3. Student engagement in online learning environment
- Module 4. Online Communication
- Module 5. Tools for the development of materials for online learning
- Module 6. Creating videos and quizzes for online teaching
- Module 7. Micro-learning
- Module 8. Designing infographics

This content is presented in the second section of this handbook as a series of self-directed learning modules, which include key theoretical content, case studies, additional reading materials and links to short introductory video resources that will provide a brief overview of the topics for VET tutors, and which are intended to be viewed by VET tutors before they commence the self-directed learning modules.

Module 1. Introduction to Online Teaching

Introduction

Online learning has been becoming increasingly popular, and, recently, it became not only an option, but also a necessity. In today's world, it's essential that educators have the knowledge and skills to work in online environments. They also need to be able to keep up with the quick evolution of online tools that happens at a fast pace, so there is a constant need for upskilling, and, especially, to develop their digital skills, so that they are able to continuously adapt to online education technologies.

In this module, we will approach online learning, and its advantages and disadvantages. Some of the specifications of online learning are also mentioned, such as the possibility of synchronous and asynchronous learning and their collaboration.

After completing this module, you will have acquired the knowledge, skills, and attitudes in the table below.

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">• Knowledge of what online learning is• Knowledge of how online learning has been evolving and the importance of upskilling	<ul style="list-style-type: none">• Recognise the advantages of online learning• Recognise the disadvantages of online learning	<ul style="list-style-type: none">• Be open to transition and adapt to online learning

Online Learning

What is online learning?

Online learning is a type of education that makes use of technology, such as computers and the internet. One of the main aspects of online learning is that students and educators do not need to be in the same physical space. Instead, the training can be delivered through an online learning system, also known as an LMS (learning management system) or e-learning platform.

Online learning is a recent learning model which is currently gaining many followers. Amidst the COVID-19 pandemic, online learning became a necessity, but due to its many benefits, everything points to online learning staying relevant, even after the pandemic is under control.

While some years ago the field of online education was more unheard of, it has been quickly evolving and new tools, methodologies, and approaches keep being developed. This is making online teaching a more viable alternative to traditional learning

environments and also leading to the emergence of blended learning models, which mixes both online and face-to-face learning.

Online learning and upskilling

With the recent changes regarding learning environments and the adoption of online means, educators have faced a need to keep up with the trends and improve their knowledge and skills. The modernised classes do not need only technological devices, it is also necessary that educators adapt to the new equipment. Knowing how to use it and how to adapt the content to online learning has become essential. It is not enough just to move away from the blackboard to the computer. It is important to understand that the quality and way of teaching changes in an online learning environment, and that, consequently, there is a need to be equipped with certain abilities and knowledge to be able to teach effectively.

Lifelong learning is a term often used when talking about teachers. It means ensuring that teachers are always up to date. And not just when it comes to technology: lifelong learning allows professionals to get in touch with new methods of teaching, relationships, and student engagement. Known as upskilling, the development of skills, competences, and knowledge that educators already have, will help them deliver better educational opportunities for their learners and improve the quality of their work.

Despite this, several studies show that teachers are not initially trained or prepared for distance learning and, therefore, they have enormous difficulties in using technological tools effectively. This may partly explain the weaker results of distance learning that are sometimes mentioned. This difficulty for educators is absolutely normal. At the time of their initial training, future teachers are prepared for challenges in the classroom context. Throughout their career, it is in the classroom that they come into contact with their students and develop their teaching strategies. So when faced with the need to do so at a distance, for example through videoconferencing, they can only be expected to try to mimic the strategies used in the classroom, when technology requires totally different approaches.

Advantages and disadvantages of online learning

Just because online learning shows promising opportunities for learners and to enter a new era of education, it doesn't mean that it comes with no issues or that online learning is always the answer. Learning in an online environment has advantages, but also disadvantages compared with traditional learning environments. It's important for educators (and learners) to be aware of this in order to better answer their students' specific needs.

Advantages	Disadvantages
Flexibility	Technical difficulties

The learner can learn anytime and anywhere.	There can be issues with internet connectivity or the computer/device. Students or teachers may also not have these tools available.
Higher reach It allows education providers to reach a higher number of learners, as there are no time or geographical limitations.	Inappropriate teacher training Educators may not be digitally literate or prepared enough to work in online environments or to develop materials for online learning.
Better student attendance As classes can be taken at home or any other location, there are less chances of students missing classes.	Lack of concentration Learners can struggle to focus on the screen for long periods of time. Furthermore, there is also a greater chance that students will be easily distracted by social media or other websites.
Less costs Online courses tend to be more affordable and to require fewer extra expenses, which also makes it more accessible to a wider range of learners.	Feeling of isolation Students have less contact with their peers and educators. This can result in a sense of isolation, and less knowledge sharing.
Interactivity Through new technologies and the internet, it's possible to provide different and more interactive learning content.	More self-discipline It requires more self-discipline, which can be challenging for some students.
More accessible The online learning system, with its range of options and features, can be customised in many ways, making it easier to adapt the content according to the students different learning styles and preferences, or special needs.	More time management skills It requires more time management skills, which learners may need to develop.

Synchronous vs asynchronous learning

An online course can be delivered synchronously or asynchronously or be a combination of both.

In the synchronous online learning format, the learners participate in online activities and classes with teachers and their peers. This usually happens in real-time via online video platforms, web conferencing and chat tools. In this model, communication is key and you there are plenty of opportunities to ask questions and clarify information.

In this type of online learning, lessons are usually supported by online resources and assignments and lessons happen in various stages to be completed, all virtually.

This format requires a higher level of self-motivation and independence from the student because they will study on their own most of the time, with little or no real-time interaction with teachers and other students.

The approach is considered to be student-centred and more flexible as it facilitates individualised, self-paced learning.

The role of the educator

Commonly, the educator is someone who shares the lesson's content in an expository way. The traditional classroom model often promotes an environment where the teacher simply talks about the topic, with the support of a presentation or not, while the learners listen and take notes. There may also be practical activities and interaction between the students and the educator involved. However, a traditional learning environment puts focus more on the teacher rather than the learners. This has begun to radically change, especially when it comes to online education, which is much more student centred and puts a big emphasis on student engagement. In online learning, the learner takes responsibility for their own learning, while the educator is a mentor, a guide. The teacher establishes goals, negotiates, and monitors the process of acquiring knowledge, assesses the performance, and ensures that all the resources necessary for the fulfilment of the tasks are available. Instead of dictating, the educator demonstrates; instead of giving answers, the educator stimulates debate.

Interaction with a teacher is one of the decisive factors for learning. The teacher's performance, preparation, and motivation has a high impact on the students' learning process and engagement. This remains true even in online learning, where the role of the teacher is less central.

Additional Learning Resource

Module Title:	Introduction to Online Teaching
Title of Resource:	Online teaching toolkit
Resource Code:	R1.1
Description of the resource:	This resource provides a myriad of other resources that can be used in online learning environments. It has tools for setting up the online classroom, instructional tools, examples of good practices, and much more.
What will you get from using this resource?	It offers support in all of the different steps of teaching online.
Link to resource:	https://us.corwin.com/en-us/nam/online-teaching-toolkit

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Module 2. Design of online curricula

Introduction

Online learning requires different methodologies and tools from traditional classroom learning, but some approaches can be adapted to use in online learning environments. So, educators can make use of techniques and tools that they are already familiar. However, online learning offers a very wide range of new opportunities for implementing innovative learning technologies.

Challenge-based learning and gamification are examples of such innovation. These are methodologies that work very well in online and blended environments, and that, when done right, can be extremely effective and engaging for learners.

In this module, we will learn a little bit more about these and other methodologies, that will be useful for the design of online curricula. We also approach the creation of a lesson plan for online learning and give some tips that are proven to improve the quality of online learning.

Below, you can find the knowledge, skills, and attitudes that you can achieve by completing this module.

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">● Knowledge about the existing learning models● Knowledge on how to leverage the potential of online learning.	<ul style="list-style-type: none">● Design a proper online curriculum● Understand how to structure an online curriculum● Understand how to adapt a curriculum for online learning● Ability to choose the most appropriate teaching model	<ul style="list-style-type: none">● Make online learning courses attractive.● Provide learners with state-of-the-art learning courses.

Teaching methodologies

No matter the subject of your online course, if it does not have a well-defined teaching method, then it is at great risk. When we talk about online courses, the teaching methodologies gain a prominent role. After all, they reflect the attitudes you will take to make learners engage in the learning process and prevent them from simply turning off the computer in the middle of class or leaving the class running and doing something else.

Choosing the right teaching methodologies in an online learning environment is important for:

- ensuring that learners have all the tools they need to learn
- delivering an unforgettable experience to students
- offering content that can be absorbed and learned
- making classes dynamic and interesting
- facilitating the process of qualifying students according to the objectives foreseen in the course's teaching plan.

Examples of methodologies

Self-directed learning

In this methodology, the main pillar is the learner's freedom. Students are responsible for their own learning – they are the ones who manage their own time, dedication, and level of commitment.

Generally, classes, materials, links, articles, and books are made available for the student to use at any preferred time. Thus, before moving on to the next content, the learner is stimulated to reflect and understand, in order to build his own knowledge.

Since it is a very flexible methodology, self-learning courses do not have fixed or pre-established schedules, what makes them a great alternative for people who do not have much time or are both working and studying, for example.

Open Learning

Open learning also allows flexibility and freedom for the learner.

In this methodology, the student has the autonomy to study more subjects at the same time, allowing him to experience interdisciplinarity. Thus, the learner ends up finding a huge range of possibilities and diverse knowledge that will make him grow even more.

In open learning, each student is seen as an individual – with their own way of understanding, learning, and studying – so assessment and teaching criteria can change frequently.

Hybrid learning

Online education is not always the best option. Sometimes a hybrid model is more appropriate. Hybrid education, which combines traditional education and the use of technology to achieve personalised teaching. Hybrid learning can be done in different ways: it can mean having some classes face-to-face and others online or, for example, the use of digital tools in a face-to-learning environment.

Flipped classroom

In learning environments that use the flipped classroom, students are encouraged to research in advance for further discussion in class. Thus, materials containing content

are sent to students – in the form of videos or articles, for example – so that they arrive in class already with some background to share with their classmates.

Consequently, classes become much more interactive and dynamic, as the discussions take the place of the monologue that the teacher would do within the traditional model.

Within this methodology, critical thinking, autonomy, and collaboration are the main pillars.

Gamification

Another teaching methodology that is also a very strong trend in online learning is gamification.

Gamification is a way to use common elements of games in situations that are not restricted to entertainment, in this case, in education. It means using the methodologies of games to serve other purposes, such as turning complex content into more accessible material and facilitating learning processes.

By using this approach, students are entertained, are attracted by interactivity, learn faster and you still get a differential in the market. Not to mention the differentiated dynamics and the attraction of students by the innovation of your course.

Challenge-based learning

Challenge-based learning is probably one of the most notorious methodologies to teach online.

It's a multidisciplinary approach to teaching and learning that encourages students to use the technology they apply in their daily lives to solve real-world problems through efforts in their homes, schools, and communities. The collaborative nature relies on students working with other students, their teachers, and experts in their communities and around the world to develop a deeper understanding of the topics they are studying, to solve challenges, to take action, to share their experience, and to enter a global discussion about important issues.

This approach is highly engaging for learners. It also has the benefit of increasing their sense of responsibility, who are required to have the will and discipline to study and learn on their own.

Creating a lesson plan for online classes

The structure of a remote lesson plan is the same as that of a face-to-face lesson plan.

However, an online lesson requires the teacher to pay special attention to adapting certain elements, such as the duration of the lesson, teaching resources, methodology, and assessment.

To create a lesson plan for an online class, the creativity of the educator and the methodology adopted make a great difference, since it usually has a direct impact on the student's interest in remaining attentive and participative.

The following steps should be considered in the development of a lesson plan for online learning:

1. Choose the lesson's topic, objectives, and content

The topic, objectives, and content are the most important items in a lesson plan, and, as a rule, do not vary between a face-to-face lesson plan and a remote lesson plan.

2. Establish the lesson length

When establishing the length of a class or activity, the educator must consider several factors. For how long learners can keep their attention span is one of them, and this is especially true when it comes to online learning, which requires students more effort to maintain their attention and also provides many opportunities for distractions.

3. Choose the teaching methodology

The methodology used in an online lesson is the teacher's greatest asset. This step of the plan can have a direct impact on the student's motivation to stay focused on the lesson, or it can end up discouraging them.

In online learning, active methodologies, in which the focus is not on the teacher but the students, tend to be ideal, as it allows learners to interact, participate, and play a leading role in the development of their own knowledge.

4. Choose/develop the learning resources

Learning resources are materials that serve as support for the educator. In online learning, they have a prominent position and can be a great ally when it comes to stimulating students' motivation and attention. Digital learning materials that can be used in any type of smart device are ideal for learners to be able to access and use them anywhere and anytime, facilitating their learning experience.

5. Assessment

The last stage is to decide on the type of assessment to evaluate what and how much students have learned.

In Module 3 – Student engagement in online learning environments, this topic of online assessment is approached more in-depth.

Online platforms

After developing the curriculum, you need a place to deliver it to the learners. That's what online learning platforms are for. There are different types of platforms:

Learning Management System or Virtual Learning Environment

A Learning Management System (LMS) and a Virtual Learning Environment (VLE) are predominantly web-based computer software applications, allowing 24/7 access.

Both bring together learning material and integrated assessment and communication tools such as blogs or forums. LMSs tend to have more built-in administrative and profiling tools, although this is not always the case.

Managed Learning Environment

A Managed Learning Environment (MLE) incorporates the same elements as an LMS, but with additional administrative tools and controls. This can include learner information, grades, enrolment details, course completion data and information about teachers and staff.

Personalized Learning Environment

With a Personal Learning Environment (PLE), learners have the possibility to manage and structure their own learning activities, such as using the tools that best meet their needs and accessing the most relevant content and services available.

Massive Open Online Course

A Massive Online Open Course (MOOC) is a distance learning course hosted on a Learning Management System and designed to cater to a large number of students. Learning is usually individualised, with a distinct curriculum or structure.

The courses do not always offer academic credit but may lead to certificates or the development of skills and additional learning that enhance the student's professional perspective.

Further tips for online teaching

- Online classroom platforms with videos, presentations and reading materials should not be seen as the only means of delivering online training. It is possible and essential to diversify students' learning experiences.
- Choose the best technologies for your learners and institution, according to the communication system in your area and the technological abilities of your teachers and students.
- Make sure that the programs are inclusive to all students.
- Keep an eye out for security and data protection - assess the safety of online communication and that these platforms and applications do not violate students' privacy.

- Mobilise tools that connect institutions, parents, teachers, and learners. Create communities that ensure regular human interactions, aiming to solve challenges that may arise from isolated students.
- Set the timing of the lessons according to the students' ability to concentrate in a videoconference class.
- Create online communities to fight feelings of loneliness by facilitating the exchange of experiences and discussion of coping strategies.

Additional Learning Resource

Module Title:	Design of online curricula
Title of Resource:	FIVE e-learning Development Tool for Instructional Designers
Resource Code:	R2.1
Description of the resource:	Watch the video tutorial on how to create different types of E-learning resources, in several platforms, such as Adobe Captivate, Adobe Captivate, Articulate Storyline, Lectora Inspire, and others.
What will you get from using this resource?	The resource will help you discover additional creative e-learning resources platform software that can be used to create engaging materials.
Link to resource:	https://www.youtube.com/watch?v=d-xEBSOTBI&ab_channel=LearningProducer

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Module 3. Student engagement in online learning environments

Introduction

One of the most crucial factors for effective and successful online learning is to be able to engage learners and encourage them to study. Online learning requires a lot more of motivation, since students become more responsible for their learning process. This does not mean that the educator has no responsibility in keeping the learner engaged. In fact, the educator is the key actor who sets up everything, so that the student can have a positive and exciting learning experience. There are many different engagement strategies that can be adopted and even some small changes to the educator's posture can make a significant difference in the learners' will to learn.

In this module, we will discuss some ideas that educators can implement in order to engage their students. We will also focus on the importance of online assessment and certification for keeping students interested and have them set goals for themselves in order to obtain recognition for their efforts.

After completing module 3, you will have acquired the knowledge, skills, and attitudes shown in the table below.

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">• Knowledge of the how to engage learners in an online environment.• Knowledge of the possible ways to recognise the learner's achievements• Knowledge of strategies and tools for online assessment	<ul style="list-style-type: none">• Motivate the students to learn in an online environment• Recognise and apply engagement strategies• Recognise and use existing engagement tools• Be able to create a certificate for online learning	<ul style="list-style-type: none">• Interest in creating engaging materials for online learning.• Willingness to apply collaborative tools for online assessment.• Understand the importance of keeping learners motivated

Engagement strategies

Motivated tutors inspire learners

Students tend to stay motivated when they perceive that their teachers/tutors enjoy their work. In other words, showing that you are passionate about knowledge and sharing what you know is a good starting point for students to keep their focus in class.

Active learning

Active learning is a technical term for a set of pedagogical practices that approach learning from a different perspective than that of traditional learning techniques, such as discursive lectures, where the teacher is expected to teach, and the student is expected to learn. In active learning, it is understood that the student should not be solely a receiver of information, but should actively engage in the acquisition of knowledge, focusing on his goals and pursuing knowledge in a proactive way.

Collaborative learning

Collaborative learning is a teaching strategy based on interaction and the active participation of students in the learning process. The objective is to promote the exchange of experiences, cooperation, and the engagement of students.

Include challenges as a form of incentive

Developing incentives to keep students participating is also the goal of any tutor. The learning environment should be interesting as it not only allows contact with new worldviews and critical thinking, but visual stimuli is also valuable here. Thus, working with different scenarios and virtual visits to museums are examples of actions that can surprise and motivate students.

Support the creation of study routines

Encourage your students to establish learning routines. Encourage them to study at the same time every day, or at least one hour a day, or three times a week. It all depends on the student's availability, of course, but having a routine is one way to educate and keep them motivated. The tutor can provide tools that assist in this task, such as reminder apps or activating a diary system on the platform.

Explore different types of media

All students are better at learning in a certain way. Some people prefer the audio format, while others prefer video and others have a better understanding of textual content. Charts, mind maps and other formats are great ways to make your content more interesting and accessible to everyone. So, don't hesitate on exploring different formats and giving everyone a chance to learn with resources that keep their attention.

Have learners revise

Writing using your own words helps create more neural networks than copying notes.

So, if applicable, encourage your students to pause the lesson video and record what they understand in their notebooks. Another option is to provide exercises that encourage practical application of what has been learned.

Ask for feedback

One way to show support for students is to be open to dialogue. For this reason, asking for feedback is a great choice. With this simple attitude, you can increase class

engagement and enjoyment and reduce dropout rates. Plus, understanding students' needs helps you provide more appropriate guidance and research materials according to the needs of each class.

Creating social spaces

Online teaching also needs breaks and some of them can be used to replicate the break at school and encourage students to socialise, allowing a certain time of the day or week to have a "distance break" so that students can talk about life or other topics of their choice. Even when students are alone, they still have news to tell or things they would like to share. The teacher can also suggest webinars or Q&A sessions to encourage students to express ideas or concerns. By organising these, it also reduces possible interruptions caused by these kinds of sharing during a synchronous lesson.

Setting targets and tracking individual progress

To monitor students' progress, reasonable targets need to be set for each learner. The tutor should be as transparent as possible with students about their current performance and what they can achieve. The use of technology can help support them and help plan towards improvement. For example, using a consistent and simple tool to measure students' writing progress month by month.

Promoting self-reflection

Usually, students complete the activity but don't have the habit of reflecting on what they have learned. Even if you encourage students to check their work and to compare them with the correction provided afterwards, creating space and time to build up a culture of self-reflection allows students to learn the process of monitoring their mistakes and gain autonomy in correcting them.

Accept that technology has flaws

At a time when everyone is more dependent on technology, it is important to know that, although it's great for everyday use, it also has limitations. Being resilient to bad connection during videoconferences, to the frustrations when activities do not go as planned and being as pragmatic as possible in dealing with the unforeseen are some of the examples for the teacher to consider. Depending on the problem that has occurred, the teacher can always establish an alternative solution.

Online assessment

Online assessment gives you insights into how the learning process is working and how much knowledge and skills learners have acquired. Just as it would in traditional classroom learning, it will help you understand how well learners have engaged with the topic, and give you clues to adapt your teaching strategy, in order to provide better and bespoke training for your students.

Online assessments should be thought of in a different way than traditional learning: remember that the topic is being addressed in a new way in online education and assessment also needs to keep up with these differences.

It is important to think of continuous and diversified methods. That way, teachers can understand the evolution of students and bring more interest and engagement to tests and projects.

To make a good assessment, the educator must ask himself: what are the students learning? What are the difficulties? What remains to be learnt? What can we do to resolve these issues?

Types of online assessment tools

Projects

The conventional testing model is not very appropriate for online assessments. Proposing the completion of a project is a good alternative to a traditional test with only open or multiple-choice questions. It also gives learners an opportunity to put their new knowledge into practice, motivating them more.

Online assessment during synchronous lesson

During the lesson, the teacher can evaluate the students' progress. This is possible with videocalls and live broadcasts. Arrange with the students a way to ask and answer questions.

Quizzes and games

Teaching the content in different ways is a good strategy for online learning and the educator can make small assessments at the end of each topic to know which students need to review the content.

You can use tools such as Kahoot! or Google Forms to create a quiz and still receive data and graphs with the answers. Another interesting alternative is gamification. Learning games do not need to be only to acquire knowledge but can also be developed as a way of evaluating what students have learned. [Learningapps.com](https://www.learningapps.com/) is an example of a free tool that can be used for this purpose.

Self-evaluation

Self-assessment is a method already used by many schools. By completing self-assessment exercises, learners are able to have a better grasp on their learning process. As they are not being evaluated by others, but by themselves, they are more at ease and can think more clearly about their own learning, their achievements, and their goals. Self-assessment is also very valuable for the educator, as it gives an insight into the learners' attitude towards their learning process.

Certification and other rewards

Importance of certification

The job market is increasingly demanding in relation to the training of professionals. For this reason, taking a complementary course has become essential for anyone who wants to stand out in their career. However, as important as acquiring and recycling knowledge is to prove that the studies were completed

Certificates are a guarantee that a person has more in-depth knowledge about a certain subject. Sometimes, it's difficult to get the course officially recognised. But still, the completion of the course or materials show that the professional seeks to update and improve himself. It's a sign of dedication, proactivity, interest, and effort, and it can make a positive difference when a candidate is applying for a job.

Issuing a certificate

- Issuing certificates for online courses or classes is a very simple task and there isn't a single way of doing it. Each educator can adapt and develop the method that he finds more appropriate. There are, however, some essential aspects to consider:
- Establishing the requirements for getting the certificate.
It's up to the educator to determine who will receive the certificate. A course that hands out certificates to everyone who registers may not be taken seriously. So, consider establishing a set of requirements to achieve the certificate. For example, a minimum attendance requirement or a minimum of successfully completed tasks.
- Choosing the type of certificate.
Certificates can be issued digitally or physically. In the physical format, the educator must issue it, sign it and give it to the learner. The digital certificate, on the other hand, can be sent to the learner through e-mail, the e-learning platform, or other digital communication tool.

Digital certificates should include:

- Name of the institution
- Name of the course
- Student's name
- Workload
- Signature of the institution
- Place and date
- Logo of the institution

Digital certificates can be created with any writing or design tool, such as Microsoft Word, PowerPoint, or Canva.

Digital badges

As a way to encourage people to gain new skills, education providers and companies have been implementing the digital badge system, which recognises the completion of courses, training, participation in events, and expertise in certain subjects.

A digital badge is a type of online certificate that contains metadata carrying information about the issuing institution, date, description of the activity, knowledge and skills acquired, and validity. It can be added to a person's CV or be shared in social networks, such as LinkedIn or Facebook, for example.

Digital badges go well together with challenge-based learning and gamification and can work as a reward for the completion of the tasks or solving challenges, which brings additional motivation for learners to engage in the learning activity.

Additional Learning Resource

Module Title:	Student engagement in online learning environments
Title of Resource:	Top Tech Tools for Formative Assessment
Resource Code:	R 3.1
Description of the resource:	Online assessment tools are very useful to support both learners and trainers in the learning process. In this resource are available several assessment tools that can best fit the needs of both learners and trainers.
What will you get from using this resource?	Interactive lessons and video on making the most of online assessment tools.
Link to resource:	https://www.common sense.org/education/top-picks/top-tech-tools-for-formative-assessment

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Module 4. Online communication

Introduction

Communication is one of the big pillars for online learning. While in a face-to-face learning environment, communication comes much easier, in online learning there are some barriers that hinder communication between the educators and learners or among peers. This can have a big impact on the quality of learning, because a student who isn't able to ask questions, share ideas, or learn in a collaborative environment won't be able to overcome any obstacle in the learning process easily, or be in contact with different perspectives and ideas, which is a necessity for expanding his learning.

Despite the communication limitations in online learning, when compared with face-to-face learning, there are many online tools that can help mitigate lack of communication.

In this module, we will get familiar with some of these tools, specifically videoconferencing, chatting, social networks, and content management resources that support online learning.

On the successful completion of this module, you will have acquired the knowledge, skills, and attitudes mentioned in the table below.

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">• Knowledge about how to establish online communication channels for learning• Knowledge about the existing online tools for communication	<ul style="list-style-type: none">• Establish a communication strategy to encourage learners to communicate with the tutor and among themselves• Reduce the barriers of online communication with their learners• Choose the most appropriate online communication channels	<ul style="list-style-type: none">• Awareness of the increased importance of communication among peers and between learners and educators• Willingness to facilitate communication with and among learners

Communication in online learning environments

Online teaching does not mean that the interaction and communication among learners and educators becomes less important. In fact, for the success of online learning, this becomes even more crucial.

What students will miss most when learning online (especially if online learning is forced instead of a choice, for example due to COVID19 pandemic) is the human relationship

that is cultivated every day at school and in the classroom. The interactions that students experience with their peers and the teacher in the corridors, before and after class, or socialising during breaks, are irreplaceable. So, while it may be tempting for the educator to focus on the learning content when teaching online, they should always find ways to foster contact between peers and between learners and the teacher. Luckily, there is no shortage of tools that make it possible to communicate online. E-mails, video messages, phone calls, messages through the platform, or comments on shared assignments/documents are just a few examples of online interaction. Furthermore, establishing a form of regular communication can show learners that the educator is interested in their progress and in supporting their learning.

Tools for online communication

Today's learners communicate with ease in the digital environment, sometimes more than their parents and teachers. Interaction in these spaces has much to add to pedagogical practice for the development of the remote lesson plan.

There are plenty of tools and platforms for the purpose of online communication. Here are some suggestions:

Videoconferencing

Videoconferencing tools are useful for real-time conversations. During virtual classes, it is also possible to share the computer screen so that other participants can view the content. Other options are chatting and editing documents collaboratively.

In cases where the internet connection is poor, a tip is to participate in the videoconference only with audio, thus avoiding communication failures.

- *Google Hangouts*



Google Hangouts allows you to videoconference with up to 10 people at the same time. To start a meeting, just click on the "video call" option and send an invitation via email or share the link with everyone who will participate in the conference.

- *Zoom Meetings*



In the free Zoom Meetings option, the video call is limited to 40 minutes in length, but the number of participants is larger than in Google Hangouts, up to 100 people.

Similarly, the person who creates the conference must send the invitation by e-mail or share the link so that people can enter the room. Plus, it's not necessary to have an account on the tool to participate.

You can also transfer files, use a whiteboard, and save the video conferences in the cloud to access them whenever necessary.

- *Microsoft Teams*



During the quarantine period, Microsoft has released free access to Microsoft Teams. In the free version, you can hold video conferences with up to 300 participants. In addition, the tool allows you to store 2GB of files per person and 10GB per group.

Another possibility is its connection with applications such as Trello and Evernote.

Chatting

Chat tools are ideal for communicating on a daily basis, sending materials and messages, and answering questions.

- *WhatsApp*



Most people have a smartphone with WhatsApp installed. The advantage is that everyone is used to using it, so no training is needed.

One idea to put into practice with this tool is to create groups according to class or school year. Thus, teachers can send videos, text messages and audios guiding the learners about the content and activities to be done.

- *Telegram*



Telegram features are similar to WhatsApp. Both allow you to create groups, send files, send voice messages, make calls, among other functions.

The big difference is that Telegram also works on desktop computers, expanding the inclusion of more people. In addition, the tool works with encryption, which improves data security.

- *Slack*



Slack is a modern tool that allows greater organization in the exchange of messages and files. With Slack searching for old content and conversations is easier.

It is also possible to create communication channels, as if they were groups, and send direct messages to each student or teacher.

It works in web, desktop and mobile versions and has integration with several other external services.

Social networks

Social networks are important to keep people connected in a more interactive way than, for example, chat tools. By posting a video or image on a social network, everyone can interact on the same subject in a dynamic and organized way.

It is possible to share articles, presentations, videos, and promote discussions about the most diverse subjects. It also promotes socialization among students and teachers.

- *Facebook*



The advantage of using Facebook is that it is a social network that almost everyone is familiar with using. Furthermore, it offers the possibility of creating groups.

The downside is that, because it is a social network that is used a lot, it can be an easy target for distractions with posts outside the educational scope. For this reason, the next tool we will talk about is an even more interesting option for schools.

- *Yammer*



Similar in use to Facebook, Yammer is aimed at businesses, as well as schools. Likewise, it is possible to make posts, create closed groups, and interact through likes, comments, and shares.

Although it is free, its registration must be done through corporate, school, or university e-mails.

Content Management

The advantage of a content manager is that actions such as posting, storing, and accessing materials are more agile and organized. This facilitates communication between teacher and student.

- *Google Classroom*



Google Classroom is that it was designed specifically for schools. It is part of a set of Google resources called Google for Education.

It offers the following options:

- Posting announcements
- Distribution of assignments, which can be corrected after delivery
- Preparation of assessments
- Shared agenda with the whole class
- Integration with other applications such as Quizizz and Tynker

Additional Learning Resource

Module Title:	Online communication
Title of Resource:	Communication Strategies for Summer Online Learning
Resource Code:	R4.1

Description of the resource:	This webinar presents some strategies and tips for communicating with students in online learning environments. Although it's specifically directed towards online summer courses, it can be applied to any learning done online.
What will you get from using this resource?	By using this resource, you can acquire new knowledge on how to engage students online and how to foster communication for a more fruitful learning experience.
Link to resource:	https://www.youtube.com/watch?v=2au-dH_WR7E

Module Title:	Introduction to Online Teaching
Title of Resource:	Miro
Resource Code:	R4.2
Description of the resource:	Miro is an online platform that will help you build mind maps, diagrams and note boards. All in real time and possibly collaboration. It is adaptable to the needs of the learners. It is suitable to develop ideas for projects, organize information visually, and build a creation flow that works for the trainer and the learners gains more agility with a tool that allows to build and adapt what you want to include in your whiteboard.
What will you get from using this resource?	This resource will help you to create different resources, mind maps, diagrams, with different elements and visually engaging.
Link to resource:	https://miro.com/

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Module 5. Tools for the development of materials for online learning

Introduction

Even before the COVID-19 pandemic forced colleges and universities to shift all courses to distance or online learning formats, the use of digital teaching resources such as websites and apps to enhance learning was something already seen.

Multimedia technology has always been present to support traditional teaching materials. Usually, when learning about a particular topic that may be more difficult to understand without a visualisation, the facilitator can use digital resources to provide more information and improve the learners' ability to see beyond what is written on paper.

Whereas in traditional educational settings digital resources are used to complement learning, in virtual classrooms, digital resources make up for the content. This means that the digital learning resources that used to be implemented in education as a supplement to paper-based materials and course content are now the digital resources that are used for the actual learning process.

The full digital transformation of the learning process poses many challenges for VET tutors, both in terms of mastering the necessary digital skills and keeping students engaged even at a distance.

The module provides knowledge of different digital teaching resources that can be applied in online learning contexts and of a wide range of existing open-source tools that can help VET tutors to create their own digital resources. The module includes the following topics:

- Open-source tools
- Digital learning resources

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">● Factual knowledge about existing open-source tools for creating online learning resources● Knowledge about the different types of resources that can be developed with open-source tools	<ul style="list-style-type: none">● Apply digital skills to create online learning resources● Identify the right tools● Analyse the different types of learning resources● Analyse and identify the competencies required for working	<ul style="list-style-type: none">● Awareness of how to create online learning resources● Appreciation of how to create online learning resources● Awareness of different types of online learning resources

<ul style="list-style-type: none"> ● Knowledge about how to choose appropriate tools based on specific needs 	in online environments	
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Open-source tools

Open-source software refers to any software that is released under a license in which the copyright holder grants users the rights to use the software to anyone and for any purpose. In an educational setting, open-source tools give educators and students around the globe the freedom to teach and learn without restrictions.

Open source is a term that originally referred to open-source software (OSS). Open-source software is code that is designed to be publicly accessible - anyone can see, modify, and distribute the code as they see fit.

In the 1950s and 1960s researchers developing early internet technologies and telecommunication network protocols relied on an open and collaborative research environment. The Advanced Research Projects Agency Network (ARPANET), which would later become the foundation for the modern internet, encouraged peer review and an open feedback process. User groups shared and built upon one another's source code. Forums helped facilitate conversation and develop standards for open communication and collaboration.

By the time of the birth of the internet in the early 1990s, the values of collaboration, peer review, communication, and openness started to spread. By early 1998 the [Open Source Initiative](#) (OSI) was founded, formalizing the term open source and establishing a common, industry-wide definition complying with specific criteria. The [European portal](#) provides an online catalogue of digital learning resources for teachers and educators available in multiple European languages.

Digital learning resources

The term Digital Learning Resources (DLRs) refers to any materials in a digital format, like audio, video, interactive games, graphic, and animation that can support **students' engagement** and help them achieve their learning outcomes. The variety of digital learning resources can serve different educational purposes and can be delivered depending on the learner's needs.

Video-based learning

Video-based learning has the ability to combine camera footage, animation, graphics, text, and audio, **videos create exceptional learning experience**. When it comes to corporate training, [research has shown](#) that there are several benefits to opting for video, including improved learner retention rates.

Video is a format learners can easily access with any digital device, including tablets, smartphones, and even smart TVs. In addition to supporting students in learning thanks to their effectiveness and accessibility, video-based learning has proven to be a powerful reflection tool for teachers, but also significant in the context of their professional development improving the overall quality of the classroom experience. Due to their various positive effects, video-based learning is becoming a dominant standard of online training.



Figure 1. Video-based learning illustration (Source: <https://www.freepik.com/>)

Video-based learning comes in many different formats that serve unique purposes. *Explainer videos* have become one of the most popular types of videos used in e-learning. It makes the lessons more engaging and enjoyable so that learners can retain information much better. It includes easy-to-understand animation, which improves the learning experience. They can simplify complex subjects and transform text-heavy reading materials into easily digestible visuals. Explainer videos make it easier for learners to connect and interact with the course content in a meaningful way and provide learners with eye-pleasing visuals which make the learning process much more fun.

Instructional videos are *practical based-tutorials*, or hands-on tutorials that provide step-by-step guidance on how to do something, or how to do it right or more effectively. It provides detailed information on how to meet a specific challenge. It is usually an expert on a particular topic who describes or demonstrates a process, transfers knowledge, explains a concept, or shows someone how to do something. The expert provides relevant information to solve an issue or achieve an outcome, often with real-life applications. Video tutorials are a great example of learning by doing and they are able to transform a passive viewing experience into an active learning experience.

Video lesson or *video lecture* is a video that presents educational material for a specific topic. It can be a video of a teacher speaking to the camera, photographs and text about the topic or a mixture of these. They can be created by simply recording a live speech,

meetups, or performance of an expert, or intentionally created to cover a certain topic. A video lecture is a very effective way to turn one-time learning sessions into reusable content.

Strengths	Limitations
<ul style="list-style-type: none"> ● Grabs the attention ● Helps information and knowledge retention ● Improves task proficiency ● Simplifies complex data ● Helps introduce new concepts ● Adaptable to change ● Cost-effective ● Facilitates microlearning 	<ul style="list-style-type: none"> ● Tech proficiency required ● Time-consuming to set up ● Not beginner-friendly ● Distract students from learning

Audio-based learning

Audio has proved to be a powerful and successful means of conveying information for teachers, especially in areas marked by conflict or remote and isolated locations. Because it is a broadcast technology, listeners can be brought on board at a very low cost. Furthermore, radios and audiocassette and CD players are easy-to-use, widely available technologies, even in the poorest corners of the globe.

Radio - both broadcast and interactive - has been a commonly used model for distance-based teacher instruction. One of the earliest examples of audio-based distance education comes from Australia. In the 1950s, Australia's Schools of the Air (SOA) began using two-way audio high-frequency radio transceivers to send and receive lessons and messages to and from students in the Northern Territories and Western Australia. Students interact with teachers at a studio (broadcast) site and with other students around Australia at regularly scheduled times during the day.

In recent years, internet and mobile technologies are revolutionizing and transforming all forms of audio-based learning. *Podcasts* have become an increasingly common and useful tool in the audio-based teacher professional development repertoire because of their versatility and portability.

A podcast or audio lecture is an episodic series of digital audio or video recording often focused on a specific theme or topic which students can download and listen to on their mobile devices at any time. Students are far more likely to listen and consume material if they can do it on the bus, driving the car, washing the dishes or at the gym.

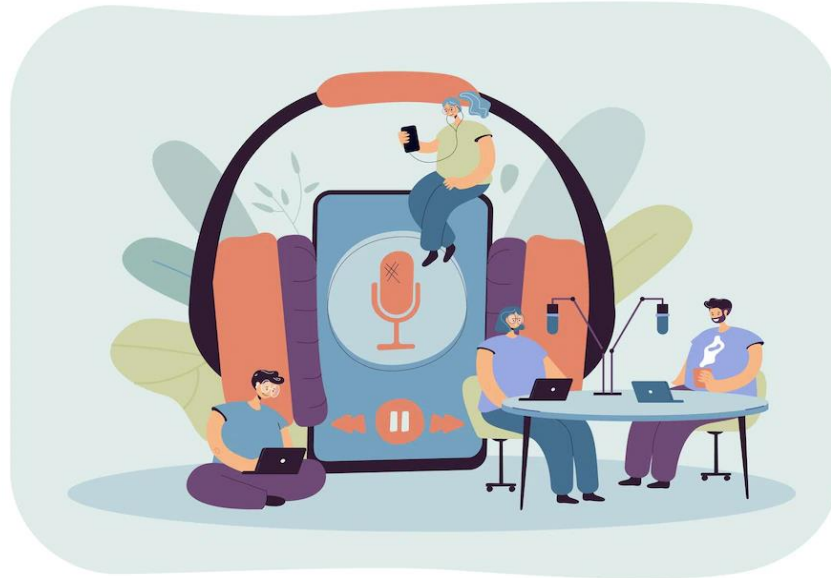


Figure 2. Audio-based learning illustration (Source: <https://www.freepik.com/>)

One of the greatest pedagogic characteristics offered by educational podcasting is the chance to learn through listening. Learning through listening is enjoyable and less tedious than reading and may encourage students who don't like reading. In addition, podcasts allow teachers to provide more information when compared with written material alone. This is also because the speaker can place emphasis, intonation and inflection on words or phrases and grasp concepts in shorter time when compared with reading alone.

Although podcasts may be suited for any type of learning, some content is better suited for audio learning than it is for text-based teaching methods. For instance, training on language skills, interpersonal communication, and other subjects where vocabulary, pronunciation and any other language nuances are important, are best accomplished via audio-based or audio-enhanced lessons.

Radio and audio are simple technologies with which many teachers across the globe are familiar. Schools don't need to purchase computers or Internet connectivity, and teachers do not need to learn complex technology in order to participate in audio-based professional development.

Audio-based learning is a culturally familiar medium that doesn't require the reading and writing skills needed to undertake print-based instruction or the technology skills demanded by online learning requirements that often prompt teacher attrition in distance education programs.

Furthermore, a speaker's voice can be memorable and can help students retain and retrieve information for extended periods. Having someone speak directly to you improves intimacy and has benefits for educators looking to create a feeling of belonging in distance education.

Strengths	Limitations
<ul style="list-style-type: none"> ● It can reach large student and teacher populations. ● It may be implemented with or without textbooks and other resources. ● More appealing than reading ● It addresses equity and access issues (gender, ethnic, rural). ● It is durable and can be used for long-term use ● It allows students to multitask: they can listen while doing other activities. ● It requires moderate classroom infrastructure and low technical support ● Suitable for learning targeting language and communication skills ● Culturally familiar medium 	<ul style="list-style-type: none"> ● The value of content may degrade over time. ● Difficult for people with a hearing disability. ● Audio is often best used in conjunction with other media such as text or graphics thus adding complexity to the design of teaching. ● Recording audio requires at least a minimal level of technical proficiency. ● Spoken language tends to be less precise than text.

Game-based learning

Game based learning is an active learning technique where game elements, such as progression, rewards, and competition are used to enhance student learning. Gamification is related, but not identical, to the concept of game-based learning. Where gamification is about the use of game design elements in a non-game context, game-based learning refers to the use of actual games, such as quizzes, to acquire skills or knowledge. Although gamification for learning and game-based learning are two different concepts, they share common ground on the idea that game elements can make learning experiences more engaging. Game elements, such as rewards and competition, motivate a person to achieve their best performance.



Figure 3. Game-based learning illustration (Source: <https://www.freepik.com/>)

The main aim of gamification and game-based learning is to foster human motivation and performance in regard to a given activity. Knowledge acquisition is at the basis of game-based learning. In quizzes, for example, the skills that are put to the test correspond to the learning task. They can be designed to interactively increase the difficulty of an activity to match the player's growth in skill.

Game-based learning is an effective technique to engage learners. It is all about using the principles and key elements of gaming to meet the required learning objectives. Types of rewards include points, achievement badges or levels. Making the rewards for accomplishing tasks visible to other players is a way of encouraging players to compete and keep playing while inspiring them to continue learning. Gamification techniques are intended to boost learners' natural desires for socializing, learning, mastery, competition, achievement, status, self-expression, altruism or closure.

However, games may not always be the best option. In some cases, it may not work helping achieve the learning objectives. This is because the concept of having 'fun' may overshadow the real purpose behind the training. The excessive use of elements such as points, badges, rewards, or even backgrounds and sounds that are redundant can shift the attention from learning. This causes the risk of losing track of the learning motive and forgetting that the real purpose is to facilitate learning. The lack of focus due to the 'fun' element is an important aspect to consider when developing these types of resources.

Strengths	<ul style="list-style-type: none"> • Limitations
<ul style="list-style-type: none"> • Makes learning fun and interactive. • Improves motivation to learn. • Enhances engagement through eye-catching visual graphics. • Gives learners the opportunity to see real-world applications. 	<ul style="list-style-type: none"> • It is only effective when it encourages specific behaviours to achieve specific goals. • Learner focus shifts to winning rather than learning. • Shifts employees' focus away from collaboration.

- Offers real-time feedback on progress.
- Enhances the learning experience.

These digital learning resources can therefore help the learner to achieve learning objectives and are truly enhancing and redefining the entire educational and learning experience.

The inclusion of technology for classroom instruction is gradually becoming the new normal nationwide. Although COVID-19 triggered an exponential increase in the number of students enrolling in e-learning, the use of digital teaching resources, such as websites and applications created to enhance understanding of course content, was a phenomenon already seen before the pandemic.

Whereas before, multimedia technology was a complement to traditional teaching materials, today the learning environment is Internet-based. With the pandemic, society has had to rely completely on it for learning, which has led to a faster transition and a consequent increase and improvement of digital tools for this purpose.

These digital learning resources are opportunities for the expansion of learning. They are available online, worldwide, and at the touch of a hand. The most recognized digital learning resources are Youtube, Khan Academy, MOOCs, podcasts, Quizlet, e-textbooks, and so forth.

Additional Learning Resource

Module Title:	Tools for the development of materials for online learning
Title of Resource:	UNESCO distant learning solutions
Resource Code:	R5.1
Description of the resource:	UNESCO provides a list of educational applications, platforms and resources aimed to help parents, teachers, schools and school administrators facilitate distant learning. Most of the tools are free and available in multiple languages. They have a wide and strong user-base and evidence of impact and they are categorized based on distance learning needs.
What will you get from using this resource?	This resource will help you navigate and familiarize yourself with a wide variety of open-source online tools that support distant learning.
Link to resource:	https://en.unesco.org/covid19/educationresponse/solutions



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Module 6. Creating videos and quizzes for online teaching

Introduction

The influence of digital video on our everyday culture is undeniable. Online video sharing sites such as YouTube and Vimeo boast a monthly audience of millions. As digital video continues to gain popularity, it seems natural that this familiar and widespread platform would extend to the educational system.

Today's students use instructional videos as a tool to learn everything from basic skills, like repairing a tyre, to the latest dancing trend. [Studies have shown](#) that the use of short video clips allows for more efficient processing and memory recall. The visual and auditory nature of videos appeals to a wide audience and allows each user to process information in a way that's natural to them. In the same way, learning games and quizzes help engage students and make the learning experience more interactive and exciting.

In a nutshell, videos and quizzes are good teachers and are widely used in educational settings. There are numerous open-source tools available online that serve both purposes. *Powtoon* and *Google Forms* are examples of open-source software that can be used to create videos and quizzes.

The module provides basic knowledge on how to create videos and quizzes using open-source digital tools and comprises the following topics:

- Creation of videos with Powtoon
- Creation of quizzes with Google Forms

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">● Factual knowledge about existing open-source tools for creating online learning resources● Understand the basic functionalities of an open-source video software (e.g. Powtoon)● Understand basic functionalities of open-source tools (e.g. Google Forms)	<ul style="list-style-type: none">● Apply digital skills to create online learning resources● Identify the right tools● Analyse the different types of learning resources● Create quizzes using open-source tools (e.g. Google Forms)● Create videos using open-source tools (e.g. Powtoon)	<ul style="list-style-type: none">● Awareness of how to create online learning resources● Appreciation of how to create online learning resources● Awareness of different types of online learning resources


- Knowledge about how to choose appropriate tools based on specific needs

Creation of videos with Powtoon

Powtoon is an online video maker, which means that you can make an animated video without downloading any software. It will work anywhere on any PC or Mac computer. Powtoon offers a free account, you can just login and start creating professional videos.

Whether you need to make an engaging live presentation or an instructional video, or an animated YouTube clip, Powtoon is a great way to present any kind of topic and showcase your ideas and a great alternative to the classic PowerPoint.

Creating animated presentations sounds hard but it can be easy with Powtoon. Powtoon offers a very simplified interface for making all types of engaging video content, including animated explainer videos, marketing videos, promo videos, and educational videos. It includes professionally-designed templates, scenes, and characters, a video and music library, and advanced features, such as screen and voice recording, that make it easy to create video lectures and podcasts.

Software:	
What to use	https://www.powtoon.com/
Why to use it	<ul style="list-style-type: none"> • User friendly • Intuitive interface • Quick and easy to access
How to use it	<ol style="list-style-type: none"> 1. Sign up for free with google account 2. Click on "Create" and select the type of video you want to create 3. Choose any of the pre-built templates available for free account or click on "blank and start from scratch."


	<ol style="list-style-type: none"> 4. Select any scenes, backgrounds, characters, text, or elements that you want to include in your video 5. Add music and video available from the library or upload your own ones. 6. Record your screen & cam or add your voiceover. 7. Click on “Export” and choose how you want to export your Powtoon.
Link to tutorial:	https://www.youtube.com/watch?v=IEQiZQi-aGY

Creation of quizzes with Google Forms

Quizzes are often used in education environments to briefly test a students' level of comprehension regarding course material, providing teachers with insights into student progress and any existing knowledge gaps. Moreover, the challenge-based nature of the quiz motivates students and helps them gradually improve a specific competence.


If you need to make quizzes for your students, Google Forms is a great way to do that. This is because most people already have a Google account, so it's easy to get started. And, like most of Google's basic tools, it's free. On top of that, Google has a few special features to gather feedback to make grading easier.

Google Forms allows users to create forms, surveys and quizzes as well as to collaboratively edit and share the forms with other people. Educators can use Google forms to assess students' knowledge in a way that is quick and informal.


Software:	
What to use	https://docs.google.com/forms/
Why to use it	<ul style="list-style-type: none"> ● Easy to use ● Intuitive interface ● Possibility to create wide variety of questions ● Easy accessible to anyone with a Google account
How to use it	<ol style="list-style-type: none"> 1. Open Google Forms or go to https://docs.google.com/forms/


	<ol style="list-style-type: none"> 2. Replace “Untitled form” with the name of your quiz and add a short description and/or a quote to motivate learners. 3. Click on “customize theme” (color table) on the top right to change header, theme and background color, or font style. 4. Go on settings and select “Make this a quiz”. 5. To collect email addresses, click on “Collect email addresses” next to Responses. 6. Enter your first question and add as many responses as you wish. 7. Click on “Add question” (+) to add a new question. 8. Click on the down arrow from the drop-down menu to change the type of question. 9. You can even add music and video or a new section, depending on your needs. 10. Click “Required” to specify if people must answer the question. 11. Click on “Answer keys” and select the correct answer (or answers) and specify how many points a correct answer is worth. 12. Click “Done” to go back to the question. 13. All changes in Google Forms will be saved automatically.
Link to tutorial:	https://www.youtube.com/watch?v=_BTM3FSxbs4&t=166s

Additional Learning Resource


Module Title:	Creating videos and quizzes for online teaching
Title of Resource:	
Resource Code:	R6.1
Description of the resource:	Canva is a free-to-use graphic design tool that you can use to create social media posts, presentations, posters, logos, videos and more. Log in for free with your Google account at https://www.canva.com/ to start creating your own videos and multimedia content. Watch the video tutorial to learn how to create animated videos in Canva.

What will you get from using this resource?	The resource will help you discover additional open-source video maker software that can be used to create animated videos and multimedia content.
Link to resource:	https://www.youtube.com/watch?v=wn-4vM_gYZk


Module Title:	Creating videos and quizzes for online teaching
Title of Resource:	
Resource Code:	R6.2
Description of the resource:	Watch the video tutorial on how to create animated videos in Powtoon and discover the main features you can use with the free account. You can sign up for free with your Google Account at https://www.animaker.com/ and start creating your own animated content.
What will you get from using this resource?	The resource will help you discover additional open-source video maker software that can be used to create animated videos.
Link to resource:	https://www.youtube.com/watch?v=GvhYFIX-M0Q&t=464s


Module Title:	Creating videos and quizzes for online teaching
Title of Resource:	
Resource Code:	R6.3

Description of the resource:	Watch the video tutorial on how to create quizzes using Kahoot, a free game-based learning platform. You can log in for free with your Google Account at https://kahoot.com/ and start creating your quiz.
What will you get from using this resource?	The resource will help you discover additional open-source software that can be used to create interactive quizzes.
Link to resource:	https://www.youtube.com/watch?v=zBkVp8-CDeo&t=172s

Module Title:	Creating videos and quizzes for online teaching
Title of Resource:	
Resource Code:	R6.3
Description of the resource:	Watch the video tutorial on how to create storyboards and comic strips using Storyboard That, a free graphic narrative organiser. You can log in for free with your Google Account at https://www.storyboardthat.com/ and start creating your story.
What will you get from using this resource?	The resource will help you discover additional open-source software that can be used to create animated content.
Link to resource:	https://www.youtube.com/watch?v=xkgNAMDL_sM

Module Title:	Creating videos and quizzes for online teaching
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Title of Resource:	
Resource Code:	R6.3
Description of the resource:	<p>Watch the video tutorial on how to make interactive presentations, animated infographics, and multimedia e-learning materials using Genially, a free to use visual communication tool. You can log in for free with your Google account at https://genial.ly/ and start creating your multimedia content.</p>
What will you get from using this resource?	<p>The resource will help you discover additional open-source software that can be used to create animated content.</p>
Link to resource:	https://www.youtube.com/watch?v=WKe2Z9J1-fY

Module Title:	Creating videos and quizzes for online teaching
Title of Resource:	
Resource Code:	R6.3
Description of the resource:	<p>H5P is an abbreviation for HTML5 Package. It enables educators to create content such as interactive videos, quizzes and presentations. Watch the video tutorial on how to create a wide variety of multimedia content. Go to https://h5p.org/ and start creating interactive content.</p>
What will you get from using this resource?	<p>The resource will help you discover additional open-source software that can be used to create interactive multimedia content.</p>
Link to resource:	https://www.youtube.com/watch?v=SR6tVWSiXU4&t=159s

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The ultimate Guide to make an animated video in Powtoon.

<https://www.powtoon.com/blog/ultimate-guide-animated-video/>

Top 5 Powtoon videos. <https://www.powtoon.com/blog/the-best-of-the-best/>

Create animated videos. <https://www.powtoon.com/create/animated-videos>

Create & grade quizzes with Google Forms.

<https://support.google.com/docs/answer/7032287?hl=en>

Video Tutorial: the basics of creating a quiz in Google Forms.

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Digital Tools for teaching and learning.

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Video Tutorial: How to use Powtoon. <https://www.youtube.com/watch?v=IEQiZOi-aGY&t=510s>

<https://www.youtube.com/watch?v=IEQiZOi-aGY&t=510s>

Module 7. Micro-learning

Introduction

Technology has transformed the way of teaching and it has changed both the way we learn and how training is delivered. The rise of mobile technology made it possible for people worldwide to access any type of content at any time, and gave learners the opportunity to access small sections of learning content on the go.

The term microlearning is used in online learning to indicate learning material that is delivered in bite-sized formats accessible through smartphones and targeted to the learner's training needs and interests. Studies have found that learners learn best when they can process information through small, manageable chunks instead of through a longer and more concentrated time frame.

With today's extensive use of smartphones, and the implementation of remote working and education programmes worldwide, microlearning makes training more adaptive and accessible, supporting a wide range of distant training programs.

The module provides knowledge on microlearning, a technology-based form of training designed for skill-based understanding and learning and comprises the following topics:

- Microlearning
- Mini-learning format resources
- What is an EduZine?

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">● Understand what microlearning is● Understand what a mini-learning resources format is (ex. Eduzine)● Basic knowledge of microlearning	<ul style="list-style-type: none">● Apply digital skills to create online learning resources● Understand how to create the structure of mini-learning format resources● Navigate online to find supporting resources from credible sources	<ul style="list-style-type: none">● Awareness of how to create online learning resources● Appreciation of how to create mini-learning resources● Awareness of how to use microlearning in online educational environment

Microlearning

Microlearning refers to an education approach that offers bite-sized, small learning units with the necessary amount of information to help learners achieve a goal. It deals with relatively small learning units and short-term focused learning activities.

The whole concept of microlearning is based on the Hermann Ebbinghaus forgetting curve. In the mid-1880s, the German psychologist Hermann Ebbinghaus became the first person to create a scientific approach to study and classify memory and introduce the world to concepts like the learning curve and forgetting curve. A learning curve is a correlation between a learner's performance on a task and the number of attempts or time required to complete a task. The learning curve theory proposes that a learner's efficiency in a task improves over time the more the learner performs a task.

However, Hermann Ebbinghaus mostly focused on understanding how our memory works, and retains information, relating to specific things people attempt to learn. Hermann Ebbinghaus' tests involved memorizing series of nonsense sounds and syllables, and assessing the capabilities and function of memory. Ebbinghaus noted that memory does not stay consistent, it can increase, decrease, and back again many times. This depends not only on the subject matter being learned but also the methods in which it is learned.

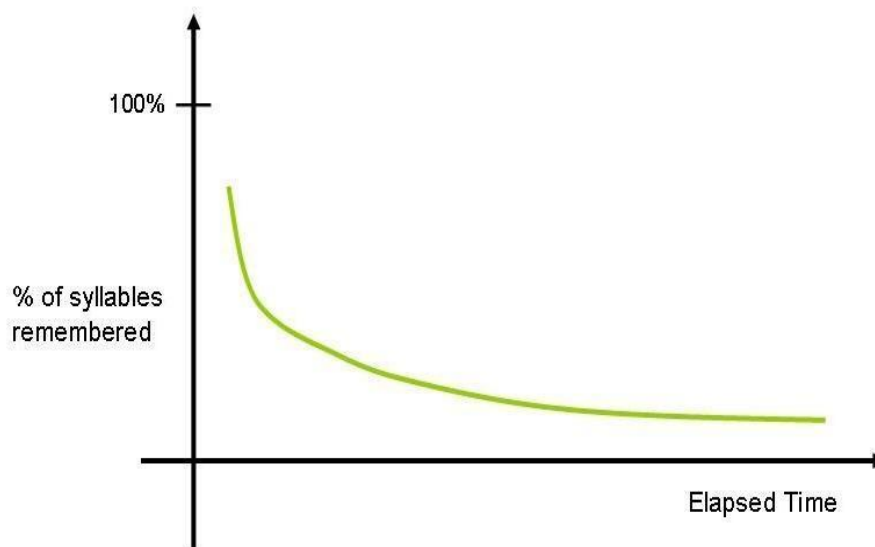


Figure 1. The Ebbinghaus Forgetting Curve graph (Source: https://en.wikipedia.org/wiki/Forgetting_curve#/media/File:Ebbinghaus_Forgetting_Curve.jpg)

These methods and studies also correspond to his studies on forgetting, and ultimately his "forgetting curve." The Ebbinghaus' forgetting curve shows how information is lost over time when there is no attempt to retain it. When someone first learns something, they retain all of that information. As the days pass, memory retention begins to drop. When people learn large amounts of information, they do retain it for a certain amount of time. However, if that information isn't considered 'crucial' to the tasks at hand, the knowledge tends to degrade over time. But as you perpetually review information, you retain more and more of it.

This also led to the discovery of memory “savings”. He found that strictly memorized information can be recalled much more easily after learning it again, even after a long time. Splitting the content into small pieces and recalling different parts of it over time can help improve knowledge retention and productivity.

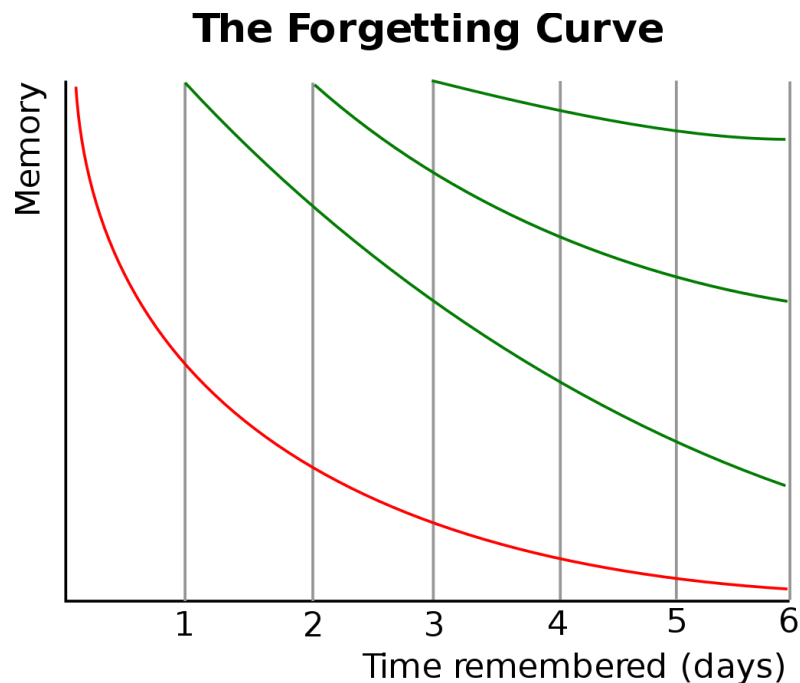


Figure 2. Forgetting Curve with spaced repetition (Source: <https://commons.wikimedia.org/wiki/File:ForgettingCurve.svg>)

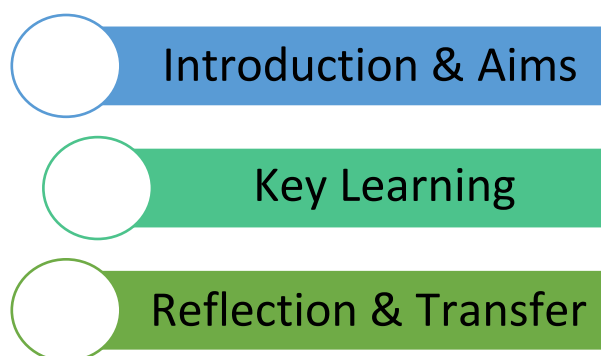
Microlearning is the concept at the basis of Ebbinghaus’ studies and comes as a solution to flatten the forgetting curve. Microlearning proves to be an effective method for learning, as learners learn in a short period of time, and without disrupting their daily tasks. The goal of microlearning is to support performance and prioritize information that may be more relevant to a daily workflow, facilitating longer learning. Learners can access microlearning segments with key content to get what they need quickly to get back to work. In fact, the concept of microlearning is that learning should be available as long as it is needed rather than bound to a particular time frame. Because of its characteristics, microlearning is very specific and based on specific key learning objectives. Establishing those learning objectives can be a way to identify whether the objective can be accomplished through microlearning or if it is best to use a different form of learning.

Videos, podcasts, learning games or quizzes are examples of mini-learning format resources that facilitate microlearning: they are short, accessible and reusable at any time, and focused to meet a specific learning outcome.

Mini-learning format resources

Mini-learning format resources are typically digital resources that are available online through web platforms or smart devices, such as videos, infographics or learning games that learners can access materials at a time and place that is convenient to them. Mini-learning format resources are short in duration and are developed based on defined learning outcomes to deliver targeted education content to learners.

The structure of a mini-learning format resource is based on common didactical approaches used in teaching settings, learning theory and key design concepts. When creating a mini-learning resource, teachers should adhere to the following structure:



Phase 1: Introduction & Aims	The input time for this phase should last approximately 1-2 minute and it should include the title of the resource, the specific learning outcome(s), and the main content areas of the course. In this first phase it is important that a clear learning goal is defined.
Phase 2: Key Learning Content	The second phase is the core element of the resource and will be the most extensive phase. The input time for this phase should be approx. 3-4 minutes and it should include the actual learning content that targets a very specific problem context or thematic issue.
Phase 3: Reflection & Transfer	The final phase should not be longer than 1 minute and should include a short summary of the key learning points and, ideally, questions or statements to help the learner reflect the content.

Key Design Principles in Microlearning

From a didactical perspective, content should be problem-oriented, meaning that theoretical content should always have a corresponding practical context to help learners understand the learning content and reflect it. To acquire competences, these need to be practiced, so exercises should be given or embedded into the resource. Furthermore, content should not only be focused and aimed to acquire a specific competence, but it should also be complemented, extended and deepened through links to similar content. Due to its bite-sized structure, any information that is not relevant should be excluded, and the same information should not be presented twice.

Typically, microlearning sessions are under ten minutes and can take as little as one minute to complete. It is recommended to include mostly images and graphs and as little text as possible. However, words and pictures are better than words alone. It is also good practice to present corresponding information simultaneously and place it near to each other.

In conclusion, text and words should be conveyed in a friendly and conversational style, and not in a formal one. The personalization principle asserts that humans learn better from a more informal and conversational voice than a formal, direct and mechanical style voice.

What is an EduZine?

An EduZine is an educational magazine for smartphone use (and all other digital devices) with embedded media and learning content. They are essentially learning in your pocket. The EduZine acts, in many ways, like a traditional textbook. The pages are turned with a flick, much like on an ebook reader, and like an ebook, the page fills the screen with no scrolling up or down as a website would function.

However, the EduZine is a whole lot more than an ebook; it has layers and depth that give it a functionality far beyond the reach of a traditional textbook. Firstly, EduZines take account of a change in digital consumption that seems to go unrecognised by many IT developers – the balance has shifted from desktop computer to smart device. The vast majority of digital consumers do so now on smart devices. In fact, a recent survey found that 27% of digital consumers don't even possess a PC or laptop and consume digital content solely on a smartphone. EduZine, therefore, turns the tables. It is built, primarily, for smart devices and, as a secondary consideration, functions, also, on desktop or laptop computers.

EduZines can contain videos, text, audio and, essentially, hyperlinks. The ability to work with links means that the EduZine can work in harmony with third-party educational resources. EduZines have been designed to integrate Google's suite of word and data processing utilities to test the learner and third party forums to enable the peer review process. The key to this collaboration is in the choice of these third parties. Any function that is out of the direct control of the EduZine has been assigned to a solution selected with its robustness and reputation in mind. This depth of functionality has then been wrapped in a rich media package. The prototype EduZine which can be viewed at <http://smartzines.com/eduzine/mobile/index.html> has been designed and engineered by FIP's creative team from scratch. The EduZine is not just a page-turner, it's a game-changer and represents a significant innovation in mobile VET provision.

The formulation of this format is an innovation in terms of the presentation of learning content. EduZines are structured according to the following 5 stage learning model:

1. An explainer video to introduce the topic – like a Ted Talk that will act as an explainer video for the entire module but one developed specifically for the purpose

at hand. For example, if the EduZine relates to Circular Business Models, then this explainer video should provide an introduction to why circular economy is important, and give examples of businesses adopting circular business strategies and solutions.

2. Prior knowledge assessment – a diagnostic quiz or puzzle to help the learner identify what they already know, developed using Google Forms or other such platform or tool.

3. Learning material – the core learning content of the EduZine can be presented through a series of articles presenting new theoretical knowledge, repositories of external links to resources and videos that will help learners to acquire new knowledge; and some challenge-based learning activities that will engage the learner to build new knowledge and culminates with a presentation or submission of an exercise.

4. Peer assessment – an online peer assessment where presentations, videos or submissions are commented on by fellow learners.

5. Validation – a summary quiz that leads to a digital certificate and an opportunity for self-reflection.

Additional Learning Resource

Module Title:	Micro-learning
Title of Resource:	LEARNING CIRCLE Toolkit of EduZines & Interactive Infographics for Circular Economy Business Models
Resource Code:	R7.1
Description of the resource:	<p>The LEARNING CIRCLE Toolkit of EduZines & Interactive Infographics for Circular Economy Business Models provide training material helping innovative circular economy entrepreneurs to leverage the digital economy and create sustainable business solutions to solve the environmental and economic problems of their communities. The training material addresses the 5 most common CBMs, namely:</p> <ol style="list-style-type: none"> 1. Circular supplies or closed loop recycling 2. Resource recovery or down-cycling 3. Product life extension or upcycling 4. Sharing platforms or industrial symbiosis 5. Product as a service <p>These topics are presented in a mini-learning online format that is accessible, attractive and appropriate for the very specific target group.</p>

What will you get from using this resource?	This resource provides learning opportunities to innovative circular economy entrepreneurs on their smartphones and represents an innovation for VET tutors in terms of the presentation of learning content.
Link to resource:	Link to MOOC Eduzines IO2

Module Title:	Micro-learning
Title of Resource:	LEARNING CIRCLE EduZines & Interactive Infographics for Innovative Circular Economy Entrepreneurs
Resource Code:	R7.2
Description of the resource:	<p>The LEARNING CIRCLE EduZines & Interactive Infographics for Innovative Circular Economy Entrepreneurs provide training materials that address each of the ten trainable competencies for innovative circular economy entrepreneurs, namely:</p> <ul style="list-style-type: none"> ● Creative thinking ● Problem solving ● Leadership and team management ● Innovation management ● Agile management ● Strategic planning ● Risk management ● Business model development ● Raising venture capital ● Rapid experimentation <p>These competencies are presented in a mini-learning online format that is accessible, attractive and appropriate for the very specific target group.</p>
What will you get from using this resource?	This resource provides learning opportunities to innovative circular economy entrepreneurs on their smartphones and represents an innovation for VET tutors in terms of the presentation of learning content.
Link to resource:	Link to MOOC Eduzines IO3

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Module 9. Designing Infographics

Introduction

Infographics have been steadily gaining popularity, both in digital and print formats in organizations and education. They are clear, effective and visually engaging. They present a variety of information while retaining the attention of the viewer.

Today's young adults are inundated with information every day and opportunities for distraction are increasing. Young adults need tools to easily digest information while also being offered the opportunity to develop key skills in a digital environment where they are most at home as attractive, easy to use, intuitive, and available on demand anytime, anywhere.

In today's society rapid development of technology, visual communication helps improve learning, as pictures are more memorable than their verbal counterpart. Infographics use eye-catching, engaging visuals to communicate information quickly and clearly. Graphics enhance many aspects of learning including recognition, recall, comprehension and problem-solving.

Today there are many tools that can be used to create visually appealing content, some of them for free. Canva is one of these, and it is really easy to use. This module provides a basic understanding of the fundamental design principles to consider when creating eye-catching graphics and will cover the following topics:

- Introduction to graphic design
- Designing infographics with Canva

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">● Understand the basic functionalities of an open-source video software● Understand the basic principles of design (balance, contrast, proportion...)	<ul style="list-style-type: none">● Apply digital skills to create online learning resources● Understand how to create the structure of mini-learning format resources● Create infographics using open design tools (e.g. Canva)● Create QR code using online tools (e.g. QR code monkey)	<ul style="list-style-type: none">● Awareness of how to create online learning resources● Appreciation of how to create mini-learning resources● Awareness of how to create infographics in online educational environment

Introduction to Graphic Design

Visual communication has always been part of human history, from the earliest cave paintings in prehistoric times up to modern times, where graphic design is used in almost everything we create, promote and advertise.

Visual graphic design is the process of visual communication using typography, photography, iconography and illustration. It combines art and technology in order to communicate a message or a concept.

When designing an infographic, it is important to consider key design principles, such as colour, balance, and space to make sure to convey information in a way that is visually appealing and that our core message won't be left behind.

Balance

Balance is a crucial aspect in visual graphic design. Our eyes naturally seek out order and a sense of stability and harmony in any image that we see. The late poet Paul Valery wrote, *“The universe is built on a plan the profound symmetry of which is somehow present in the inner structure of our intellect.”*

Symmetry is built into our biology and nature—in the wings of a butterfly; in the petals of a flower; in our two eyes, ears, and arms. It's no surprise, then, that symmetry is pleasing to us as human beings.

“Symmetry” is defined as “balanced proportions” or “beauty of form arising from balanced proportions.” It also defines being symmetrical as having “correspondence in size, shape, and relative position of parts on opposite sides of a dividing line or median plane or about a center or axis.”

This balance can often be aesthetically pleasing. It evens out the “visual weight” of an image so our eyes are not drawn to one element or area in particular. And it helps us quickly absorb and make sense of visual information.

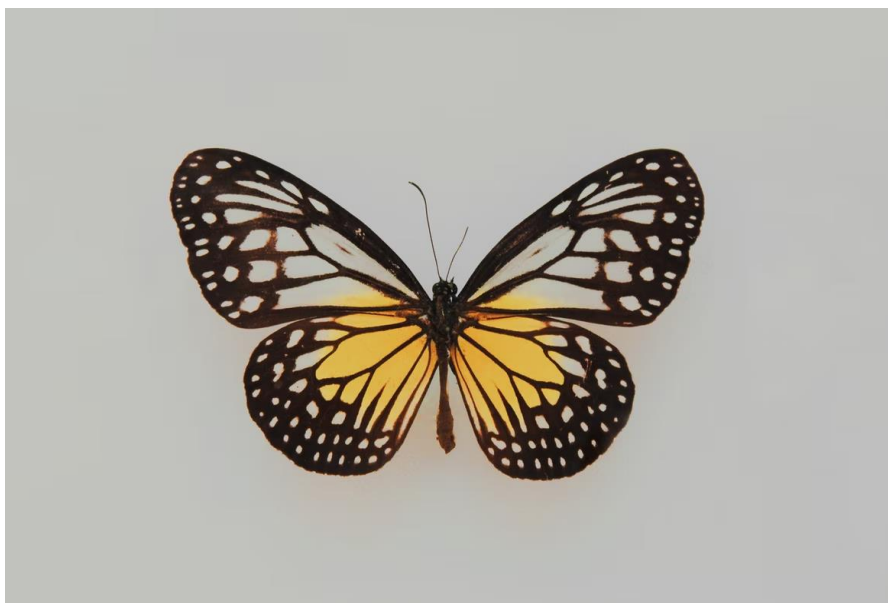


Figure 1. Butterfly (Source: <https://unsplash.com/photos/SE2zTdS1MNo>)

It is no coincidence that symmetry is used a lot in logos in order to create a harmonious and balanced design. Some examples of large brands with symmetrical logos are Target, McDonald's, Chanel, Starbucks, etc.



Figure 2. Logos with symmetrical balance (Source: <https://www.canva.com/learn/design-elements-principles/>)

One way to master balance is to think of each element as having a "weight" behind it. From text boxes, to images, to color blocks, consider their sizes, shapes, and the "weight" they have relative to other elements on the page.

Symmetrical design creates balance through equally weighted elements aligned on either side of a centre line and evokes a sense of harmony and order. However, symmetry isn't always as obvious either, sometimes it is subtle, sometimes you may not even notice it.

There's a difference between a design looking balanced and symmetrical, and looking like one side was copied or pasted to the left. Instead of trying to achieve perfect symmetry, you can introduce subtle elements of symmetry into your design.

An example of invisible symmetry can be found in editorial design, and more specifically text boxes. Usually in longer articles the body copy is split up into columns of text, and these columns are often symmetrically sized to keep things legible, neat, as well as visually appealing.



Figure 3. Example of invisible symmetry in editorial design (Source: <https://www.canva.com/colors/color-wheel/>)

A lack of symmetry, on the other hand, can create a sense of disorder and imbalance. And it can pull the focus on one or more specific elements of a design, as opposed to the whole design as a comprehensive image. So, if your design does not look right, increasing or decreasing symmetry in your layout can help you create a sense of balance and order.

Symmetry is however not always an option for every design. A sense of harmony can also be achieved when elements do not have equal weight.

Like symmetry, asymmetry is also common in nature—and in ourselves. Think about the branches of a tree, the left and right sides of our brains, being left-handed and right-handed. Similarly, asymmetry in graphic design can be used to convey variety, complexity, and unpredictability. It can help you draw attention to certain elements and create a more active, dynamic composition.

Asymmetrical balance' is less about mirroring left and right/top and bottom, and more about distributing, sizing and aligning elements so that their 'weights' are uniform.

This lively piece uses scale and clever distribution of elements to create a balanced design. Notice how this piece achieves balance from left to right and top to bottom through the sizing of the elements. Balancing the group of images with the group of characters.



Figure 4. Example of asymmetrical design (Source: <https://www.canva.com/learn/design-elements-principles/>)

Asymmetry doesn't necessarily have to include a mess of visual elements. It can be achieved by tweaking one small part of a symmetrical design or by breaking up a large visual element on one side of the axis into smaller elements on the other side.

Asymmetrical design usually uses contrasting elements in the composition so that one element has a larger visual weight than the other one but you have still achieved a sense of balance.

Symmetry and asymmetry can be combined together to good effect. You can either balance symmetrical forms in an asymmetrical way, or balance asymmetrical forms symmetrically. Contrasting symmetry and asymmetry or breaking up symmetrical forms with random marks will help you add interest and make elements get more attention.

Colour

Color is one of the most powerful tools for visual communication. Colour theory is both the science and art of using color. It explains how humans perceive color and the visual effects of how color mix, match or contrast with each other. Artists and designers use color theory to determine whether colors look good together and to create a particular look or feel.

The color wheel was invented in 1666 by Isaac Newton, who mapped the color spectrum onto a circle. The color wheel is the basis of color theory, because it shows the relationship between colors.

Colors that look good together are called color harmony. You can use a color wheel to find color harmonies by using the rules of color combinations. Color combinations determine the relative positions of different colors in order to find colors that create a pleasing effect.

There are two types of color wheel. The RYB or red, yellow, blue color wheel is typically used by artists, as it helps with combining paint colors. Then there is the RGB, or red, green and blue color wheel, which is designed for online use, as it refers to mixing light – like on a computer or TV screen. Canva's color wheel is an RGB color wheel, as it is designed for online use.

The color wheel can be divided into primary, secondary and tertiary colors. Primary colors in the RGB color wheel are the colors that, added together, create pure white light. These colors are red, green and blue. In the RYB color wheel, primary colors are colors that can't be mixed from other colors. There are three primary colors: red, yellow, and blue.

Secondary colors are colors that result from mixing two primary colors. There are three secondary colors. In the RGB color wheel, these are cyan, magenta and yellow. When you mix light, red and green make yellow, green and blue make cyan, and blue and red make magenta. In the RYB color wheel, the secondary colors are purple (red mixed with blue), orange (red mixed with yellow), and green (yellow mixed with blue).

Tertiary colors are colors made by combining a secondary color with a primary color. There are six tertiary colors. In the RGB color wheel these are orange, chartreuse green, spring green, azure, violet and rose. In the RYB color wheel, the tertiary colors are red-orange, yellow-orange, yellow-green, blue-green, blue-violet, and red-violet.

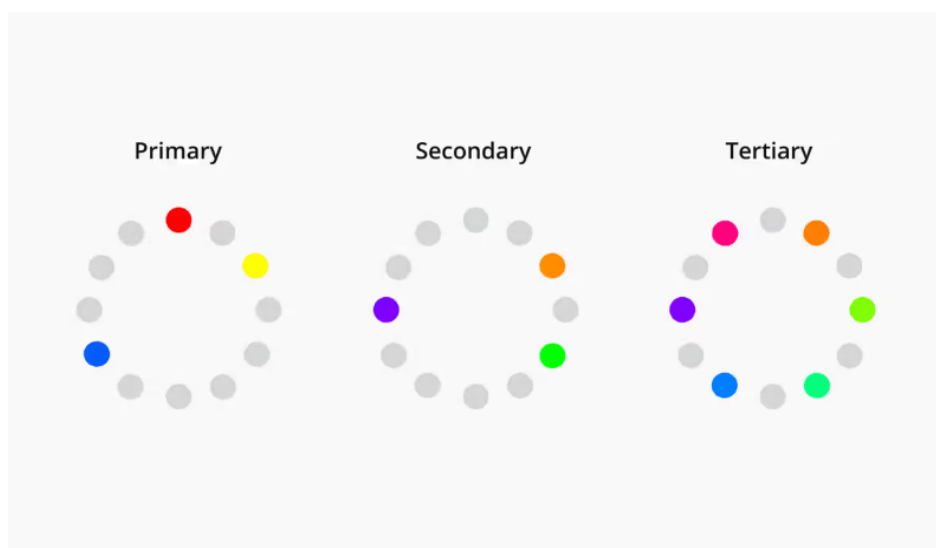


Figure 5. Primary, secondary, and tertiary colors in RGB color wheel (Source: <https://www.canva.com/colors/color-wheel/>)

The color wheel can also be divided into warm and cool colors. The warmth or coolness of a color is also known as its color temperature. The color combinations found on a color wheel often have a balance of warm and cool colors. According to color psychology, different color temperatures evoke different feelings. That's why it's so important to select colours carefully.

For example, warm colors are said to bring to mind coziness and energy, while cool colors are associated with serenity and isolation. Warm colors are the colors from red through to yellow. These colors are said to bring to mind warmth, like the sun. Cool colors are the colors from blue to green and purple. These colors are said to bring to mind coolness, like water.

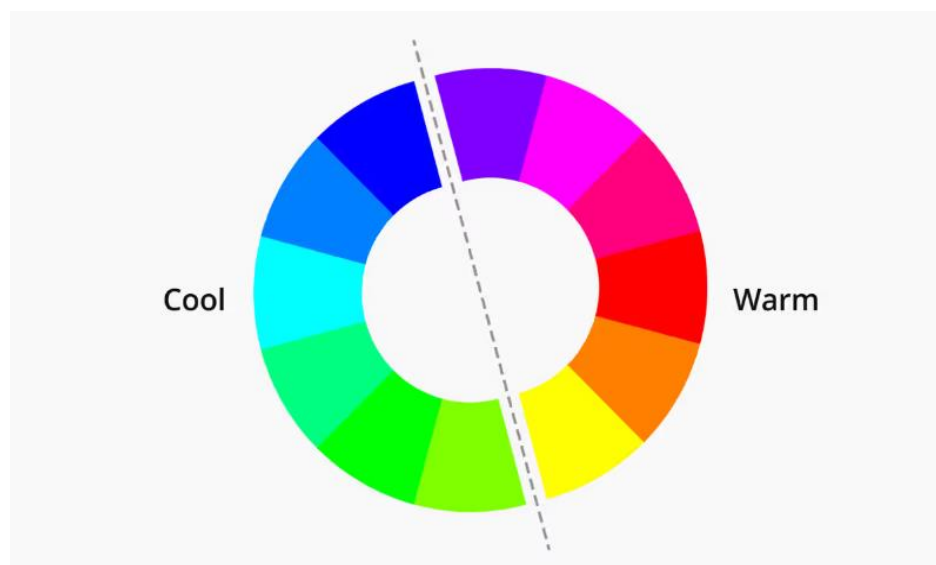


Figure 6. Color wheel - warm and cool colors (Source: <https://www.canva.com/colors/color-wheel/>)

The colors you select should be relevant to the content of the infographic itself. If you want to cover topics such as ecology and green economy, you may want to use shades of green and blue. Warm colors are generally associated with energy, brightness, and action, whereas cool colors are often identified with calm, peace, and serenity.

When you recognize that color has a temperature, you can understand how choosing all warm or all cool colors in your design can impact your message. Using relevant colors helps the viewer's mind make the connection and easily understand and retain the data presented.

Space

One other important point to consider in a graphic composition is the distance around different elements. This empty space between lines of text, images, icons and other elements is called in graphic design "white space".

White space has nothing to do with the color white. Rather it applies to any areas of a design not taken up by other elements, such as text, photos or illustrations - and for this reason - also called negative space.

Put simply, white space (or negative space) is the 'space in between', the area between or around other elements that form its own shape.

A famous creator of paths through negative space was the artist M.C. Escher, who created a series of tessellations centred on one form leading to the next through negative and positive space, such as this woodcut print 'Sky & Water I'.

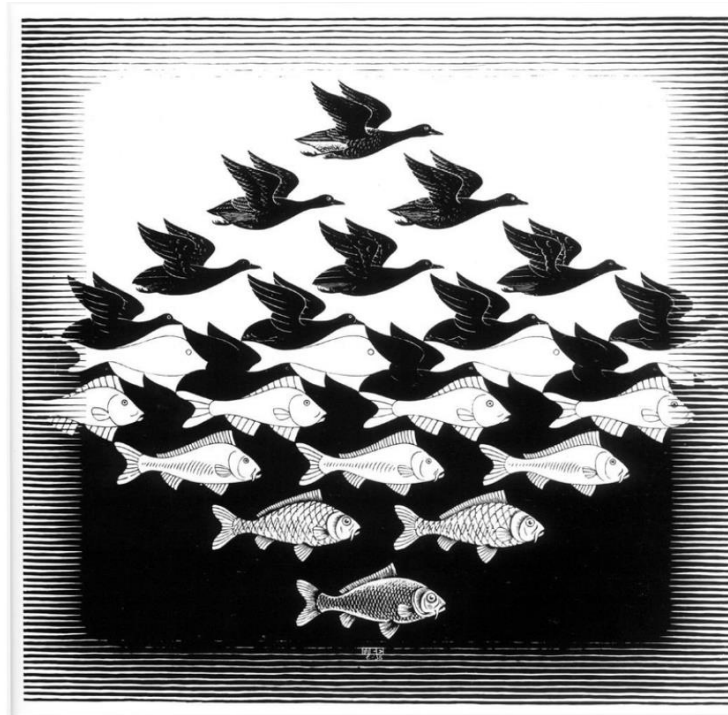


Figure 7. Sky & Water I' by M.C. Escher (Source: <https://www.canva.com/learn/design-elements-principles/>)

Escher has used the space in between the birds to create the shape of fish. This is a negative space at work – considering everything around and in between your physical design, and manipulating that space to form something new.

Negative space when used strategically and cleverly can help create truly stunning and clever designs. It is therefore important to make strategic use of space when trying to convey a lot of information to make sure viewers won't feel overwhelmed. Things that are related should be nearer to each other, and things that are unrelated should be placed further from each other.

Effective use of space improves readability and comprehension by creating a sense of order and flow and helps ensure that texts are clear and legible.

There are other principles, such as contrast, direction, and visual hierarchy to consider when designing visual graphics. All of them play a large role in making the communication stronger and the design neat and legible.

Design is a complicated business, full of principles, tricks and techniques, but it is also fun and stimulating. Remembering these techniques will help you develop 'design eye' and create visually appealing graphics and. Moreover, thanks to increasingly intuitive

digital tools – you don't have to be a professional to create beautiful creative resources. With its easy-to-use interface and thousands of pre-built templates, the free Australian graphic design platform Canva makes design simple and accessible to everyone.

Designing infographics in Canva


Launched in 2013, Canva is an online graphic design and publishing tool used to create social media graphics, presentations, posters, documents and other visual content with a mission to empower everyone in the world to design anything and publish anywhere.

The app is free to use and offers paid subscriptions such as Canva Pro and Canva for Enterprise for additional functionality. However, the free version still offers thousands of templates for users to use, millions of media from images to graphics and videos, an easy-to-use editor to create anything you need, and the possibility to invite people to collaborate.

In 2021 Canva launched a video editing tool and users can now also pay for physical products to be printed and shipped.


Building infographics and presenting posters and videos has been used for many years in the education sector to promote positive messages and direct people to available services and support.

With Canva it is today possible to create all this content for free without any graphic design experience. Canva also offers the possibility of including QR codes in your design and redirecting users to any additional online content.

Resource	
What to use	https://www.canva.com/
Why to use it	<ul style="list-style-type: none">● User friendly● Intuitive interface● Wide variety of images and visual elements● Pre-built templates
How to use it	<ol style="list-style-type: none">1. Sign up for free with your Google account.2. Click on “Create a design” and select “Infographic”.

	<ol style="list-style-type: none"> 3. Choose any of the pre-built template available from the Canva library or create your own design from scratch 4. add text, background, images, elements (such as icons, frames and so on) or upload your own media files. 5. Click on “QR code” and insert the link to any additional resource or further readings you want to include. 6. Generate the code and place it in your infographic. 7. “Click on “Share” to download your final work or to share the link with learners.
Link to tutorial:	https://www.youtube.com/watch?v=IEQiZOi-aGY

Additional Learning Resource

Module Title:	Designing infographics
Title of Resource:	QRCode Monkey
	
Resource Code:	R8.1
Description of the resource	QR code Monkey is a free online QR code generator with millions of already created QR codes. With its high resolution of the QR codes and the powerful design options, QRCode Monkey is one of the most popular online QR code generators that helps you create and personalize QR codes with logo-images and color options making it ideal for commercial and print purposes.
What will you get from using this resource?	This learning resource will improve your knowledge on how to create and personalize QR codes with free online QR codes generators.
Link to resource:	https://www.qrcode-monkey.com/

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