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# A digital vision for Painting and Decorating Educators

## DIGI-Paint

**Pedagogical Guidelines for Instructors**
PR1

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# Introduction

The **DIGI-PAINT** project comes from the need to create digital tailor-made solutions adapted to the painting and decorating educators to give them the resources and tools to overcome the current and future challenges. Digitisation of the training delivering is a priority in apprenticeship schemes when the work-based learning period is not possible in a face-to-face way. In the last decade, the Painters and Decorators branch of the Construction sector has shown a strong need of skills and competences which must be regularly updated. Unfortunately, the sector is experiencing since many years a lack of young people entering the profession and a shortage of quality in education and training.

The main needs that the project is trying to face can be sum up in three principal aspects:

- Building capacity to implement online, blended and distance teaching and learning.

- Developing digital pedagogical competences of educators, enabling them to deliver high quality inclusive digital education.

- Creating high quality digital content such as innovative online resources and tools.

The DIGI-PAINT project intends to build up a structured scheme addressed to the painting sector educators to support them to adapt to the digital. The partners' activity focusses on the pedagogical part and the way to master the digital tools in the pedagogical perspective to create adequate online training with motivational inputs. A resources' database will be available with painting contents to overcome the lack of presential situation. Furthermore, to support the work-based learning periods, in case it will occur in a virtual way, real-life situations and practical cases will be designed.

DIGI-PAINT aims to practically engage educators with the issue of digitisation, to overcome its disruptive effects on the world of training and education in the painting and decorating sector. Teachers, Trainers and in company Tutors are the target group as key elements in the learning process but with long experience on the presential courses and a lack of digital culture.

The DIGI-PAINT direct impact will be the upskilling of painting educators into digital competences; the updating of the sector training; the increase of attractivity to the young generations and the widening of the VET painting institutions network.

The creation of digital tailor-made solutions adapted to the painting decorator educators to give them the resources and tools to overcome the current digital challenge is the main objective. digitisation on the training delivering is a priority namely in apprenticeship schemes when the work-based learning period cannot be done in a face-to-face mode. Teachers, Trainers and Tutors are the target group as key elements in the learning process. During the pandemic time, they have shown a strong need of adaptation into the digital. The difficulties were important as they have a long experience on the presential courses and a lack of digital culture. The focus is now on building educator's capacity to implement online, blended and distance teaching by developing their digital pedagogical competences and empowering them to deliver digital training using virtual content as innovative on-line resources and tools.

# Table of Contents

In line with the preparation of the first project result of the DIGI-Paint project, it has been foreseen to develop trainer booklets related to the pedagogical guidelines for instructors.

This document will outline the different topics which are important for the instructors of online trainings in general; the content is therefore helpful not only to the paint instructors but also to any other online trainer who wants to improve the competences related to online delivery of any training topic.

The topics of the pedagogical guidelines are in close correlation to each other and are shown as overview in the following graph. Each one of them will be addressed in a trainer booklet which follows in the next sections of this document.

## Instructional design

Designing and developing powerful e-learning courses is a big challenge. Keep in mind that e-learning is often setting the theoretical background for the practical application of the learned competences.

Unlike with face-to-face learning, which gives teachers the freedom to go off-script, in online learning, the whole process is pre-set, so designers need to anticipate any possible hiccups during the planning stages. Structuring content and results are of greater importance in e-learning.

Instructional design makes creating the course easier but also ensures that all the learning goals are met. For instructional designers, the benefits of the process are felt in the production phase while, for students, they are felt when the class is launched.

### Choose Instructional design

An instructional design model provides guidelines to organize appropriate pedagogical scenarios to achieve instructional goals. Instructional design can be defined as the practice of creating instructional experiences to help facilitate learning most effectively.

The ADDIE Instructional Design (ID) method is one of the most common frameworks in designing and developing educational and training programs. "ADDIE" stands for Analyse, Design, Develop, Implement, and Evaluate. This sequence, however, does not impose a strict linear progression through the steps. Educators, instructional designers and training developers find this approach very useful because having stages clearly defined facilitates implementation of effective training tools. As an ID model, Addie Model has found wide acceptance and use.

### Set clear learning objectives

Define what you want students to be able to do by the end of your course. Then write tangible, measurable objectives that will get students to the goal.

Express expectations in plain, everyday language. Beware of words that, though common and familiar to you, may be foreign to your students. If you must use academic terms, explain what they mean. Keep sentences short.

Good learning objectives are what you want your students/trainees to learn or achieve ("by the end of this course, you will be able to..."). If you do not know the end goal — and you do not have certain measurable checkpoints — you can get lost along the way. Here are some tips to help you get started:

- ***Identify the Level of Knowledge Necessary to Achieve Your Objective***

  Before you begin writing objectives, stop and think about what type of change you want your training to make. In other words, what do you want your participants to do differently when they return to work? The domains of learning can be categorized as affective

(attitude), psychomotor (skills), and cognitive (knowledge). An easy way to remember this, is with the acronym *ASK:*

*Attitude* — Changes how a learner chooses to act. Compliance training is a good example of when you will have to teach to this domain. It is usually the hardest to craft objectives for this, since it is dealing with feelings, emotions, and attitudes.

*Skills* —This domain focuses on changing or improving the tasks a learner can perform.

*Knowledge* — This domain focuses on increasing what participants know. Learning safety rules, troubleshooting, and quoting prices from memory are all examples of this level of learning.

- ***Select an Action Verb***

  Now that you have identified what domain you intend to focus on for your objective, it is time to start crafting your objective. To do that, it will help to have an action verb to describe the behaviour at the appropriate level of learning. Here is a list of action verbs, separated by domain. Avoid having more than one action verb for each level of learning, and make sure it is a verb that can be measured. “Understand” is too vague, but “complete,” “identify,” or “recognize” are specific.

- ***Create and Check Your Objective***

  Make sure your objectives include four pieces: audience, behaviour, condition, and degree of mastery. For every one, identify and label the component. Here are the A, B, C, D's that every objective should contain:

  *Audience*: It is important that your objective identifies the people that will be doing the learning. Typically, this will involve the word “learner” or “participant.”

  *Behaviour*: You will need to identify what the participants are going to do differently. This component will contain your action verb.

  *Condition*: This part of the objective will describe the situation of the participants.

  *Degree of Mastery*: This part of the objective is closely tied to the change in behaviour, as it stipulates the degree of the change.

**Design learning architecture / Identify key issues**

Analytical skills and the ability to synthesize information are essential instructional designer skills. Complex information needs to be divided into smaller modules which are easier to keep learner’s focus and avoid information overload.

E-Learning content should be designed to offer a logical and structured journey for the learners in the form of learning paths when it comes to educational content development and corporate training content. Logically, subdividing the main course into several courses depending upon available learning time for course completion is of significant importance. This structured and organized-learning path gives learners clarity on which course to complete first and helps define a learning path for a certification programme. For example, learning Excel, completely, may involve a basic course on Excel, followed by an advanced course and, finally, a certification programme.

### Develop learning materials

While face-to-face course materials include handouts and writing on your whiteboard, virtual education relies on different sets of resources. However, different does not mean less engaging. There is a spectrum of tools that can help you deliver an impactful virtual learning experience. The use of simple and attractive supports helps the learner to assimilate the knowledge, prepare some interactive activities, a clear and visually attractive course support.

## Learner's motivation and interaction

After the creation of a course with the right content, the second part of effective online training is getting the online learners to engage with the created content. Sharing new information is easier with an audience who is excited to learn and motivated to acquire knowledge and skills.

### Include compelling media

Do not limit your course web pages to blocks of dense text and sparse images. There are many ways to create an engaging design for your course pages. Rely on use of imagery, video, audio, music and interactive features. If possible, work with an instructional designer to create these features. Learners will be more engaged if they discover images and video rather than endless lines of text.

### Make the training interactive

Interactive online learning entails going beyond the passive one-way nodes of reading, listening, and watching static content. It includes pulling out the exact content you want and manipulating it rather than just waiting for information and digesting it. Having said that, it is important to understand these four concepts to grasp what interactive online learning is all about.

### Challenge the learners

Include activities or quizzes in which learners need to apply the content into real-life situations and measure how well they can apply it.

This could be something you found from another source (colleague, book, Internet, etc.) or that you develop. Whatever you choose, it should force your students to take a subject that was not initially connected to them-at least not in a personal sense-and use their own skills, interests, and experience to solve the puzzle or meet the challenge. It becomes fun; the students are learning and they are motivated.

### Give online learners control

Give learners access to resources and let them decide which one they want to explore first.

Provide feedback throughout the training – check learner's progress and how they performed in the activities. Immediately get your students involved by asking them to send you examples or situations where their lives or others' lives were, or could be, affected by the subject. This activity

helps with student ownership of the course material, which is so important in learning. First, they are sharing with you what it will be impossible for you to know otherwise-how each student can relate best to your subject. This personalizes the experience for everyone. Second, by doing this, each student has created just a bit more ownership in the course.

### Give learners a positive learning experience

People today are used to modern media and online training needs to meet their expectations. With a well-done training, which automatically adapts to mobile devices and is easy to navigate, learners will have a positive learning experience which will create a desire to seek out more training.

Above all, as trainer, be yourself enthusiastic, friendly and motivated. Make personal introduction, have a constant presence in the online classroom and give timely response to student requests.

### Make it social

Learners are familiar with social features like commenting and sharing online content. Having those features as part of online learning will improve participation and engagement.

Your student looks at a computer screen, sees a course layout, knows there are several others students in the course, has class materials, and skims your bio, but no link yet exists between you and the student to help build a bridge between the two of you-a bridge that is crucial in fostering that student's motivation. One simple and sure-fire way to do this, is to always mention the student by name each time you send him or her any individualized material. The student knows you are speaking to or teaching him or her, not the rest of the class. We all want to feel wanted, and this is especially true in an online course: using the student's name will go a long way in making that student feel connected.

### Invite learners to contribute

Have your students create a fictitious scenario that uses some real aspect(s) of your course's subject. Again, this is a great way to have students personalize the course material, gain more ownership in the course, and have some fun. This serves not only as interesting and fun reading, but also as additional examples of good writing.

Invite them to give their personal knowledge and input to the course, use a task-based learning strategy in which learners contribute through group discussions.

## Learning Resources

During the course development of an online course, the use of compelling resources which will motivate and engage learners is essential.

### Video/Images/Graphics

Visualize data where possible. Learners will be more engaged if they discover images and video rather than endless lines of text.

The application of media within video lectures allows learners to process information received through both visual and auditory channels. Such processing occurs by organizing the information in working memory and transferring it to long term memory. This should ideally lead to greater schema construction, and ultimately a clearer understanding of the content.

Including images that illustrate content or are relevant to the eLearning course can help to engage the learners and make your modules more aesthetically appealing. When searching for images, be sure to opt for ones that are royalty free, as you will not want to have to deal with copyright issues.

### Social Media

Despite the physical distance, Facebook, Instagram and other social media have brought people closer than they have ever been before. Recently, the use of social media has become immensely popular in the education industry. It allows learners and instructors to connect outside the formal learning environment, share ideas, create peer groups to share their opinions regarding the course, or discuss content and activities. eLearning professionals are starting to rely heavily on social media platforms to share supplementary course materials, promote learning practices, and respond to learners' comments. Additionally, social media presents an easy and quick way for learners to connect with course instructors, ask questions, and clear doubts.

### 3D simulations

Three-dimensional virtual worlds offer unique learning and teaching opportunities as they present a rich, engaging, immersive, motivating, and highly interactive environment because they can: (1) recreate a sense of presence, (2) be felt directly, (3) quickly adapt, (4) offer the possibility to simulate the "real" world, (5) offer the possibility to create new experiences that might be difficult to represent in the "real" world, (6) can be offered for experimentation, and (7) enable synchronous communication and collaboration. It can be considered helpful for teachers who wish to apply a three-dimensional virtual world in educational practice [9].

It can be concluded that the use of this three-dimensional virtual world can facilitate teachers to understand foreign concepts presented in 3D virtual worlds by exploring the similarities and differences between a "traditional" class and a three-dimensional virtual classroom or a 3D virtual classroom. This concept allows the teachers to design simple educational activities by transferring their previous experiences and ideas using objects presented in 3D virtual classrooms.

### Immersive learning

The next step in line with the 3D simulations is the so-called immersive learning. This does not necessarily need to be related to sophisticated technology (VR headsets, augmented reality software) which is not accessible to everyone. There are several ways of applying the idea using available tools.

- ***Engage students in real-world situations.*** Relate the learning content closely to situations which can happen every day.
- ***Replicate employment activities.*** Most learning is somehow done in order to apply it on the job later on. Therefore industry- or work-based scenarios are the best choice to illustrate the learning topics.
- ***Creative storytelling.*** Through storytelling students can learn to be creative, widen their perspective and broaden the skills with which they can demonstrate their learning and understanding. On the other hand, reading the stories of students can lead to greater insights than simple reflective tasks.

These strategies do not require sophisticated technology, new platforms, or licences. They can be achieved through the formulation and description of learning activities utilising common digital learning tools. For more complex approaches, support from learning technology providers or IT teams may be needed.

### Synchronous communication tools

Synchronous e-Learning involves online studies through chat and videoconferencing. This kind of learning tool is real-time. It is like a virtual classroom that allows students to ask, and teachers to answer questions instantly, through instant messaging, which is why it is called synchronous. Rather than taking lessons alone, students associating themselves with synchronous e-Learning software or online courses can easily interact with fellow students and their teachers during the course.

Examples: chat, video conferences, social networking sites.

### Asynchronous communication tools

On the other hand, Asynchronous learning can be carried out even while the student is offline. Asynchronous e-Learning involves coursework delivered via web, email and message boards that are then posted on online forums. In such cases, students ideally complete the course at their own pace, by using the internet merely as a support tool rather than volunteering exclusively for e-Learning software or online interactive classes.

Examples: e-mails, discussion boards, blogs, Wikis.

### Videos

Free learning videos and online video-based courses have taken over as the preferred method of learning for new generations.

Video engages two senses, sight and hearing, providing for a deeper, multi-sensory learning experience compared to other formats. Plus, video can show examples of real-life application of skills rather than simply "telling" a learner what to do. However, to be effective, e-Learning videos have to be done well.

They have to be well-written, well-produced, and meet all of the desired learning objectives. That is why many companies hire learning agencies to help develop custom e-Learning videos.

Examples: YouTube videos, commented PowerPoint presentations (voice-over).

### Learning platforms

An online learning platform is a digital space that allows course creators to market, sell, and deliver their e-Learning courses. They are often referred to as "online course marketplaces." Like traditional schools, such platforms offer learners a safe environment in which to learn, access course materials, and, in many cases, interact with both teachers and students alike. They offer a wide range of features, including, but not limited to lectures, assignments, quizzes, learning interactions, completion certificates, and social forums/chats.

Learning management systems (LMSs) are less focused on sales and marketing and more focused on seamlessly delivering training to large groups of learners, employees, or partners, for example. Compared with online educational learning platforms, many LMSs have built-in course authoring capabilities, enabling to create fresh courses. Besides, LMSs allow to manage users, assign content to them, and track learner progress – all under one roof.

Within the scope of this project, the e-Learning should be hosted on a user friendly LMS which gives easy access and progress tracking. Additional features like forums and chats are helpful.

## Evaluation and Feedback

Online learning remains an interaction between trainers and learners. The trainer should ask for feedback but also give continuous feedback to the leaners. Moreover, the evaluation of the courses will give valuable input for improvement areas.

While there may not be tests or quizzes every day, there are many ways for online teachers to evaluate student performance and step in before they get behind.

In a traditional classroom or training room environment, educators can provide direct face-to-face feedback to the learners, in real time. This can be harder for online learners, completing self-paced modules and courses in the comfort of their own home or office. However, having access to meaningful feedback is just as important for these learners.

### Make sure to communicate you are open to feedback

Let students know they will have opportunities to voice their opinion throughout the course. At the start, instructors should ask their new group of students' questions about previous knowledge, expectations and concerns.

This will make the learners feel valued and appreciated which will again increase their engagement level.

### Multiple-choice questionnaires

Questionnaires are an opportunity to assess student progress and, therefore, course effectiveness. You can see if anyone is falling behind and, together, develop a plan to get them back on track. Or, if a majority of students do poorly in a specific area, then you know information is not sticking. Halfway through the course, ask students to complete a feedback form or survey that contains a mix of open-ended and multiple-choice questions. Use a tool that provides anonymity so students can be frank. Also give students the opportunity to provide feedback directly to the instructor.

Quick simple questions also have the advantage of providing information which is easily transferable into statistics.

### Be aware of the response shown

Avoid creating a barrier, be open, understand the message that is given back. Take every comment into account because other learners might have the same comment later on.

### Give constructive feedback to the learners

Correct or incorrect, always explain why. Encourage social and peer feedback, participate in learner's discussions.

Many students also benefit from receiving peer feedback, debating one another, and working together in groups. Try using apps or educational websites that encourage students to collaborate and interact, which will help stimulate discussion (and hopefully, alleviate feelings of isolation among socially distanced students).

### Give continuous feedback

Supplying feedback to learners throughout the duration of a course is a great way to keep users engaged and motivated. Providing performance indicators can help keeping individuals focused and on track, allowing them to see how they are progressing throughout the course.

Engaging with learners directly after the completion of a course is the best time to gather accurate feedback about their learning experience, while their thoughts and experiences are still fresh and unclouded.

It is well worth following up with e-Learners a few months after they have finished an online course, to see how successfully they have retained the knowledge or skills acquired.

Another short survey or quiz will allow you to see how much content participants have retained. Learners will also be able to see how their performance has improved since taking the course and if there are any areas that need some more work.

## Online Trainer skills

Many elements of classroom teaching also apply to online learning: mastery of the subject, clear learning outcomes, well designed curriculum, good communication with students, timely feedback and assessment of learning. Besides the generic requirements of quality teaching, there are some specific requirements to online teaching. Some of these closely relate to the preceding topics which have been described.

### Decide what kind of online course it should be

Choose the right format and media for the course. Take into account the profile of targeted students, the nature of the subject as well as the available resources. Can the content be instructed through video lectures, self-learning resources or a mix of both?

### Choose the appropriate instructional design

As described in the first section, ensure the course is compelling, motivating and has the right structure.

### Master the technology

Because classes are taught using the internet, online teachers need to be tech savvy and comfortable with the latest online tools and technology. Teachers may need to help students and parents learn new tools, especially at the beginning of the school year. Using technology regularly in their day-to-day lives helps teachers stay up to date with the latest innovations.

The main piece of technology that online teachers need to understand is their school's learning management system, or LMS. There are various online tools and education technology platforms that schools use to deliver lessons and communicate with families throughout the year.

Many teachers also use data visualization and analysis programmes (e.g., spreadsheets and pivot tables) to track student progress and create data-based personalized learning plans. What makes a good online instructor is not only mastering the basics but being ready to keep learning as needs change and technology evolves to meet them.

### Communication is key

Online learning may feel new to many students and parents, so building trust and community is key. Teachers who have a knack for friendly, clear communication help students feel supported to succeed.

The «presence» of the trainer in online learning is very important. Although the students will be able to learn on their own, the trainer needs to show he is «there». He needs to give clear instructions and expectations, give feedback and try to organise virtual discussions with the learners. Speaking skills of the trainer are even more important in virtual sessions compared to face-to-face.

A big part of an online teacher's job is to be available when students have questions or need help. Since classes are not held in person, responding quickly to provide assistance whenever someone reaches out is how to be a great online teacher.

Teachers should provide multiple ways to contact them, such as via email, texting, video conferencing, and phone calls. Some Connections Academy teachers even hold regular office hours for students who need one-on-one help or just want an additional challenge.

### Time management

In online learning it will be essential to create an appropriated schedule for each course, including duration of modules, deadlines for completion and the related activities. Moreover, if the course is held live through video conference, the time needed for a course might differ from classroom teaching of the same content.

### Visuals

Good trainers should know the basics of PowerPoint and other presentation systems and be aware not to overload the slides with text etc.

Moreover, as explained in the related section, for each online course the right media need to be chosen.

## Digitisation of Guidelines

## Video 1 - Pedagogical guidelines for instructors

### 1. Introduction

Trainers in painting and decorating who wish to start the process of digitising their courses and enable their learners to train online, must adapt their teaching practices to this training method. To do this, they will have to acquire new skills and integrate concepts which they are not necessarily used to deal with in the design of their "traditional" courses.

To help trainers in the digitisation process, DIGI-Paint proposes a set of 5 explanatory videos that will deal with:

- Instructional design
- Learner's motivation and interaction
- Learning resources
- Evaluation and feedback
- Online trainer skills

## 2. Instructional design

Digitising training does not fundamentally change the instructional design trainers put in place for face-to-face courses. However, they need to consider important aspects in the process. Indeed, the fact that the pedagogical scenario, as well as the potential hazards arising in the pedagogical relationship with participants, must be anticipated as much as possible from the start of course design onwards, as they will not be able to regulate these aspects as in a classroom setting. Similarly, as far as evaluation is concerned, trainers should pay particular attention to this, as they will only be able to rely solely on the digital tool to know whether their learners have really learned the concepts they wanted to transfer.

### 2.1. Methodology of instructional design

The first step in instructional design is to define a methodology. To help with this, trainers can use instructional design models to create learning experiences which help facilitate learning. For example, the ADDIE (Analyse, Design, Develop, Implement, and Evaluate) Instructional Design method is the most commonly used because it does not impose a linear progression on the learner.

The trainers can then adapt or modify this method according to their own pedagogical practices once they are comfortable with it.

### 2.2. Setting clear learning objectives

In the second phase of instructional design trainers should set learning objectives using short sentences. These should be expressed in a clear, tangible, observable and measurable way in simple, everyday language.

In order to better control their usefulness, trainers can define the learning objectives in two categories:

- Training objectives
- Pedagogical objectives

The training objectives include the pedagogical objectives and are more general. They define, with the help of an action verb, the associated means, the operating conditions and the different activities of the training fields that make up a training programme. At this level the results of an evaluation are defined according to the criteria and indicators related to it (summative evaluation). This type of evaluation defines the level of achievement of the learning outcomes.

Pedagogical objectives describe each action of the learning objective with a "process" verb. At this level the evaluation criteria and indicators are defined (formative evaluation). This type of assessment defines the learner's progress in the training course.

Further, it is suggested to avoid common or familiar words as much as possible, and avoid academic words whose meaning has not been explained before.

The learning objectives can be classified into 3 categories which can be combined, particularly in the drafting of pedagogical objectives:

- Cognitive (knowledge)
- Psychomotor (skills)
- Socio-affective (attitudes)

Cognitive (knowledge): This category of learning objectives relates to the knowledge improvement of safety rules, standards, professional calculations, etc.

Psychomotor (skills): This category of learning objectives relates to the improvement of know-how, methodologies.

Socio-affective (attitudes): This category of learning objectives is difficult to define because it involves defining attitudes or behaviours related to aspects of feelings and emotions.

The chosen action verbs or procedures in the drafting of learning objectives will enable trainers to define their category and whether their students have the necessary prerequisites to achieve them. To do this, trainers can set up a diagnostic type of assessment at the beginning of the course to be able to check them.

Ensuring that learners have mastered the prerequisites of the knowledge they need to learn is very important in the process of digitising training.

Finally, trainers will need to define the resources available to the learners and the conditions under which these different learning objectives should be achieved.

This will allow them to define the level of complexity of the learning objectives that the learners will have to achieve.

### 2.3 Designing the learning architecture / Identifying key questions

The third step is to keep the learner's attention. To do this, it is suggested to structure the training in a pathway, subdividing the main course into sequential modules: the learning modules. These should then be structured and organised to fit the time frame, the requirements of the expected results and the planning of the e-learning content while avoiding information overload. This modular learning pathway must be able to meet the requirements of a certification scheme while allowing learners to know which training module they should take first.

### 2.4. Developing learning materials

The final point to consider is that e-learning requires a set of appropriate resources and equipment. The current market supply of such resources and equipment is sufficiently rich to enable trainers to offer their learners attractive and motivating virtual learning. These aspects will be discussed in more detail in a future video.

## Video 2 - Educational content

Educational content is the keystone of a digital training course because it contains the knowledge to be acquired. There are different types of content the trainers must master because each of them has different characteristics that can be more or less conducive to learning.

There are three types of educational content:

- Passive content
- Dynamic content
- Interactive content

Pictures, graphics and texts are passive content because the learner can only consult them. This content can also be considered directive because it is scripted from the trainer's point of view, which does not always correspond to the way in which some learners may apprehend the information.

Podcasts, sound recordings and videos (filmed or in motion design) are considered dynamic audio-visual resources. This content is also considered directive and linear because it is scripted from the trainer's point of view.

Interactive content is the most engaging and motivating because it allows learners to manipulate it freely in order to build their knowledge without linearity. The trainers' directivity is almost non-existent, except that they must think carefully about how to script all possible interactions.

There are several types of interactive contents:

- The single point resource can be manipulated in rotation, in scale or trigger animations.
- The simulator principle allows the learners, through successive interactions, to put their knowledge/skills into practice in a socio-professional context. Random events can also be programmed to allow learners to reflect on the procedures they perform. Trainers also have the possibility of evaluating the actions carried out by the learners.
- The serious game, which often is a succession of simulations or interactive situations thanks to the concept of gamification. The serious game also integrates the evaluation system.

Generally speaking, the educational content is created with dedicated software, either free or paid. Depending on the level of mastery of this software, trainers may need to rely on experts to help them in the production of this content. However, depending on the tools used to design this type of content, it is possible, thanks to digital images (2D and 3D), to illustrate information or concepts that are difficult to observe with the eye using a camera.

As technology evolves rapidly, realistic 3D simulations and immersive technologies such as virtual or augmented reality are gradually becoming more widely available. These technologies allow the

creation of "pseudo-real" learning environments, allowing learners to train as if they were in a professional situation. They encourage experimentation without security risks and without economic consequences because the learning resources are unlimited. The trainers also have the possibility, thanks to these technologies, of having a virtual classroom with all the necessary didactic equipment in which they can be with all the learners to give a course.

The immersive technologies add significant value to the training experience because the learners are no longer in front of a screen, but are immersed in the virtual training environment through a headset; this captures their attention because the environment is no longer an obstacle to their training. The use of this type of technology also requires the trainer to think of new forms of evaluation.

Once the educational content has been developed, trainers can distribute it via a training platform or LMS (Learning Management System), which will enable them to manage the administration of the training. They will be able to link content to the previously identified educational objectives and allocate the training to the learners of their choice. They can set up the evaluation and monitor the progress of learners in the various training contents. They can set up the type of training they wish to provide (synchronous or asynchronous) as well as the methods of communication with their learners. There are a large number of LMSs, both free and paid, available on the market. Before choosing an LMS, trainers need to define the features they need in order to have a tool that is optimised for their teaching practices. However, setting up a platform requires technical skills or the help of an educational engineer who will program the platform according to the parameters indicated by the trainers.

Finally, social networks are also interesting tools to use in the context of digital training. They can be used to advertise the training or to share feedback or evaluation results with a community. It is also a way for learners and trainers to communicate in a context outside the training framework.

## Video 3 – Learner's motivation and interaction

For an e-learning course to be effective, it must, among other things, meet the expectations of the learners. By allowing them to interact with the learning content, learners are more enthusiastic and motivated to acquire new skills and knowledge.

Trainers must therefore have some control over the design of the learning content or work with an instructional designer to create appropriate features. Trainers need to extract the knowledge or concept they want to address and think about how their learners will interact with the content to acquire the knowledge.

The challenge for trainers is above all to avoid the linearity of the educational content, which can put the learner in a passive situation in front of the screen. By allowing them to interact with the educational content by taking quizzes or in the form of work-related situations throughout the course, they will feel fully involved in their training.

Trainers also need to integrate into the digitisation of their training the fact that learners must be allowed to go through the training independently, without necessarily indicating the stages they must go through. Trainers therefore must position themselves as an accessible resource that keeps the social link alive and maintains the learners' motivation by intervening with each of them in an individualised manner. It is also a way for learners to share their difficulties, or on the contrary, positive feedback on their training through comments or during video sessions.

Finally, trainers must consider the variety of learning methods that digital technology allows. To do this, they must choose the method that they feel is most suitable for the deployment of the developed training, while considering the level of equipment available to their learners.

## Video 4 - Evaluation and feedback

In the context of digital e-learning, it is important for trainers to maintain a social link with the learners. By giving feedback or engaging in discussions as regularly as possible, they can ensure that the learners are in the right mindset during their training. Verbal communication is still more effective than written communication because it limits problems of understanding.

Initiating e-learning with a group session during which learners can express their expectations and concerns is appropriate to create a group spirit and allow trainers to identify learners who will need particular attention. The positioning phase (or diagnostic assessment) is an important stage of e-learning because it allows trainers to identify the learners' pre-requisites. Through this dual approach, trainers are able to carry out their role at a distance and to intervene individually with each of their learners.

Throughout the course, trainers must set up a formative evaluation process, sanctioned by a summative evaluation, to identify whether the learners are succeeding or falling behind. Depending on the results of each learner, trainers can either intervene individually to help learners in difficulty, or adapt their teaching objectives if they notice that the class as a whole is in difficulty. To do this, they can, for example, carry out a survey to identify the elements that have caused them difficulty.

Whatever the type of assessment and the result obtained by the learners, trainers must take the time to explain the assessment criteria that they have put in place to assess them. During these exchange periods, learners can consolidate or complete their learning by sharing their feedback on the course.

## Video 5 - Online trainer skills

To sum up, the task of trainers who wish to digitise their training to deliver it online is not much different from their usual task in classroom training. The use of digital tools enables them to be more efficient in the act of training and to assess whether the pedagogical design has been well thought out beforehand. To do this, trainers must master the digital technologies, software solutions as well as didactic equipment. Trainers must also pay attention to the different profiles

of the learners in their class and assess their level of digital literacy to ensure that they do not have technical or ergonomic problems during their training.

The physical distance with the learners must be compensated for by active and regular communication in order to maintain the social link. This can be done by choosing the right communication tools. They must ensure the instructions are understood and make themselves available to answer learners' questions.

In the context of e-learning, trainers cannot regulate the learners' learning activity in real time. As a result, they have to estimate the length of the modules as well as the time allocated to individual or group communication before the training course.

## Scenarios for digital tutorials

# Scenario 1 - Teaching guidelines for instructors

### 1. Introduction

[VOICE OFF 1] - Trainers in painting and decorating (construction) who wish to engage in a process of digitisation of their courses in order to allow their learners to train online, must adapt their teaching practices to their training tool. To do this, they will have to acquire new skills and integrate concepts that they are not necessarily used to deal with in the design of their "traditional" courses.

To help the trainers in the process of digitising their training, DIGI-Paint proposes a set of 5 explanatory videos which will deal with:

- Instructional design
- Learner's motivation and interaction
- Learning resources
- Evaluation and Feedback
- Online skills

**[ACTION NOTE 1] - The trainer appears in the centre of the screen and around him, all his knowledge in the form of icons. A computer appears next to him and all the appeared items fit into the computer. As the title of the videos is mentioned, it appears around the trainer. [FADE OUT]**

**[END OF VIDEO]**

### 2. Instructional design

[VOICE OFF 1] - Digitising one's teaching does not fundamentally change the pedagogical design that the trainer puts in place for a face-to-face course. However, there are important aspects to consider in the process.

**[ACTION NOTE 1] - On the left-hand side of the screen, a trainer appears in front of his computer and the distance learning apprentices who are programming an online course. On the right, the same trainer gives a face-to-face course to his learners. An "=" sign appears between the two situations to show that there are similarities.**

[VOICE OFF 2] - Indeed, he must integrate the fact that the pedagogical scenario, as well as the potential hazards arising in the pedagogical relationship, must be anticipated as much as possible from the design of his course, because he will not be able to regulate these aspects as he can do in the classroom.

**[ACTION NOTE 2] - In the face-to-face situation, connections are made between the trainer and the learners, but they are very meandering and the trainer passes on concepts. The trainer intervenes on these connections to make them straighter. All these connections**

**are transformed into miniatures and join the trainer's thoughts in front of his computer. He programs his training, and straight connections are created between his computer and the remote learners.**

[VOICE OFF 3] - Similarly, as far as evaluation is concerned, the trainer must pay particular attention because he can only rely on the digital tool to know whether his learners have really learned the concepts he wanted to transmit.

**[ACTION NOTE 3] - The right-hand side with the face-to-face trainer disappears to make room for the trainer in front of his computer with his remote students. He sends MCQs to his learners and pie charts on the rate of acquisition are sent back to him. [FADE OUT]**

## 2.1. Methodology for instructional design

[VOICE OFF 4] - The first step in instructional design is to define a methodology. To help with this, trainers can use instructional design models to create learning experiences to help facilitate learning. For example, the ADDIE (Analyse, Design, Develop, Implement, and Evaluate) Instructional Design method is the most commonly used because it does not impose a linear progression on the learner.

**[ACTION NOTE 4] - The trainer appears in front of the screen. Above him the acronym ADDIE appears. From each letter the words "Analyse", "Design", "Develop", "Implement", "Evaluate" are extracted respectively.**

[VOICE OFF 5] - The trainer can then adapt or modify this method to suit his or her own teaching practices once he/she is comfortable with it.

**[ACTION NOTE 5] - The letters of the acronym join and blend together and become part of the trainer's body.**

## 2.2. Set clear learning objectives

[VOICE OFF 6] - In the second phase of instructional design, the trainer should set learning objectives using short sentences. These should be expressed in a clear, tangible, observable and measurable way in simple, everyday language.

In order to better control their usefulness, the trainer can define learning objectives in two categories:

- The training objectives
- The educational objectives

**[ACTION NOTE 6] - The term “learning objective” appears above the trainer. The term "training objective" and "educational objective" are extracted from the term "learning objective" and are positioned to the left and right of the trainer respectively. [FADE OUT] of the trainer.**

[VOICE OFF 7] - Training objectives include pedagogical objectives and are more general. They define, with the help of an action verb, the associated means, the conditions of operation and the different activities of the training fields that make up a training programme.

**[ACTION NOTE 7] - The term "educational objective" is placed under the term "training objective". It is then duplicated twice. The terms "action verb" + "associated means" + "operation condition" + "operation condition" + "different activities" are displayed as they are mentioned at the bottom of the screen.**

[VOICE OFF 8] - This is the level at which the results of an assessment are defined according to criteria and indicators related to it (summative assessment). This type of assessment defines the level of achievement of the learning outcomes.

**[ACTION NOTE 8] - The term “summative evaluation” appears to the right of “training objective”. The terms “Criteria 1”, “Criteria 2” and “Criteria X” with a checkbox to show that this is what is being assessed.**

[VOICE OFF 9] - The pedagogical objectives define, with the help of a "procedure" verb, each action of the training objective. It is at this level that the evaluation criteria and indicators are defined (formative evaluation). This type of assessment defines the learner's progress through the training course.

**[ACTION NOTE 9] - The words “procedural verb” appear next to “learning objective”. The term “formative assessment” appears to the right of “learning objective” with a graph illustrating the learner's progress.**

[VOICE OFF 10] - Furthermore, it is advisable not to use common or familiar words as much as possible or, on the contrary, academic words whose meaning has not been explained beforehand.

**[ACTION NOTE 10] - The terms 'common words' and 'academic words' appear in succession and are crossed out with a red cross [FADE OUT].**

[VOICE OFF 11] - The learning objectives can be classified into 3 categories which can be combined, particularly in the drafting of educational objectives:

- Cognitive (knowledge)
- Psychomotor (skills)
- Socio-affective (attitudes)

**[ACTION NOTE 11] - The term "learning objective" appears and is broken down into three terms "cognitive", "psychomotor" and "socio-affective".**

<u>Cognitive (knowledge):</u>

[VOICE OFF 12] - This category of learning objectives concerns the improvement of knowledge of safety rules, standards, professional calculations

**[ACTION NOTE 12] - The terms "safety rules", "standards", and "professional calculations" appear under the term "cognitive".**

<u>Psychomotor (skills):</u>

[VOICE OFF 13] - This category of learning objectives concerns the improvement of skills, methodologies.

**[ACTION NOTE 13] - The terms "skills enhancement" and "methodology" appear under the term "psychomotor".**

Socio-affective (attitudes):

[VOICE OFF 14] - This category of learning objectives is difficult to define because it involves defining attitudes or behaviours related to aspects of feelings and emotions.

**[ACTION NOTE 14] - The terms “attitudes” and “behaviour” appear under the term “social-emotional”.**

[VOICE OFF 15] - The action or procedural verbs chosen in the writing of learning objectives will allow the trainer to define their category and if his students have the necessary prerequisites to achieve them.

**[ACTION NOTE 15] - Verbs appear from the training and educational objectives written by the trainer and will be placed in their corresponding category.**

[VOICE OFF 16] - For this, the trainer can set up a diagnostic type of assessment at the beginning of the training to enable him/her to check them.

Ensuring that learners have mastered the prerequisites for learning is very important in the process of digitising a course.

**[ACTION NOTE 16] - Learners appear on the screen and the verbs move towards them. They turn them green, orange or red to indicate whether or not they have the prerequisites to enter the course. A computer appears next to the trainer and he integrates the information he has identified in the positioning into the creation of the training. [FADE OUT] of all textual elements**

[VOICE OFF 17] - Finally, the trainer will have to define the means available to the learners and the conditions under which these different learning objectives should be achieved.

This will allow the trainer to define the level of complexity of the learning objectives that the learners will have to achieve.

**[ACTION NOTE 17] - Icons of case study and work material appear in the learners' thoughts and are directed to the trainer to incorporate into the digitisation of their training. [FADE OUT]**

## 2.3. Designing the learning architecture / Identifying key issues

[VOICE OFF 18] - The third step is to maintain the learner's attention. To do this, it is advisable to structure the training in the form of a learning pathway that subdivides the main course into sequential modules.

**[ACTION NOTE 18] - The trainer appears in front of his computer on the right side of the screen. He programs a course. It comes out of his screen and breaks up into modules spread out across the centre of the screen.**

[VOICE OFF 19] - Modules then need to be structured and organised to suit the timeframes, outcome requirements and content planning of e-learning while avoiding information overload. This modular learning pathway must be able to meet the requirements of a certification scheme while allowing learners to know which training module they should take first.

**[ACTION NOTE 19] - A module comes to the forefront, and we see that it is made up of learning resources, assessment devices, and communication media. A duration is attributed to each of the elements. The module returns to its initial position. The learners appear on the right and an icon of their face joins the training path and starts with the first module, then each one evolves at his own pace and where he wishes. [FADE OUT]**

## 2.4. Developing learning materials

[VOICE OFF 20] - The last point to consider is that e-learning requires a set of appropriate resources and equipment. The current market supply of such resources and equipment is sufficiently rich to allow the trainer to offer his learners attractive and motivating virtual learning. These aspects will be discussed in more detail in a future video.

**[ACTION NOTE 20] - The trainer at his computer appears in the centre of the screen. All the existing types of resources and hardware appear around him. They all merge into the trainer's computer.**

**[END OF VIDEO]**

# Scenario 2 - Educational content

[VOICE OFF 1] - Educational content is the keystone of a digital training course because it contains the knowledge to be acquired. There are different types of content that the trainer must master because they each have different characteristics that can be more or less conducive to learning.

**[ACTION NOTE 1] - The trainer appears in full view of the screen. A set of content types appear around him.**

[VOICE OFF 2] - Three types of educational content must be distinguished:

- Passive content
- Dynamic content
- Interactive content

**[ACTION NOTE 2] - A table showing the 3 categories appears behind the trainer. The content types are divided into the column of the corresponding table.**

[VOICE OFF 3] - Images, graphics and text are passive content because the learner can only consult them. It can also be considered directive content because it is scripted from the trainer's point of view, which does not always correspond to the way some learners may perceive information.

**[ACTION NOTE 3] - The trainer and the board disappear, and the passive content comes to the fore. The trainer appears to be working on his computer to design a graph. The learners appear from a distance, each with a different graph in their minds than the one the trainer is designing. [FADE OUT]**

[VOICE OFF 4] - **Podcasts** or sound recordings and videos (filmed or in **motion design)** are considered dynamic audio-visual resources. This content is also considered directive and linear because it is scripted from the trainer's point of view.

**[ACTION NOTE 4] - The trainer and learners disappear. The dynamic content appears in the foreground. The trainer appears filming a painting activity with a camera. Then in "cross dissolve" he records himself with a microphone in front of his computer. The learners appear at a distance and consult the content with headphones in their ears. [FADE OUT]**

[VOICE OFF 5] - Interactive content is the most engaging and motivating because it allows learners to manipulate it freely in order to build their knowledge without linearity. The trainer's directivity is almost non-existent, except that he or she must think carefully about how to script all possible interactions.

**[ACTION NOTE 5] - The trainer and learners disappear. Dynamic content comes to the fore. The trainer appears to be making interactive content. Concepts and features appear in thought above the trainer. Learners appear in front of their computers and interact with interactive content. [FADE OUT]**

[VOICE OFF 6] - There are several types of interactive content:

- The point resource can be manipulated in rotation, scale or trigger animations

**[ACTION NOTE 6] - A 3D can of paint appears and it is shown that it can be found, moved and enlarged. [FADE OUT]**

- [VOICE OFF 7] - The simulator principle allows the learner, through successive interactions, to practice their knowledge/skills in a socio-professional context. Random events can also be programmed to allow learners to reflect on the procedures they perform. The trainer also has the opportunity to evaluate the actions of the learners.

  **[ACTION NOTE 7] - Close-up of a learner interacting with his computer keyboard and mouse. He is interacting in a work situation where he has to paint a wall. He performs several actions: grabbing a brush, painting a wall. We can see that he makes a mistake with the colour, but he starts again until he has the right colour. The learner moves to the right and the teacher enters the field from the left. He consults his computer where he can see what his learner is doing in the simulator. [FADE OUT]**

- [VOICE OFF 8] - The **serious game,** which can be likened to a succession of simulations or interactive situations that are motivating thanks to the concept of **gamification**. The serious game also integrates the evaluation system.

  **[ACTION NOTE 8] - Close-up of a learner interacting with his computer keyboard and mouse. He performs several successive simulations and a score increases at the top right of his screen and badges appear on the screen to reward the learner. An evaluation grid appears off-screen, and the learning objectives are ticked off one after the other. [FADE OUT]**

[VOICE OFF 9] - In general, educational content is created with dedicated software, either paid or free.

**[ACTION NOTE 9] - The different types of interactive content appear with the trainer on his computer screen. Around them appear the logos of the most famous 2D/3D graphic design software. [FADE OUT] (except the trainer)**

[VOICE OFF 10] - Depending on the level of mastery of this software, the trainer can call on resource persons who will help in the production of this content.

**[ACTION NOTE 10] - A graphic designer appears next to the trainer and creates a 3D can of paint with his graphics tablet. He then gives it to the trainer who puts it into his computer to finalise his course. [FADE OUT]**

[VOICE OFF 11] - However, depending on the tools used to design this type of content, it is possible, thanks to digital images **(2D and 3D),** to illustrate information or concepts that are difficult to observe with the eye using a camera.

**[ACTION NOTE 11] - A can of yellow and blue paint in 3D appears on the screen. The contents are poured into a third can and the volume is seen to grow. Then we zoom in on the same pot to see the paint at the molecular level mixing to make green. [FADE OUT]**

[VOICE OFF 12] - As technology rapidly evolves, realistic **3D simulations** and immersive technologies such as **virtual** or **augmented reality are gradually becoming** more commonplace.

**[ACTION NOTE 12] - The trainer appears and different headsets and technologies related to VR and AR appear around him. [FADE OUT]**

[VOICE OFF 13] - These technologies make it possible to create "pseudo-real" learning environments, allowing learners to train as if they were in a professional situation. They allow experimentation without safety risks and without economic consequences because the learning resources are unlimited.

**[ACTION NOTE 13] - We see a learner putting on a VR headset. We fade in to subjective view or we see the effect of putting on the headset. We see him go from a classroom to a painting workshop in which he is painting a wall. Then he dips his brush in another colour and paints over it, then he cancels the action because it is not the expected result. [FADE OUT]**

[VOICE OFF 14] - The trainer also has the possibility, thanks to these technologies, of having a virtual classroom with all the necessary didactic equipment in which he or she can meet with all his or her learners to give a course.

**[ACTION NOTE 14] - The trainer appears at his desk and puts on a virtual helmet. The screen splits in two where it is indicated that the trainer is in the real environment and he teleports as an avatar into the virtual world in the form of a painting workshop. All possible teaching elements appear around him in the virtual environment.**

[VOICE OFF 15] - in which he can be with all his learners to teach a course.

Immersive technologies add significant value to the training experience because the learner is no longer in front of a screen, but is immersed in the virtual training environment via a headset; this captures his or her attention because the environment is no longer an obstacle to training. The use of this type of technology also requires the trainer to think of new forms of evaluation.

**[ACTION NOTE 15] - The learners appear in the real world but at a distance from the trainer (on the left of the screen). They all put on the headset and their avatar appears in the virtual world with the trainer. The learners all do something in the virtual world and the trainer observes them. [FADE OUT]**

[VOICE OFF 16] - Once the educational content has been developed, the trainer can distribute it via a training platform or LMS, which will enable him to manage the administration of his training.

**[ACTION NOTE 16] - The trainer appears at his computer. Different LMS logos appear all around him. They all enter his computer and an interface appears. At the same time the**

**remote learners appear on their computer and the platform sends modules to the different learners. [FADE OUT]**

[VOICE OFF 17] – He/she will be able to link his/her content to the previously identified pedagogical objectives and allocate the training to the learners of his/her choice. He/she can also set up the evaluation system and monitor the progress of his/her learners in the various training contents. He/she can also set up the type of training he/she wishes to provide **(synchronous or asynchronous)** as well as the methods of communication with his/her learners. There are a large number of LMSs, both paid and free, available on the market.

**[ACTION NOTE 17] - The trainer appears in full view. As new concepts are introduced, they are illustrated by images appearing around him**

- **Contents are linked to the educational objectives (in text)**
- **Linking a course to the learner**
- **Display a learner tracking table**
- **Displaying an assessment device where grades are shown**
- **Display video software icons [FADE OUT] (except trainer)**

[VOICE OFF 18] - Before choosing an LMS, the trainer must define the functionalities he/she needs in order to have a tool that is optimised for his/her teaching practices. However, setting up a platform requires technical skills or the help of an educational engineer who will program the platform according to the parameters indicated by the trainer.

**[ACTION NOTE 18] - The trainer writes down the features they need in a notebook. The icons are ticked off as they go along. A training engineer joins the trainer. The trainer gives him his notebook. And the designer gets on his computer and enters everything the trainer has asked for. Once he has finished, the designer gives him an LMS with his training integrated.**

[VOICE OFF 19] - Finally, social networks are also interesting tools to exploit in the context of digital training. They can be used to publicise the existence of the course or to share feedback or evaluation results with a community. It is also a way for learners and the trainer to communicate in a context outside the training framework.

**[ACTION NOTE 19] - Social network logos appear around the trainer. The trainer is at his or her computer broadcasting content to other training centres and to a group of trainers. Learners appear, exchanging "likes", images, etc., which also go to the training centres and the trainer community.**

**[END OF VIDEO]**

# Scenario 3 - Learner interaction and motivation

[VOICE OFF 1] - For an e-learning course to be efficient, it must, among other things, meet the expectations of the learners.

**[ACTION NOTE 1] - *Background classroom - Establishing shot* - A trainer is in his classroom with his learners. He asks them about their expectations of the course they are going to follow. Each learner expresses their expectations by illustrating a concept related to painting. The trainer integrates the expectations of his learners in the formalisation of his course.**

[VOICE OFF 2] - By allowing them to interact with the learning content, learners are more enthusiastic and motivated to acquire new skills and knowledge.

**[ACTION NOTE 2] - *Background classroom - Establishing shot* - The trainer taps on his keyboard and scans the expectations of his learners. These appear on his computer screen. The trainer's computer then sends the digitised lessons to the learners. They emit joy and a graph showing their growing motivation appears.**

[VOICE OFF 3] - The trainer must then have some control over the design of the learning content.

**[ACTION NOTE 3] - *Background classroom - Close up* - The trainer appears in front of the screen and a lot of concepts related to e-learning appear around him. He observes them as they appear, looking confident, and he begins to have doubts about them as they accumulate.**

[VOICE OFF 4] - or work with an instructional designer to create appropriate features.

**[ACTION NOTE 4] - *Background classroom - Tight layout* - An instructional designer joins the trainer. The trainer is happy and tells the designer his notes. The designer looks at the concepts around them and looks at the trainer's notes. He chooses the concepts that meet the trainer's needs.**

[VOICE OFF 5] - The trainer needs to extract the knowledge or concept he/she wants to address

**[ACTION NOTE 5] - *Desktop background - Close-up* - The trainer is at his desk in front of his computer and observes a can of paint he has next to him. He looks at the can from all angles and extracts its characteristics as a thought. He puts the can of paint down and taps on his keyboard and the concepts appear on the trainer's computer screen.**

[VOICE OFF 6] - and think about how their learners will interact with the content in order to acquire the knowledge.

**[ACTION NOTE 6] - *Desktop background - Tight shot* - Still sitting at his computer the trainer imagines case studies, then he tunes in again and the case studies also appear on the computer screen. The trainer sends to his learners who appear at a distance.**

[VOICE OFF 7] - The challenge for the trainer is above all to avoid the linearity of the educational content, which can put the learner in a passive situation in front of the screen.

**[ACTION NOTE 7] - *Desktop background - Close up* - A learner appears to be studying in front of his screen. The can of paint that he sees, changes colour. We can see that he is getting bored, which surprises the trainer, and his motivation level drops.**

[VOICE OFF 8] - By allowing interaction with educational content through quizzes or role-playing throughout the course, students will feel fully engaged in their training.

**[ACTION NOTE 8] - *Background office - Tight shot* - The trainer reworks his can of paint and produces one that is 3D and interactive. He sends it to the learner's computer and the learner becomes captivated by the content, interacting with it. A graph of the motivation rate appears and it skyrockets. A quiz then appears on the learner's screen and he answers to it. The motivation rate continues to rise.**

[VOICE OFF 9] - The trainer must also integrate into the digitalisation of his training, the fact that he must let the learners go through the training on their own, without necessarily telling them the steps they must go through.

**[ACTION NOTE 9] - *Desktop background - Close-up of* computer screen - Trainer observes learners as icons move freely through the training programme.**

[VOICE OFF 10] - The trainer must then position himself as an accessible resource that makes it possible to maintain social links and keep learners motivated by intervening with each of them in an individualised manner.

**[ACTION NOTE 10] - *Background office - General plan* - A learner in front of his computer enters the field and the trainer comes to the left of the screen with a separation line between the two actors appearing. An icon of the trainer appears and goes to position himself in his computer screen. Then the icon teleports to the learner's computer. The trainer disappears and the learner takes over the whole screen.**

[VOICE OFF 11] - This is also a way for learners to share their difficulties,

**[ACTION NOTE 11] - The learner clicks on the trainer's icon and the trainer appears in video. The student expresses his difficulties with onomatopoeia. While the trainer answers, a light bulb icon appears on the screen to illuminate the learner's thoughts**

[VOICE OFF 12] - or on the contrary, positive feedback on their training through comments or videos.

**[ACTION NOTE 12] - During the discussion, the learners discuss concepts that they have seen during their training, and give positive and negative opinions.**

[VOICE OFF 13] - Finally, the trainers must take into account the multitude of learning methods that digital technology allows. To do this, they must choose the medium that seems most suitable for deploying the training device developed, while considering the level of equipment available to its learners.

**[ACTION NOTE 13] - *Background office - Tight shot* - The trainer appears and media around him, as he goes along. He observes them.**

**[ACTION NOTE 14] - *Background office - Tight shot* - The trainer thinks about the whole training device he has developed. His learners appear with different media at their disposal. They see that they all have a computer in common. So, he decides to take the computer icon. All the elements disappear except the trainer who turns to face the camera and smiles. He disappears at once.**

**[END OF VIDEO]**

# Scenario 4 - Evaluation and feedback

[VOICE OFF 1] - In the context of digital e-learning, it is important for the trainer to keep the social link with the learners.

**[ACTION NOTE 1] - Trainer and learners appear on the screen. They are sending emails and messages. [FADE OUT]**

[VOICE OFF 2] - By making comments or engaging in discussions as regularly as possible he can ensure that his learners are in the right frame of mind during their training. Verbal communication is still more effective than written communication because it limits problems of understanding.

**[ACTION NOTE 2] - Learners appear in front of their screen and the trainer appears in video. We see him having exchanges with the students. Smileys are exchanged between the learners and the trainer. Then the learners consult their mailbox and we see the trainer's comments to keep the social link. [FADE OUT]**

[VOICE OFF 3] - Initiating e-learning with a group session where learners can express their expectations and concerns is appropriate to create a group spirit and allow the trainer to identify learners for whom he/she will need to pay particular attention.

**[ACTION NOTE 3] - Learners and trainer appear in a face-to-face classroom. The learners state what they want from their course. The trainer tells them what the online course is going to be like with the learning objectives. [FADE OUT]**

[VOICE OFF 4] - The **positioning** phase **(or diagnostic assessment)** is an important stage in e-learning because it enables the pre-requisites of learners to be identified. Through this dual approach, the trainer is able to carry out his role at a distance and to intervene individually with each of his learners

**[ACTION NOTE 4] - Learners appear to complete quizzes. The trainer appears remotely and looks at the learners' results. The results appear as a graph. The trainer identifies that 3 learners are missing "a brush", "a can of paint" and "RGB" (representing their prerequisite deficit). He then sends each of them an icon representing each of the prerequisites to the appropriate training modules. [FADE OUT]**

[VOICE OFF 5] - Throughout the course, the trainer should set up a **formative assessment** process, followed by a **summative assessment** to identify whether learners are succeeding or falling behind.

**[ACTION NOTE 5] - The trainer appears in full view and looks at the icons of his students as they move through the training pathway. He sees that some are progressing well, some are struggling and some are falling behind. As they progress, the students go through formative assessments and send the data to the trainer.**

[VOICE OFF 6] - Depending on the results of each student, the trainer can either intervene individually to help the learners in difficulty, or adapt his teaching objectives if he notices that the whole class is in difficulty. To do this, he can, for example, carry out a survey to identify the elements that have caused them difficulty.

**[ACTION NOTE 6] - The trainer sends “light bulbs” to illuminate learners with difficulties and they are then seen to progress through the course. Once the learners have completed the course, he sends them a survey to list the difficulties they have encountered. The survey comes back to the trainer and he is seen modifying the training. [FADE OUT]**

[VOICE OFF 7] - Whatever the type of assessment and the result obtained by the learners, the trainer should take the time to explain the assessment criteria he/she has put in place to assess them. During these exchange periods, learners can consolidate or complete their learning by sharing their feedback on the course proposed by the trainer.

**[ACTION NOTE 7] - The trainer and his learners appear in the classroom. The trainer is at the blackboard and shows the different training modules that the students have accessed remotely. He is seen taking a can of paint and showing it to the students. He ticks the module about the can of paint on the board. In the learners' thoughts, we see that puzzle pieces fit together to show that they have understood. The students are then seen sharing their puzzle piece and the teacher is pleased to see them doing [FADE OUT].**

**[END OF VIDEO]**

# Scenario 5 - The skills of the online trainer

[VOICE OFF 1] In short, the activity of the trainer who wishes to digitise his training to deliver it online is not different from what he does on a daily basis in the classroom.

**[ACTION NOTE 1] - The trainer appears in full view and around him/her the competences he/she uses on a daily basis are displayed with a graph showing that he/she does everything 100% (training, evaluation, instructional design, etc.)**

[VOICE OFF 2] - The use of digital tools allows him to gain in efficiency in the act of training and to evaluate whether the pedagogical design has been well studied beforehand.

**[ACTION NOTE 2] - A computer appears to the right of the trainer with a graph that incorporates the trainer's skills. Dynamically, the two graphs balance each other to see that the computer is picking up a % of what the trainer is doing manually. [FADE OUT] of graphics and skills**

[VOICE OFF 3] - To do this, the trainer must master digital technologies, whether in terms of software solutions, didactic equipment, or the techno-skills to be mobilised to create online training devices.

**[ACTION NOTE 3] - All the concepts mentioned in the previous videos appear (teaching resources, LMS, hardware, etc.) in the form of a cloud around the trainer and his computer. [FADE OUT] of the technology cloud**

[VOICE OFF 4] - They should also pay attention to the different profiles of learners in their class and assess their level of digital literacy to ensure that they do not have technical or ergonomic problems during their training.

**[ACTION NOTE 4] - Learners appear with different hardware, prerequisites, knowledge of the professional environment, etc. around them. [FADE OUT] of everything but the learners and the trainer.**

[VOICE OFF 5] - The physical distance from the learners must be compensated by active and regular communication in order to maintain the social link. The trainer must therefore put in place communication tools and define the most appropriate times to make contact with the learners. They must ensure that instructions are understood and make themselves available to answer the various questions asked to them.

**[ACTION NOTE 5] - Icons of communication tools (skype, teams, zoom, etc.) appear around the trainer. We see the trainer sending elements (cans of paint, case studies, smileys, light bulbs) to his learners to illustrate the permanent communication. In the same way, the students send smileys, questions to the trainer. [FADE OUT] of all elements except the trainer and his computer**

[VOICE OFF 6] - In the context of online training, the trainer cannot regulate the learners' educational activity in real time. As a result, he or she must estimate the duration of the modules that the learners will go through before the course begins, as well as the time allocated to individual or group communication.

**[ACTION NOTE 6] - The trainer works on the creation of his course. As he/she designs modules, a pie chart quantifies the time estimated by the trainer as well as the time allocated to communication.**

**[END OF VIDEO]**