RECOMMENDATION CARD 1: THE INDIVIDUALISATION OF LEARNING

How to teach a class with heterogeneous levels of knowledge?

How to manage a learner who arrives 3 months after the others?

How to manage a learner who already knows everything?

How to manage a learner who has been absent for a long time?

❶ Concept: the individualisation of learning

Today's classes may have learners with increasingly heterogeneous levels of knowledge. How do you teach them the same thing? Digital resources and tools allow to create variable learning paths and to adapt them to different learner profiles. This is called the individualisation of learning.

The individualisation of learning means:

- propose a learning path specific to each learner according to his/her starting level of knowledge;
- take into account various needs and learning difficulties of learners;
- respect the pace of knowledge acquisition.

❷ Methods / Practical advice

A) Creating digital resources: don't panic!

What is a digital resource? Digital files of any type (text, slide show, table, web page, audio, video, image, etc.) used for learning purposes.

Examples of digital resources:

- Photos of auto parts / photos showing a breakdown in a vehicle
- Videos of professional gestures (found on Youtube or created by you)
- Scans of your paper course materials
- Scans of some pages of a textbook

Why create digital resources? So that they are available to learners anywhere at any time and easily shared with a large number of people.

How to create digital resources? You can either create unique digital resources yourself or use external resources created by other authors.

Please note: external resources may be protected by copyright, so check before you re-use them! However, in many cases, you can integrate extracts from these resources into your course without any particular steps, if :

- You don't make your course freely available online
- You specify the name of the author and the source used

Keep in mind:

- How to choose a useful digital resource? There are many digital resources available online: choose the ones that are relevant to your learning situation, not the other way around!
- It might be useful to produce a summary sheet (1 page) for each course, containing the definitions and the key points of the course. This way, whatever the trainer's method is, learners leave their class with a document that will help them to review the course material.
- As your learners may consult these resources independently, they need to be clear and complete. Explain / describe your resources as much as possible!
- Creating digital resources can be time-consuming. Share the good practices / productions with your colleagues, work in groups to reduce the production time.

B) Centralise the resources in an accessible digital space

Once your digital resources have been created, it is important to centralise them in a single digital space that is easily accessible for your learners (ex. LMS, Ypareo, Pronote, Drive, etc.). These spaces allow you to offer interactive resources, but you can also use them as a library of content that can be accessed at any time and consulted as needed.

Advantages:

- Allows to avoid the flow of emails
- Creates pedagogical consistency for the learner

- Allows to share large files
- Gives to your learners the possibility to work on the same documents (ex.: you can give them editing rights and ask to annotate or complete a document, or to work together on the same exercise, etc.)

Keep in mind:
- First of all, find out whether an LMS, a virtual learning environment or other system is already in place at your training centre and is used by the teaching team (you should avoid multiplying the tools).
- Beware of the size of the storage limit (which can be different depending on the shared workspace used).
- Learners use their smartphones a lot to consult their online courses: beware of the large files, impossible to download on a smartphone.
- Check the level of data protection of the shared workspace you want to use (especially on free tools!)

C) Facilitate the access and use of digital resources in the shared workspace

Contextualising the digital resources allows the learner to follow the course independently on the platform. You should organise the resources so that you and your learners could navigate in the shared workspace without problems and find all the material needed.

- Use the same logic for all documents' titles. Ex: MODULE 1 - CHAPTER NAME - COURSE / EXERCISE NAME.
- Find a filing system with an instinctive tree structure: use sensible numbering, e.g. numbering that describes the exact steps in a process. In that case, it will be easier for the learner to remember these steps and to navigate the shared workspace.
- Put yourself in your learners' shoes: use easy-to-understand terms and keywords that will allow them to search and find content with no effort.
- Making your training content available to your learners in the shared space of your training center allows those who join the training late, who have been absent or who want to revise, to do so from the same tool.
- Choose the type of display carefully: this will have a real impact on your learners. Whether it is a choice of different modules/blocks or a linear display, it is important that visual content is added to make each module and each course more dynamic

SOME EXAMPLES OF DIGITAL SHARING SPACES

LMS: a learning management system (LMS) is a software designed specifically to create, distribute, and manage the delivery of learning materials

If your institution already has an LMS, it is the ideal tool to offer your resources to your learners. LMS offer several possibilities for editing resources and make it easy to insert documents (pdf, slides, video, etc.) and to build a scenario for your content. Everyone is free to classify the resources as he/she wishes.

If your institution does not have an LMS, it is very complicated to set it up just for one trainer. In that case, try the other solutions below.

Drive/ Sharepoint / DropBox: these are cloud-based document storage and sharing tools

Many online storage services exist. They allow you to file and archive your resources and share them easily with your learners.

However, be careful not to use the free version of this software (not compliant with the General Data Protection Regulation and copyright). Either use your institution's cloud storage if it exists or buy a paid account (it is cheap).

Ypareo/Pronote: your institution probably has an online textbook tool. You can use it to publish your course materials and allow your learners to access them.

The advantage of this system is that your course materials will follow your progress and be contextualised over time.

The disadvantage is that you have to enter the textbook of each course to access the shared resources. This can be less convenient when you want to find a specific thematic resource.

Padlet/ Parcorooo: these tools allow you to contextualise and to build a scenario for your resources that you can then share with your learners.

The big advantage is that the resources offered are much more visual than a simple drive.

However, be careful not to use the free version of this software (not compliant with the General Data Protection Regulation and copyright). Either use your institution's cloud storage if it exists, or buy a paid account (it is cheap).

1 CONCEPT : REMEDIATION / CONSOLIDATION / IMPROVEMENT

- This is a cycle of actions that comes into position after the summative assessment of a chapter. The assessment is not the final stage of learning!

- It just allows the learner to be positioned in the acquisition of his knowledge and therefore to then put into place an action plan which goes through 3 stages:

  - **Remediation**: going back to the points not acquired yet, in order to help the learner to master everything he needs to know.

  - **Consolidation**: this step helps to verify that the knowledge is acquired over time and not just over a period. it is done by making regular reminders, in the form of exercises or quizzes / multiple choice questions, to mobilise the learner's memory and his revisions all the time. You can use Ebbinghaus's works on the curve of forgetting to figure out the rhythm.
    - *A base at Day 1 (D+1), Day 7 (D+7), Day 14 (D+14), Day 28 (D+28) is quite easy to set up.*
    - *Since these reminders take place over time, and the learner is not always in the training centre, the digital space has all its importance here! You will be able to post on the Learning Management System or the digital workspace of your institution the quizzes to carry out remotely. Some tools also allow you to schedule the sending of these quizzes in advance, which makes your job easier. You can also put the link in emails and schedule the sending of these emails.*

  - **Improvement**: the last step of the process. Not all learners might get there since some will need more time to revise and learn the notions. Those who go faster or already master the concept can reach this perfecting phase. It is a question of setting up a differentiated pedagogy. The idea of improvement is to propose activities or resources that go further the prerequisites of the concept of the reference system. This helps to motivate the most advanced learners. You can provide them with documents, "learn more" videos, or highlight certain points or particularities of the concept.

Remediation / Consolidation / Improvement (RCI)
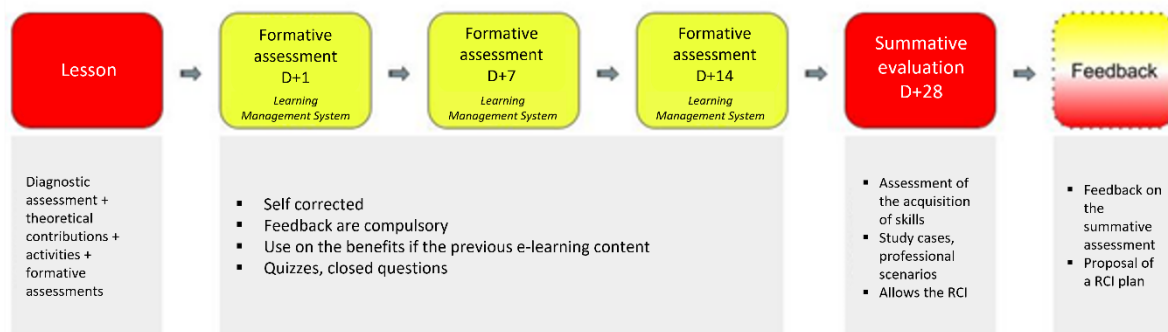
- The RCI method can be applied **during the face-to-face class, or remotely**. The remote mode is more appropriate because the content is available any time and could also be personalised according to the specificity of learners.

  - The remote can be applied thanks to a digital workspace which provides learners with divers resources such as: exam records, additional exercises, exercises for certain essential/key skills.

  - Take a **quick quiz** at the start of the lesson: 2 to 3 questions. This allows the context and the notions of the previous course to be established. You can use Socrative / Kahoot / Wooclap...

  - Carry out **quizzes with increasing difficulty**: 1 on the fundamentals of the concept, 1 on the specificities, then 2 to 3 scenarios. You can publish your quiz according to the curve of forgetting: 1 day, 1 week, 1 month, 3 months.

  - Ask the learners, one by one, to make **a summary of the lesson** that has just taken place and to share it with the other learners (after you have validated it)

  - Make a **"review of the previous course"** each time they return from their company when you start a new chapter. You can do it online, before coming to the training centre: this is the principle of the "flipped classroom").

  - Carry out **online questionnaires** regarding the experience of the learners at their companies during the course you are giving them.

EXAMPLES OF TOOLS THAT COULD BE USED

- We advise you to use your institution's digital tools:
  - Learning Management System (LMS)
  - Digital workspace
  - Online textbook…

- If you don't have one, you can use the tools below to revise content:
  - Google Classroom
  - Trello
  - Parcooroo
  - Padlet

- To create asynchronous quizzes, you can use the Quiz tool of your LMS or Google Forms.

- To carry out quizzes in the classroom, you can use Wooclap, Kahoot or Socrative.

① CONCEPT: LEARNERS AND DIGITAL TOOLS

- We refer to all digital tools that can support face-to-face, distance or blended learning, in particular those that support alternative methodologies to face-to-face teaching and support formative assessment.
- In the pandemic period, characterized by distance learning, the learners were forced and overexposed to the use of digital tools and there were several cases of resistance to their use, therefore the need to find strategies to re-establish the motivation for the correct use of digital tools in teaching.

- For the successful promotion of the use of digital tools it is important:
  - Choose the tool according to the characteristics of the target users (age, level of familiarity with technologies, type of communicative grammar that the target is used to using)
  - Remember that digital tools are tools, not the end of the activity, it is necessary to be clear how the tool contributes to facilitating the activity.
  - Ensure a balance between different types of digital and in-presence tools ensuring relationships between learners and with teachers

② METHODS / PRACTICAL ADVICE

A) Look at the lesson as a narrative path, choose the digital resources most suitable for the different parts of the story.

- Keep in mind that teaching tools are not only digital. It is necessary to find the right balance of digital and non-digital tools. Remember: do not plan the use of the tool without considering the overall didactic project. This makes the function of each individual tool in relation to the learning objective clearer and encourages its conscious use by learners.

- How do you improve the choice of a digital toolkit?

  - Before choosing the digital tools for your lesson, use a storyboard to visualise the concept you want to convey in a narrative way.
  - Define which digital resource is the most suitable for working on the skills covered by the lesson, also bearing in mind the level of interaction it allows (between pupils and with the teacher).
  - If possible, include "other digital resources" to choose from in order to enhance the creative contribution of pupils.

B) Using digital tools in a creative way supports learners' motivation

- It is motivating for learners to choose tools that are close to their 'communicative grammar' and that value their creativity (both individual and collective). The identification of a familiar communication channel raises the level of attention and allows the content to be passed on in a didactic way.
- The use of digital tools in a creative way also has the advantage of developing learners' critical sense of the digital content they use.
- Suggestions:
  - Always propose more than one communication medium in the same lesson: images, videos, graphics, text, voice...

- Plan for at least one moment in which the students play a creative role in the development of the proposed content (this moment can be planned in a synchronous or asynchronous moment of the lesson or as homework).
- Always plan adequate time for the pupils' work to be returned (during the same lesson or in subsequent lessons).
- Always clarify the extent to which pupils' contributions contribute to the success of the lesson and whether they are to be assessed or how they will be valued (if they are collaborative works, clarify the criteria for assessing individual and group contributions).

C) Take care of the relational component of learning

- Especially if your target group is adolescent learners, remember that the relational component of learning is fundamental for them. Especially if you are working in an exclusively digital environment, provide spaces dedicated to peer-to-peer relations and one-to-one discussions with the teacher (in this case, even at times other than during the lesson with the whole class group). Keep in mind that the relationship can be supported and facilitated by the teacher, but not forced.
- Suggestions:
  - It is useful to foresee different channels of interaction that adapt to the different attitudes of the learners: for some students it is difficult to take the floor, you could envisage using tools such as digital surveys (e.g. mentimeter) or collaborative whiteboards (e.g. Jamboard, padlet) to promote less direct ways of participation for the more shy ones.
  - Some digital platforms allow the management of work in subgroups (e.g. google meet subgroups, zoom...), which is a good resource to promote discussion, but always be careful to monitor what happens in the subgroups to avoid bullying, for example.

SOME EXAMPLES

Support the development of mnemonic notions associated with images and music

You can, for example, use programmes or apps that support the creation of flash cards	Examples: Quizlet, Kahoot! (for gaming activities) Adobe Express, flashcard.online (to create flashcards)

While explaining, combine images and videos with narrative voices

In order to make the more theoretical aspects of the lessons more engaging, you can create explanation videos integrating various communication channels: voice, images, text, graphics.	You can use for example: Inshot (to easily edit videos), Screencast-o-matic (to record the screen and create tutorials), vyond (to make animated videos)

Ask learners to develop the "key points" of a lesson by reworking them creatively

You can, for example, divide the class into smal groups and assign each group one of the key concepts presented to be explored and presented to the rest of the class in a creative way. You can ask them to produce a product demonstrating the competence developed in the lesson and create a digital museum of the works.	You can use the application wheel to get ideas of which tools are most suitable for your purpose, you can also leave it to the learners as a toolbox to choose from https://wegrowteachers.com/wp-content/uploads/2016/04/Padagogy-Wheel-5.0.jpg

RECOMMENDATION CARD 4: THE MOTIVATION OF LEARNERS

How to motivate learners with the help of digital tools?
How do I keep learners motivated during my asynchronous or blended course?

How can I run a dynamic and engaging course for learners (online or face-to-face)?

① Concept: the motivation of learners

- **Some motivational features of learners in the Digital age**
  - The attention span crisis: because of the "everything instantly" culture and the large use of electronic devices, learners' capability of concentration is constantly decreasing.
  - Also, learners got used to have all information at hand, and show less motivation to make deeper research in order to find information by themselves.

- **3 types of motivation**
  - Intrinsic motivation: the learner voluntarily engages in an activity, without expecting any reward, for the sole interest, pleasure and satisfaction it gives him or her. On the other hand, it is compromised in a school context when the student feels controlled by an external element (the teacher, his parents, a feeling of having no choice but to do…) or of being ineffective.
  - Extrinsic motivation comes from an external or internal pressure to perform the task (teacher, parents, getting a good mark or a reward, fear of punishment, guilt…).
  - Amotivation is the total absence of motivation for various reasons (often a feeling of loss of control, the fact of thinking that carrying out the activity will not change anything to a felt state of affairs…) or the engagement in a task without knowing why and without understanding what to get out of this activity.

② Methods / practical advice

A) The trainer's rôle

- To keep your learners motivated, first ask yourself: what is the point/ the interest of following your course? Is it clear for the learner? Make your learners understand how they will use the knowledge/ skills obtained during your course.
- Motivate learners through several different levers (interest, challenge, reward, interactivity…)
- Be active, motivational and charismatic
- Use an interactive approach rather than a top-down approach. For example, ask learners to search for an answer on the web/ in specialised documentation (like manufacturer's instructions) before giving it.

B) Pace and vary

- Pay attention to the pace of learning, a balance between a classroom/ course routine and various activities.
- Routine allows to build a comfortable and understandable learning environment for learners. For example: use the same global structure for your virtual classrooms or for different chapters of you online asynchronous course.
- On the other hand, during your classroom, it is important to switch between the active (learners are speaking or doing exercises) and the passive learning periods (learners are listening to the trainer). Change activity and the type of educational material every 10-15 minutes to keep learners curious and interested.
- Break down long complex exercises into small steps.

C) Challenge and gamify

- Use icebreakers during your class (in particular virtual class) in order to create links between learners, make the group more dynamic and release learners creativity. An icebreaker is a brief activity used to warm up the conversation. Example: ask each learner to describe his/her dream car.
- The gamification and the storytelling de-dramatise the « academic » side of learning and helps learners to remain engaged.
  - The gamification is applying game features (challenge, achievements, countdown, leaderboard…) to learning situations.
    - *Quiz could be used as part of gamification in learning. Par example, you can propose to your learners to review course material as a quiz challenge and then publish a ranking. You can use Kahoot that has different ranking options.*
  - The storytelling is a powerful tool to motivate leaners because it gives meaning to data. As stories engage thinking, emotions and imagination all at once, learners stay focused and remember the material easier.
    - *You can use special storytelling tools like Slidestory or Smilebox, or simply create stories using PowerPoint presentations with different characters or gif images.*
- Nevertheless, it is important to adapt games and storytelling to different types of learners (in particular different ages). For example, younger VET learners (15 y.o.) need more explicit explanations regarding the challenge proposed.
- It is also important to stay on the positive side of the competition that you propose to your learners. Pay attention to promote the progression of the learners more than the best result and do not apply sanctions in case of poor performance.
- Also, an auto-assessment at the beginning and at the end of the course allows the learner to observe his / her progress, strengths and points to improve and therefore stay motivated.

D) Clarify and accompany

- The use of digital technologies implies more autonomy for learners, the reason why the trainer should do some preliminary work in order to make all the material and explanations as explicit as possible and accompany the learners in the use of digital tools.
- Review the course material to ensure it is clear and takes into account the learner's point of view. Make a link between the synchronous course and the content available on LMS in order to motivate learners to use the digital material proposed.
- Be sure that you learners know how to access/ use the tools you propose (form example LMS, Teams of Zoom, Kahoot…) in full autonomy. For example, show how to use the tools during face-to-face class, prepare a tutorial and/or a guide summarising tools used and the procedure for accessing and using them, make an FAQ listing the main requests from participants.

Some examples of motivational activities

- Learners use Trello or Modulo created by the trainer for their group work project/ practical work in a workshop. The trainer can follow their overall activity, the progression of each group.

- During a practical work on the vehicles, the trainer leaves ask learners to find out the reason of the vehicle breakdown making research on specialised websites.

RECOMMENDATION CARD 5: LEARNERS WITH SPECIAL NEEDS

How digital tools could help to teach learners with special needs?

How could I design an accessible hybrid course?

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1 CONCEPT: LEARNERS WITH SPECIAL NEEDS

- **Learning difficulties** mean that learners have problems achieving the learning aims or doing so requires excessive time and effort.
- Although diagnosis is made by other professionals, it is important for teachers to recognise specific learning difficulties so that they are able to **consider how these difficulties affect learning** and how learners can be best supported.
- Learning difficulties prevent the development of self-esteem and identity and **threaten the educational and employment goals.**
- Learning difficulties can be viewed **from many different angles**:
  - attention deficits (ADD, ADHD, autism spectrum)
  - specific learning difficulties (reading, writing, mathematical skills, spatial awareness difficulties,
  - speech and language difficulties)
  - psycho-social difficulties (behavioral difficulties, withdrawal, fears, depression, burnout)
  - intelligence abilities
  - illnesses and syndromes (CP, epilepsy, chromosome deficiencies, genetic disorders)
- The initial problem can be very specific, for example, with phonological skills but **can extend** to attention and behavioral areas, defensiveness in learning situations, even unauthorized absences from school.
- Also, **learners' living environment** can present a number of issues that hinder learning, these could manifest themselves as drug abuse, behavioural and motivational problems or attention deficits.
- **Learners should be supported to understand their diversity**, accept it and find strategies and solutions for learning and everyday life situations. Discussions and guidance offered by class instructors and teachers are needed along with peer support.

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2 METHOD / PRACTICAL ADVICE

A) You and your learners

- A **personal study plan** is needed to provide better support to the learners in their studies. The goals and methods should be **planned together** with the learner. The plan needs to be updated regularly.
- Discuss and establish **learning expectations** with your learners. Let them know what they will learn during the lesson and how much time they will need for each activity.
- Give your learners **positive feedback** and **opportunities for success**. Some learners will progress more slowly than others. Celebrate every little success!
- Get to know your learners **on a personal level**, ask them about their dreams, and observe their talents. Make use of their strengths.
- Use **easy language**.

B) In a classroom

- Divide learners in **small study groups**, appropriately combining theory and practice.
- **Learning by doing** in workshops and in the world of work are the best learning methods.
- **Keep things simple**. it is important to break down tasks into small manageable steps. The more complicated you make things, the more likely your learners are to become confused and frustrated.
- When **preparing learning material**, the goals and needs of the learner should always be taken into account.
- Order and structure are important. Keep your **learning and working environment tidy**.

- Provide the **schedule in advance**. Summarize your lesson plan so everyone is on the same page. Make sure that everybody has understood what they are supposed to do.
- Remember 3 core principals of **Universal Design for Learning**:
  - Provide multiple means of **representation** (audio, text, video, images…)
  - Provide multiple means of **action and expression** (text, speech…)
  - Provide multiple means of **engagement** (alone work, group work…)

C) Choosing digital programs and producing learning materials: accessibility

- Use **easy-to-use digital devices**. Remember the needs of the working life.
- **Accessibility** is the design of products or environments so that they are usable by people with disabilities. The concept of accessible design ensures both "direct access" (i.e. unassisted) and "indirect access" meaning compatibility with a person´s assistive technology (for example computer screen readers).
- Accessible design is focused on ensuring that there are **no barriers to accessibility** for all people, including those with disabilities.
- You can use **SCULPT acronym** to remember the 6 principles for **designing accessible learning materials**:
  - **S – structure**: use heading styles in your documents
  - **C – colour**: pay attention to the colour contrast between the text and the background. The colour should not be your only means of conveying information.
  - **U- use of images**: use images to support text but never to replace it. Always use alternative text on your images.
  - **L – links:** your links should be **clear and descriptive,** do not use "click here or a full web address".
  - **P – plain language**: use simple and understandable language and keep sentences short.
  - **T – tables**: Tables could be a challenge for blind students. While using tables pay attention to the possibility of using a screen reader or a keyboard navigation: define a column reader, do not use blank cells, do not split or merge cells, do not nest tables.
- Test your teaching materials with accessibility checkers (tools, checklists ou people with special needs). Microsoft has its own accessibility checker

Some examples of tools

Tools for learning
- Mocrosoft 365
- Google classroom
- Workseed
- Questionnaires (e.g. Forms and Kahoot)
- Visual group work and presentation techniques (e.g. Padlet, Whiteboard, Jamboard, Thinglink)
- Digital services that activate and increase interaction (e.g. Mentimeter, Flinga, Word Clouds, ClassroomScreen)
- Taking, editing and sharing pictures and videos
- Social media: Facebook, Instagram, Tiktok
- Gamification: QR-codes, robots, VR-glasses, simulators, Seppo-game (and other games available in internet)
- Different programs that support communication: free picture banks in internet, image communication programs, Google´s voice programs
- iPad applications

Exemples of tools for accessibility
- Robobraille – a tool that converts your document in an accessible format

IDiVET
IMPROVING **DIGITAL** LEARNING IN VET

① Concept: assessment of learning

- In general, **the purpose of assessment** is to diagnose, monitor and direct student learning, to make informed decisions about their curriculum and instructional methods, and ultimately to evaluate students. This information helps teachers to make wise and informed decisions about the needs of their students and the direction their instruction should take.

- There are **three main types** of assessment, diagnostic, formative and summative assessment, they happen in almost all classrooms at different points in the learning process.
- **Diagnostic assessment** takes place before the course and is intended to test the learners' pre-requisites in order to individualise their learning later. This assessment could be useful to make a link with the apprentice's experience in the company.
- **Formative assessment** takes place on a day-to-day basis during teaching and learning, allowing teachers and learners to assess achievement and progress more frequently. Formative assessment has a double function:
  - ○ To help teachers identify concepts students are struggling to understand, skills they are having difficulty acquiring, or learning standards they have not yet achieved so that adjustments can be made to lessons, instructional techniques and academic support.
  - ○ To help learners identify their strengths and weaknesses and focus on areas they need to improve.
- **Summative assessment** occurs at the end of specific instructional period—usually at the end of a unit, course, program, trimester or school year—and aims to evaluate student learning and academic achievement by comparing it against a particular standard or school benchmark. It allows to provide evidence of the degree to which a student has mastered the knowledge, understandings, and skills.

② Methods/ practical advice

A) Explore new ways to assess

- Despite the changes that education has undergone in recent years, some assessment methods we use today are very similar to those used in the past. Most instructors are familiar with traditional methods of evaluating students, i.e., summative assessment, but are less familiar with those that allow for formative assessment of learners.
- Contextualized, communicative performance-based assessment, rather than summative tests that revolve around objective exercises and discrete items, can help promote learning more effectively than traditional assessment. Therefore, we really need to change the paradigm of assessment to make it more responsive to the needs of new teaching and learning contexts and practices.

B) Involve students in self-assessment

- To achieve the greatest efficiency in the learning process, it is important to involve students **in self-assessment activities** that help them realistically judge their own performance and improve their work. Most other types of assessment place learners in a passive role, since they simply receive feedback from the instructor. Self-assessment, by contrast, forces students to become autonomous learners, to think reflectively about how they should be learning.
- Asking students to answer questions in class can be time-consuming and, quite often, the same students answer all the questions. Using a **digital form of assessment**, all students must answer the same questions and all have a voice. Students will also receive immediate or quick feedback so they can adjust their learning.

C) The variety is the key

- When we faced with the task of assessing our students, we must consider **a variety of alternative assessment methods.** The diversity of students is generally wide and this makes necessary to have different strategies to assess them properly.
- In this regard, the evolution of digital tools is allowing to increase the range of possibilities in the classroom and we should take advantage of them. Quiz tools, interactive and video assessments, course management systems, interactive lessons or online bulletin boards are among the most useful tools for assessment. In addition, some of the applications have the embedded capability for students to compete against each other, which keeps them actively engaged as they learn.

D) Making good use of digital tools in assessment

- **Diagnostic and formative assessments** lend themselves well to the use of different digital tools, and even to being carried out 100% remotely. Closed questions allow the learner to have instant feedback, without the intervention of the trainer. **Formative assessment** can be valued but probably not graded. The best mark could be counted towards the average, but it is important not to use formative assessment to punish learners who have not answered correctly.
- **Summative training is more complicated to carry out online** because it is difficult to replicate face-to-face conditions (especially supervision). To overcome this problem, you can offer learners exercises that focus on skill questions rather than knowledge questions

Example of digital tools for assessment

- If you have an **LMS in your institution**, use the internal assessment tools, this will allow you to have a follow-up and feedback.
  - **Examples of tools** to create assessment in **Moodle**: quiz, assignment, H5P...
- If you **do not have an LMS** in your institution: there are a multitude of tools that allow you to create asynchronous assessments (e.g. Google Forms, Socrative, LearningApps, Quizinière...) or in real time (Wooclap, Kahoot...)
- **Points to watch out for with external evaluation tools**:
  - Beware of the **multiplication of different tools** that learners have to juggle between (e.g. they may lose the links in their emails).
  - Some tools **may disappear** with the assessments you have created in them. It is therefore important to ensure that you have a strong community around the tool.
  - Beware of the **distribution of the content** you create with the free versions of the tools: they are generally freely available on the Internet. To have better control over your data, it is preferable to choose tools with servers in France or in Europe (generally these are paid versions).
  - It is also important to check whether the tool can **be used online or needs to be installed** on the computer/tablet/smartphone. Prepare the quiz in advance and test it in designer and student mode to get an overview.
  - If you use the instant assessment tools, check the **quality of the network** in the school.

- **Socrative** is a classroom survey software. Learners answer questions using an application installed on the computers/tablets. They can also get a pdf printout of their final work.
- **Kahoot** is a gamified online questioning tool, allowing a competitive aspect to be introduced into the assessment.
- **Wooclap** is a real time survey tool with the possibility to create about 20 different types of questions. Answers can be anonymous, it is also possible to answer via SMS
- **Plikers** is an online assessment tool that allows MCQs to be made using a set of cards with a QR code. Thus, the trainer has the possibility to carry out fun evaluations in conditions where Internet access is restricted.

➤ *How to organize virtual exchanges with a partner abroad in my class?*

① Concept

European mobility benefits from the digital pedagogical practices that have been developed within VET organisations over the last 2 years. With the impulse of the European Commission and the Erasmus+ program, the notions of virtual exchanges and blended mobility are progressively developing.

What is it exactly?
➤ Virtual exchanges are online collaborative learning sessions between learners from different countries.
➤ A blended mobility is a project that combines virtual exchanges and periods of physical mobility abroad.

What for?
- To **prepare** learners for physical mobilities: during the virtual exchanges, learners can get to know each other, introduce themselves, their VET centres, companies and activities. It is also a good linguistic introduction and preparation.
- To **include** more learners: usually, only small groups can go abroad. Is it rarely possible to send a whole class. Virtual exchanges make it possible to involve more learners in European projects and to give them an intercultural experience.
- To **involve** more trainers in European projects: mobility projects are often implemented and supported by the mobility coordinators. In virtual exchanges, trainers prepare the online activities with their European counterparts, exchange ideas, contents and practices and facilitate the virtual classes.
- To **reinforce** the cooperation with the partner institution
- To **develop** digital practices in the VET centre

How?
Virtual exchanges can take many different forms:
- Online courses in English in different subjects (general and technical subjects)
- Linguistic preparation before the mobility
- Cooperative distance activities between learners to get to know each other

② Methods / Practical advice

Setting up a virtual exchange project requires a good preparation. It is necessary to exchange regularly with the partner to co-design a very specific program and action plan. We can define a 3-step plan.

Step 1: Define the general framework

It is first necessary to lay the foundation of the project in collaboration with the partner:
- What is the target audience? Number of learners, age, EQF level and specialty
- What will be the general topic of the exchange?
- What will be the common language?
- Who will be the trainers involved?
- What is the total duration of the project?
- When will the project take place (start and end date)?
- How many sessions and what frequency (synchronous and asynchronous sessions)?
- Which tools will be used? (for synchronous and asynchronous activities) and logistics aspects (number of computers, internet connection, etc.)

Step 2. Design of content, materials and articulation between sessions

This step concerns in particular the trainers involved. The mobility advisor can coordinate the exchanges. It is imperative at this stage to define:
- The content targeted for each session (learning objectives)

- The activities and tasks that will be carried out in each session and between sessions and the tools that will be used
- The duration and precise date and hour of each session
- Who will lead each session
- The assessment of the project activities

At this stage, training materials are created (documents, PowerPoint, videos, Padlet, Quiz, Kahoot...).

Step 3. Formalize

Virtual exchanges involve a large number of actors and require a good coordination. In order to ensure good communication between the partners but also to keep a concrete track of the project's progress and results (for valorization, dissemination and reproduction), it is important to formalize all aspects of the project in a single shared document.

This document should include: presentation of the partners, the target audience, the project, the objectives, the targeted content, the activities week by week, the tools used, the logistic details (software licenses for examples) the expected and final results, the evaluation of the project.

Concrete example: E-Automobility, a blended mobility project

Partners
- 2 VET schools in France and Italy offering training in the automotive sector

Objectives
- Implement a 100% virtual module before the geographical mobilities (linguistic and professional preparation)
- Italian and French learners work together remotely on a common theme based on professional practices
- The virtual module aims to allow the learners to get to know each other, to exchange in English and to discover the rules to respect in companies in France and in Italy
- The goal is also to combine this hybrid mobility project with one final exam for the French apprentices (*épreuve du chef d'oeuvre*)

Modalities of the virtual exchange (virtual module)
- General topic: Health, Environment and Prevention standards in the workplace (repair shop)
- Specific topics: personal protective equipment (PPE), electrical risks (replacement of a car battery), waste management
- 10 French learners (EQF level 4 in Trucks Repair) and 10 Italian learners (EQF level 4 in Car Mechanics)
- 8 weeks in total and 4 synchronous online sessions (virtual classes) led by the French and Italian trainers
- Tasks to be done by the learners between each online session: internet research, videos, photos, quiz
- Involvement of the companies: the learners must do some research in their company
- English as a working language
- The learners exchange via a Whatsapp group moderated by the trainers
- Communication tools: Google Suite (Google Meet and Google Classroom)
- Pedagogical tools: Mentimeter, PPTX, Powtoon, Genially, Videos

Assessment
- Positive feedback from the learners: added value of interdisciplinarity (English / PHE / mechanics) and appropriation of digital technology in a playful way
- A nice introduction to geographical mobility: learners feel reassured
- Exchange of pedagogical practices between Italian and French trainers

10 Tips to implement a successful virtual exchange

1. Adapt an existing course curriculum together with the partners, don't start the creation of a new course
2. Try to involve teachers and trainers from various disciplines, general and technical: interdisciplinarity is a key
3. Be a facilitator more than a trainer: use an interactive approach, introduce a friendly, judgement-free atmosphere to encourage oral expression
4. When designing the tasks and activities, make the link with the job profile and the professional aspects: learners are very motivated when talking about their job and companies
5. Synchronous virtual classes should last between 1h15 and 1h30, not more
6. Alternate plenary sessions with work in small groups and pair activities
7. Vary the modalities (synchronous and asynchronous), the types of activities and the tools (easy-to-use tools!)
8. Before each session, pay attention to the technical equipment (work on computers, tablets, smartphones? enough for the number of participants?), the internet connection and the learners' access
9. When designing the synchronous sessions timetable, pay attention to the apprenticeship rhythm (periods in companies)
10. Integrate a common final production: a glossary, a video, a Padlet... It is motivating for the learners to have a concrete output produce

FICHE 8 : PEDAGOGICAL SCRIPTING

How to design a hybrid teaching sequence?   *How do you know what content / activities are best*
How to define the pedagogical objectives?   *suited to be digitised?*

① Concept: pedagogical scripting

- Pedagogical scripting is fundamental to instructional design. It allows to plan the learning process during a learning sequence. Thus, it encourages the adoption of an approach centred on the learners' activity rather than on the content to be studied.

- The scripting is conditioned and based on the reference framework which defines the competences acquired by the learner at the end of the course.

- The scripting allows to clearly define the instructional goals of the course, as well as to make a link between the goals, the structure of the course and the assessments. For the learners, The scripting allows to the learners to have a clear vision of what they are going to learn and how they will be ready for the exams.

② Methods

Keep in mind the key stages of scriptwriting

- Educational scripting can be seen as a project broken down into 5 key steps:
  - Defining the learning objectives and/or targeted competences
  - Structuring and scripting the learning activities
  - Developing learning resources
  - Designing the assessment of learning
  - Implement the learning programme

Start by making a "specification note"

- Define the goals and the context in which the sequence will be produced.
- The essential questions to ask concern: the objectives, the target audience, the time and material constraints, the size of the group of learners, pace of work - study.
- The definition of goals is essential and requires careful thought. As a general rule, the optimum number of learning goals is 3.
  - The SMART method gives 5 criteria for defining objectives: they must be Simple, Measurable, Achievable (particularly in relation to available resources), Relevant and Time-limited.
  - Bloom's taxonomy will help you to write learning objectives according to 6 levels of learning: 1 - remember, 2 - understand, 3 - apply, 4 - analyse, 5 - synthetise, 6 - evaluate.
  Once the goals have been set, you can break them down into actions.

- It is important to build the learning scenario in collaboration with other people (for example, by seeking expertise from the IT department, your colleagues, professional referents, your learning manager, etc.).
  - To do this, you can map out the people you will need using the RACI method, which makes it easier to see the distribution of roles in a project:
    - i. **R** – who is Responsible of the project,
    - ii. **A** – who is the Accountable person (reviews and validates the work),
    - iii. **C** – who are the Consulted people that provide input and feedback on the project,
    - iv. **I** – who shoud be Informed on the progress of the project.

B) Adapt the learning modalities to the objectives and the target audience

It is important to choose learning modalities and devices according to the learning objectives, and not the other way around. For example, distance learning has many advantages but is not suitable for all learning activities/objectives.

Some advantages of digital learning
- Pedagogical interest, e.g. to foster learner autonomy (asynchronous distance).
- The time of appropriation of the content is free for asynchronous courses, the learner can come back to it as many times as he/she wants, which is not possible in face-to-face.
- Asynchronous distance learning can replace very time-consuming actions for trainers, for example the correction of exercises (with automatic correction).
- For these reasons, asynchronous distance learning is suitable for the transmission of fundamental knowledge (e.g. explanation of cross product with many exercises).
- Another advantage of digital technology lies in the possibility of acquiring professional technical skills in dangerous environments thanks to digital modules, 3D technologies, virtual or augmented reality.

Points to watch out for:
- Updating digital modules can be time-consuming and costly. Avoid creating digital modules on topics that need frequent modification and re-use existing modules as much as possible.
- Asynchronous distance learning is not well suited to the transmission of "tacit" knowledge, which includes innate and acquired skills, know-how and experience (e.g. how to find a fault). Favour face-to-face or synchronous distance learning (tutoring, virtual class) for this type of transmission.
- A golden rule: always make a link between face-to-face and distance learning, in order to ensure continuity and coherence for the learners. For example: talk to learners about the content available on the LMS during the face-to-face course and use it during the next course.

C) Apply the PDCA method to your scripting project

The PDCA method can be applied to any project to create a hybrid teaching sequence. PDCA stands for:
- P - Plan: define the problem and a plan of action;
- D - Do: implement the actions defined beforehand;
- C - Check: check the effectiveness of the actions implemented (via indicators, observations, etc.);
- A - Act: implement the actions and ensure their sustainability.

It is important never to move on to the next stage if the previous one has not been finalised.

EXAMPLES OF TOOLS THAT COULD HELP YOU TO DO PEDAGOGICAL SCRIPTING

Paper/pencil, Word, PowerPoint, Excel: all tools are good for writing a scenario sheet which generally includes the following categories: educational goals, activities, means, timing.

Modulo: a tool that allows you to organise your agenda (e.g. meetings, events) and create a training pathway (e.g. session outlines).

Trello: collaborative online project management tool.

Some **LMS** may offer a pre-construction of the learning programme (for example, 360 learning)

Learning Designer helps trainers to design teaching activities through a visually structed approach to learning design.