

Modern Teaching Methods

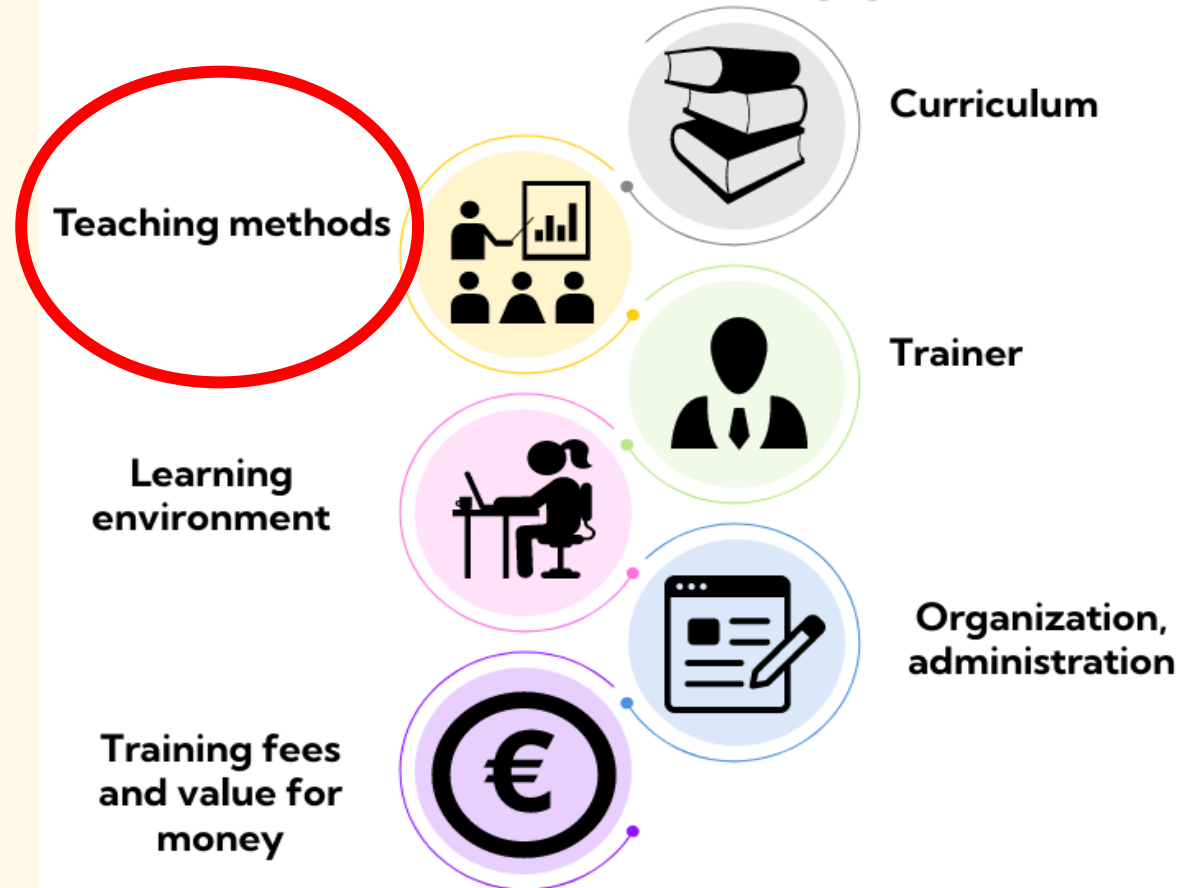
SMEs in focus



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What makes a Training great?





Specialities in training for SMEs

Compared with large enterprises, SMEs face special challenges in developing their human resources. (Lee, 2016. p. 6.)

- SMEs have small number of employees. An **SME worker generally has to carry out multiple roles and possess a broader range of skills.**
- SMEs **find it difficult to organize in-plant training programs** but also **hard to find suitable institutional training programs outside the enterprise**, which generally offer standardized training courses. (Lee, 2016. p. 6.)
- SMEs in general **incur a higher training cost per worker** compared with large enterprises.
- SMEs have **institutional limitations**. They generally **do not have anyone working exclusively on the planning, organization, and management of worker training** (find suitable outside training institutions, negotiate with them, enter into a contract, monitor their training processes, evaluate training effectiveness, and/or handle the cumbersome administrative processes)
- A training is an investment in human capital and **the returns to the investment accrue over a long period.**
- **SMEs' limited financial and credit situation does not allow them to invest in their workers as much as larger enterprises.** (Lee, 2016. p. 6.)



- **Training Strategies that work for small business are clearly focused on business need** rather than driven by government agendas and funding.
- Lowering the costs of formal training is useful in engaging some small businesses, but **financial incentives alone are not sufficient to meet small business needs.** Small business will pay for education and training if they see the value in it and it is in line with their interests.
- **Strategies which fit with the way small business learns are clearly more successful** than direct or formal training. **Small business learns ‘through doing’, with the focus on current or real issues in the workplace,** and through social networks—learning from other business people.
- **Successful strategies are** business mentoring, networking, and collaborative or group learning with other businesses.
- Other effective strategies include diagnostic services such as training needs analysis, and benchmarking processes against other organisations.



Training Strategies that work for small business

- **Strategies that meet the needs** of the diverse range of small businesses **demonstrate three essential elements.** These are:
 - a clear focus on business-specific needs
 - a personal approach through a recognised local facilitator or business service organisation that is able to reach small business operators who may not be positive about training
 - flexible provision which carefully individualises training information, content and delivery to the needs of each small business.“



- The continuous development of intellectual capital has become even more pronounced and necessary to maintain or improve company's position in the market.
- This is independent of the size and quality of the companies.
- **The easiest and most effective way of SME development is the *eLearning procedure*.**
 - a practical and available type of learning for every employee
 - its importance is much higher during this pandemic situation

How to build an effective training? ADDIE Model

VIDEO 5 minutes:

<https://www.youtube.com/watch?v=JxShaB4R0d8>

ADDIE is an instructional system design (ISD) framework that many instructional designers and training developers use to develop courses.

5 phases for building training :

Analysis

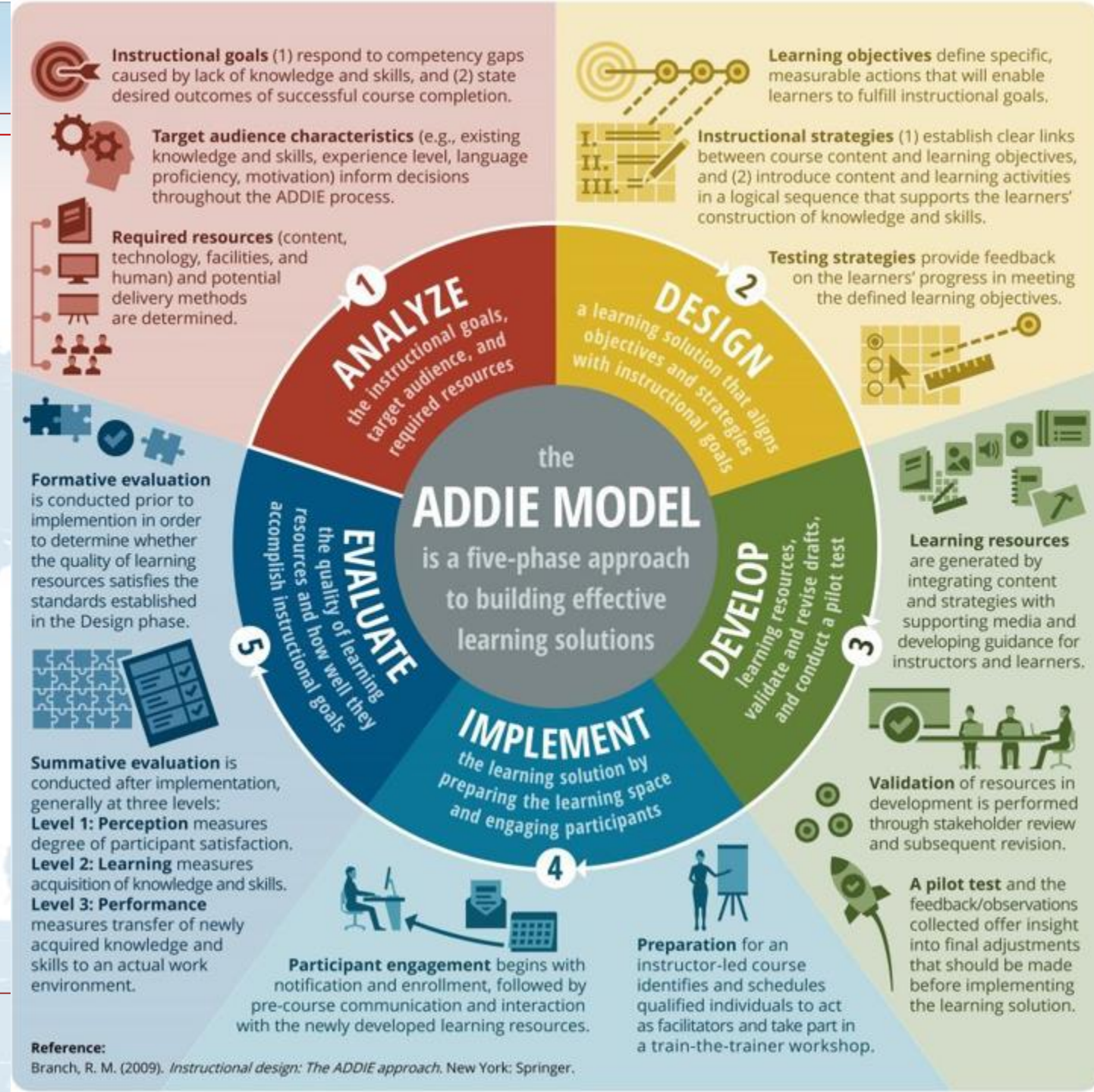
Design

Development

Implementation

Evaluation

<https://elearninginfographics.com/the-addie-model-infographic/>





Phases of ADDIE Model

- **Analysis phase:** The analysis phase clarifies the instructional problems and objectives, and identifies the learning environment and learner's existing knowledge and skills.
- Questions the analysis phase addresses include:
 - Who are the learners and what are their characteristics?
 - What is the desired new behavior?
 - What types of learning constraints exist?
 - What are the delivery options?
 - What are the pedagogical considerations?
- What is the timeline for project completion?
- The process of asking these questions is a NEEDs analysis.



Phases of ADDIE Model

- **Design phase:** The design phase deals with learning objectives, assessment instruments, exercises, content, subject matter analysis, lesson planning, and media selection. The design phase should be systematic and specific.
- **Development phase:** In the development phase, instructional designers and developers create and assemble content assets described in the design phase. If e-learning is involved, programmers develop or integrate technologies. Designers create storyboards. Testers debug materials and procedures. The team reviews and revises the project according to feedback. After completing the development of the course material, the designers should conduct an imperative pilot test; this can be carried out by involving key stakeholders and rehearsing the course material.
- **Implementation phase:** The implementation phase develops procedures for training facilitators and learners. Training facilitators cover the course curriculum, learning outcomes, method of delivery, and testing procedures. Preparation for learners includes training them on new tools (software or hardware) and student registration. Implementation includes evaluation of the design.
- **Evaluation phase:** The evaluation phase consists of two aspects: formative and summative. The first is present in each stage of the ADDIE process, while summative evaluation is conducted on finished instructional programs or products.



Modern Teaching Methods





Cooperative learning



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Cooperative learning

- This is a learning procedure when **using small groups to find the best way to problems solving and learn.**
- This type of learning is not a new way, but previously never had as much as a focus as the blended learning of differentiated instruction.
- In the case of SMEs, the groups contain one side from the SME and one side from the University.
- It is win-win cooperation for both sides.



5 key elements of of cooperative learning



- ***Positive interdependence:*** Interdependence recognizes that groups think as a unit, work toward a common objective, and share both wins and mistakes!
- ***Individual Accountability:*** Individual accountability necessitates the achievement of individual measurability within collective work. This is necessary to ensure that individual members of the group do not detract from the group's efforts, as they are classed and evaluated as individuals as well. *Face-to-Face*
- ***(Promotive) Interaction:*** Important cognitive processes and interpersonal dynamics emerge when students support each other's learning. Members become genuinely devoted to each other and their joint goals through face-to-face, promotional interaction.
- ***Interpersonal and Small Group Social Skills:*** Students learn academic subject matter (taskwork) as well as interpersonal and small group skills in cooperative learning groups (teamwork). As a result, a team must be capable of effective leadership, decision-making, trust-building, communication, and conflict resolution.
- ***Group Processing:*** Students must be given time and processes after finishing their job to evaluate how well their learning groups are performing and how well social skills are being used



Advantages of this learning type

- **Employees need to utilize higher-order thinking abilities** to analyze the team's strengths and shortcomings to solve the team's challenges!
Teamwork is an essential component
- It establishes new forms of personal accountability. **Individual outcomes are not recognized; instead, team results are rewarded**, thus everyone should participate in the assignment to attain a good result!
- It boosts your hourly activity! **It allows everyone to work and participate in class for a short period!**
- It boosts self-esteem on a variety of levels. Some students are always feeling left out, yet **cooperative learning allows them to participate**. Those who do not have a problem with this can improve their problem-solving abilities!



Disadvantages of this learning type



- It establishes an **inequitable classification system**. Because **assessment is done in groups rather than individually**, the lowest-performing student has a significant impact on the grade!
- Because the **teacher's role is delegated to the members of the groups**, they must teach each other how to complete the work rather than relying on the teacher.
- It establishes a form of reliance on the use of the group. Students become accustomed to not having to work alone, to the fact that the team will assist them if they become stuck, and they transfer this thinking to job environments where this is not always acceptable. [8]





Thinking-based learning



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Thinking-based learning

- *Thinking-based learning* (TBL) is a strategy for **teaching reasoning skills**. Students must learn and develop particular abilities and mental habits to do so.
- The fundamental educational **goal** of students in the thinking-based learning approach **is the development of effective thinking**. To put it another way, the purpose is to develop a mindset capable of making judgments, arguing, analyzing, being creative, and being critical. [17]



Advantage of TBL

- **Promotes active learning:** Compared to traditional teaching methods, the focus is on the learner and the goal is not to acquire knowledge without thinking but to help the learner find a solution to a problem and thereby acquire new knowledge.
- **Get deeper and more meaningful knowledge:** Learn more about a topic and gain a deeper understanding of it through numerous approaches and tools.
- It is very versatile: **Versatile form of learning.** It is an applicable and effective method in all areas of life.
- Students do **not attempt to recall specific facts, but rather the procedure used during the learning process.** They have not only studied the knowledge but also comprehended the task's solution method!



Competency-based learning



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Competency-based learning



- Competency-based learning **focuses on the development of real-world skills and competencies.**
- **Programs are built around the competencies required for a certain job, ensuring that the content is up to date.** As a result, students are prepared for the profession and know their chosen fields.

Advantages:

- **Flexible:** it is **determined by the individual learner**, they are extremely adaptable. There are no set schedules in these programs, no semesters, and no classes.
- **Students have control over their learning** and can choose when and where they complete projects and evaluations.





Advantage of competency-based learning

- **Self-paced:** The goal is to focus on the outcome rather than the route. Because they are not bound by a particular learning procedure, **students can select their own pace. This is a big benefit for independent and adult learners.**
- **Increased student involvement** is one of the most powerful consequences of competency-based education. Because they have control over their education, students are more engaged in the topic.
- Because the **content is personalized to each student and is more relevant**, this experience enhances engagement.
- **Affordable:** The cost of competency-based programs varies depending on the school, curriculum, and pace of the learner.
- Because many CBE programs are available online and take advantage of technology, operating costs are reduced, leading to decreased tuition fees.



Project-based learning



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Origin of Project-based learning

- Emerged in the United States in the early twentieth century
- It was based on the principles of John Dewey, who emphasized the following connections:
 - Learning should be based on personal experience.
 - Instruction should take into account the developmental needs and interests of the learner.
 - The learner must be actively involved in shaping his or her learning process.
 - The learner should be educated to participate actively in the affairs of the community and to become a citizen who feels responsible for the community.



The essence of the method

- “Project-based learning (PBL) is a model that organizes learning around projects” (Thomas, 2000).
- “The core idea of Project Based Learning is that real-world problems capture students’ interest and provoke serious thinking as the students acquire and apply new knowledge in a problem-solving context.” (David, 2008)
- “In project-based learning, students work in groups to solve challenging problems that are authentic, curriculum-based, and often interdisciplinary. Learners decide how to approach a problem and what activities to pursue. They gather information from a variety of sources and synthesize, analyze, and derive knowledge from it. Their learning is inherently valuable because it's connected to something real and involves adult skills such as collaboration and reflection.” (Solomon, 2003)

Steps of the method

STEP 1

Preliminary planning

Preliminary concept development for the project.

Choice of topic

Objective

STEP 2

Planning and organizational tasks

Assess what is needed

Organize working groups, assign tasks

Create a task plan and a schedule

STEP 3

Create a project protocol

Project diary

- Individual
- Collective

Blog engine

STEP 4

Conclusion and evaluation

The evaluation should follow a system with four criteria.

- How effective the joint work was?
- What learning took place during the implementation of the project?
- Whether the team was able to work together?
- Did the project meet the goals set?



Advantages and disadvantages of the method

Advantages

- It provides students with the opportunity to transform themselves during the learning process.
- It is generally accepted as an effective method for teaching processes, such as problem solving and decision making.
- Experts should help in developing character's emotional, social elements apart from cognitive.
- Reduction of student's anxiety.
- Enhancement of student's learning quality.

Disadvantages

- It is marginalized by the educators themselves, since they lack both training and experience in implementing this approach.
- Deficient finance and technology are challenges that teachers have to overcome.
- Evaluation can be also ineffective when students use technology.



Success of the method

This method is successful when some essential elements are fulfilled.

- Teachers should engage student's interest and "need to know" and at the same time stimulate them by making a capturing driving question.
- Students are in charge of deciding whether they will use resources, how they will cooperate and communicate in order to achieve the goal of their challenging project.
- Critical thinking is enhanced and students can easily conduct their inquiry as well as innovate by exploiting sometimes the advantages of technology.
- Feedback and revision are also important before student's presentation in front of a real audience.



Flipped learning



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Origin of Flipped learning

- The method was developed by two chemistry teachers.
- Their methodological innovation arose from the problem that more and more of their students were missing class due to sporting events.
- The lessons were first recorded on a video camera and made available to the students on YouTube to encourage them to contact them with any questions.





The essence of the method

- „Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.” (flippedlearning.org)
- „A mirrored classroom is a learning culture (Yarbro et al., 2014) that promotes student autonomy and collaboration, and where support and management of learning is better aligned with individual student needs and demands” (Foertsch et al., 2002).

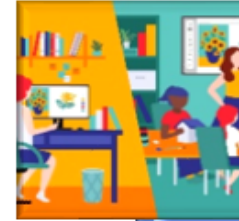


Differences between traditional and flipped classroom



Traditional classroom

- The teacher delivers new learning to the students face-to-face.
- Students listen, interact, take notes, and then consolidate new knowledge during homework or followup tasks.



Flipped classroom

- Students do the basic learning prior to working with the teacher and then cover the applied learning and any problems in class.
- Students access a teacher-created website and/or watch teacher-created/sourced videos on their devices.
- They are able to stop and rewind the information as often as they need until they understand the concept.
- There is less passive learning in class and more active and personalised learning.
- Class time is freed up for:
 - student-centred learning activities
 - inquiry-based learning
 - project-based learning
 - collaborative work
 - teacher-assisted learning.



The Four Pillars of F-L-I-P



Flexible Environment Learning Culture Intentional Content Professional Educator

1. Flexible Environment

Educators create flexible spaces in which students choose when and where they learn.

2. Learning Culture

Flipped Learning model deliberately shifts instruction to a learner-centered approach, where in-class time is dedicated to exploring topics in greater depth and creating rich learning opportunities.

3. Intentional Content

Educators use Intentional Content to maximize classroom time in order to adopt methods of student-centered, active learning strategies, depending on grade level and subject matter.

4. Professional Educator

During class time, educators continually observe their students, providing them with feedback relevant in the moment, and assessing their work.

Steps of the method

Post-class activities that extend student learning

- How will students continue the learning experience from the in-class activity to outside of class?

In-class activities that provide students opportunities to deepen understanding

- What kind of in-class activities will focus students on attaining higher-level cognitive abilities?
- First 10 minutes
- Active learning

Ongoing evaluation and assessment

- Summative & formative assessment
- Evaluation

Activities that motivate students to prepare before class

- What kinds of activities will motivate students and prepare them for class?

Define content scope, learning objectives, & instructional strategies

- What is the scope of your topic?
- How will students use or apply the material?
- How will students meet the learning objectives?
- Which instructional approach that will fit best for the main learning activity?
- How will you contextualize the topic?

Students gain familiarity with new material before class

- What instructional materials and resources will you use for students to familiarize themselves with the content prior to class?





Advantages and disadvantages of the method

Advantages

- It helps to reduce the monotony.
- It can be an appropriate method in case of contact motivation and indiscipline.
- It helps to create a learning environment where students take responsibility for their own learning.
- Teacher is a facilitator alongside the students.
- Students can progress at their own pace and on their own schedule.
- The knowledge that can be gained is not limited to the teacher's knowledge.

Disadvantages

- Students who do not watch the videos can only be passive participants in collaborative learning.
- It can be difficult at first to change the teacher's practice.
- This method is closely linked to the achievements of digitalisation and can therefore be recommended to teachers who have already mastered the use of digital tools and have more advanced digital skills.



Conclusion

Before deciding on a learning method,

- you must first get to know your staff, as their strengths and limitations are the most crucial factors to consider during the selection process!*
- You must pick the right type, particularly if you want your employees to be productive!*
- If you want your SME to grow, you must constantly improve!*



Thank you for your kind attention!

