



# REGRAD 2024-2026

ERASMUS + Project#101128817  
REFORMING UNDERGRADUATE EDUCATION FOR GREEN AND SUSTAINABLE  
DEVELOPMENT IN ARMENIA AND MOLDOVA

**Trained staff on outcomes and digital oriented teaching and learning**

December 3-6, 2024

University of Sannio, Piazza Guerrazzi - 82100, Benevento



# Rethinking lesson delivery

## Approach to lesson design in Moodle

Higher Education and Research Unit  
CESIE



# Rethinking lesson delivery

## Approach to lesson design in Moodle

**Distance learning has been an experience that has opened up new scenarios in the world of education.**



### **Innovation**

An opportunity to challenge ourselves and look for new teaching methodologies



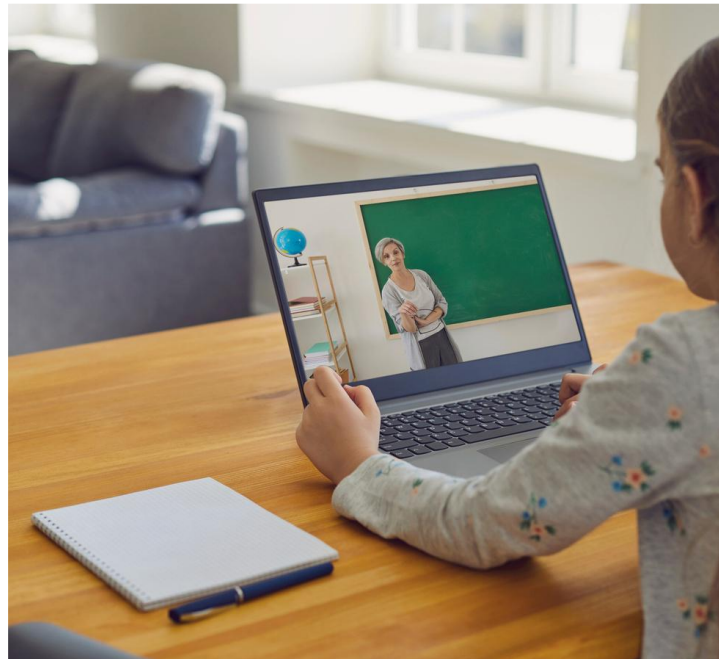
### **Passion**

Distance learning works if we are the ones who change our way of teaching

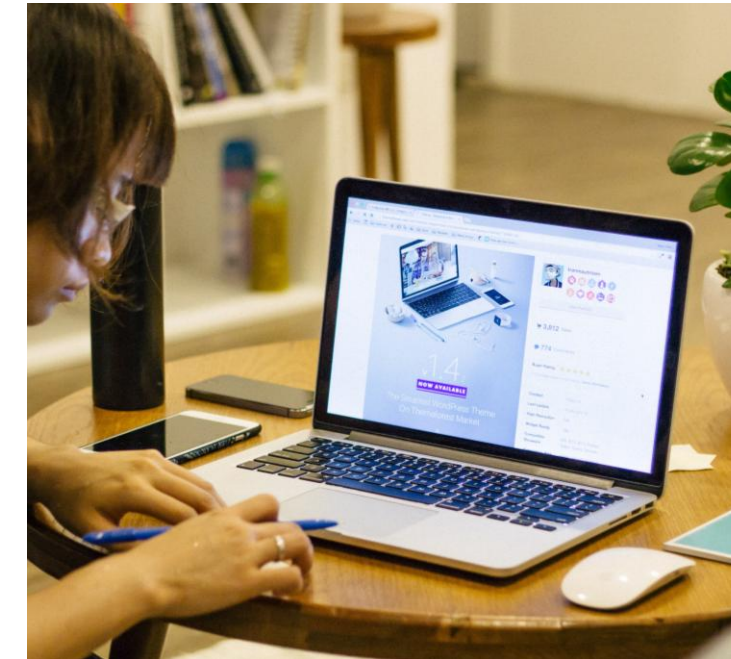
# Rethinking lesson delivery

Approach to lesson design in Moodle

## 2 ways of seeing what distance learning is



**Transferring online what teachers do in classroom**

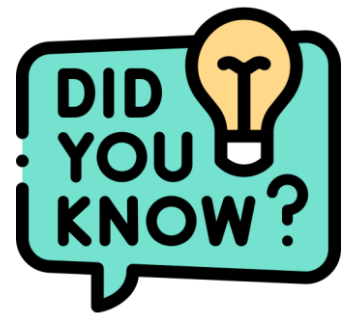


**Adopt new techniques that enable teachers to be effective in a remote situation**

# Rethinking lesson delivery

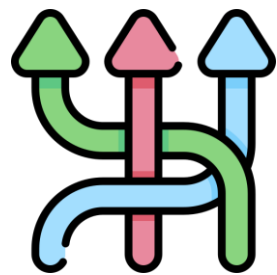
## Approach to lesson design in Moodle

### First tips for teaching online classes effectively



1. Familiarise with (your) tools

2. Start with what you have



3. Vary your types of lessons

4. Promote self-directed learning



5. Create occasions for group work

6. Keep it simple



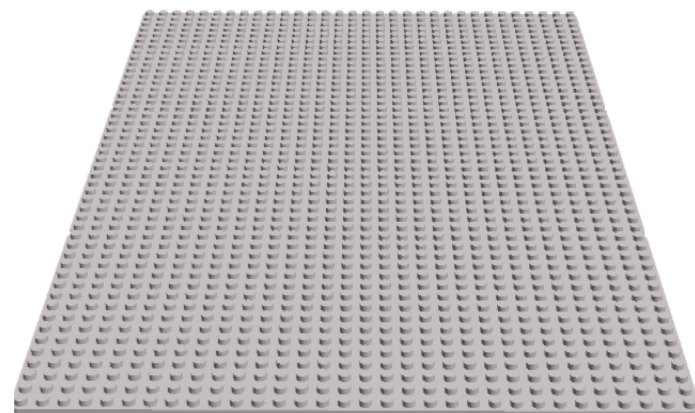
# Rethinking lesson delivery

## Approach to lesson design in Moodle

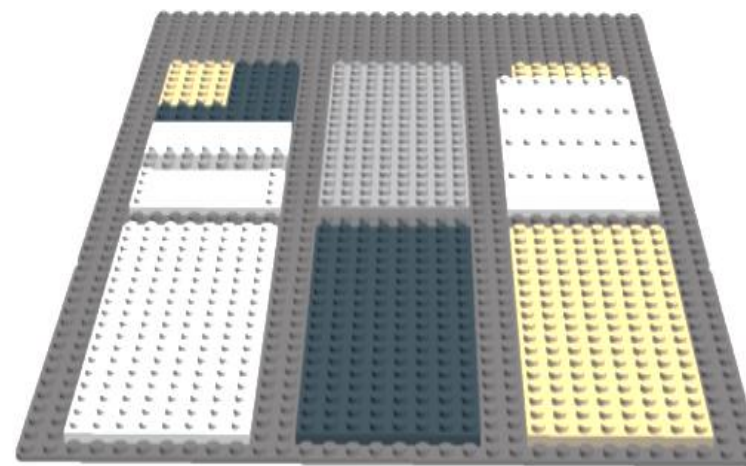
### Good design leads students to a destination

**Organize your online course into these digestible modules or units that include a sequence of course content, activities, and assessments for students**

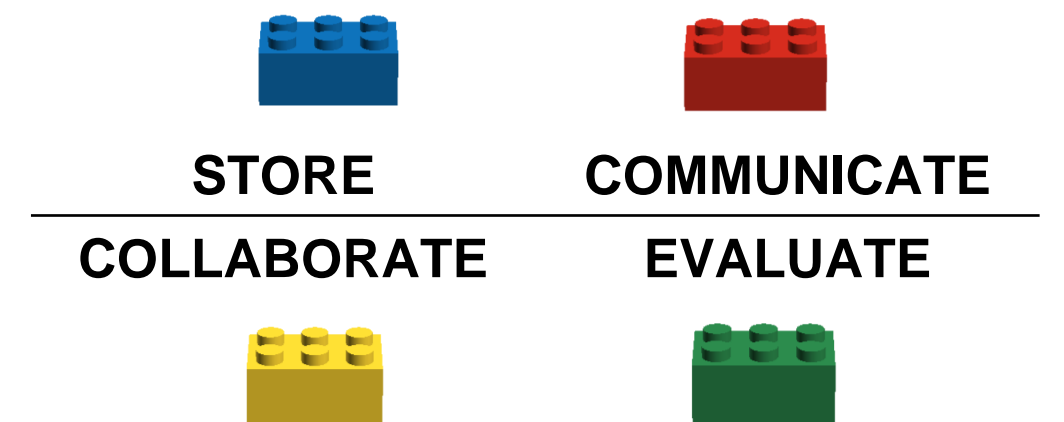
Moodle is like a platform that comes with a great set of bricks.



On this platform we can have different foundations (called courses). This is where we put our bricks on.



Imagine we can do four basic things with four basic color bricks.



# Rethinking lesson delivery

## Approach to lesson design in Moodle

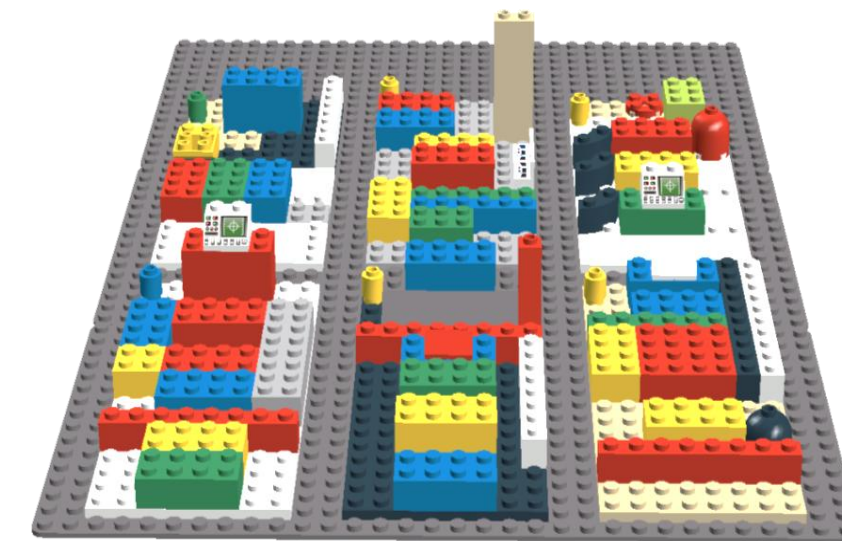
### Good design leads students to a destination

**Organize your online course into these digestible modules or units that include a sequence of course content, activities, and assessments for students**

We can get other compatible bricks  
(app, plugins)



We can have as many bricks as we want and we can arrange them in any way that suits our educational purpose.



# Rethinking lesson delivery

## Approach to lesson design in Moodle

**Organize your online course into these digestible modules or units that include a sequence of course content, activities, and assessments for students**

1. Determine how many modules are needed
2. Materials (Resources and Activities) - Identify:
  1. *what course materials can be reused from the face-to-face version*
  2. *what will need to be expanded or curated from existing digital content (audio, videos, images, web links, articles, etc.)*
  3. *what will need to be developed*
  4. *what will need to be made into accessible formats*
3. Blend synchronous and asynchronous
4. Reimagine your assessment
5. Provide clear instructions and guidance for students

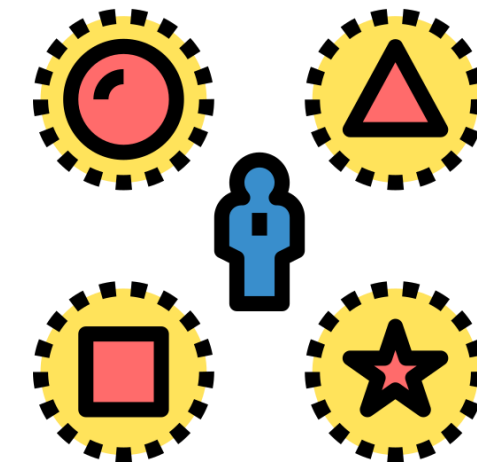




# Rethinking lesson delivery

Approach to lesson design in Moodle

## 3 main Instruction Strategies



Use A Mix Of Learning  
Tools

Short Lessons

Variety of Assessments

# Rethinking lesson delivery

## Approach to lesson design in Moodle

### E-learning design must be geared towards optimum student engagement



#### Key Advices for better Student Engagement

1. Make sure that resources are up-to-date and relevant. Authentic or relate to **real-life applications**
2. Activities should engage students in higher-level thinking skills, including **critical and creative thinking, analysis and problem solving.**
3. There are sufficient opportunities for learners to work collaboratively and benefit from peers' experience and expertise.
4. Engage with your students online



# 12 Principles of Multimedia Learning

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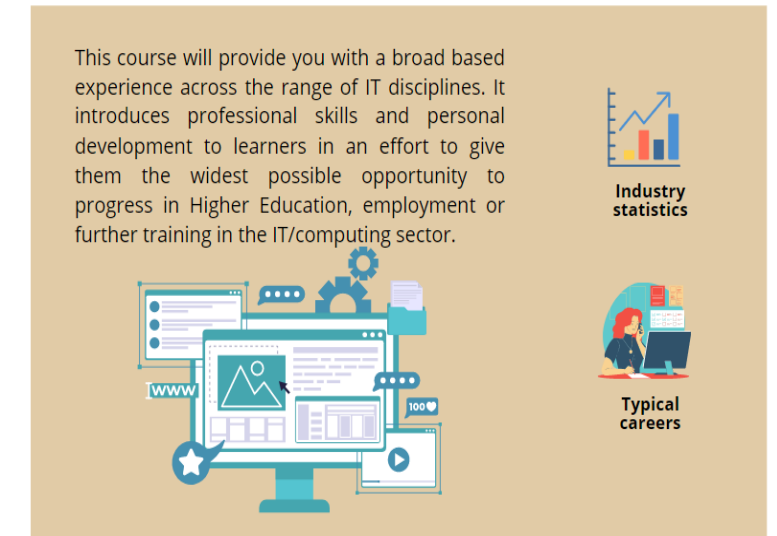
# 12 Principles of Multimedia Learning

How to get learners to engage with the material without the traditional face-to-face interaction?

<p><b>COHERENCE PRINCIPLE</b></p>	<p>Information that is not relevant at the first place should be excluded. People learn better when extraneous words, pictures and sounds are excluded rather than included.</p>
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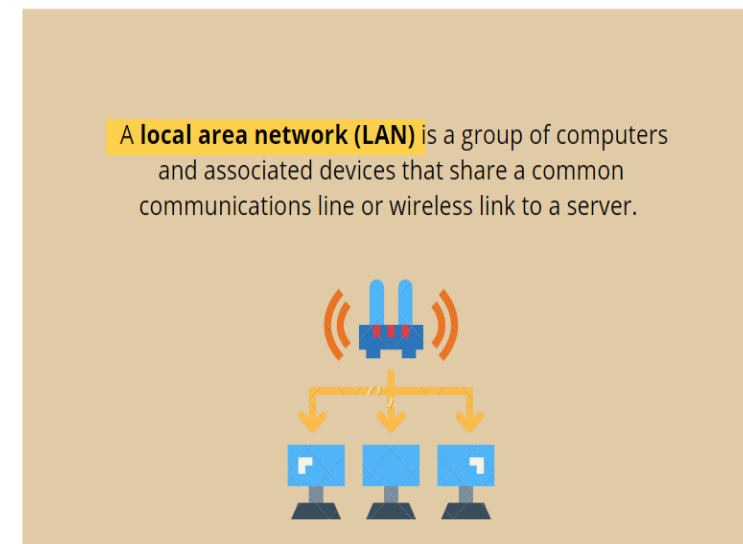


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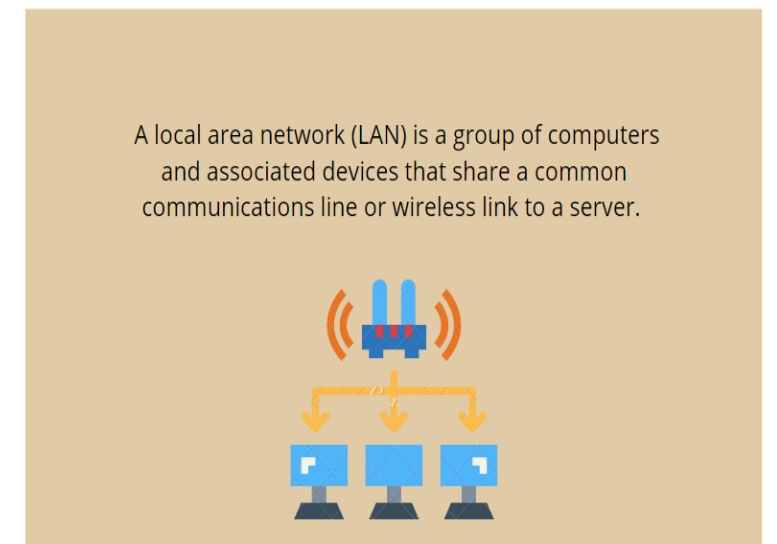


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<p><b>SIGNALING PRINCIPLE</b></p>	<p>People learn better when cues that highlight the organization of the essential material are added and highlighted</p>
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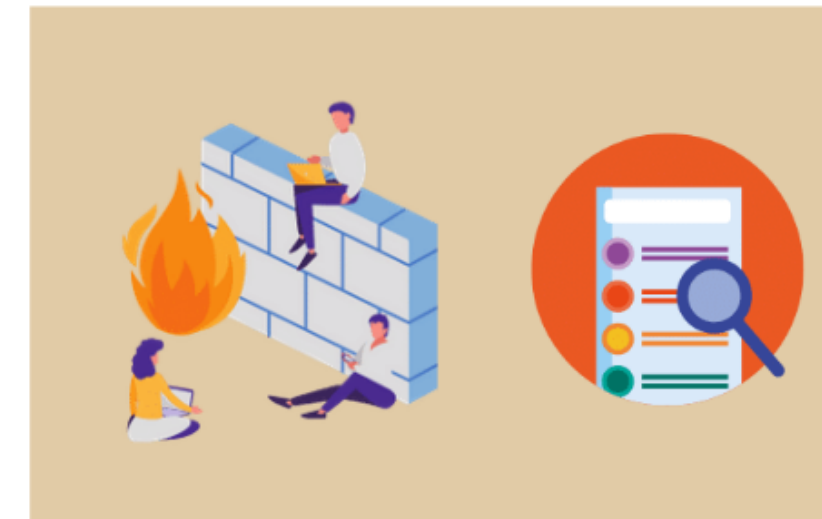


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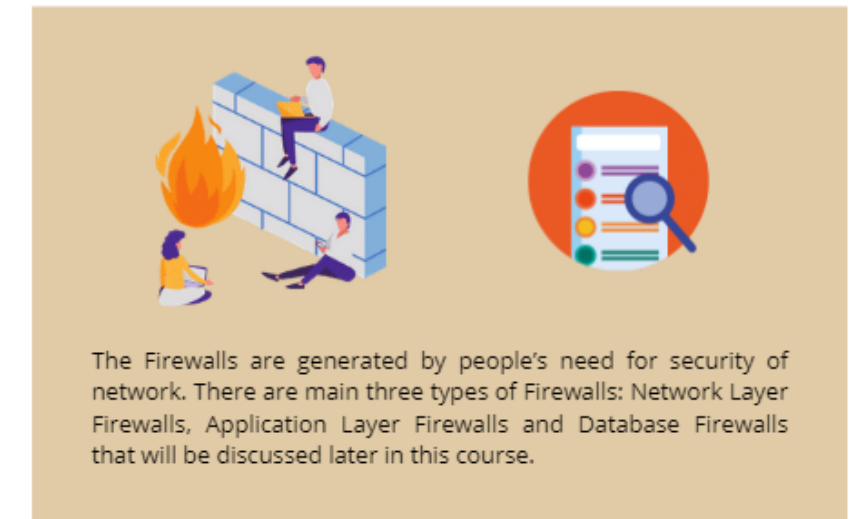
# 12 Principles of Multimedia Learning

How to get learners to engage with the material without the traditional face-to-face interaction?

<p><b>REDUNDANCY PRINCIPLE</b></p>	<p>The same information should not be presented twice.</p>
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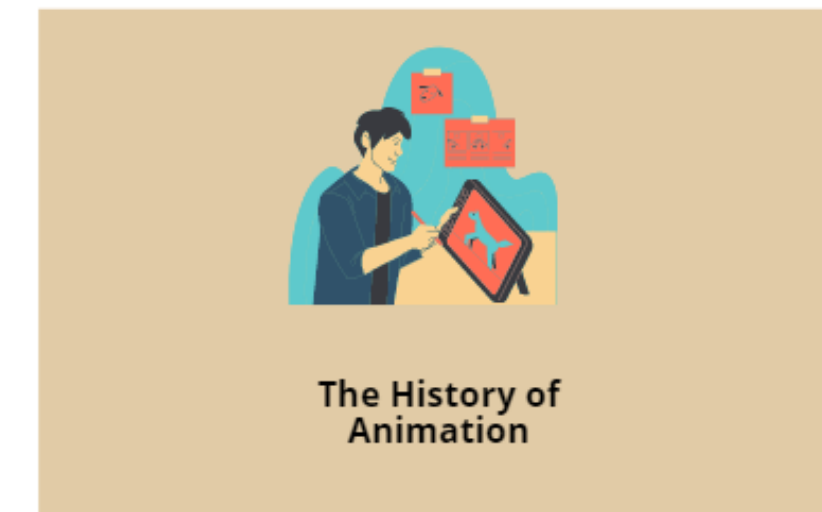
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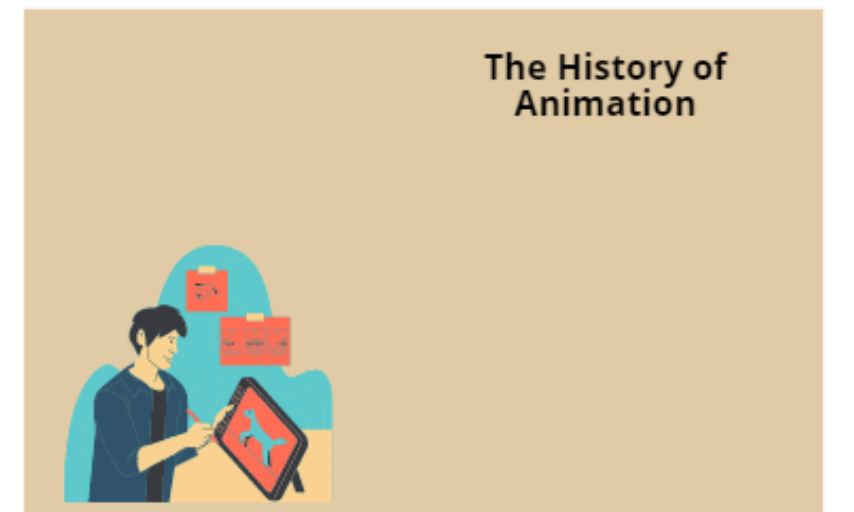
The Firewalls are generated by people's need for security of network. There are main three types of Firewalls: Network Layer Firewalls, Application Layer Firewalls and Database Firewalls that will be discussed later in this course.

✗ Not This

<p><b>SPATIAL CONTIGUITY PRINCIPLE</b></p>	<p>People learn better when corresponding words and pictures are presented near to each other on the page or screen</p>
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✓ This



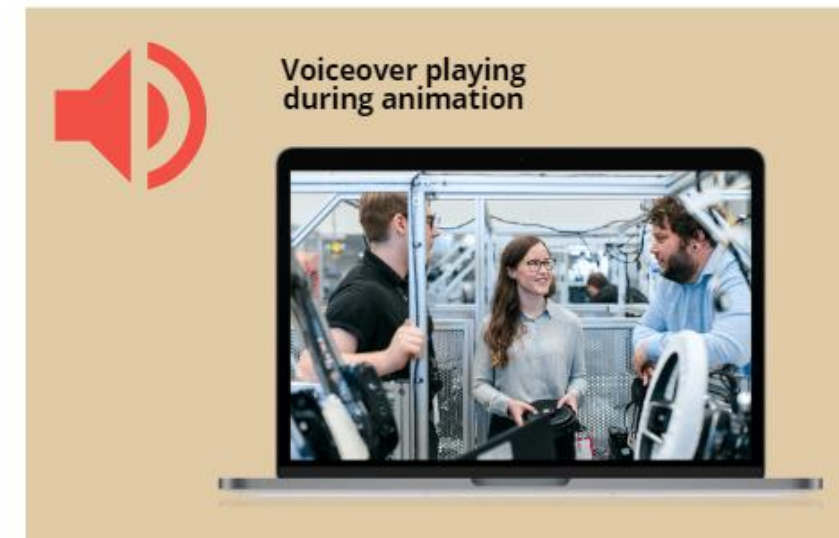
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# 12 Principles of Multimedia Learning

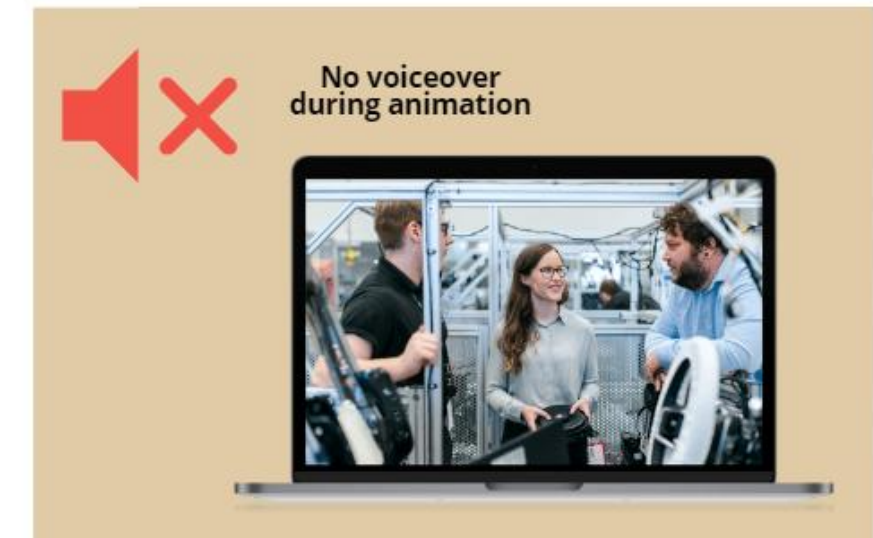
How to get learners to engage with the material without the traditional face-to-face interaction?

## TEMPORAL CONTIGUITY PRINCIPLE

People learn better when corresponding words and pictures are presented simultaneously rather than successively.



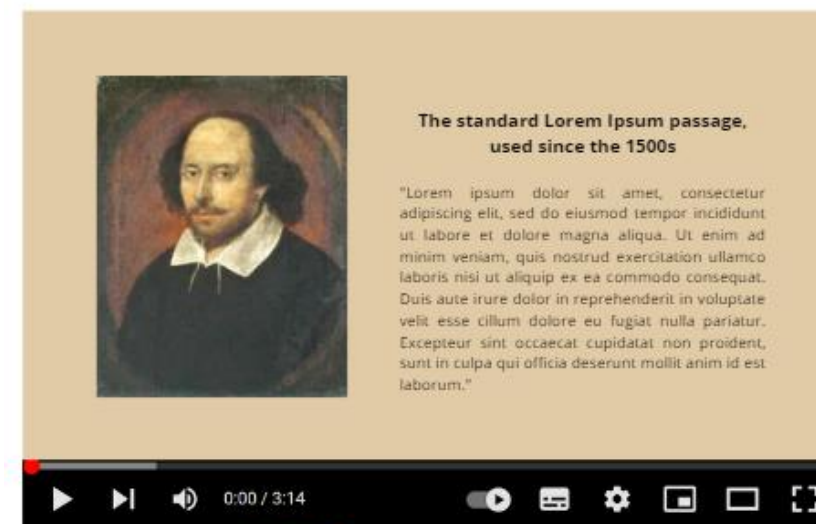
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## SEGMENTING PRINCIPLE

Multimedia learning material should be presented in user-paced units.



 This



 Not This

# 12 Principles of Multimedia Learning

How to get learners to engage with the material without the traditional face-to-face interaction?

<p><b>PRE-TRAINING PRINCIPLE</b></p>	<p>People learn better from a multimedia lesson when they do already have a basic knowledge of main concepts.</p>
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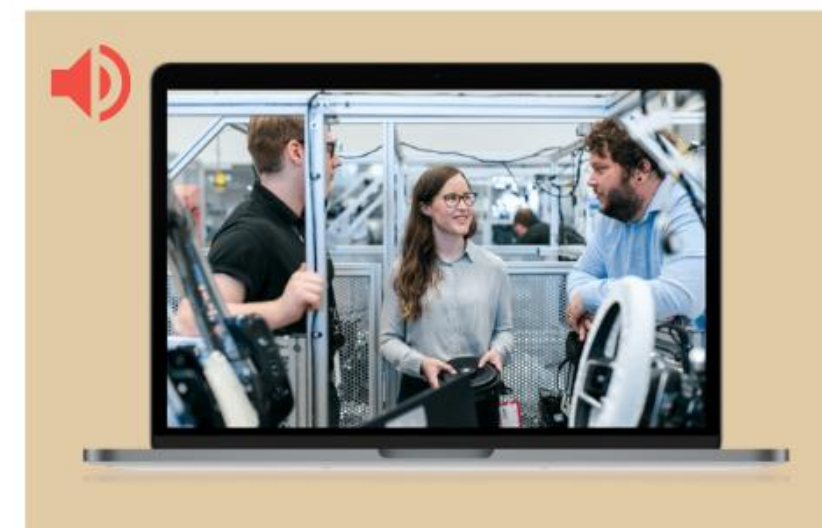


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<p><b>MODALITY PRINCIPLE</b></p>	<p>People learn better from animation and narration than from animation and on-screen text.</p>
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 This



 Not This

# 12 Principles of Multimedia Learning

How to get learners to engage with the material without the traditional face-to-face interaction?

<p><b>MULTIMEDIA PRINCIPLE</b></p>	<p>Words and graphics are more conducive to learning, rather than just text or graphics alone.</p>
------------------------------------	--



Digital Media  
Introduction


 This

The standard Lorem Ipsum passage, used since the 1500s

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

 Not This

<p><b>PERSONALIZATION PRINCIPLE</b></p>	<p>People learn better from multimedia lessons when words are in conversational style rather than formal style.</p>
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How is Phase 1 achieved?



Phase 1 is achieved by establishing a 30% decrease in breakdowns.

 This

How is Phase 1 achieved?

Phase 1 is achieved by implementing the appropriate maintenance tools and structural conformities which meet our organisations core competenced of establishing a 30% decrease in breakdowns.



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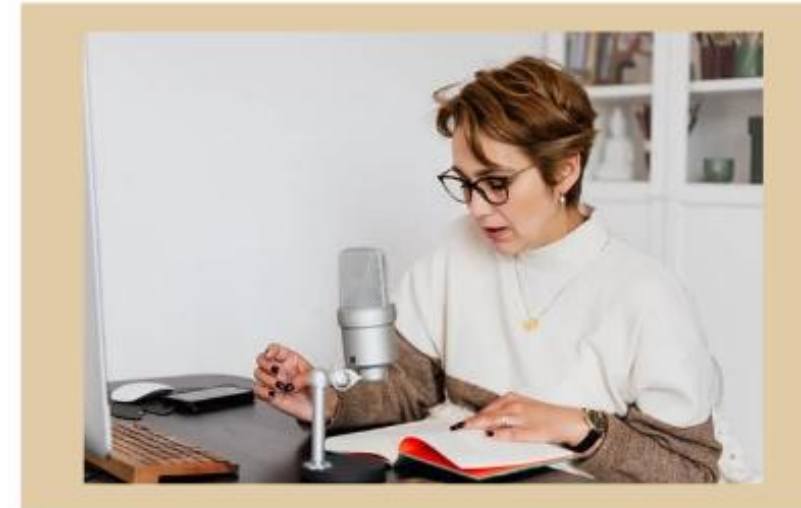


# 12 Principles of Multimedia Learning

How to get learners to engage with the material without the traditional face-to-face interaction?

## VOICE PRINCIPLE

People learn better when the narration in multimedia lessons is spoken in a friendly human voice rather than a machine voice.



✓ This



✗ Not This

## IMAGE PRINCIPLE

People do not necessarily learn better from a multimedia lesson when the speaker's image is added to the screen.



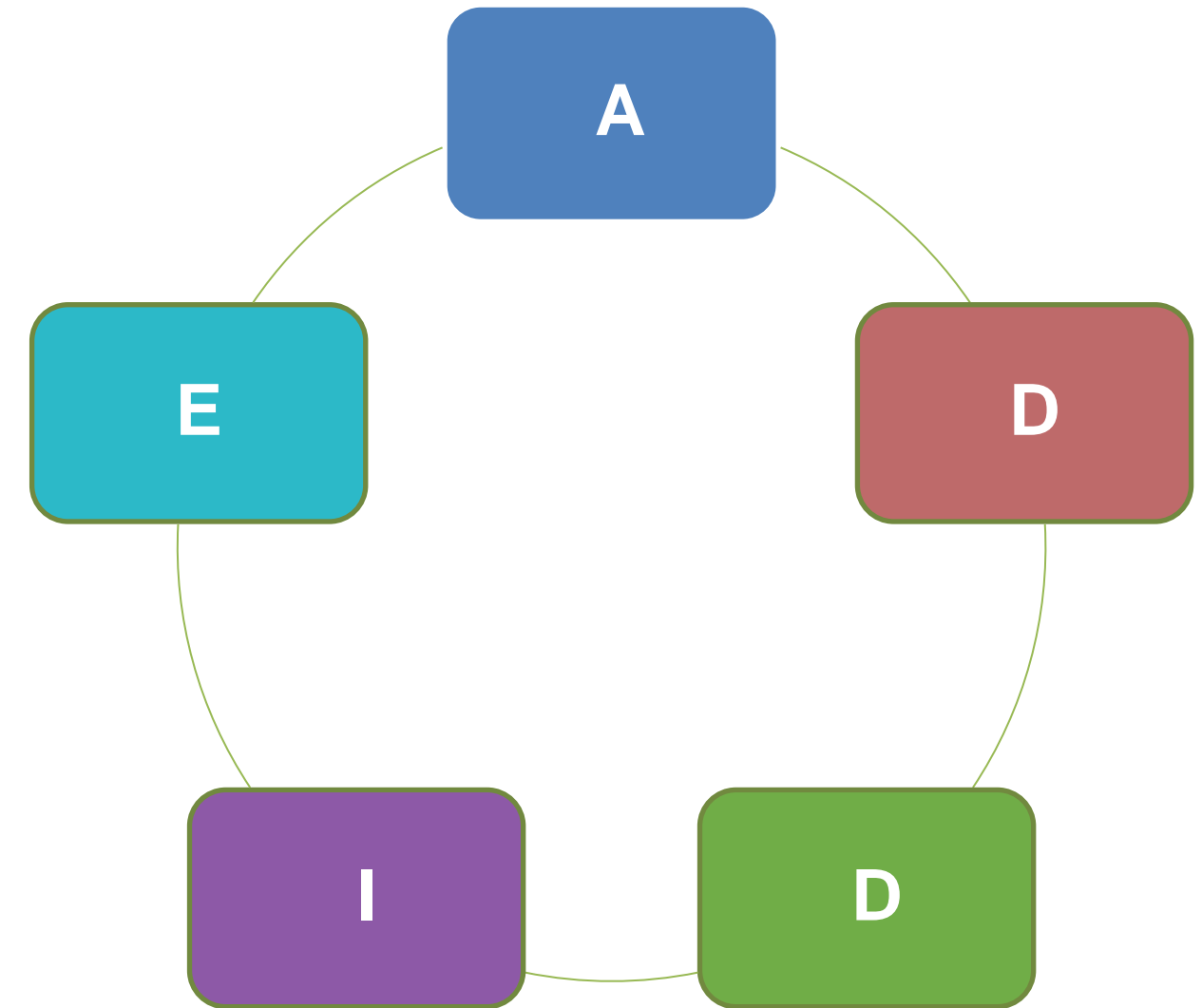
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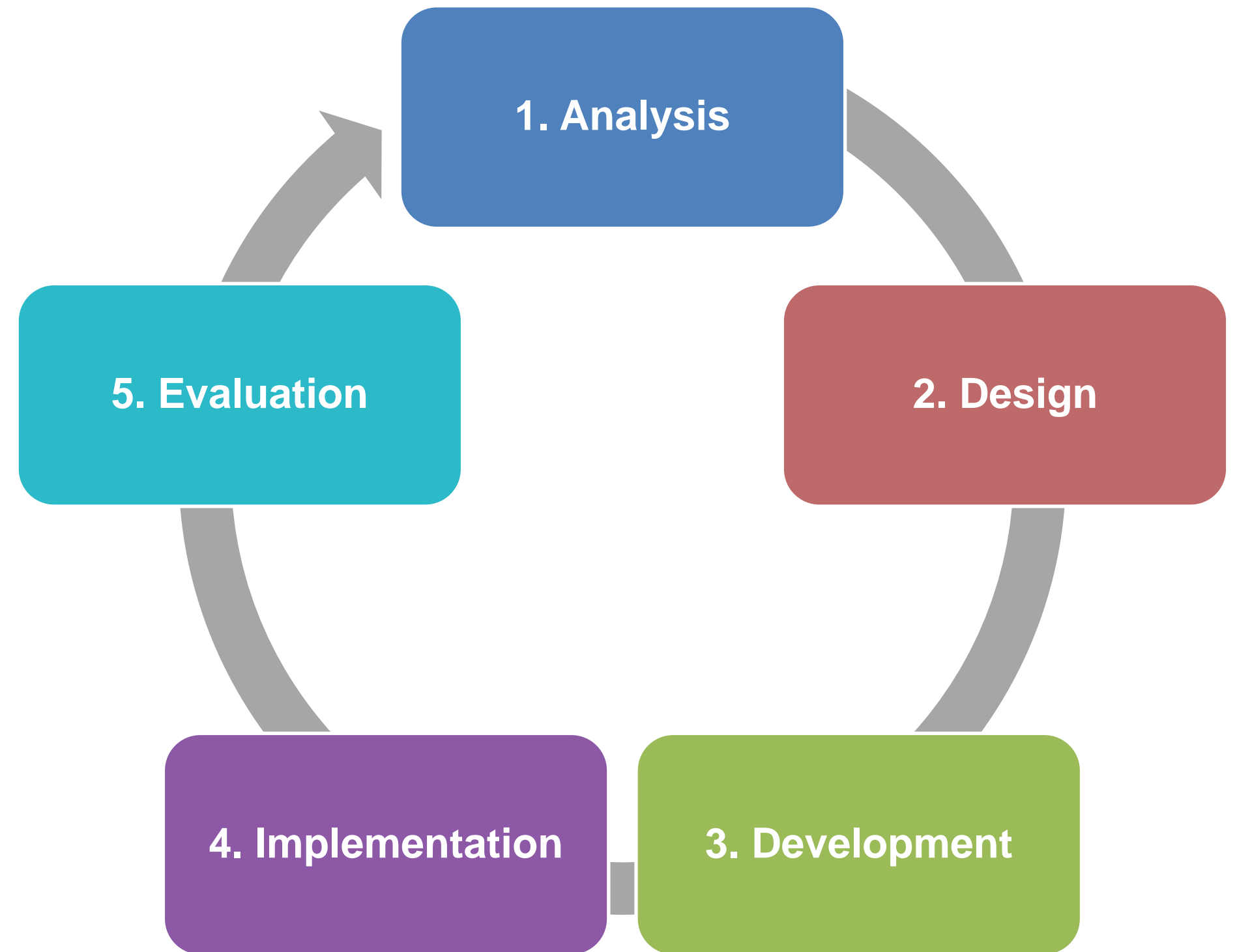
# ADDIE Instructional Design model

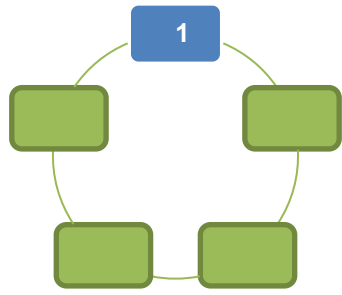
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# Instructional design models: ADDIE

- **Analysis:** Define scope and explain problems
- **Design:** Methodical strategic planning stage i.e. documenting activities
- **Development:** Instructional design of plans such as programming, incorporating technologies and testing
- **Implementation:** Training on the use of new apparatuses and review outcomes.
- **Evaluation:** Observing and assessment of each phase (formative) and of the project/product as a whole.





# 1. Analysis

## Goal-setting stage

Identify all the variables that need to be considered when designing the course.

### Requires:

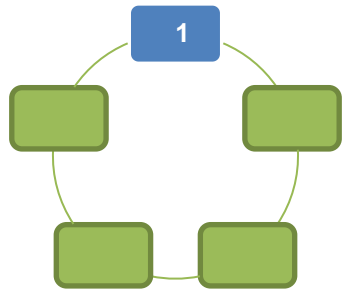
- Quantitative and qualitative data
- Observations
- Student surveys and input
- Time-on task analyses
- Faculty input
- Course or program success rates
- Information available
- Etc.

### Make sure you identify:

- Learner profile (characteristics and needs)
- Objectives of institution
- Programmatic Learning Outcomes
- Learning environment
- Technical framework
- Stock of the existing asset/resources
- Constraints
- Opportunities for improvement

### Deliverables:

- Training Need Analysis Report
- Learning Outcomes
- Resources
- Proposed training solution
- Proposed instructional strategies
- Turnaround time
- Timeframe



# 1. Analysis

## Goal-setting stage

### Target audience

- Number of students
- Learning contexts
- Diversity
- Prior knowledge or skills
- Media literacy level
- Expectations (goals)

### Teachers

- Knowledge
- Teaching objectives using digital media
- Expectations regarding the use of media
- Availability of teacher training

### Objectives of the Institution

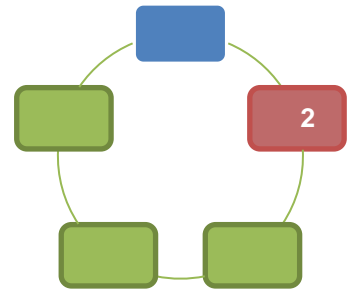
- Content to be taught
- Objectives to be achieved
- Position and proportional part of media-supported elements in the curriculum

### Technical framework:

- Software/Hardware available
- Learning platform available
- Internet connection

### Timeframe

- Length of the course
- Form (blended learning, virtual...)
- Proportion of media-supported elements
- At what stages digital media are used



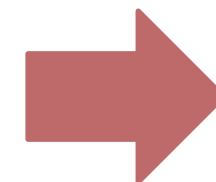
## 2. Design

### Didactic Decisions

Identify the learning objectives, the content areas to be covered, the teaching strategy, activities and resources to be created and used, their format and the mode of course delivery.

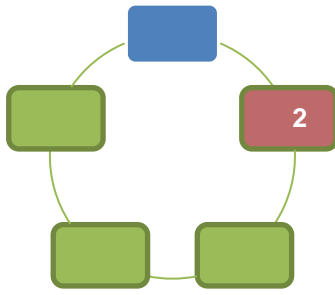
Main points that have be considered:

- **TEACHING AND LEARNING OBJECTIVES**
- **CONTENT**
- **TOOLS AND METHODS**
- **ASSESSMENT**



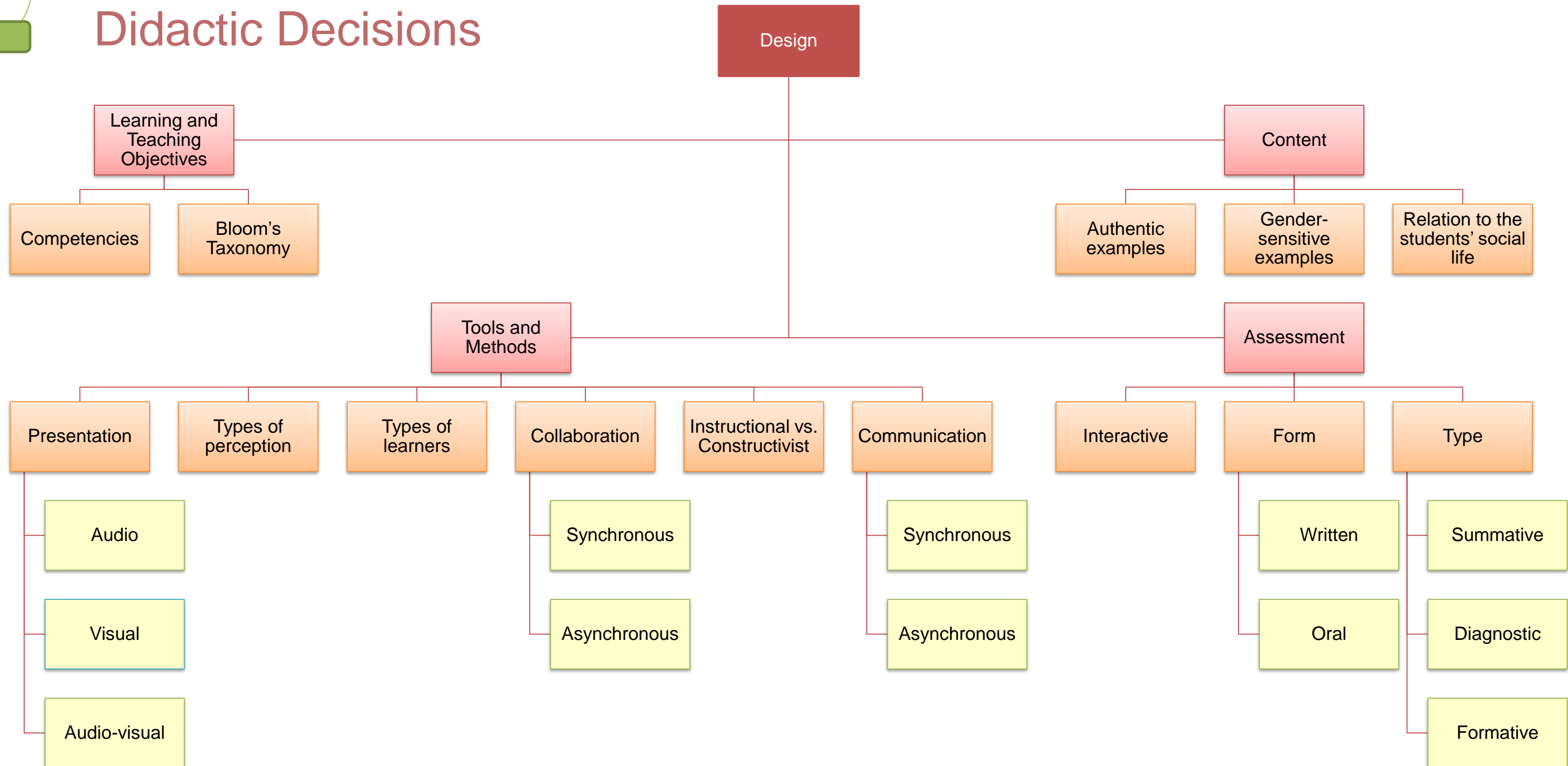
Expected results:

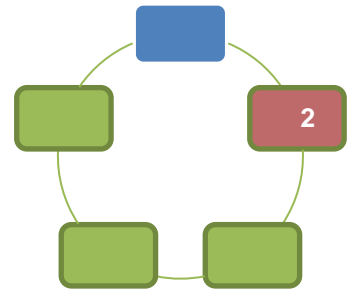
- **SMART objectives (and LO)**
- **Overall structure of the course**
- **Learning modality and materials**
- **Learning activities**
- **Evaluation strategies**



# 2. Design

## Didactic Decisions





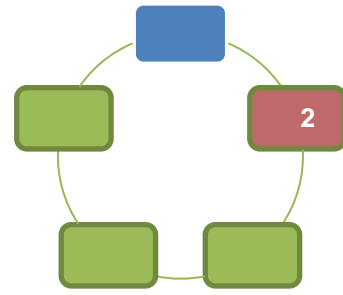
## 2. Design

### Didactic Decisions

### Designing Learning Outcomes: How to formulate teaching and learning objectives

1. Formulate short but several learning objectives.
2. Formulate learning objectives using the formulation *Learners can...* or *I can...*
3. Use bullet points to structure the learning process
4. Use clear, descriptive verbs
5. Specify how to achieve the learning objective
6. Focus on skills too (personal, social, methodological and communicative)
7. Choose suitable assessment forms and tasks





## 2. Design

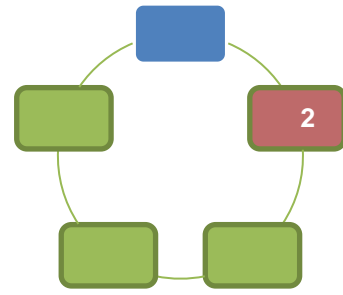
### Didactic Decisions

**Learning outcomes** = specific and clear statements of what learners are expected to learn and be able to demonstrate at the completion of their learning activity

Learning outcomes can be formulated : **Students will be able to + verb** (desired action or performance) + **object** (business or business-related learning) + **optional modifiers** (performance criteria/conditions or targeted learning descriptors).

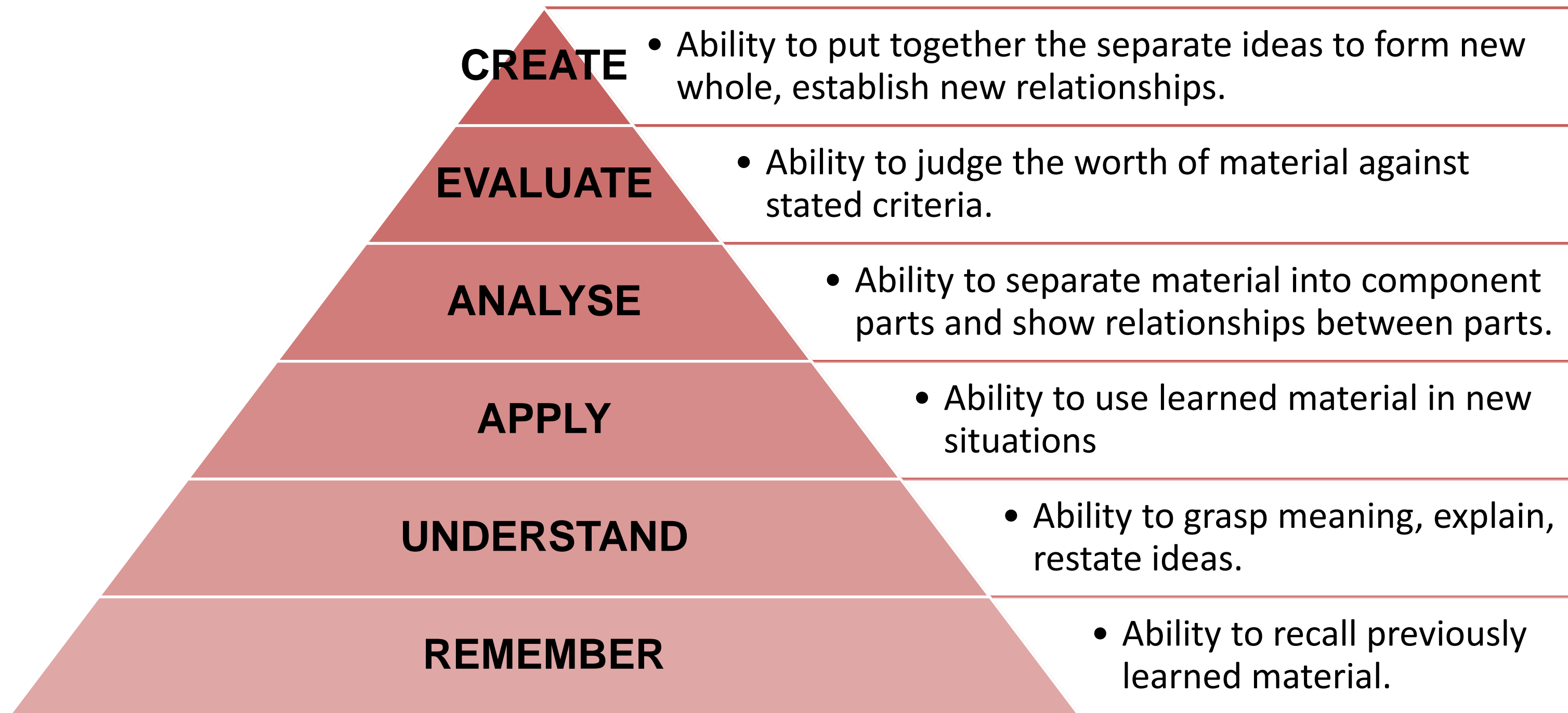
*Ex.1) Students will be able to identify and describe the political, religious, economic, and social uses of art in Italy during the Renaissance.*

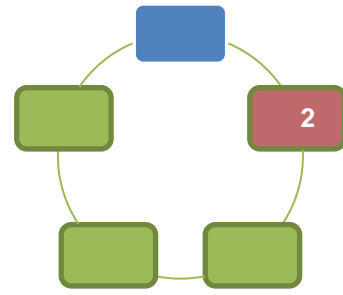
*Ex.2) Learners will be able to create an assessment plan that outlines the specific methods that will be used to assess the expected student learning outcomes for a course.*



## 2. Design Didactic Decisions

## Bloom's Taxonomy of the Cognitive Domain

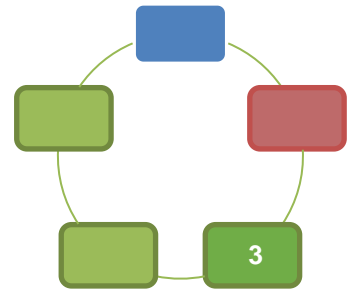




## 2. Design Didactic Decisions

## Bloom's Taxonomy of the Cognitive Domain

Cognitive level	Sample Verbs to Use in Writing Intended Student Learning Outcomes
<b>Remembering</b>	Define, Duplicate, Identify, List, Name, Recall, Recognize, Reproduce, Retrieve, Tell
<b>Understanding</b>	Calculate, Categorize, Clarify, Classify, Compare, Conclude, Contrast, Describe, Discuss, Exemplify, Expand, Explain, Identify, Illustrate, Infer, Interpret, Locate, Match, Outline, Paraphrase, Predict, Report, Restate, Summarize, Translate
<b>Applying</b>	Carry out, Classify, Demonstrate, Execute, Illustrate, Implement, Practice, Solve, Use, Utilize
<b>Analyzing</b>	Appraise, Attribute, Compare, Contrast, Deconstruct, Detect, Differentiate, Discriminate, Distinguish, Examine, Formulate, Infer, Integrate, Organize, Parse, Relate, Select, Sequence, Structure, Test
<b>Evaluating</b>	Appraise, Check, Coordinate, Critique, Defend, Detect, Dispute, Judge, Monitor, Prioritize, Rate, Reconstruct, Select, Support, Verify
<b>Creating</b>	Change, Combine, Compile, Compose, Construct, Create, Design, Formulate, Generate, Hypothesize, Improve, Invent, Plan, Predict, Produce



## 3. Development

Create content, teaching methods and assessment tools on the basis of what has been defined in the previous two phases. Load the content into the LMS.

### Involves creating and finalising :

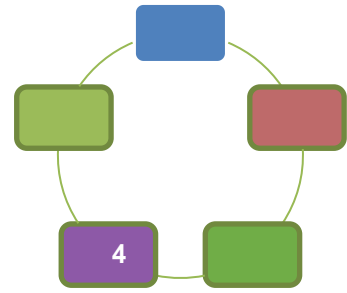
- activities and resources
- pre-training materials
- layouts, themes and user interface

### Make sure you :

- Identify technologies to enhance the learning experience
- Identify navigation strategies
- Perform testing/piloting activities

### Deliverables:

- Storyboard
- Learning content
- Media files
- Learning assignments and assessments

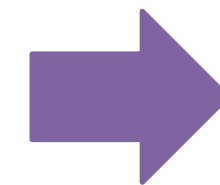


## 4. Implementation

Deliver the course to the beneficiaries. At this stage, all data relating to the fruition of the course are produced.

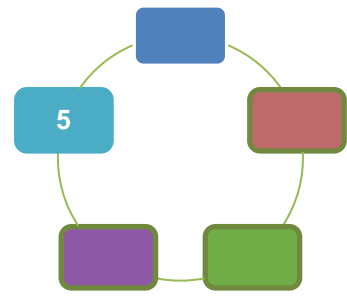
### **Main activities:**

- Running a train-the-trainers program
- Implementation of a communication plan
- Training delivery & participation
- Execution of formal evaluations



### **Outputs :**

quantitative and qualitative data on user utilisation.



## 5. Evaluation

Collect feedback and data on the course to identify areas that require improvement and ensure its sustainability over time and validate competences to verify initial predictions of learning.

### Requires :

- student assessment plans
- System assessment plan
- Periodic assessments

### Elements evaluated :

- Level of quality perceived by the learners
- Achievement of learning objectives,
- Transfer of professional knowledge and skills
- Materials, timing, experiences

### Produce :

- Quantitative and qualitative data
- Observations
- Student surveys and input
- Course or program success rates
- List of improvements



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# THANK YOU



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<https://cesie.org/en/units/research/>



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