



Output3 - A course for students on how to be effective online learners (M6-M18)

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Training Methodology

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Document information

Document: ***Output3: A course for students on how to be effective online learners (M6-M18)***

– Training Methodology

Date:

Authors:

DOUKAS SCHOOL – Greece

Thomas Economou, Elpiniki Margariti

Editors:

AKADEMIE KLAUSENHOF GGMBH – Germany

CENTER FOR THE ADVANCEMENT OF RESEARCH & DEVELOPMENT IN EDUCATIONAL TECHNOLOGY – Italy

CENTRO PER LO SVILUPPO CREATIVO DANILO DOLCI – Italy

SPECTRUM RESEARCH CENTRE – Ireland

UNIVERSITY OF NICOSIA – Cyprus

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1. Introduction

The aim of this document is to provide detailed accounts of the Instructional Design process needed to be applied as part of the EUVHS training design, development, and implementation. The EUVHS student training lies at the core of Intellectual Output 3 (IO3) by focusing on training secondary school students on how to be effective learners.

According to Smith and Ragan (2004), training can be defined as “instructional experiences that are focused upon individuals acquiring very specific skills that will normally apply almost immediately.” (p. 3).

Given the context in which training is usually implemented and the particularities of the learning needs it aims to address, it is imperative that training is prepared and delivered on the basis of methods able to guarantee its effectiveness. Effectiveness of instruction in general, and training particularly, relates to the degree to which the offered learning experiences actually address the existing learning needs. To this end, effectiveness of instruction/training can be assured by viewing the task of instruction/ training preparation and delivery through the lens of a systems-based approach (Gustafson & Branch, 2007, p. 11). This approach has led to the emergence of Instructional Design, which can be described as a “process of systematic planning of instruction” (Smith & Ragan, 2004, p.5).

The above issues and definitions shape the framework for the design, development, delivery, and evaluation of the EUVHS student training and thus, in the following sections of the document there will be an attempt to:

- highlight key underlying concepts of the Instructional Design process,
- provide descriptions of the Instructional Design process and existing models, with a specific focus on the Instructional Design model aimed to be used in the context of the EUVHS project, and
- analytically present all issues and decisions that directly relate to the preparation and delivery of the EUVHS student training.

2. Suggested Student Modules – Activities

3.1 Introduction

Module Title	Introduction		
Activity Title	Being a virtual school student!	Activity Code	
Type of resource	Presentation	Type of learning	Online or f2f
Duration of Activity (in minutes)	15 minutes	Learning Outcome	Students will, upon completion, be able to: <ul style="list-style-type: none">- comprehend the term virtual school student

			<ul style="list-style-type: none"> - name the characteristics of a virtual school student - recognize and describe the basic principals of good online behavior
Aim of activity	Through this brief introduction students, will be able to comprehend what a virtual school student is, what are his/her characteristics and what is the principals of proper online behavior.		
Materials Required for Activity	<p>f2f:</p> <ul style="list-style-type: none"> - a portable laptop for the teacher - digital whiteboard or a projector and a presentation board <p>Online:</p> <ul style="list-style-type: none"> - a portable pc per student and for the teacher - a communication and collaboration tool 		
Step-by-step instructions	<p>Step 1: The teacher introduces and describes the term virtual school students</p> <p>Step 2: Presentation of the basic characteristics of a virtual school student</p> <p>Step 3: Presentation of the basic principals of proper online behavior</p>		

3.2 Effective and appropriate communication skills

Module Title	Effective and appropriate communication skills		
Activity Title	Digital Communication	Activity Code	
Type of resource	Activity sheets (AS)	Type of learning	Online or f2f
Duration of Activity (in minutes)	20- 30 Min.	Learning Outcome	<p>Students will</p> <ul style="list-style-type: none"> - know best ways to use communication tools - be introduced into tools that are useful for exchange, communication, feedback etc.

			<ul style="list-style-type: none"> - get to know Rules and regulations for polite digital communication - keep in mind safety aspects
Aim of activity	<p>Students will learn to communicate best within digital tools with peers, with teachers, in class situations and groups. For this they will get to know tools that can be used for communication and also some rules for communication online (through written forms in Chat, comments and asynchronous learning situations and also in Videos and break out sessions and synchronous learning situations)</p>		
Materials Required for Activity	<p>F2f: Whiteboard/ flipchart + markers Miro/ Brainstorming</p> <p>Online: Pc/ Laptop with Internet access, Web conferencing tool (e.g. zoom) miro, (check feedback programs)</p> <p>For Both: In addition, the attached drafts can be used to discuss more specific communication.</p>		
Step-by-step instructions	<p><i>Time planning: From the steps listed, choose the ones you think are relevant to the target group of students. For a time slot of 30 minutes we recommend to choose max. 2 steps in order to have enough time for reflection. If necessary, you can also choose more steps, but then the time will be exceeded.</i></p> <ul style="list-style-type: none"> ● Step 1: Introduction Introduce the students to the main rules of online/digital/remote communication. You can start this with a brainstorming session, asking students what is important in terms of good communication and what should be avoided. In f2f, a whiteboard or flipchart can be used to collect thoughts. Online, the questions can be prepared for a survey at "Miro", where students can then digitally enter their thoughts. ● Step 2: Discussion Show the most common tools in class and evaluate chances and barriers in the ways of using it for communication. This can be used as an opportunity to exchange experiences together. What went well and what went wrong with the tools used in the past? What do we want to keep? What should be changed urgently? 		

Note: Be aware that you are taking the change requests seriously if you decide to take this step. The students' wishes should be taken into account for further work and adjustments should be made if necessary.

- **Step 3: Communication rules**

Establish together with the students fixed rules of communication that everyone agrees to follow. This can be worked out in groups and then presented and evaluated together, or you can present existing rules for digital communication on your own. The template in the appendix can serve as orientation for this.

Use the Template: Communication rules and also, if required, the Template: Communication via Email and/ or the Template: Instructions for using Video Conferencing.

- **Step 4: Synchronous vs. asynchronous communication**

Explain/ Discover the differences and the benefits from synchronous and asynchronous communication.

Discuss what mix would be ideal for the class for best practice in the future.

Use the Template: Synchronous and asynchronous communication

- **Step 5: Let's talk about feedback**

In general, the feedback rules that are used in a classroom situation also apply in the digital space: be constrictive and respectful, formulate first-person messages, be as concretely as possible, add suggestions, give examples, etc. However, feedback in the digital space must once again be sensitively reflected:

- What forms of feedback do exist?
- Why is feedback important in the learning context?
- What to do and what to avoid in receiving and giving feedback digital?

Use the templates attached.

- **Step 6: Activity**

Test ways of giving and receiving feedback and evaluate it in the group: What did you like? What was challenging? Which tool would you prefer to use?

As a teacher you can also evaluate the way you give assessment: Use the exchange with the students for getting feedback: What is the most efficient way to give assessment on your work? Do you prefer instant feedback? Is regular individual feedback wanted? You can use the Template: Tools for feedback for this or follow the programs you use already (like zoom, padlet, etc.).

- **Step 7: online safety**

	<p>Explain rules and online safety that should be respected regarding communication, especially in posting and publishing, show save ways to communicate online by the use of tools, that follow safety rules.</p> <p>Note: Since the students know the basic rules of online safety, give this only as a reminder and relate it to the previous content on polite communication, sharing feedback and different ways of communicating in the digital world.</p> <p>However, if there are difficulties in the class regarding online safety, respect for privacy or even bullying, bring in an expert to discuss the issue in more detail. This could be a police officer who provides training on digital safety.</p>
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3.3 Time Management

Module Title	Time Management		
Activity Title	<i>Improve your time management</i>	Activity Code	
Type of resource	Activity sheets (AS)	Type of learning	Online Learning and f2f
Duration of Activity (in minutes)	30'	Learning Outcome	Students should be able to: <ul style="list-style-type: none"> • schedule their learning activities in a more effective way • use online time management tools • prioritize their tasks and organize their agenda more efficiently • use digital technologies to support their time management skills
Aim of activity	Students will improve their time management skills thanks to digital tools		
Materials Required for Activity	For face-to-face: <ul style="list-style-type: none"> • Notebooks/notepads and pencils/pens • Projector and laptop For online: <ul style="list-style-type: none"> • PC/laptop with Internet connection • Web conferencing tool (e.g., ZOOM) 		

	<ul style="list-style-type: none"> • https://www.publicservicedegrees.org/online-degrees/online-students-guide-to-time-management/
Step-by-step instructions	<ul style="list-style-type: none"> • (10') Step 1- Introduction to time management: The teacher asks the students to read the online article about time management and discuss with them their actual tools they use to manage their study and free time. • (10') Step 2-Identifying time-wasters: The teacher asks the students to go online and check the 9 time-wasters listed in the article: <ol style="list-style-type: none"> 1. Scrolling through social media 2. Playing video games 3. Watching videos 4. Meetings 5. Misplacing items 6. Sitting in traffic 7. Interruptions 8. Checking emails 9. Too much multitasking 10. Other time wasters? <p>Students have to identify their time-wasters and list them.</p> <ul style="list-style-type: none"> • (5') Step 3-group discussion: The teacher presents the 5 tips to avoid time-wasters: <ol style="list-style-type: none"> 1 Make it impossible to play on your phone 2 Schedule activities 3 Make meetings more productive • Limit the use of emails • Prevent distractions <p>4. (5') Step 4 – Learn how to use Time Management Techniques and Strategies: The teacher lists strategies and tools to manage free and study time with online resources available on the online article and ask students to pick up one.</p>

3.4 Good Reading and Writing Skills

Module Title			
Activity Title	Improve your (Digital) Literacy Skills	Activity Code	0004

Type of resource	Activity sheets (AS)	Type of learning	Online Learning											
Duration of Activity (in minutes)	30 Minutes	Learning Outcome	<p>Students will be able to</p> <ul style="list-style-type: none"> • Comprehend written instructions • Use online tools such as spell check, grammar check, thesaurus, etc. • Develop literacy skills • Enhance active listening skills 											
Aim of activity	<p><i>The aim of this activity is to encourage students to improve their communication, creativity and memory retention skills through a reading and writing exercise. In doing so, students will feel competent to write their own creative writing stories, using digital tools.</i></p>													
Materials Required for Activity	<ul style="list-style-type: none"> • PC/Laptop • Microphone (built-in) • Camera (built-in) • Educational activity sheet/test • Microsoft Teams, Zoom, Google Classroom • Google Docs (spell check, grammar check) 													
Step-by-step instructions	<p>Step 1: <i>This activity will help you to further engage your students through a creative writing task that they can do remotely. As a first step, you should log onto the school network and assign the task to your students.</i></p> <p>Step 2: <i>Using the list below, ask learners to pick a theme from the list below.</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Theme</th> </tr> </thead> <tbody> <tr><td>Common Sense</td></tr> <tr><td>Fate</td></tr> <tr><td>Apocalypse</td></tr> <tr><td>Missed Opportunity</td></tr> <tr><td>Conspiracy</td></tr> <tr><td>Redemption</td></tr> <tr><td>Rain</td></tr> <tr><td>Peer Pressure</td></tr> <tr><td>Wonderland</td></tr> <tr><td>Justice</td></tr> </tbody> </table>			Theme	Common Sense	Fate	Apocalypse	Missed Opportunity	Conspiracy	Redemption	Rain	Peer Pressure	Wonderland	Justice
Theme														
Common Sense														
Fate														
Apocalypse														
Missed Opportunity														
Conspiracy														
Redemption														
Rain														
Peer Pressure														
Wonderland														
Justice														

Memory

Photographs

Step 3:

Students will pick a theme of their choice and compose a creative writing piece on their laptops, using Google Docs. The short story should comprise 300-400 words only. Allocate 10 minutes for this task.

Step 4:

Once students have composed their story, they will need to edit their piece of writing using spell check, thesaurus, and a grammar checker. This can be completed through Google Docs. Encouraging students to edit their work will improve their literacy skills such as spelling and grammar. Allocate 5 minutes for this task.

Step 5:

Ask your students to read their stories aloud if they are comfortable doing so. This can demonstrate the different creative ideas of your students in a peer-led learning environment. By reading aloud, students will improve skills such as information processing, vocabulary, comprehension, and active listening. Allocate 10 minutes for this task.

3.5 Persistence and Commitment

3.5.1 Persistence and Commitment Activity A

Module Title	Persistent and Commitment		
Activity Title	<i>Detect Fake News</i>	Activity Code	
Type of resource	Activity sheets (AS)	Type of learning	Online Learning and f2f
Duration of Activity (in minutes)	30'	Learning Outcome	Students should be able to: <ul style="list-style-type: none">• use digital and online tools to detect fake news• read news in a more critical and analytical way• increase their knowledge for the prevention of misinformation• use digital technologies in a positive and fruitful way

Aim of activity	Students will be able to read news in a more critical and analytical way using digital tools
Materials Required for Activity	<p>For face-to-face:</p> <ul style="list-style-type: none"> • Notebooks/notepads and pencils/pens • Projector and laptop <p>For online:</p> <ul style="list-style-type: none"> • PC/laptop with Internet connection • Web conferencing tool (e.g., ZOOM) • https://www.internetmatters.org/issues/fake-news-and-misinformation-advice-hub/find-the-fake/
Step-by-step instructions	<ul style="list-style-type: none"> • (5') Step 1- Optional Warm-up: The teacher asks the students if they have ever spot fake news while surfing the internet and if they know the meaning of “fake news”. The students give some examples, and discuss about the meaning of fake news and misinformation. • (15') Step 2-Individual tests: The teacher asks the students to go online and visit the website internetmatters.org and take one of the three online tests to spot fake news and misinformation: <ul style="list-style-type: none"> • What is fake news? • Fact or fake? • Fact check <p>Students have to answer 5 questions online on the three topics playing a funny game. They can also choose their test according to their age.</p> • (10') Step 3-group discussion: Once all students have answered their test, the teacher groups them according to the test they chose and students will discuss their answers and what are the techniques they discovered to spot fake news and read the news in a more conscious and truthful way.

References

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Internet Matters.org (2022). Find the fake!. Available online at
<https://www.internetmatters.org/issues/fake-news-and-misinformation-advice-hub/find-the-fake/>

3.5.2 Persistence and Commitment Activity 2

Module Title	Persistent and Commitment		
Activity Title	<i>Never Give Up!</i>	Activity Code	
Type of resource	Activity sheets (AS)	Type of learning	Online Learning or f2f
Duration of Activity (in minutes)	30'	Learning Outcome	Students should be able to: <ul style="list-style-type: none"> • define individual learning goals • plan the process to achieve their learning goals, identifying potential obstacles • recognise ways to review their learning progress and reflect • describe ways to improve their process to achieve their learning goals
Aim of activity	Students will become more persistent in their learning process, committed to achieve the learning goals they set.		
Materials Required for Activity	For face-to-face: <ul style="list-style-type: none"> • Flipchart and markers • Notebooks/notepads and pencils/pens For online: <ul style="list-style-type: none"> • PC/laptop with Internet connection • Web conferencing tool (e.g., ZOOM) • Online document editor (e.g., Google docs) Material <ul style="list-style-type: none"> • Handout (Template 6.1) 		

Step-by-step instructions

- (2') **Step 1- Optional Warm-up:** The teacher asks the students if they have ever set a goal which needed a lot of effort. S/he can give an example of a personal goal (e.g., reading more books). The students give relevant examples, and the teacher notes them down on the board.
- (5') **Step 2-Individual goals:** The teacher asks the students to prepare 1 individual goal they want to achieve in terms of their learning progress. If the school implements online/distance learning, the teacher can focus on that. The goal can be more general. For example, "I want to improve my writing skills". To help the students, the teacher asks them to think of the following:
 - What is a goal that you really want to achieve in the future, regarding your skills and performance in school?
 - How do you see your future self, as a student?
- (10') **Step 3-SMART goals:** Once all students write their goals, the teacher helps them to make the goals more specific. To do that, s/he presents the SMART model. The goals should be:
 - **Specific:** what is the specific thing I want to improve?
 - **Measurable:** how can I see and measure my progress and performance?
 - **Attainable:** is the goal something you can actually do?
 - **Relevant:** is this goal important to you? Is this something that you need to do?
 - **Time-bound:** when is the deadline to achieve this goal?

For example, the goal "I want to improve my writing skills" can be changed into:

I want to write more effective essays in English, using rich vocabulary and shorter sentences, by the end of the school year. This goal will have been achieved if I get positive feedback from my teacher in the final essays, with minimal comments for improvement.

The teacher helps all students rewrite their learning goals.

- (15') **Step 4- Action plan:** The teacher helps the students prepare **an action plan** to achieve their goals (see template below). The students will write down:
 - **Timeline with to-do actions and deadlines.** For example, practise writing 1 paragraph for an essay and show it to my teacher/classmate for feedback.
 - **Obstacles they may face while they are trying to achieve their goal and solutions.** For example, in case I face difficulties I will talk to my teacher or another classmate and

	<p>ask for feedback. To avoid procrastination, I will leave my smartphone outside the studying area.</p> <ul style="list-style-type: none"> ○ Actions to review their progress. For example, I will prepare a checklist with important essay criteria with the help of my teacher (e.g., structure of essays, important elements for cohesion and coherence) to review my essays. Every month I will write on a diary the things that show I have progress (e.g., positive feedback from my teacher in essays, winning a writing competition). In the diary I will also write a few things that helped me progress and what went wrong. <p>Note: if time is restricted, you can break this activity into two sessions. One will be focused on students setting individual SMART goals (steps 1-3) and the other one on preparing the action plan (step 4).</p>
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3.6 Technical Skills

Module Title	Technical Skills		
Activity Title	Students' Technical Solution Center	Activity Code	
Type of resource		Type of learning	Online or f2f
Duration of Activity (in minutes)	30 Min.	Learning Outcome	Students will, upon completion, be able to: <ul style="list-style-type: none"> - identify a software technical issue - know how to appropriately search for technical solutions online - identify the official digital documentation - recognize the importance of step-by-step solution guidance - recognize the solution for their technical problem - implement the steps to resolve the technical issue

Aim of activity	<p>Students will learn to identify a software technical issue, search online for help on how to resolve the issue, identify the official digital tool documentation, acknowledge the importance of guidance in resolving the issue, identify the appropriate problem solution, and implement the steps required to resolve the issue.</p> <p>* by technical problems we refer to software issues and not hardware as this implies risk and danger of hazard and due to safety reasons an IT specialist should be asked to resolve the issue</p>
Materials Required for Activity	<p>f2f:</p> <ul style="list-style-type: none"> - a portable laptop per team of students - digital whiteboard or a projector and a presentation board - a notepad and a pen per team <p>Online:</p> <ul style="list-style-type: none"> - a portable pc per student and for the teacher - a communication and collaboration tool
Step-by-step instructions	<p>Step 1: Brief introduction by the teacher on how to identify small software issues (e.g., rotation of screen display, Wi-Fi card troubleshoot, etc.) and how to appropriately search on-line in order to be directed to the official online technical documentation.</p> <p>Step 2: Students are divided into groups of 4 and the teacher assigns one technical issue to each team. The assignment of the team is to collaborate and find the solution to the technical issue. In the case of f2f implementation the students sit closely using one portable pc. In the case of online implementation, students are separated into working groups and enter a separate discussion room. They use online collaboration documents (e.g., google docs) to work together as a team.</p> <p>Step 3: Students prepare a 2 page presentation with the short description of the technical issue and the 4-5 steps that a user needs to follow to resolve the issue, mentioning their source from the developer's official online documentation.</p> <p>Step 4: Students upload their presentations to a whole class shared folder named "technical solution center".</p> <p>Step 5: Teacher ends the activity by emphasizing on the need to be able to effectively search online and resolve a small technical issue and encourages students to visit the technical solution center if they have a problem, and in case they resolve an issue not in the center, prepare a 2 page presentation and add it to help their student peers in case they came across the same issue.</p>

3.7 Motivation and Independence

Module Title	Motivation and independence		
Activity Title	<i>My strengths!</i>	Activity Code	
Type of resource	Activity sheets (AS)	Type of learning	Online Learning or f2f
Duration of Activity (in minutes)	30'	Learning Outcome	Students should be able to: <ul style="list-style-type: none"> - identify their knowledge/skills-related and personal strengths - recognise ways to apply their strengths when learning online
Aim of activity	<p>The students will identify their strengths, related to their character and subject-specific skills, to apply them when they study and learn online. This aims to increase students' intrinsic motivation, to work independently based on their strengths.</p> <p>Note 1: this activity is linked with the activity on the 6th topic of persistence and commitment where students learn how to set and achieve learning goals. Once the students identify their strengths here, they can go back to the action plan prepared in that activity and add their strengths (this will help them achieve their goals).</p> <p>Note 2: in case your students have not experienced online learning (e.g., your school is about to start delivering online lessons for the first time) you can refer to the face-to-face teaching and then swift your students' attention to the online context. This will make the content more relevant to the students' experience.</p>		
Materials Required for Activity	<p>For face-to-face:</p> <ul style="list-style-type: none"> • Flipchart/Whiteboard and markers • Notebooks/notepads and pencils/pens • Cardboard <p>For online:</p> <ul style="list-style-type: none"> • PC/laptop with Internet connection • Web conferencing tool (e.g., ZOOM) • Online document editor (e.g., Google docs). You can either switch any work on paper to that or ask students to work on their notebook at their own. • Online canvas tool (e.g., Padlet) 		

	<p>For both:</p> <ul style="list-style-type: none"> • Handout 7.1
<p>Step-by-step instructions</p>	<ul style="list-style-type: none"> • (2') Step 1 – Optional Warm-up. The teacher discusses with the students the word “strength”. What comes to their mind when they hear this? The whole class brainstorms some personality characteristics. • (10') Step 2- Finding what you are good at. The teacher prepares and distributes a list with some traits (personality, social, numeracy, language, literacy etc.-see handout 7.1). The students write their name in the middle of a paper and based on the list given, they think 5 things they are good at, writing them around their name on the paper. The students need to justify each trait with an example (e.g., I am creative because I prepare handcrafts using items I find at home). <p>Reflective questions:</p> <ul style="list-style-type: none"> ○ What is one thing that you like about (online) school and studying? (e.g., talking to my friends, learning something new, experimenting, doing group projects etc.) ○ When do you feel the most energised? (specific time and task) ○ When do you feel like you have lost track of time? ○ What positive feedback do you get about your strengths? Think about what your teachers, parents, classmates often compliment you about. ○ What motivates you to study? <p>The teacher goes around, sees what the students have written and intervenes as necessary (e.g., teachers know their students and their strengths). Once done, each student presents their strengths to their peer sitting next to them to exchange ideas (e.g., they can tell them other strong points they have detected, think of class examples where that student exhibited a specific trait, etc.).</p> <p>Note: If your students come up with “negative” characteristics or some weaknesses, raise the issue that we are balanced: we all have both strengths and weaknesses. Some traits can be improved (e.g., time management) while some personal characteristics may seem more “innate” (e.g., artistic). If we lack skills which are important to use for our learning goals, we can try to improve them. Otherwise, we embrace our personal characteristics, making the best out of our strengths (see next step). We don't want to put the students in boxes but highlight what makes them unique.</p>

- **(15') Step 4- Linking strengths with school responsibilities.** The students list the responsibilities they have as (online) students (both general such as doing homework every day, being on time etc. and more specific e.g., study Maths, study English, etc.). They have to think about the way their strengths can help them achieve these responsibilities.
For example, "I am extrovert — love spending time with people and learn quickly when discussing with others. One of my school responsibilities is to study alone every day. To use my strength, I can organise a (virtual) study group with a couple of friends to do hands-on homework or to revise important things before a lesson".
- **Step 5- Optional "Our strengths" board.** The students finalise their strengths. The teacher can prepare a "board" where s/he has written students' names in columns (digital with an online canvas tool like Padlet or hardcopy with a piece of cardboard). Throughout the school year, the students can list their top 5 strengths below their names. This can be used in the future and being updated; the students can reach out to their classmates that are strong at some skills and ask for help.

3.7.1 Alternative Activity

Module Title	Motivation and independence		
Activity Title	<i>New habits!</i>	Activity Code	
Type of resource	Activity sheets (AS)	Type of learning	Online Learning or f2f
Duration of Activity (in minutes)	30'	Learning Outcome	Students should be able to: <ul style="list-style-type: none"> • identify positive study habits for self-motivation and independence • apply ways to improve their study habits and overall routine

Aim of activity	<p>The students will learn how to develop positive study habits, improving their routine when studying online. This aims to develop a self-driven mentality and independence, for students to improve the effectiveness of their online learning.</p> <p>Note: in case your students have not experienced online learning (e.g., your school is about to start delivering online learning for the first time) you can refer to the face-to-face teaching and then swift your students' attention to the online modality. This will make the content more relevant to the students' experience.</p>
Materials Required for Activity	<p>For face-to-face:</p> <ul style="list-style-type: none"> • Flipchart/Whiteboard and markers • Notebooks/notepads and pencils/pens <p>For online:</p> <ul style="list-style-type: none"> • PC/laptop with Internet connection • Web conferencing tool (e.g., ZOOM) • Online document editor (e.g., Google docs). You can either switch any work on paper to an online document edit or ask students to work on their notebook offline, at their own. • Online whiteboard/canvas tool (e.g., Padlet, Jamboard) <p>For both:</p> <ul style="list-style-type: none"> • Template 7.2 • Template 7.3 • Handout 7.4
Step-by-step instructions	<ul style="list-style-type: none"> • 10' Step 1- Brainstorming: The teacher divides students in pairs where they discuss about the way they study online. The students have to answer the following questions: <ul style="list-style-type: none"> ○ What is the process you follow when have to study for the next lesson or do your homework (online)? ○ Is there something that helps you when you settle down to study? ○ Is there something that bothers you and is an obstacle when you settle down to study? (e.g., poor time management, procrastination, the surroundings) <p>The students discuss these for about 8' and then the teacher notes down their answers in two columns: (1) things that help me and (2) obstacles/distractions [see Template 7.2].</p> • 15' Step 2- Positive study habits. Based on the personal obstacles and the helpful strategies proposed by the whole class, each student works individually to prepare a personalised routine [see

Template 7.3]. The aim is to build positive study habits that will increase the intrinsic motivation to continue studying online.

The teacher shares with the class a few additional strategies for students to use [Handout 7.4]. It is important to remember that positive and negative habits are created in the following way:

- **Cue:** *What's the trigger? What craving are you trying to fill?*
- **Habit:** *The action or routine*
- **Reward:** *Your brain likes this action wants to repeat it.*

For example, seeing the phone (cue), grabbing the phone and scrolling (habit), having temporary satisfaction from watching/reading things online (reward). Therefore, if the students want to replace a bad study habit, they need to either remove the bad cue or replace it with a positive one that will trigger the positive action and then reward themselves.

The teacher reminds students that to succeed they need to gradually add their new study habits, instead of doing it all-at-once. This means adding a habit, see how it goes, and make changes if needed. Forming new habits may take a long time.

The teacher assists students throughout their work.

- **5' Step 3- Ideas and thoughts**

The students can share their plans for feedback and discuss potential problems with other students.

Suggested Module Annexes

1. Student Activity: Effective and appropriate communication skills Templates

Template: Communication Rules

Together with the students, set up 10 rules for digital communication. You can use the points from this list as a guide.

To make this list more official, it can also be signed by all students and teachers involved and hung up in the classroom, or uploaded digitally.

For communication to succeed, clear rules of appropriate interaction are needed.

The following rules therefore set standards for our responsible and respectful digital behaviour in the digital classroom. They apply equally to learners and teachers. All of us can expect and demand compliance with these rules from each other.

The rules are formulated for courses. However, they can be transferred to all encounters between students in the digital space.

Rules for digital communication

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Date:

Signatures:

Examples for Orientation:

- Be polite and respectful. Use a polite tone in all forms of communication.
- Express yourself in a way that your communication partner understands. It is your responsibility to ensure that the recipient of your message understands you. Abbreviations are fine if your communication partner knows them or they are common in the shared context.
- Smileys convey emotions, use them! If necessary, use emoticons to emphasise a statement. Although this can only poorly replace a personal conversation, it helps to show the other person your own personal attitude (e.g. agreement, doubt or rejection). Make sure that the smiley used cannot be misinterpreted - for this purpose, a list of approx. 5 smileys can also be set and defined in the class for use.
- Some communication tools are public. What you write to a specific communication partner can be read by everyone. In public communication tools, only say what you would say in real life in a face- to face conversation in front of everyone.
- Be as short and concise as possible.
- Always solve relationship problems in direct conversation. Problems on a personal relationship level are better discussed in a face-to-face conversation than by email or in a chat.
- Avoid communicating anonymously. Always use a user name or signature so that your comments can be traced and the person addressed can respond directly and also come back to you for questions. The lack of anonymity also increases the security of communication, as it reduces unwanted comments and insults.

- Think carefully about whether what you want to say really needs to be said. Ask yourself: Will it be useful to the people you are communicating with?
- Give feedback as soon as you have read something. To have an overview, it is helpful to react as soon as you have read a message. This can also be done with a fixed rating system (stars) or smileys.

Template: Instructions for using Video Conferencing

Clear rules and structures for the use of digital communication tools facilitate their use and prevent misunderstandings and communication problems. Therefore, these instructions can be used in a supportive way. The template is for guidance only and can be supplemented or adapted as required.

Rules of conduct for participants/ students

- You do not have to create a user account in the used tool/ website if you only want to participate in meetings.
- When you join a video meeting, change your display name to your first and last name.
- Please be present five minutes before the digital meeting starts.
- You turn on the camera if this is required in the event and there are no good reasons not to do so. Being able to see each other is essential for the success of seminar discussions on an equal footing. If you do not want to switch on your camera for good reasons, please communicate these reasons to the organiser.
- If you cannot be alone in a room during a meeting, use a headset if possible.
- Under no circumstances will you record audio and/or video of a digital meeting.
- When videoconferencing from home, participants often disclose some of their private circumstances. In any case, respect the privacy of all participants and treat private insights as confidential.
- They do participate in the event from home. But the shared digital classroom is a public space. Therefore, please make sure that your appearance and behaviour comply with the usual school standards.

Rules of conduct for invitators/ teachers

- Send link for participation in time (at the latest the school day before)
- Start the meeting 10 minutes before the start
- Communicate clearly for each of your events:
 - whether audio + video is required.
 - what the rules of the meeting are. (For example, should participants generally mute their microphone? Are only those who have raised their hand electronically allowed to speak? Who moderates? etc.)
 - what the attendance rules are. (For example, do you allow participants to come/go outside of breaks during a meeting?)

- Do not record audio and/or video of a digital meeting without telling so and asking for agreement from all participants. Make transparent how you will use and/ or publish the recording.
- When videoconferencing from home, participants often reveal some of their private circumstances of their lives. In any case, you should respect the privacy of all participants and keep private insights strictly confidential.
- You carefully design your digital communication in accordance with your general professional responsibility as a teacher towards your students.

This includes:

- You respect the digital privacy of students. Your digital communication with the participants in your courses only takes place via accepted channels
- i.e. first and foremost: via email, learning room, Zoom or Skype.
- In your role as a teacher, you do not offer your students any digital contacts that are not clearly and exclusively professional in nature. This applies in particular to the area of social media.

Template: Communication via Email

Clear rules and structures for the use of digital communication tools facilitate their use and prevent misunderstandings and communication problems. Therefore, these instructions can be used in a supportive way. The template is for guidance only and can be supplemented or adapted as required.

- Use a professional email address where people can read your name or company/school directly. This way, readers will know who they are dealing with.
- Make sure you check the inbox of this email address regularly so as not to miss incoming emails.
- Choose the addressees of your e-mails carefully. Do not write mass emails. Almost all emails have exactly one addressee. Think carefully about who should receive a copy (CC) of the email. Most of the time, fewer people are needed than you think.
- Use meaningful subjects and refer to them explicitly in the body of the email. This helps the addressee to understand the subject at a glance. This prevents misunderstandings. Responses to previous e-mails should be recognisable as such from the subject line.
- The subject line is not the actual e-mail. A subject alone is not an e-mail. It should include at least a salutation, the actual text and a greeting.
- Think first, then forward. By forwarding an e-mail, you make its content your own. Think about the content before forwarding an e-mail and check whether you can represent the content in the same way. If necessary, add your own comments to the forwarded email.
- Follow standardised formatting rules. E-mails should always conform in appearance to the general guidelines of written communication and the company standard. If there are formatting rules and guidelines, they must be followed.
- Use a full signature. Always use a full signature. On the one hand, this is required by law and on the other hand, it makes it easier for the recipient to ask questions via another communication channel.

- Do not expect an immediate reply. Many people do not answer emails immediately, but only once or twice a day. If you have an urgent request, choose to talk directly. In some media, such as Yammer, it is not common to receive a reply to a post as a matter of principle. Rather, it is up to the reader whether to reply or not.
- Do not consider email as the only means of communication available. Email is not the right tool for all aspects of communication. That is why we have introduced many other tools (microblogging, weblogs, wikis, podcasts, ...). Use the whole range!

Template: Synchronous and asynchronous communication

The way we communicate is changing. Digital existence is rapidly changing our collective preferences for modern communication media. Email, video conferencing, text messaging and chat enabled much of the world to move work, school and almost everything else online. Digital communication technologies can be divided into two types: synchronous and asynchronous.

What is the difference between synchronous and asynchronous communication?

Synchronous communication	Asynchronous communication
Live, direct without delay	has a delay between sending a message and receiving a response.
a two-way communication where participants can talk to each other in real time.	back-and-forth exchange with a delay between messages or one-way communication that can be received by an audience at their discretion.
Used for: <ul style="list-style-type: none"> - complex content - real time - more suitable for equal knowledge levels - Condense information - Making decisions together - Finding joint solutions - Ensure understanding of the opinions of others 	Used for: <ul style="list-style-type: none"> - simple content - time shifted - more suitable for unequal knowledge levels - Collecting information, facts and ideas - Illuminate problems as comprehensively as possible - Look at different solutions
Advantages: <ul style="list-style-type: none"> - allow small groups of meeting participants to converse and 	Advantages:

<p>collaborate through audio, video and screen sharing technologies</p> <ul style="list-style-type: none"> - provide an ideal solution for interactive online courses where teachers and students can see and talk to each other in real time - break out rooms are possible 	<ul style="list-style-type: none"> - Video on demand provides a more flexible but extremely rich medium for detailed communication - often even more effective than live video communication simply because it can be viewed at any time and from any location, and it can be searched and viewed again later - offers the same opportunities to support communication, collaboration and teaching, both through pre-recorded video and live video streams that include video of the presenter, screen shares and other video sources.
<p>Examples:</p> <ul style="list-style-type: none"> - Virtual meetings via Zoom, WebEx and other telecommunication platforms. - Live online teaching via video conferencing technology - Open discussion groups such as "office hours" - Live events, webinars and communications conducted using video conferencing software - Slack chats, threaded discussions, VOIP and video calls (when parties communicate in real time) 	<p>Examples:</p> <ul style="list-style-type: none"> - Email - Video messages on demand - Pre-recorded video lessons and training videos - Recorded meetings - One-to-many live streaming - Project management solutions such as Trello and Asana - File sharing solutions such as Google Suite, Microsoft 365 and Dropbox - Text messaging - And again, slack (when people reply promptly but not immediately), as well as other workplace chat apps

Template: Why is feedback important in the learning context?

This template can be used to teach students about the importance of feedback and also to get them to take sharing and receiving feedback seriously, thus increasing the quality of the

feedback content. If students know why feedback is given, they can use it better and be more motivated to give individual feedback.

Several studies show that the receipt of feedback is of great relevance for the learning success of students, according to John Hattie (professor of education) it is even the biggest influencing factor. Feedback, i.e. specific feedback on learning processes or results, can be beneficial for students' learning. This is especially the case if it is task-related, improvement-oriented and given promptly. Students are thus motivated and take an active role in the process when they absorb the feedback they receive, interpret it, relate it to their performance and process it with a view to subsequent performance and learning strategies. The exchange of feedback serves to check one's individual learning status, to adjust it if necessary and to develop it further. Individualisation also plays a key role in feedback. The content of feedback should be flexibly adapted to the circumstances and the person. The timing of the use of feedback should also be individualised, so that feedback is effective in a situation-specific way. This also includes time- and location-independent feedback processes, which play a decisive role in a globalised context. Stronger co-determination and higher participation are particularly in demand in contexts with flat hierarchies.

If one dares to look into a possible future, one inevitably ends up with technology-based systems that can make learning and thus also feedback more individual, objective, valid, adaptive, evidence-based, accurate and faster. Computer-based formative feedback systems can not only relieve teachers of the three-step process of recording learning status, checking learning steps and adapting learning goals and measures, but also provide valuable insights.

Opportunities of digital feedback

Digital feedback, like many other digital tools, can make school life easier. One important aspect is time: feedback often falls flat because it is too far removed in time from the performance to which it relates. This is the case, for example, with homework that is handed in early one day, completed in the afternoon, handed in the next day and possibly not received back corrected until another day later. Therefore, it is important not to limit oneself to such time-delayed forms of feedback, but also to practise more timely forms - also in digital teaching. What is the argument against outsourcing pure right-or-wrong feedback to a tool? The argument in favour is that this gives the teacher more time for more important, more demanding things, "quality learning time", so to speak. In addition, individualised feedback is practically impossible in groups of up to 30 students in everyday teaching. Here, one can also resort to digital exchange, for example through feedback via video or email. Another positive aspect of technology-based feedback is the opportunity for objectivity. Inevitably existing biases, i.e. unconscious biases among teachers, can be circumvented in this way. In addition, there is the general advantage of digital technology: it can process much larger amounts of data in a shorter time.

Template: What forms of feedback do exist?

To introduce and get to know different forms of feedback. This enables students to choose a form of feedback that is suitable for them. This is only a selection of feedback forms.

The English term feedback can be translated as a comparison of the actual and target state. This can be work-related as well as personal content. Interpersonal feedback is feedback on behaviour and behavioural perceptions. Work-related feedback, on the other hand, is feedback on working methods and work results.

There are different forms of feedback. We will take a closer look at these in the following.

- **Peer- Feedback**

In online peer feedback, students give each other feedback on their work with the help of electronic tools. As feedback givers, students train their assessment skills, critical thinking and the formulation of appreciative feedback. As feedback takers, they train their critical faculties as well as how to deal with and implement the feedback they receive. At the same time, the participants practise using the tool. Teachers, in turn, scan some of the students' contributions and get an overview of possible gaps in their knowledge. Through peer feedback, they benefit from the reduced correction effort.

Written peer feedback is suitable for all activities in which students produce their own work: Presentations, posters, written assignments, programming tasks, project work, etc.

An example

The students are to work on a project in groups. In the course of the semester, they have to work on three milestones to document the project:

- *the creation of a project outline with the associated work packages*
- *writing a documentation on the procedure and*
- *a final poster presentation on the project.*

The teacher assigns two feedback groups to each group and the students receive a criteria catalogue per milestone for evaluation, from which the requirements are clearly stated.

The criteria catalogue (also called "rubric"), therefore, works both ways: as a benchmark for their own work as well as for feedback to other groups. The groups upload their milestones to the online learning space and receive their feedback there. The three milestones and the quality of the feedback to the other groups are taken into account for the module grade.

Students post their contributions in the stream and peers can comment directly below the contribution.

- **Instant feedback**

Immediate feedback about oneself is something younger generations receive continuously through social media these days and has already become a habit in society. Whether it's a like on Instagram, a retweet on Twitter or a reaction to a Facebook post

to a Facebook post - feedback in real time is already integrated into the daily everyday life for most of society. Since our private experiences and habits are usually

also transferred to our expectations in a professional context, instant feedback is now also to be integrated into the school context.

Instant feedback aims primarily at the further development of the students, is continuously and directly linked to the tasks and projects and is therefore an integral part of the work process.

Tools and instant feedback can include different types of feedback. These can include, for example, pulse surveys, which often have a specific thematic focus and are similar to a staff survey. Feedback tools can also be used for 360° feedback, for example to collect data from employees that can be used to evaluate a manager.

- **Feedback/ Assessment by teachers**

Teachers are used to giving feedback in a face-to-face setting. In the classroom, they can observe their students and notice their gestures and facial expressions. If necessary, they can respond spontaneously to individuals. At least that is the theory. Now, in the pandemic situation, many teachers are wondering how they can transfer feedback methods to the digital space.

The feedback options presented can also be used for assessment and evaluation in class. How this can be done and how to make the procedure transparent for both sides (students and teachers) is described in more detail below.

- **Formative Feedback**

Formative feedback focuses on the task and the learning objective, not on the learners. It explores the learning status at a certain point in time, identifies gaps in knowledge and is suitable for individual support. In contrast, summative assessment describes taking stock of the acquired knowledge and skills, for example through class tests and report cards. This form of feedback is suitable for assessing academic performance.

- **Feedback to teachers**

Another aspect that is worth considering: Feedback has not only one direction, namely from the teacher to the student. Teachers can also get feedback from students by asking questions like "Can you do something with my feedback?" or "Are you now sufficiently clear about what the next steps could be?"

Template: What to do and what to avoid in receiving and giving feedback digital?

The purpose of laying down some feedback rules is to create a framework for the exchange of feedback that can be adhered to. Similar to the communication rules, the students can also be involved here by formulating rules together.

In general, the following aspects can be considered when giving feedback:

- **Selectively:** relate your feedback to a few elements of the product on which the student can work on further.
- **Specific:** indicate exactly which part of the product your feedback refers to.
- **Timely:** If the feedback is to be incorporated into the next stage of editing, give the students enough time to do so.

- Contextualised: relate your feedback to the learning objectives and assessment criteria.
- Balanced: Do not only focus on what needs improvement, but also acknowledge what is also appreciate what has been done well.
- Process-oriented: Make concrete suggestions on what can be improved.

Other aspects that should be taken into account:

- **Avoid anonymity**
In the classroom context, it is important to be careful not to communicate anonymously. The same applies when exchanging feedback. This gives students the opportunity to ask questions if they are unclear and to create a dialogue. It also makes the students who give feedback think more about the content and the way they give it. In this way, feedback can be really helpful and productive.
- **Integrate feedback into the entire learning process**
Make sure that you integrate the incorporation of feedback e.g. in assignments or texts into the overall process. Create as much transparency as possible about the feedback process so that students actively engage with it.
- **Agree common feedback rules**
Uniform feedback rules help to ensure that everyone knows what to look for both in the development of a work content and in the evaluation. Clear rules on verbal, written or evaluative reactions (e.g. by means of star ratings or smileys) are necessary. Here, general feedback rules can be transferred to the digital context (formulate I-messages, give concrete examples, name suggestions for change, etc.).
- **Feedback is not only negative**
In the online context, it is easy for us to focus on the negative and incorporate this into our feedback. But feedback also refers to the positive. So also report back what you liked and what was particularly successful.
- **Use different forms of feedback**
More feedback from different perspectives can also have more impact. Using a combination of peer feedback, instant feedback and individual feedback is more effective. At the same time, it is important that the teacher also receives feedback from the students.
- **Give immediate feedback**
Bear in mind that informal but useful feedback, which is usually given spontaneously in the seminar room or in the exchange between students may be missing in the digital teaching format and should therefore be deliberately replaced. Instant feedback can therefore be used to provide timely feedback and also to exchange informal feedback directly.
- **Content considerations for feedback**

Consider when, on what and in what form students should receive feedback during the semester.

- Feedback at the beginning of the work process: clarification of the task and the assessment criteria are in the foreground, reference to learning objectives becomes clear.

- Feedback during the work process: Feedback on the question, Feedback on the question, structure, fragments and draft versions of the work.

- Feedback on the final product: Appreciation of the entire, individual learning achievement; even if important part, this is an opportunity to give constructive hints for the next learning steps.

- **Timing of feedback**

Feedback given especially early on can have a positive influence on the student's learning process. Feedback at the end of the semester in connection with the graded final product is often received less thoughtfully, as improvement is usually no longer necessary or possible here.

- **Transparency**

Students should know what is important: communicate early on the criteria of your feedback early on. Involve students in the development of the feedback criteria grid, if appropriate.

- **Use of peer-feedback**

- Determine the occasions on which students will give feedback to each other.

- The criteria and basic rules for giving feedback should be clear to the students.

- Determine the formal procedure and the time window(s) for giving feedback.

- Try to keep an eye on whether the feedback tandems are working as planned by asking questions.

- make sure that everyone has a feedback- partner and exchange the feedback

- set a time and space for the feedback

- **Use of group- feedback**

If you find that many students have problems with the same aspects, video conferencing can be used for group feedback.

- **Task of the teacher**

- Select specific key products on which students should receive feedback.

- Consider the aim of your feedback (support early stages of work/assist in the process/assess final product).

- Choose a variation from the above feedback methods.

- Communicate the objective and the framework of the feedback.

- If necessary, make the criteria grid of the feedback transparent.

- Give the students a possibility to ask questions about the feedback they have received.

Template: Tools for feedback

Digital tools also enable some possibilities for the exchange of feedback. Here are some tools presented and also how they can be ideally used for a feedback function in the teaching context.

Due to the constantly advancing digitalisation, the feedback processes in the classroom must also be rethought and adapted. Digital feedback tools are an important component in distance teaching and also in the use of digital resources in the classroom. In plain language, this means a transformation from analogue to digital feedback. As always, when you want to "digitalise" formats, the first question is: What goal do I want to achieve? And the second: How can I do this with the digital means at my disposal? In a third step, you can consider whether you want to tap into further digital tools.

Here are some quite low-threshold digital feedback options:

- **Comments in documents** submitted by students (such as Word documents).
- **Digital office hours** that can be set up for students who want more in-depth, individual feedback.
- **Set up a FAQ:** If teachers find that students have the same questions over and over again or are stuck in the same places, they can consider collecting answers to these questions and putting them in a digital place for all to access. In this way, the learners can monitor their learning progress to a certain extent themselves.

Those who have a learning management system or a collaboration platform such as School Cloud, Microsoft Teams or Moodle at their school have further options, for example:

- **Private messages**, including instant (both from learners to teachers and vice versa).
- **peer feedback**, in that work results can be made visible and editable for all

Certain group methods, which can be implemented both analogue and digitally, are also suitable for peer feedback:

- **Multi-step group work**, where the first group works on a task, then the groups rotate and each continues to work on the previous work results of the first group and so on.
- **Gallery Walks:** Each group works on a result (document, whiteboard, padlet, etc.). Afterwards, all students look at the results of all the other groups and leave their comments, questions and tips.
- **Speed dating:** The learners work on short questions (if necessary, each learner has his/her own question). Then they are "matched" with other students in turn (this works particularly well with video conferencing tools with the break-out sessions function), present the question and result to each other and give each other feedback.

[More Tools](#)

Tool	Form of feedback	Possible applications	Pros	Cons
Moodle	Peer feedback	Within the learning platform moodle, peer feedback can be initiated via the activity Mutual Assessment. It works like this: First, students submit their submissions. Once all submissions have been made, students are assigned work by their peers, which they assess according to predefined criteria. At the same time, they themselves receive feedback on the assessment they have given for a peer's submission.	Good for feedback on the content of the work result and to train social skills of the students	
Sli.do	Instant feedback	Students can give feedback to teachers or other presenters during a presentation or lecture, ask questions or even up-vote.	direct interaction	Can only be used for synchronous events
easyfeedback	Knowledge Review/ assessment	With the help of this tool, not only surveys but also quizzes and forms can be created quickly and easily. For example, the students' knowledge can be tested with an online quiz or parents can be involved in processes with a survey.	Parents can also be involved,	
Kahoot , Quizlet , Mentimeter .	Knowledge Review/ assessment	For pure right-or-wrong feedback, online quizzes are suitable, in which the whole class can also compete against each other.	Quizzes increase the motivation of students	
EduProtocol	Instant feedback	Here, the same tasks or questions are set on several consecutive days, at most slightly adapted if there is clear learning progress in large parts of the group. Correct/wrong feedback as well as mini-learning units, gladly also from other learners who have solved the respective task correctly, are given immediately. If 95 per cent of the group answer all questions correctly, the cycle ends and a new task can be started. According to Matt Miller of Ditch that Textbook, this method can even replace homework and grading.	group work on another level	Only for synchronous events

Literature

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<https://www.wiso.uni-hamburg.de/fachbereich-sozoek/professuren/rastetter/archiv/projektbericht-chancen-und-risiken-von-feedback-tools.pdf>

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2. Student Activity: Persistence and Commitment Template

Learning goal:	
To-do actions and deadlines.	<ol style="list-style-type: none">1. ...2. ... <p>etc.</p>
Things that may distract me from my goal. How can I remove these obstacles?	

How and how often will I review my progress?	

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3. Student Activity: Technical Skills examples of issues

Examples of issues assigned to students:

Change of screen orientation:

As there are keyboard shortcuts to change the monitor orientation (CTRL + ALT + Up Arrow for landscape. CTRL + ALT + Right Arrow for portrait. CTRL + ALT + Down Arrow for reverse-landscape), which may be accidentally pressed, it might be a possible technical issue for a student to resolve.

Official Source: <https://support.microsoft.com/en-us/windows/change-screen-orientation-f7ab1ff8-971d-58a5-b8ee-bc113bbf3acb>

Additional Source: <https://www.freecodecamp.org/news/rotate-screen-in-windows-10-how-to-flip-your-monitor-orientation-90-degrees/#:~:text=Keyboard%20shortcuts%20to%20flip%20your,Down%20Arrow%20for%20reverse%20landscape>

Additional Source: <https://www.hp.com/us-en/shop/tech-takes/how-to-rotate-or-flip-pc-screen>

Wifi troubleshoot:

It may be the case the computer cannot find any wifi networks in a space that we know and that it has a wifi connection. In this case the students should be able to identify that the Wi-Fi card is not properly functioning as it should have recognized the available Wi-Fi connection points.

In this case they will need to run an automatic Wi-Fi connection troubleshoot which is an integrated feature of Windows 8-10-11.

Official Source: <https://support.microsoft.com/en-us/windows/fix-wi-fi-connection-issues-in-windows-9424a1f7-6a3b-65a6-4d78-7f07eee84d2c>

Additional Source: <https://support.microsoft.com/en-us/windows/fix-network-connection-issues-in-windows-166a28c4-14c1-bdb1-473c-09c1571455d8>

Additional Source: https://support.hp.com/us-en/document/ish_1997137-1439082-16

Word not recognizing any word of the text:

Sometimes word does not recognize any word of the written text and underlines everything with the wavy red line indicating a spelling mistake. We may know that we have a spell check for our language and that is not usually the case in our computer.

This is happening because the text is set to be in another language than it actually is.

Official source: <https://support.microsoft.com/en-us/office/troubleshoot-checking-spelling-and-grammar-in-multiple-languages-b887ad70-b15a-43f4-89bb-a41d18026e20#:~:text=To%20select%20the%20Detect%20language,Detect%20language%20automatically%20check%20box>.

Additional source: <https://www.lifewire.com/change-language-in-word-4173101> (editing language section)

4. Student Activity: Motivation and Independence Handout

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Category	List of traits
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<p>Character strengths</p>	<p>Honest and trustworthy Caring, kind, and empathetic Helpful (helping others) Loyal Hard working Resilient Independent Cooperative/Teamworking Attention to detail Love of learning Curious Learn quickly Fair Hopeful/optimistic Leader Giving and listening to feedback Flexible and easy to adapt</p>
<p>Social strengths</p>	<p>Sharing, taking turns, and being able to compromise Putting effort into making friends and keeping them Good listener Accepting differences in others Asking for help when needed Accepting personal responsibility for actions (good and bad) Telling the truth and apologising when needed Having a good sense of humour</p>
<p>Language strengths</p>	<p>Using words to express needs, wants, and ideas Participating in discussions at home, at school, and with friends Changing tone of voice when telling a story or asking a question Good storyteller (telling stories that have a clear beginning, middle, and end) Learning new words Able to answer “who,” “what,” “when,” “where,” “why,” and “how” questions in conversation (or about a story) Understanding jokes, puns, and sarcasm</p>
<p>Literacy strengths</p>	<p>Understanding the structure of sounds (e.g., rhymes)</p>

	<p>Remembering details and retelling stories after reading them</p> <p>Making predictions based on what's happened so far in a story</p> <p>Reading with expression, like the way an actor talks on TV shows</p> <p>Making connections between reading material and personal experiences</p>
Math and logic strengths	<p>Having strong number sense, like knowing which is larger and which is smaller</p> <p>Seeing and understanding patterns in nature and in numbers</p> <p>Remembering math facts (like $5 + 4 = 9$)</p> <p>Able to do mental math ("in your head")</p> <p>Using math concepts in the real world (like doubling a recipe)</p> <p>Understanding math terms used in word problems</p> <p>Problem-solver (solving puzzles or word problems)</p>
Study skills strengths	<p>Understanding and setting goals; able to plan ahead</p> <p>Self-starter</p> <p>Staying focused on tasks</p> <p>Trying different approaches (flexible thinking)</p> <p>Organising thoughts and physical/digital items (e.g., backpack/folders)</p> <p>Following rules and routines well</p> <p>Learning from mistakes and solving problems</p>
Other strengths and talents	<p>Creative/artistic</p> <p>Dancing, acting, singing, or playing a musical instrument</p> <p>Playing sports or games (including video games)</p> <p>Practising yoga, mindfulness, or meditation</p> <p>Taking care of animals and/or younger children</p> <p>Entertaining people by telling jokes or stories</p> <p>Volunteering</p>

References

Lopez, S. J., & Louis, M. C. (2009). The Principles of Strengths-Based Education. *Journal of College and Character*, 10(4). <https://doi.org/10.2202/1940-1639.1041>

Madden, W., Green, S., & Grant, A. M. (2020). A Pilot Study Evaluating Strengths-Based Coaching for Primary School Students. *Coaching Research*, 297–312. <https://doi.org/10.1002/9781119656913.ch16>

5. Student Activity: Motivation and Independence Alternative Activity Template and Handout

TEMPLATE 7.2

Reflection	
Things that help me	
Obstacles and distractions	

TEMPLATE 7.3

Study habits	
What I want to change	e.g., I always grab my phone and cannot concentrate. This way it takes twice the time to finish something.

How to do that	Cue – Habit – Reward If I always grab my phone when studying, then I will leave my phone outside the study space. I will reward myself by finishing my homework by [x] o'clock and going to see my friends.
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HANDOUT 7.4

Strategies for effective study habits	
A good place to study	A quiet place, with minimal distractions from the environment. e.g., a designated corner for studying online at home, a school or public library.
Reduce distractions	<p>Turn off notifications on smart devices. You can use the “don’t disturb mode”. Keep the smartphone or other device on which you are not working (e.g., tablet) out of sight or give it to someone else for a while. For your smartphone you can use focus apps like Forest which block specific apps in the smartphone that may distract you (e.g., Tik Tok, YouTube, etc.).</p> <p>Study with a friend, if you can help each other stay focus or even discuss any issues. You can organise your breaks accordingly to have some fun at specific intervals throughout the study session. A study session can be done also virtually (e.g., with Viber, Messenger or Teams).</p> <p>Use headphones to block outside noise or listen to focus music (e.g., white noises, rain, instrumental music). For the latter, you can find ready-to-use playlists on YouTube or Spotify.</p>
	Breaks are important for your study focus. Make sure that these are planned to be frequent. For example, you can take a short 5’ break every 30 minutes and a larger 10’ break after 1 hour. Use your breaks mindfully; instead of grabbing your

<p>Plan your breaks</p>	<p>phone, do something which will boost your productivity:</p> <ul style="list-style-type: none"> • Stretch (especially your back) and fix your posture • Grab some water or refill your bottle • Have a snack • Take a short walk • Talk to a family member • Listen to your favourite song • Clean/organise your desk • Read a few pages of a literature book • Draw
<p>Set study goals and time for yourself.</p>	<p>You can't do everything at once. Make sure that you have specific goals for the daily study routine. You can plan these goals at the beginning of the week and reform them at the end of each day, based on the new assignments and homework.</p> <p>Make sure that you always find time for yourself every day, whether this is some evening unwind time doing something with your family, friends or alone (e.g., do your hobby, take a walk, study a book, listen to music/podcast, watch a video, dance, watch your favourite vlogger etc.)</p>

3. Document Annexes

4. Theoretical Background

4.1. The essentials of the Instructional Design process

Gustafson and Branch (2007) define Instructional Design as “a systematic process that is employed to develop education and training programs in a consistent and reliable fashion” (p. 11). As made evident from the above definition, Instructional Design is a process, which means that the preparation and delivery of any instruction/training consists of a number of interrelated steps intended to be executed in a specific order. However, sequencing of execution does not necessarily imply implementation of required activities in a strictly linear

manner. On the contrary, completed steps may be revisited in the case that new data (serving as input to the Instructional Design process) have become available.

Interrelatedness of Instructional Design steps suggests that Instructional Design is a chain of activities directly associated with one another. If someone considers oneself being an instructional designer in the middle of an Instructional Design process, then decisions made at preceding steps of the process have direct impact on the step that is currently in progress, which in turn will affect decisions and activities involved in the following Instructional Design steps. Interdependency of Instructional Design steps is core to the process and is characteristic of the systematic nature of Instructional Design.

According to Smith and Ragan (2004, p. 4), Instructional Design is a goal-oriented process, with its aim being to provide a solution to a learning problem. Given the open nature of such problems, there may be more than one proposed solution, yet its effectiveness is regarded in terms of whether it actually succeed in addressing the targeted learning problem. To this end, the effectiveness of an instructional design is evaluated against the degree to which it facilitates alignment of the instructional/training objectives with the designed (and implemented) activities and the employed methods for assessment of the instructional/training objectives.

Steps that need to be executed as part of an Instructional Design process take the form of activities that are appropriately defined by existing Instructional Design models. The number and description of Instructional Design activities may vary according to the adopted model, yet they all fit into a number of specific Instructional Design phases. As Gustafson and Branch (2007, p. 11) point out, these phases can be summarized as follows: Analysis, Design, Development, Implementation and Evaluation. Smith and Ragan (2004, p. 7) suggest the following phases: Analysis, Strategy Development or Evaluation phase. Figure 1 below gives a comparative view of the above-mentioned approaches.



Figure 1: Approaches in the definition of phases of Instructional Design activities

Systematic design of instruction/training, which can be ensured by the adoption of any of the existing Instructional Design models, provides a framework for dealing with a learning problem, facilitates the alignment of instruction/training objectives with instruction/training activities and assessment, assists towards delivery of effective and efficient instruction/training, and facilitates dissemination/diffusion of solutions that have been proposed to specific learning problems (Smith & Ragan, 2004, pp. 8-9).

4.2. Instructional Models

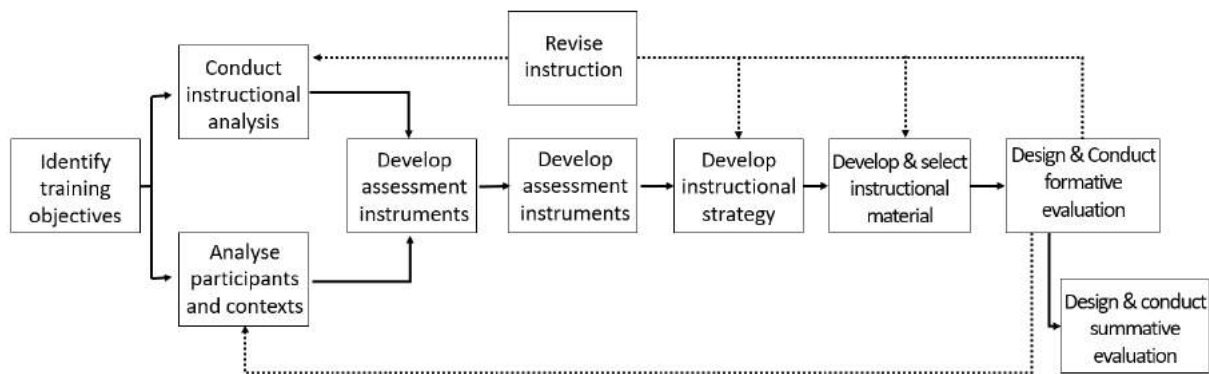
The EUVHS project adopts 2 instructional models for the design of the student training. Both a Systems Approach Model and the ADDIE Model were selected for different reasons. The first one, offers a more systematic and agile approach during the development phase and the second one a more realistic implementation/pilot phase as it does not imply the requirement

of many repetitions, during this phase before it can deliver a complete instructional set of courses.

4.2.1 The Systems Approach Model

The Systems Approach Model has the following phases:

- *Identify Instructional Goals (Training Objectives)*
- *Conduct Instructional Analysis*
- *Analyse Participants (learners) and Contexts*
- *Write Performance Objectives*
- *Develop Assessment Instruments*
- *Develop Instructional Strategy*
- *Develop and Select Instructional Material*
- *Design and Conduct Formative Evaluation of instruction*
- *Revise Instruction*



4.2.1.1 Identifying Training Objectives – Instructional Goal

During this first phase of the model, the goal is to determine what is that, that we want the learners to be able to "do" upon the completion of the instruction. In theory, the instructional goal may derive from a list of goals, from a performance/needs analysis, practical experience with learning difficulties of learners or from other requirements of new instruction.

As the need of developing such a training has not directly derived from the industry sector, the following procedure, described by Mager (1972) has been followed to specify the instructional goal in a case that it is vague, non-specific. A fuzzy goal is considered an abstract statement such as "appreciating", "have an awareness of", "sensing", etc.

The focus of this course is to support high school students become effective online learners. Research shows that students do not necessarily know how to be good online learners. Therefore, they need training and support to be productive and learn online. The partners will also prepare a simple checklist/self-assessment for online learners will be prepared to allow learners reflect on their readiness to take online courses.

Through this course, learners will understand the complexities of online learning, and receive practical hands-on training on how to be an effective online learner.

List of Performance Statements:

Students/participants should be able to:

- understand the complexities of online learning
- understand the importance of team collaboration in online education
- understand the use of various tools
- demonstrate proper online behaviour and be responsible online learner
- be an effective online learner

Instructional Goal:

From the above, the instructional goal is set as follows:

“Students/ participants should be able to understand and acquire the basic knowledge and skills that are required to understand the complexities of online learning, the importance of collaboration in online education, the use of various tools, to demonstrate a proper online behaviour, and be responsible and on-line learners.”

For a goal statement to be complete, there is also a need, even if it is in a preliminary form, to describe the following:

- the learners,
- what the learners will be able to do in the performance concept,
- the performance concepts in which the skills will be applied,
- the tools that will be available to the learners in the performance context.

Answering the following questions, will assist, in completing the goal statement.

Who the learners are?

The training targets secondary education students.

Which is the context in which they will use the skills?

The skills acquired during the training will be used within the school learning process of students.

What tools are available?

The EUVHS project training modules and content.

Now, it is possible to describe a complete goal statement:

“Students/ participants should be able, based on the training modules and content, to understand and acquire the basic knowledge and skills that are required to understand the complexities of online learning, the importance of collaboration in online education, the use of various tools, to demonstrate a proper online behaviour, and be responsible and on-line learners and utilise what was gained to improve their school learning process.”

STATEMENT ELEMENTS	GOAL STATEMENT
Instructional Goal: <i>Students/ participants should be able to understand and acquire the basic knowledge and skills that are required to understand the complexities of online learning, the importance of collaboration in online education, the use of various tools, to demonstrate a proper online behaviour, and be responsible and on-line learners.</i>	<i>Students/ participants should be able, based on the training modules and content, to understand and acquire the basic knowledge and skills that are required to understand the complexities of online learning, the importance of collaboration in online education, the use of various tools, to demonstrate a proper online behaviour, and be responsible and on-line learners and utilise what was gained to improve their school learning process.</i>
Learners: <i>secondary education students</i>	
Use of skills: <i>within their school learning process</i>	
Available tools: <i>The EUVHS project training modules and content</i>	

4.2.1.2 Instructional Analysis – Goal Analysis

An instructional analysis is a set of procedures that, when applied to an instructional goal, results in the identification of the relevant steps for performing a goal and the subordinate skills required by the learner to achieve the goal.

Goal analysis includes two fundamental steps. The first is to classify the goal statement according to the types of learning (learning domains) that will occur and the second is to identify and sequence the major steps required to perform the goal.

The domains of learning used are those described by Gagne (1985):

Verbal information

A verbal information goal is identified by the verb used to express the goal (e.g., if learner is required to "state", "list", "describe", etc.). It is assumed that what is to be "stated", "listed", "described", etc. will be taught in the instruction; therefore, the task for the learner is to store the information in memory during the instruction and remember it.

Intellectual Skills

Intellectual skills are those that require the learner to do some unique cognitive activity – unique in the sense that the learner must be able to solve a problem or perform an activity with previously unencountered information. The three most common types of intellectual skills are forming concepts, applying rules and solving problems.

Psychomotor Skills

The characteristics of a psychomotor skill are that the learner must execute muscular actions, with or without equipment, to achieve specified results. It requires the combination of both mental and physical activity.

Attitudes

Attitudes are usually described as the tendency to make particular choices or decisions. To identify an attitudinal goal, it is important to determine whether the learners will have a choice to make and whether the goal indicates the direction in which the decision is to be influenced. Often, instructional goals focusing on attitudes can be viewed as influencing the learner to choose, under certain circumstances, to perform an intellectual skill or psychomotor skill, or to state certain verbal information

Cognitive Strategies

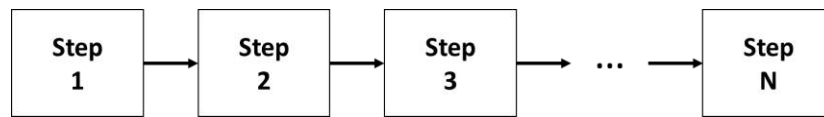
Cognitive strategies are the metaprocess that we use to manage the way that we think about things and ensure our own learning. For the purposes of the instructional design process, cognitive strategies can be treated in a manner similar to an ill-structured problem solving and therefore taught as intellectual skills.

PERFORMANCE STATEMENTS	DOMAIN OF LEARNING
understand the complexities of online learning	Attitude
understand the importance of team collaboration in online education	Attitude
understand the use of various tools	Intellectual skill
demonstrate proper online behaviour and be responsible online learner	Attitude
be an effective online learner	Attitude

Goal Analysis Procedure

The amount of instruction may vary from one goal to another. Therefore, a goal analysis is of importance and the optimal way to proceed is by analysing and describing its goal in a step-by-step way by examining what exactly is a learner be doing when performing the goal.

Goal analysis refers to the visual display of the specific steps a learner would do when performing the instructional goal. Its step is stated in a box as shown in the flow diagram below:

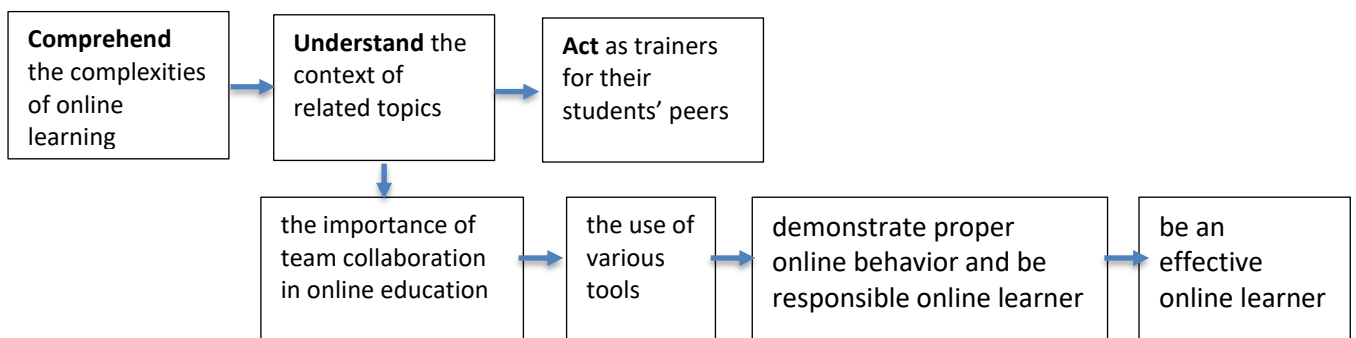


This diagram indicates that if the learner had the tools available as described in the goal statement, then he or she could perform the goal by first doing step 1, then performing step 2... and N. After doing step N the process would be complete, and if done properly, would be considered a demonstration of the performance of the goal. Considering that the training refers to students', with a developed ability to learn, each step can be rich in content. The statement of each step must include a verb that describes an observable behaviour.

Analysis of Sub-steps

Each key step may have a set of steps that need to be examined. This process is analogous to doing a goal analysis for each step just as originally done for the goal itself.

The EUVHS training has the following Goal Analysis



Identifying Subordinate Skills and Entry Behaviours

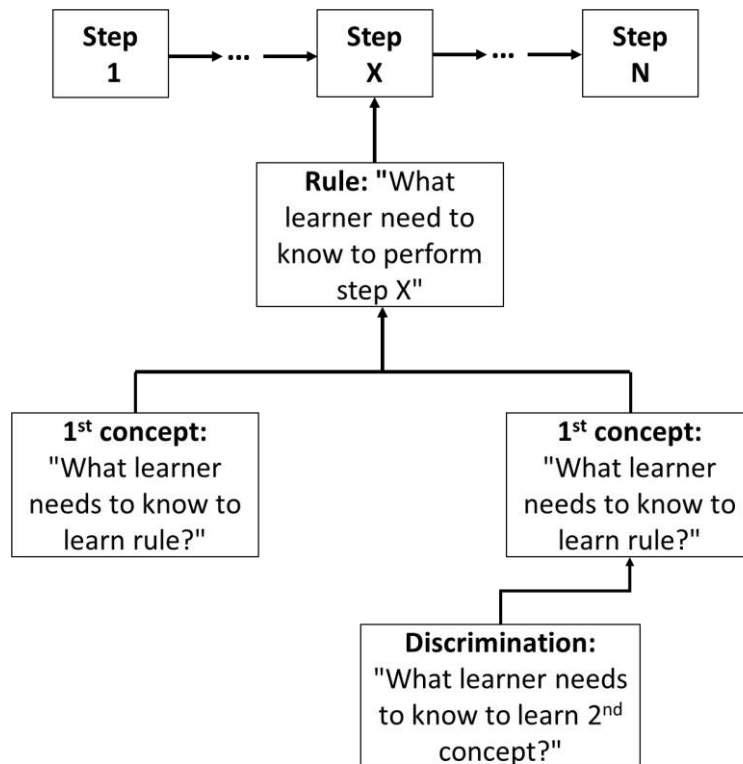
It is necessary to examine each step to determine what learners must know or be able to do before they can learn to perform that step of the goal. This second phase of the instructional analysis process is referred to as Subordinate Skills Analysis.

The type of analysis required for every step is based on the domain of learning that each one corresponds to.

Hierarchical Approach (Intellectual/Psychomotor/Attitude Skills)

Based on Gagne's hierarchy of intellectual skills. Gagne has noted that in order to learn how to perform problem-solving skills, learners must first learn how to apply the rules that are

required to solve the problem. Thus, the immediate sub-skills to the instructional goal are the rules that must be applied in the problem situation.



Cluster Analysis (Verbal Information/ Attitude skills)

As no logical procedure is inherent in the goal it makes no sense to perform a goal analysis. The most meaningful analysis of a verbal goal is to identify the major categories of information that are implied by the goal. After that a consideration is applied on whether these categories can be clustered.

One way to diagram the cluster analysis, is to use a similar graphical approach to the hierarchical approach, with the goal at the top and each major cluster as a subskill.

TYPE OF GOAL OR STEP	TYPE OF SUBORDINATE SKILL ANALYSIS
Intellectual Skill	Hierarchical*
Psychomotor Skill	Hierarchical*
Verbal Information	Cluster
Attitude	Hierarchical* and/or Cluster

* Hierarchical analysis may contain sequences of procedural steps.

4.2.1.3 Analyse Learners and Contexts

It is equally important in this initial set of phases, to determine what learners are to be taught, Context Analysis, and what will the characteristics of the learners be, Learner Analysis. As for the Learner Analysis, there are two ways to advance, the first is to start a time and cost consuming process of gathering big sets of data and analysing them, and the second, applicable only in those circumstances where the training designers know a priori very well the characteristics of the learners' target group, is that they provide this data. In the context of the EUVHS project this seems to be the case as the target group of the training participants is well defined and known to the designers of the course.

Learner Analysis

The target group of the training is a general wider population than the number of people that will be involved as participants, also referred to as tryout learners, during the development process. Nevertheless, we assume that the tryout learners, despite the fact that it is a very specific group of people, are considered to be part of the training participants target group.

Useful information for the learner analysis:

Entry Behaviours

Prior to beginning instruction, the target group must have already mastered certain skills (i.e., entry behaviours) associated with learning the goal.

Prior Knowledge of Topic Area

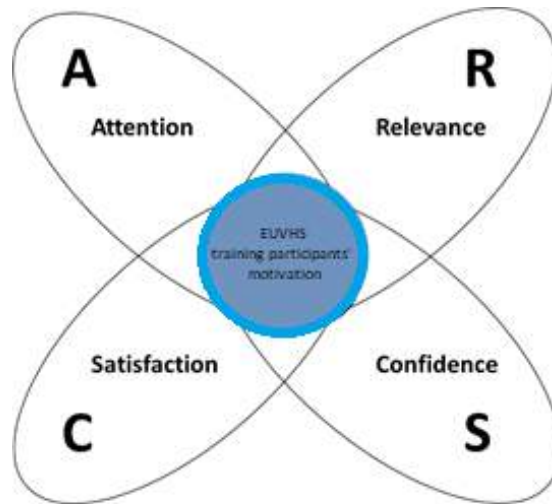
As learners are rarely completely unaware of the subjects to be taught and considering that they might try to interpret what is being said based on prior knowledge or construct new knowledge building on the prior, it is of importance to determine the range and nature of it.

Attitude towards Content and Potential Delivery System

Learners may have impressions or attitudes towards the topic addressed, maybe even on how it may be delivered. This issue will be addressed with the tryout learners, the students and the few teachers that will participate in the first implementation of the training, within the context of the EUVHS project.

Academic Motivation (ARC)

The motivation level of the learners is by many considered, an important factor of the level of success that the learning/training process will have on them. For this reason, Keller (1987) developed the ARCS model (Attention, Relevance, Confidence and Satisfaction).



Keller suggests asking learners or tryout learners the following questions:

- How relevant is this instructional goal to you?
- What aspects of the goal interest you more?
- How confident are you that you will succeed to learn to perform the goal?
- How satisfying would it be to you to learn to perform the goal?

Educational and Ability Levels

Determination of the achievement and general ability levels of the learners.

The participants of the training are secondary education students. This leads to the assumption that they have an adequate level of digital skills already obtained through their school years and the COVID-19 pandemic outbreak and its impact on the widespread implementation of online education.

General Learning Preferences

Short exploration of the learning skills and preferences of the participants as well as their willingness to explore new modes of learning.

The participants of the training are secondary education students. This leads to the assumption that they are familiar with the common teaching approaches that share many similarities with the instructional approaches (seminar-style classes, small-group problem-based learning, independent web-based courses, etc.).

Attitudes toward Training Organisation

The attitude of the learner towards the organisation-s that provide the training, in this case the project partners, is an indirect factor to the effectiveness of the training and the willingness of the learner to implement what was learned.

This was dealt at the early phase of selecting the members of the EUVHS project team to ensure a multidimensional point of view towards the main project topics. It is advised to consider this factor when planning to implement the training.

Group Characteristics

A closer look at the participants will give meaningful insight in the following to aspects:

- heterogeneity within the group on important variables
- an overall impression of the target population based on direct interactions with them

As for the first one, the following facts are a priori known:

- participants are from different countries

This means that they have a different curriculum in their countries thus content that relates to this fact (e.g. curriculum mapping, localised content, etc.) should be avoided during f2f sessions and included in localised sessions (e.g. multiplier events, platform courses, etc.)

- participants are students

This means that the training must adequately provide them with skills and knowledge applicable to all the participating educational contexts of different countries.

- participants are not from the same country

This means that they will not all, know each other, thus the trainers will take into account the time needed to be able to effectively collaborate with a peer the participant meets for the first time and use the appropriate means to minimise this time (e.g. icebreaking activities, participant presentation time, etc.).

As for the second one, and as part of every module, at its start, to have the time and level of interactions needed to form an overall impression on behalf of the trainers in relation to the participants. This process will be followed each time and will provide constant data for the general target group as well.

4.2.2 The ADDIE model

ADDIE is the acronym for Analysis, Design, Development, Implementation and Evaluation. These five phases comprise an instructional Design process. Despite the fact that it may be described as a generic Instructional Design framework adopted by existing models (Gustafson & Branch, 2007, p. 11), there are also cases in which ADDIE is presented as an Instructional Design model itself. Branch (2009, p. 21) provides descriptions of each phase of the ADDIE model along with an indicative list of involved activities. More specifically:

Analysis

Scope: Identification and definition of the learning problem that needs to be addressed.

Involved Activities:

- Definition and validation of the learning problem.
- Definition of the instructional/training objectives.
- Identification of instruction/training participants.

- Identification of the required instruction/training resources.
- Identification of the instruction/training delivery system.
- Development of a project management plan.

Design

Scope: Identification of the desired performance and the appropriate testing method(s).

Involved Activities:

- Definition of a fit-for-purpose sequence of instruction/training tasks.
- Definition of performance objectives.
- Identification of the testing strategy/-ies.
- Calculation of return on investment.

Development

Scope: Development and validation of the required instruction/training resources.

Involved Activities:

- Content development.
- Selection/development of supporting media/tools.
- Development of guidance material for the learner.
- Development of guidance material for the instructor/trainer.
- Implementation of formative revisions of the developed resources.
- Pilot use of developed resources.

Implementation

Scope: Learning environment arrangements and engagement of learners.

Involved Activities:

- Application of methods for engaging the learner.
- Application of methods for engaging the instructor/trainer.

Evaluation

Scope: Assessment of the quality of both the process and outputs of the instruction/training.

Involved Activities:

- Definition of evaluation criteria.
- Selection of evaluation tools.
- Implementation of the evaluation.

The phases of the ADDIE model and their interrelations are illustrated with the help of Figure 2 below. The following diagram shows that: (i) execution of the ADDIE model phases, and relevant Instructional Design activities, is of a cyclical rather than linear nature (despite the fact that many diagrammatic representations depict a linear succession of the ADDIE model's Instructional Design phases), and (ii) engagement in formative assessment as part of each of the ADDIE model's phases may help to avoid bad design decisions and inform the execution of necessary remedial activities.

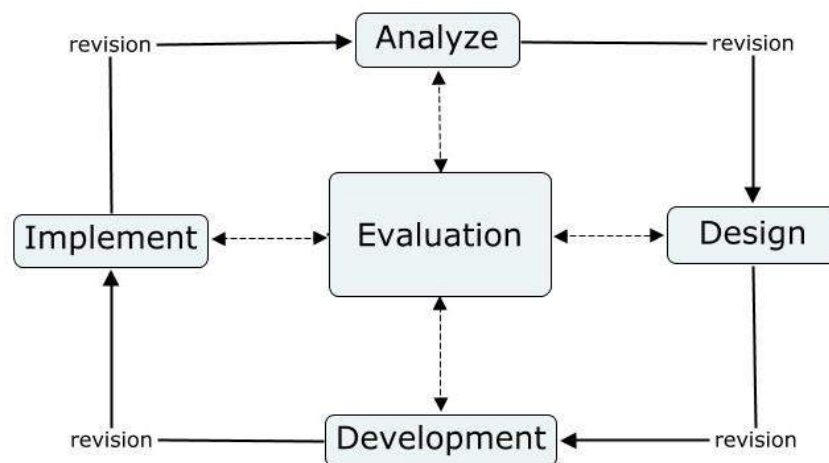


Figure 2: Approaches in the definition of phases of Instructional Design activities

4.2.1 The Analysis phase of the ADDIE model

The adoption of systematic design methods in various (and in some cases, divergent) domains, implies similarities in the scope of, involved in the process, design phases and activities even if the contexts of application significantly differ one from another. For example, the Analysis phase of the ADDIE model, as in the case of the Analysis phase of a systems engineering design model (e.g., the Waterfall model), serves the purpose of investigating users' needs. The difference is that in the context of Instructional Design, the term "users" is used to denote the recipients of the designed (and delivered) instruction/ training (e.g., school/university students, adults, professionals, etc.). However, Instructional Design is a problem-solving process. Consequently, in order to devote resources to the preparation and delivery of instruction/training, a learning problem needs to actually exist. To this end, Analysis is the phase at which the learning problem to be addressed is identified, defined and formulated (see Branch, 2009, p. 21; Smith & Ragan, 2004, pp. 31-32). Formulation of the learning problem involves dealing with a number of issues directly associated with the solution's context of application. Determining all contextual factors (if possible) that may have an influence on the proposed solution is key to the process of Instructional Design since it sets the basis on which the solution will be designed. The Design phase of the Instructional Design process gives as output the blueprints of the learning problem's solution. Existing literature (e.g., Treser, 2015a; Smith & Ragan, 2004, pp. 5-6) highlights a range of issues with which the Analysis phase on an Instructional Design process is concerned.

An indicative (though not exhaustive) list of Analysis-related issues is provided below.

- Identification of the target audience for the instruction/training.
For example: Is there any background knowledge that the audience already have? Do participants have any common characteristics? What is their educational background? What are their interests and aspirations? What are their attitudes/beliefs prior to the implementation of the instruction/training?
- Definition of the instruction/training outcomes
For example: What kind of knowledge and skills will instruction/training participants be able to acquire? Are the intended outcomes measurable?
- Identification of assessment methods
For example: In what ways will the acquisition of knowledge/skills be assessed? When is assessment going to take place? What assessment criteria need to be defined? What kinds

of assessment tools will be needed? What kind of feedback will be provided to instruction/training participants?

- Identification of the instruction/training setting and the required technological infrastructure

For example: What is the setting in which instruction/training will take place? Will it take place in a physical classroom or over a distance? What mode of learning will be employed? What kind of requirements should the instruction/training setting fulfill? Are these requirements met? What kind of physical classroom arrangements should be made? How many participants are there? What kinds of tools and services are needed? What is the required technological equipment? Will the required equipment be provided by the administrator, or will participants use their own equipment?

- Identification of structural characteristics and contextual constraints of the instruction/training

For example: Will the instruction/training be split into more than one module? Why? Will different modules differ in duration and importance? How will the modules be sequenced?

Given the above Analysis of the EUVHS students training focuses on the following dimensions:

- Background of the learners/trainees
- Defining the expected learning/training outcomes.
- The learning/training setting and employed modes of learning/training.
- Assessment of learning/training.
- Other contextual factors that need to be considered.

4.2.1.1 Background of the learners/trainees

Instructional Design is a learner-centred process (Gustafson & Branch, 2007, p. 13). As stated above, Instructional Design is a goal-oriented process whose primary aim is to address a learning problem. Solutions to the learning problem, having the form of fit-for-purpose instructional designs, will be delivered to groups of recipients, i.e., the learners/trainees. The Learner/trainee is a basic contextual dimension. Thus, a key factor that guarantees the effectiveness of a learning design is its alignment with the backgrounds and needs of learners/trainees.

Smith and Ragan (2004, p. 55) provide an extensive list of learner/trainee characteristics as variables that need to be assigned specific values during the Analysis phase. More specifically, a framework for the definition of the learner/trainee profile is provided with defined characteristics being included in one out of four (4) major characteristics categories (namely, **Cognitive Characteristics**, **Physiological Characteristics**, **Affective characteristics** and **Social characteristics**). The proposed framework for learner/trainee characteristics is illustrated in Figure 3 below.

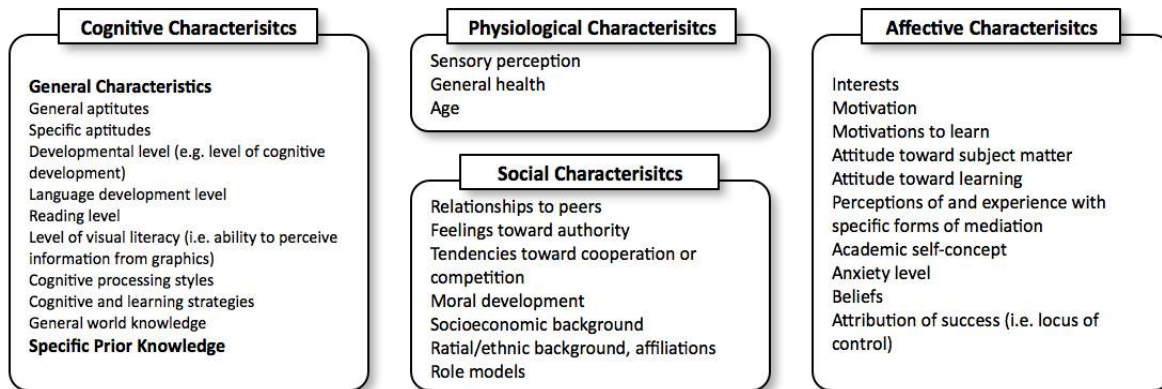


Figure 3: The four dimensions of learner/trainee characteristics proposed by Smith and Ragan. Adapted from Smith and Ragan (2007, p. 55)

Given the wide range of contexts for which an instructional design may be produced and applied, the above framework attempts to cover all possible aspects of learner/trainee characteristics. This means that not all the above dimensions and characteristics are applicable to all instruction/training situations. The EUVHS student training aims to provide training to students from secondary education with respect to on-line and digital learning environments. By taking into account the need to focus on digital learning, analysis of trainees' profiles should be specifically concerned with the investigation and description of their Cognitive and Social characteristics background and level of digital literacy.

Except for the necessary description of workshop participants' IT literacy skills background, there are also other important attribute categories, including specific attributes that need to be analytically described as part of the identification of the training's target audience. These are the following:

- Demographics

Attributes included in this category: age range, gender distribution, and level of education.

- Background knowledge and previous experience

Attributes included in this category: background knowledge, previous experience.

- Expectations

Attributes included in this category: participants' expectations prior to workshop delivery.

- Expected attitudes/behavior after completion of training

Attributes included in this category: attitudes that participants are expected to develop upon completion of the workshop, behavior that participants are expected to exercise after completion of the workshop.

The above categories along with the attributes they include and a number of questions that may be used to define the target audience are presented in Table 3 below.

Background characteristics of EUVHS participants		
attribute category	attributes	questions guiding the description of attribute
DEMOGRAPHICS	age range	What is the age range of the workshop participants?
	gender distribution	Given the above provided participant characteristics, will there be an equal distribution among male and female participants?

	level of received education	What grade?
BACKGROUND KNOWLEDGE AND PREVIOUS EXPERIENCE	background knowledge	Are workshop participants familiar with the problem that is intended to be addressed in the context of the EUVHS student training?
	previous experience	Have workshop participants ever taken part in efforts/initiatives/activities relating to the promotion digital skills for students?
PARTICIPANTS' EXPECTATIONS		What do workshop participants expect to learn from their involvement in the workshop?
EXPECTED ATTITUDES/BEHAVIOR AFTER COMPLETION OF TRAINING		What kind of attitude change is expected to take place after completion of the workshop? What is workshop participants expected behavior?

Table 1: Attribute categories, included attributes and indicative questions used for the purpose of defining the EUVHS workshop's target audience

To sum up, in order to define the EUVHS student training target audience in an appropriate way, we have identified and proposed a number of attribute categories. These categories will help towards acquiring a clear and detailed picture of the training recipients. See Figure 4 below.

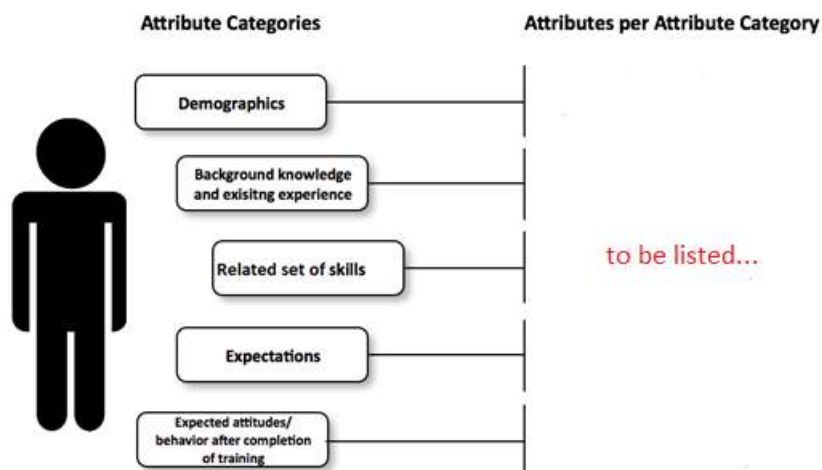


Figure 4: Attribute categories and constituting attributes used to describe workshop participants' profile

4.2.1.2 Defining the expected learning/training outcomes

As mentioned earlier, the Analysis phase of the Instructional Design process serves the purpose of identifying, defining and formulating the learning/training problem that is intended to be addressed. The output of the Analysis phase is a set of specifications that are used as input in the design of the solution for the learning/training problem. Defining the targeted objectives is at core of this specifications' definition, since they offer the guidelines for selection of the appropriate instruction/training model. In the context of the EUVHS student training, the objectives we want to achieve are described as learning outcomes, based on the instructions provided by the European Commission (2011) through the European Qualifications Framework (EQF).

Learning outcomes are defined as statements of "what a learner is expected to know, understand, or be able to do at the end of a learning process" (European Commission, 2011, p. 12). Despite the fact that describing the expected outputs of a learning process with the

help of learning outcomes may be applicable to a range of learning situations, writing learning outcomes can also be complex given the learning context and level of detail that is required. Writing learning outcomes that are fit-for-purpose can be used as a rule of thumb.

In general terms, learning objectives can be written as learning outcomes. According to the EQF, the difference in writing expected outputs of a learning situation in the form of learning outcomes rather than in the form of learning objectives has to do with the fact that “learning outcomes are expressed in a way that as the name suggests, is a manifestation of learning, whereas learning objectives are written as a guide to the teaching programme that might, or might not, lead to the desired learning” (European Commission, 2011, p. 14). A number of key characteristics of learning outcomes that were taken into account when are listed below. More specifically, learning outcomes:

- should be clearly identifiable and measurable,
- must be achievable within the training environment and feasible for students, and
- must be directly associated with an observable behavior.

In addition to the above, the EQF also proposes a number of different contexts in which learning outcomes may be defined. These contexts are:

- **Educational contexts**

Learning outcomes are expressed in curricula, modules, course descriptions, educational standards, qualifications and assessment standards.

- **Work contexts**

Learning outcomes are embedded in occupational standards and profiles, job profiles, job advertisements, performance measurement/appraisal systems, and recruiting systems.

- **Guidance contexts**

Information about learning outcomes is present in educational guidance systems and occupational and job information.

- **Personal contexts**

People communicate about learning outcomes through curriculum vitae or personal competence profiles.

From the above defined contexts of learning outcomes application, the “educational context” best suits the purposes of the EUVHS student training. In this context, definition of learning outcomes follows the rule described below (European Commission, 2011, p. 22):

- **Step #1:** The definition of the learning outcome begins with the phrase “the learner is (or will be) able to...”.
- **Step #2:** The above phrase is followed by an action verb indicating what learners/trainees have learned and consequently, what they are able to do (i.e., the learning outcome describes a demonstrable behavior), and
- **Step #3:** The verb is followed by statements showing on what or with what the learner is acting, and the nature or context of the performance required as evidence that the learning has actually been achieved. These additional words also indicate the level of learning achieved.

To further elaborate on the scope of using learning outcomes as a guide for writing training objectives of the EUVHS student training, and consequently demonstrating its expected outputs, we draw upon the revised Bloom’s taxonomy as a standard framework for defining learning/training objectives and thus, the workshop’s learning outcomes. According to revised Bloom’s taxonomy, learning outcomes are defined across two dimensions, namely: (i) the knowledge dimension, and (ii) the cognitive process dimension. There are four (4) different types of knowledge identified in the context of the knowledge dimension (factual

knowledge, conceptual knowledge, procedural knowledge, and metacognitive knowledge), whereas the cognitive process dimension shows how learner achievements may escalate across a number of hierarchically arranged levels namely, Remember, Understand, Apply, Analyze, Evaluate, and Create (Anderson et al., 2001, pp. 27-30). Literature provides us with extensive lists of action verbs associated with each of the different levels of cognitive processes that can be used in learning objectives (and learning outcomes) definition. The two dimensions and the way in which the four types of knowledge intersect with each of the six levels of cognitive processes are illustrated in Figure 5 below.

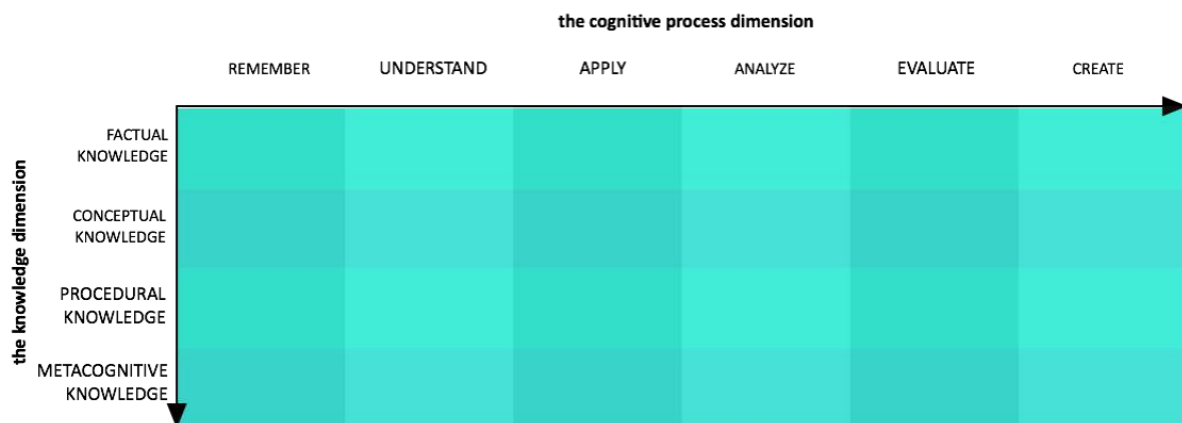


Figure 5: The revised Bloom taxonomy’s two-dimensional model for defining learning objectives (adapted from Anderson et al., 2001, p. 28)

Table 4 below provides the definitions of each of the four types of knowledge identified in the revised Bloom’s taxonomy along with a characteristic example of knowledge that falls within each category.

Types of knowledge identified in revised Bloom’s taxonomy		
knowledge type	definition	knowledge type example
FACTUAL KNOWLEDGE	The basic elements learners must know in order to become familiar with a discipline/domain and/or become able to solve problems in this discipline/domain.	<ul style="list-style-type: none"> • Knowledge of terminology. • Knowledge of specific details and elements.
CONCEPTUAL KNOWLEDGE	Knowledge of the interrelationships among basic elements that belong to a larger structure and enable them to function together.	<ul style="list-style-type: none"> • Knowledge of classifications and categories. • Knowledge of principles and generalizations. • Knowledge of theories, models, and structures.
PROCEDURAL KNOWLEDGE	Knowledge of ways to do something (i.e. knowledge of procedures), methods of inquiry, and criteria for using skills, algorithms, techniques, and methods.	<ul style="list-style-type: none"> • Knowledge of subject-specific skills and algorithms. • Knowledge of subject-specific techniques, methods. • Knowledge of criteria for determining when to use appropriate procedures.
METACOGNITIVE KNOWLEDGE	Knowledge of cognition in general, as well as awareness and knowledge of one’s own cognition.	<ul style="list-style-type: none"> • Strategic knowledge and self-knowledge. • Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge.

Table 4: Types of knowledge identified within revised Bloom’s taxonomy, their definitions and indicative examples (adapted from Anderson et al., 2001, p. 29)

Table 5 that follows provides the definitions of each of the six cognitive processes levels of the revised Bloom taxonomy along with an indicative list of action verbs aimed to be used for defining the learner behavior that is expected to be observed so as to confirm mastery of the respective cognitive process.

Cognitive processes levels		
level	definition	indicative list of action verbs
REMEMBER	Retrieve relevant knowledge from long-term memory.	Recognize, identify, recall, retrieve
UNDERSTAND	Construct meaning from instructional messages, including oral, written, and graphic communication.	Interpret, clarify, paraphrase, represent, translate, exemplify, illustrate, instantiate, classify, categorize, subsume, summarize, abstract, generalize, infer, conclude, extrapolate, interpolate, predict, compare, contrast, map, match, explain, construct models
APPLY	Carry out or use a procedure in a given situation.	Execute, carry out, implement, use
ANALYZE	Break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose.	Differentiate, discriminate, distinguish, focus, select, organize, find coherence, integrate, outline, parse, structure, attribute, deconstruct
EVALUATE	Make judgements based on criteria and standards.	Check, coordinate, detect, monitor, test, critique, judge
CREATE	Put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure.	Generate, hypothesize, plan, design, produce, construct

Table 5: Cognitive processes levels identified within the revised Bloom taxonomy, their definitions and examples of action verbs (adapted from Anderson et al., 2001)

Combining the EQF's guidelines for defining learning outcomes for the appropriate learning context with the revised Bloom taxonomy's two-dimensional model that allows for the definition of objectives arranged in hierarchical cognitive processes levels, allows for the definition of outputs that may require different cognitive effort but, at the same time, can be clearly demonstrated and measured.

4.2.1.3 The learning/training setting and employed modes of instruction/training

Based on the learning problem that is intended to be addressed and the analysis regarding expected learning outcomes, as well as backgrounds and profiles of learners/trainees, there are a number of decisions that need to be made about the mode of learning that is to be employed. Modes of learning that can be considered as part of the Analysis phase of the instructional Design process are:

- **Face-to-face instruction/training:** According to the information displayed on the website of the Purdue University (https://www.lib.purdue.edu/uc/ForInstructors/face_to_face.html), face-to-face instruction (training) takes place “when the instructor and the students ... are in a place devoted to instruction and the teaching and learning take place at the same time.”
- **Online (or web-based) instruction/training:** In order to define online (or web-based) instruction, we adopt the definition of the term “online learning” provided by Ally (2008). More specifically, Ally defines online learning as “the use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience” (p. 17). Depending on whether instruction/training interactions occur at the same time or not, we make a distinction between synchronous and asynchronous online instruction.
- **Blended (or hybrid) instruction/training:** Blended instruction/training lies at the intersection of face-to-face with online instruction/training. Watson (2008) defines blended instruction as the combination of online instruction with face-to-face instruction.

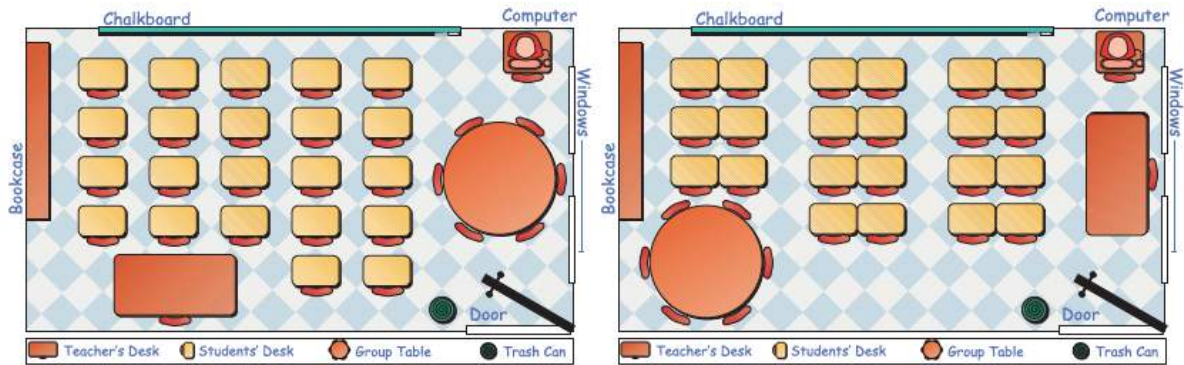


Figure 6: Physical space arrangements appropriate for independent work and lecture-based instruction/training (Evertson & Poole, 2002)

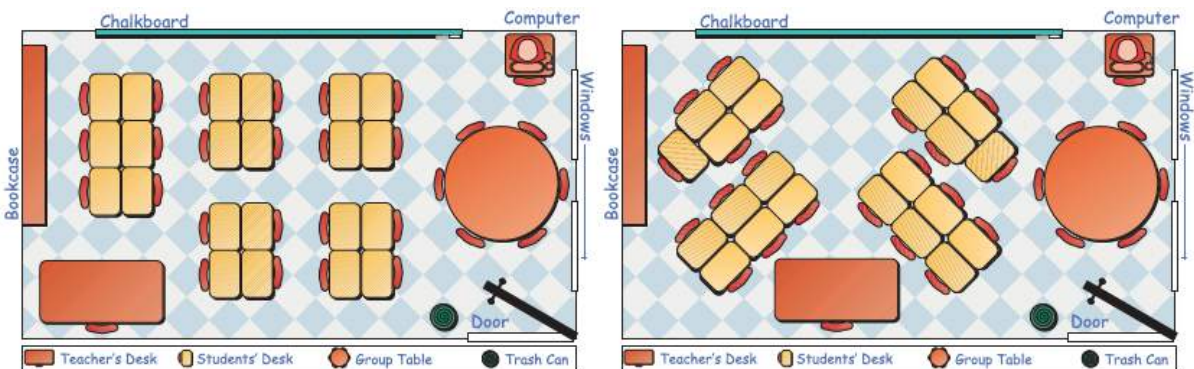


Figure 7: Physical space arrangements appropriate for work in small groups (Evertson & Poole, 2002)

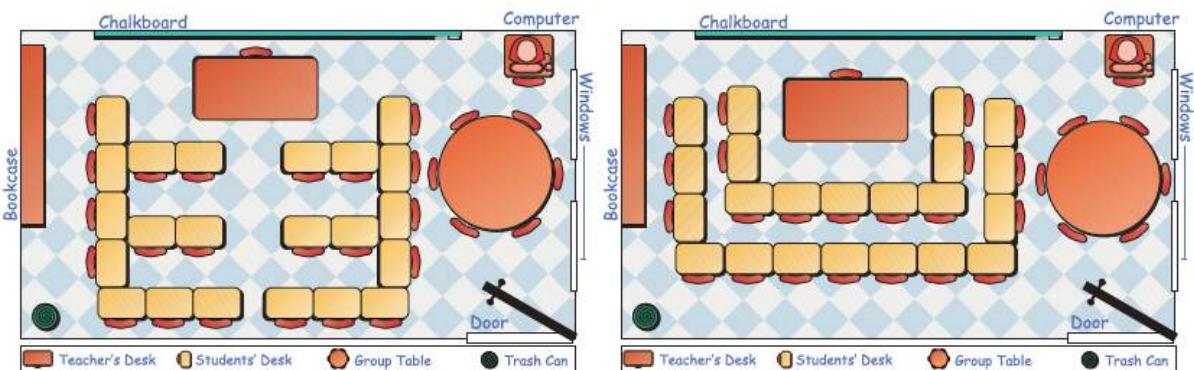


Figure 8: Physical space arrangements appropriate for presentations/demonstrations/discussions (Evertson & Poole, 2002)

In the case of face-to-face instruction/training, specific emphasis needs to be given to physical space arrangements. Evertson and Poole (2002) provide an overview of possible arrangements for the space in which teaching and learning may take place. Although proposed arrangements target at classroom contexts, they may well fit configuration needs for physical spaces aimed to be used for face-to-face training. Proposed physical space arrangements are suitable for:

- independent work and lecture-based instruction/training (see Figure 6 above),
- work aimed to be conducted in small learner groups (see Figure 7 above), and
- presentations/demonstrations/discussion (see Figure 8 above).

In the case of delivering online instruction/training, there are also a number of issues that should be taken into careful consideration and relate to the technological infrastructure required for facilitating instructional/training activities. Decisions depend on the answers that will be given, in the phase of Analysis, to a number of relevant questions, such as:

- What kind of interactions should the available technological infrastructure be able to support?
- What type of instructional/training content needs to be provided to learners/trainees? How will learners/trainees be able to access instructional/learning content?
- Which virtual learning environments (VLEs) exist? What are their features? Are they open source or is there a fee for using it? Is the VLE to be adopted easily configurable?
- Will learners/trainees be able to access instructional/training content and interact via any kind of digital device (e.g. personal computer, tablet, smartphone)?
- Are there any specific internet connection requirements?

All the above offer a basis for design decisions fitting the purpose of face-to-face, online or blended instruction/training. However, a deeper understanding of technology requirements will be achieved during the Design phase of the Instructional Design process, when the designed instruction/training activities will lead to the identification of technological infrastructure needs at a finer level of detail.

In the context of the EUVHS student training, a blended training approach is adopted. More specifically, the workshop consists of six modules.

As far as physical space arrangements for the face-to-face training modules are concerned, both the above presented group work and presentations/demonstrations/ discussion configurations (see Figures 6 and 7 above) are going to be used.

4.2.1.4 Assessment of learning/training

Assessment is as a systematic process of drawing inferences either about the effectiveness of formal learning and educational processes or individual learners' progress toward attainment of established learning objectives. Therefore, assessment needs to be an integral part of every instruction/training course. As Newton (2007) points out, determining the reasons for which assessment is going to take place (i.e., the purpose of assessment) helps toward making decisions about: (i) the types of required evidence, and (ii) the assessment methods/techniques to be employed. Stiggins, Arter, Chappuis, & Chappuis (2004, p. 33), identify the following two assessment purposes:

- **Assessment for learning** (formative assessment):

It aims to: (i) provide learners with insights to improve their achievement, (ii) help teachers and instructors diagnose learners' needs and respond to them, and (iii) help parents monitor their children's progress and support their learning.

- **Assessment of learning** (summative assessment):

Relates to: (i) grading, (ii) certifying learners' competences, and (iii) promotion and graduation decisions.

Along the same line, Newton (2007) also provides an extensive list of potential assessment purposes. The proposed purposes are: social evaluation issues, formative uses, self-monitoring uses, transfer uses, placement uses, diagnosis uses, guidance uses, qualification uses, selection uses, licensing uses, school choice uses, institution-monitoring uses, resource allocation uses, organizational intervention uses, programme evaluation uses, system monitoring uses, comparability uses, national accounting uses.

The need for different kinds of assessment-based evidence and the range of its potential uses, call for different types of assessment. The type of assessment is closely linked to the purpose

of assessment and in this context, Conole and Fill (2005) list the following major types of assessment: (i) diagnostic assessment, (ii) formative assessment, (iii) summative assessment, and (iv) no assessment. In addition to the above-mentioned assessment types, Crisp (2007, p. 24) provides also definitions of criterion-referenced assessment, norm-referenced assessment, and ipsative assessment. More specifically:

- **Criterion-referenced assessment** refers to the comparison of a learner’s performance against a set of established criteria.
- **Norm-referenced assessment** relates to the comparison of a learner’s performance against another learners’ performance.
- **Ipsative assessment** is the comparison of a learner’s own performance over time and as part of different assessment tasks.

The wide range of instruction/training contexts along with the various learning needs that may exist, make imperative the need for fit-for-purpose assessment methods capable of providing stakeholders with the necessary evidence (Stiggins, Arter, Chappuis, & Chappuis, 2004, p. 89). Specifically, assessment methods are generic strategies for gathering assessment evidence, whose application can take place through the use of specific assessment techniques. Based on the range of assessment methods and definitions that are proposed in existing literature (e.g., Butler & McMunn, 2006, pp. 45-52; Crisp, 2007, pp. 26-27; Stiggins, Arter, Chappuis, & Chappuis, 2004, pp. 90-93), we conclude that the following methods of assessment should be used:

- **Selected-response assessment:** Assessment based on the choice of either a correct or best-fitting response to an assigned question/task.
- **Constructed-response assessment:** Assessment based on providing responses to a question/task by using own ideas and expressions.
- **Personal communication:** Assessment based on interactions with the learner (either face-to-face or technology-mediated).
- **Products assessment:** Assessment based on the measurement of the quality (based on compliance with established standards) of a learner-developed product.
- **Performances assessment:** Assessment based on the quality of learner-driven performance.

As far as assessment techniques are concerned, they can be considered as specific manifestations of the more abstract assessment methods in practice. As Butler & McMunn (2006, p. 51) specifically point out, assessment techniques constitute “specific ways” of evidence gathering during a process of assessment. Based on the range of assessment techniques and definitions proposed in literature (e.g., Butler & McMunn, 2006, pp. 45-76; Conole & Fill, 2005; Crisp, 2007, pp. 42-43), we conclude that the following list of assessment techniques be used:

- | | | |
|-----------------------|--|--------------------------------------|
| • Drill-and-practice | • Artifact | • Peer-review |
| • Essay | • Web design/publication | • E-mail |
| • Test/exam | • Wiki | • Bulletin boards |
| • Exercise | • {Individual/collaborative} assignment (e.g. project) | • Hotspot/macromedia flash |
| • Dissertation/thesis | • Self-assessment | • Online discussion/discussion board |
| • Portfolio | | |

- Panel discussion
- Ordering/matching/sequencing
- Ranking
- Notes
- Summary
- Role-play
- Simulation/game
- Presentation/demonstration
- MCQs including:
–Likert-scale, matrix or composite multiple choice, true/false, pull down list
- Journal/log
- Field reports
- Article review
- Laboratory experiment
- Independent study
- Graphs/matrices
- Graphic organizers (e.g., flowcharts, Venn diagrams, concept maps)
- Short answers including:
–Cloze exercise
–Text match/short answer
–Type a number
- Debate
- Questioning
- Research paper
- Research activity
- Problem-solving
- Performance (e.g. theatrical plays, musical recitals, dance activity)
- Artwork
- Writings (poems, stories)
- Teacher/student dialogue

In order to develop a deeper understanding on how specific assessment methods may be made more explicit through the application of the appropriate assessment techniques, Table 6 below attempts to associate assessment methods with specific assessment techniques.

assessment method	Associated Assessment Techniques
SELECTED-RESPONSE ASSESSMENT	Drill-and-practice, test/exam, exercise, ordering/matching/ sequencing, ranking, MCQs (including: Likert-scale, matrix or composite multiple choice, true/false, pull-down list), hotspot/macromedia flash
CONSTRUCTED-RESPONSE ASSESSMENT	Drill-and-practice, essay, test/exam, exercise, short answers (including: cloze exercises, text match/short answer, type a number)
PRODUCTS ASSESSMENT	Essay, dissertation/thesis, portfolio, artifact, web design/publication, wiki, {individual/collaborative} assignment (e.g., project), self-assessment, peer-review, notes, summary, presentation/demonstration, journal/log, field reports, article review, independent study, graphs/matrices, graphic organizers (including: flowcharts, Venn diagrams, webs, concept maps), research paper, problem-solving, artwork, writings (poems, stories)
PERFORMANCES ASSESSMENT	Portfolio, artifact, web design/publication, wiki, (individual/collaborative) assignment (e.g. project), role-play, simulation/game, presentation/ demonstration, laboratory experiment, independent study, research activity, problem-solving, performance (including: theatrical plays, musical recitals, dance activity)
PERSONAL COMMUNICATION	E-mail, bulletin boards, online discussion/discussion board, panel discussion, debate, questioning, teacher/student dialogue

Table 6: Association of assessment methods with specific assessment techniques

In the context of the required instructional design for the EUVHS student training, there will be a focus on the type, method and technique of assessing each training objective. Apart from the need for defined training objectives and assessment method/techniques, decisions will also be based on other contextual factors that may have a significant effect on the Instructional Design process. These factors are presented in the next subsection.

4.2.1.5 Other contextual factors that are needed to be considered

Duration of instruction/training, as well as the time of the day at which it will be delivered, are factors of high importance. For instance, in the case of training, the aim is to assist participants in acquiring and developing knowledge and skills that are to be applied in specific context (secondary education). Given other participants obligations and potential existence

of rigid time schedules, training designers need to ensure that they will design a training course of the right duration in order to facilitate the achievement of training objectives. On the other hand, duration of training is highly associated with the time of day in which the training course is going to take place. For example, will the designed course take place during the morning or after working hours?

4.2.1.6 The Design phase of the ADDIE model

The Design phase of the Instructional Design process involves the actual design of the solution to the learning problem that is intended to be addressed. The proposed solution needs to be created in full compliance with the specifications that have been produced as the output of the preceding phase of Analysis. In this context, Treser (2005b) lists a number of activities that need to be executed as part of the Design phase. More specifically, in this phase, instructional designers need to reach decisions with respect to the instructional/training strategy that best fits the instruction's/training's general aim and objectives, as well as all contextual factors that may affect the learning/training outcomes. At a finer level of detail, specific choices need to be made regarding:

- access to and presentation of material of instruction/training,
- introductory activities that will enable learners/trainees to get a grasp of the scope and objectives of instruction/training,
- activities offering learners/trainees the potential to have practice on the knowledge and skills that the instruction/training targets,
- assessment activities (including decisions on assessment methods and techniques),
- opportunities for discussion with the learners/trainees and reflection on the instruction/training.

4.2.2 The essentials of the Instructional Design process

The Design phase of the Instructional Design process involves the actual design of the solution to the learning problem that is intended to be addressed. The proposed solution needs to be created in full compliance with the specifications that have been produced as the output of the preceding phase of Analysis. In this context, Treser (2005b) lists a number of activities that need to be executed as part of the Design phase. More specifically, in this phase, instructional designers need to reach decisions with respect to the instructional/training strategy that best fits the instruction's/training's general aim and objectives, as well as all contextual factors that may affect the learning/training outcomes. At a finer level of detail, specific choices need to be made regarding:

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- assessment activities (including decisions on assessment methods and techniques),
- opportunities for discussion with the learners/trainees and reflection on the instruction/training.

4.2.2.1 Selecting the appropriate instructional/training strategy

Selection of the appropriate instructional/training strategy is core to the phase of Design. Existing approaches (usually termed as models of teaching/instruction/training) are clustered into categories depending on the theories of learning on which they are based. Instructional/training strategies provide instructors/trainers with guidelines on how to support learners/trainees to achieve specific learning outcomes. Provided guidelines take the form of generic activities description, grouped into a number of phases and sequenced in a well-defined order.

The instructional/training model that best fits the purpose of the EUVHS student training is the Workshop model. According to Tovani (2011), the Workshop model consists of four (4) activity phases, namely the Opening phase, the Mini-lesson phase, the Independent work time phase, and finally the Debriefing phase. Next, a brief description of the activities involved in each of the above categories takes place. A depiction of the model's phases and their sequence is provided in Figure 9 below.

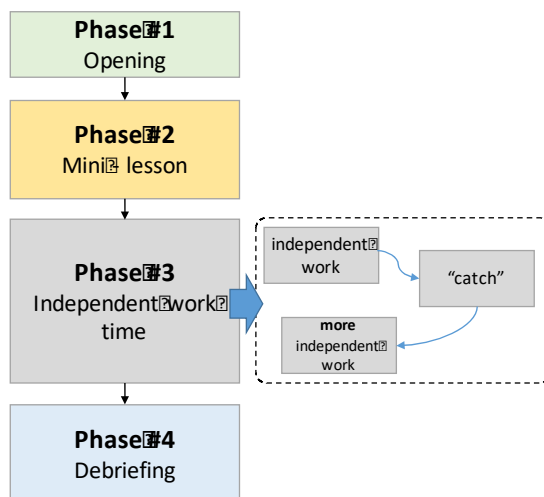


Figure 1: Overview of the Workshop model (adapted from Tovani, 2011)

The Opening phase of the Workshop model is concerned with the:

- orientation of learners/trainees,
- presentation of learning/training objectives, and
- formulation of rationale for the learning/training session/module.

In the Mini-lesson” phase:

- the instructor/trainer provides direct and explicit instruction by:
 - presenting a key concept /demonstrating implementation of a strategy.
 - directing learners/trainees in a hands-on activity.

- The instructor/trainer makes clear the expected learning/training outcomes.

In the Independent work time phase:

- Learners/trainees engage in independent work, in the context of small groups, on the task that has been presented by the instructor/trainer.
- A quick “time-out” from independent work takes place with the aim of re-alignment with intended objectives and outcomes.
- Learners/trainees re-engage in independent work.

Finally, in the Debriefing phase:

- Groups of learners/trainees present the results of their independent work.
- Learning/training objectives are revisited and their degree of achievement is checked.

- The instructor/trainer answers questions. Whole-group discussion takes place.
- A summary of the intended learning/training takes place.

4.2.2.2 Describing the instruction/training activities

Presentation of training activities takes place as part of two steps. First, the title, its codification, and a brief description with the help of a short text are provided. More than that, more detailed accounts of the training activities are intended to be provided through the use of the learning activity dimensions proposed by the DialogPLUS taxonomy. According to Conole and Fill (2005), the DialogPLUS taxonomy offers teachers, educators, instructors and instructional designers a toolkit for the implementation of their designs. At the core of the taxonomy lies the learning activity, which, according to Conole and Fill (2005), consists of the following elements:

- Context (within which the activity occurs): It includes the subject, level of difficulty, the intended learning outcomes and the environment within which the activity takes place.
- Learning and teaching approaches that are adopted, including the theories and models.
- Tasks (undertaken): They are specified by their type, techniques employed, associated tools and resources, the interaction and roles of those involved and the assessments associated with the learning activity.

Description of the EUVHS student training activities is based on the dimensions for describing/specifying the task element of the learning activity. A description of learning activity dimensions (according to the dialogPLUS taxonomy) and their values.

4.2.3 The Development phase of the ADDIE model

In this subsection, the Development phase of the ADDIE model is presented in detail. Thorough accounts of the main issues, which lie at the core of this phase, are provided.

4.2.4 The Implementation phase of the ADDIE model

In this subsection, the Implementation phase of the ADDIE model is presented in detail. Thorough accounts of the main issues, which lie at the core of this phase, are provided.

4.2.5 The Evaluation phase of the ADDIE model

In this subsection, the Evaluation phase of the ADDIE model is presented in detail. Thorough accounts of the main issues, which lie at the core of this phase, are provided.

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