

# EMPOWERING TEACHERS WITH A GROWTH MINDSET APPROACH

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## DIGITAL CONTENT

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Growth Mindset in Educational Triangles (growMET) is a project funded by the European Union through the Erasmus+ programme involving 8 partners from 5 European countries (Germany, Italy, Romania, Spain, and Slovenia). It aims to empower teachers when dealing with changes and teaching challenges. It shows how to learn from mistakes, provide constructive feedback, develop more efficient beliefs and open mind for new experiences and skills. Through growth mindset principles we target one of the most pressing issues in the educational landscape across Europe: transition of teaching and learning from the traditional face-to-face setting into the modern digital realm.

The project has five goals:

- improving teachers' self-efficacy regarding their digital skills,
- better usage of digital tools by students through growth mindset methods,
- improving the acceptance of digital tools among parents,
- broaden the support for a growth mindset at schools,
- developing a practical growth mindset model for digital teaching.



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## INTRODUCTION

Dear reader, welcome to the growMET training!

The training is designed in a blended learning format, more specifically in a flipped-classroom approach.

What is a **flipped-classroom** approach?

It is a method of teaching that integrates digital media with traditional “classroom” activities. Learners are introduced to the learning material before the live lesson (in our case, the in-live training). The content is then deepened in person through a variety of activities.

So, here's the digital part - the content you'll process before in-live training sessions.

The digital content consists of four modules. Each module must be processed before the next day of live training. To start with, your task is to work through Module 1 before the first meeting.

Of course, this material is not just a monotonous reading. It consists of various videos, assignments, articles, reflections, etc.

When learning, pay particular attention to the following icons:



This sign represents reflection. It means that your task is to take a few moments to consider the questions written next to the icon and think about them more deeply.



This sign represents a task. It means that you probably have something to complete or do yourself. You will usually need a pen and paper.



This sign represents the integration of digital content with live training. It is very important and is placed at the **end of each chapter**. When you see this icon, it means you need to do something and take it with you to training.



This sign represents additional content. This means that the content following this sign is not required reading but is intended for those who want to learn more. Please note that the headings for additional content are in orange. If the headings are again continued in blue, this means that this content is again "mandatory".

# MODULE 1:

## Learning about ourselves and our mindset concerning digital education



Estimated processing time: 8 pedagogical hrs



# 1 | STUDENT'S COMPETENCIES FOR 21st CENTURY AND FUTURE OF DIGITAL TEACHING

To process this chapter effectively, you will need the following material:

- at least two sheets of paper
- a pen
- internet access + speakers/headphones

## 1.1 21<sup>st</sup> CENTURY SKILLS

The rapid shift towards a climate-neutral Europe and digital transformation is changing the way we work, learn, take part in society, and lead our everyday lives. Europe can only grasp these opportunities if its people develop the right skills. It is estimated, that  $\frac{2}{3}$  of our children will work in jobs that do not exist today.

Watch this interesting video about the competencies needed in the 21st century:  
[https://www.youtube.com/watch?v=ixRBjEW\\_sFs](https://www.youtube.com/watch?v=ixRBjEW_sFs)

## 21st Century Skills

How today's students can stay competitive in a changing job market

### Learning Skills



critical thinking



creativity



collaboration



communication

### Literacy Skills



information



media



technology

### Life Skills



flexibility



leadership



initiative



productivity



social skills



Think about your teaching. Which three competences do you already encourage in your students? How do you do this? Which three competences do you think you need to work on more?



## 1. 2 QI SKILLS

Dr. Laura A. Jana talks about important skills our children need in the 21<sup>st</sup> century.

Watch her TED talk: [https://www.youtube.com/watch?v=z\\_1Zv\\_ECy0g](https://www.youtube.com/watch?v=z_1Zv_ECy0g)

|  |   |
|--|---|
| <br>     | <b>ME</b><br>Self-management skills that include self-awareness, self-regulation, self-control, attention, focus. Also, executive function skills which allow us to manage, regulate, and control our emotions and behavior.                        |
| <br>     | <b>WE</b><br>These are the people skills that allow us to understand, share and "play well" with others, including the language, empathy, listening, and social-emotional skills necessary for effective communication, collaboration and teamwork. |
| <br>     | <b>WHY</b><br>Skills that include questioning, curiosity and inquisitiveness that allow us to always see the world as a question mark, and strive for a better understanding of how the world works.  |
| <br>  | <b>WILL</b><br>Self-motivation and drive define these critically important skills, including a can-do attitude, conscientiousness, determination, gumption, persistence, perseverance, and focus put into action.                                   |
| <br> | <b>WIGGLE</b><br>Physical and intellectual restlessness make up the WIGGLE skills that play a key role in putting WHY and WILL into action.   |
| <br> | <b>WOBBLE</b><br>Skills that allow for, build and foster agility, adaptability, resilience, and confer the ability to face, overcome, and learn from failure.   |
| <br> | <b>WHAT IF</b><br>Encompassing curiosity, imagination, and creativity, these are the skills that ultimately allow us to understand not just how the world is, but envision how it could be.   |

Resource [The QI Skills](#)



*What do you think of the QI skills? Have you ever thought about the skills in this way?*

*Think about which three skills you think are the most important. Why?*



### 1.3 NEW SKILLS AGENDA (by European Commission)

The European Commission adopted a new Skills Agenda for Europe (in June 2016). The purpose of this agenda is to ensure that people develop skills that will develop them in great Europe's human capital, which will boost employability, competitiveness, and growth in Europe.

New skills agenda: **skills that are the key to allowing people to develop good-quality jobs and fulfill their potential as confident, active citizens:**

- Critical thinking
- Entrepreneurship
- Problem-solving
- Digital competences



*Can you explain what each of the four skills means? How does it manifest itself in practice? On a piece of paper, write a short and concrete description of each of the four skills. You can help yourself by browsing the internet.*



### ADDITIONAL CONTENT

Watch brain teaser video, which includes critical thinking and problem solving:

<https://www.youtube.com/watch?v=m2eINi4WXkc>

### 1.4 TRENDS IN DIGITAL EDUCATION

Digital education has been discussed and implemented before COVID. For a couple of reasons, this process has been slow. Education is highly regarded in political speeches, but many countries do not properly fund their schools. The infrastructure for digital education in schools and the homes of the students might not be funded in some regions. Teachers were not trained in converting their traditional teaching into the digital realm.

The COVID-19 pandemic has changed some of that but in a very rushed and unsystematic way. All actors – teachers, students, and parents- were forced to make digital learning happen overnight.

The results are mixed, but at least all stakeholders have gained very valuable information. Now we need to think about bringing them to a useful future approach.

This article describes some of the most important current trends in digital education:



<https://hospitalityinsights.ehl.edu/digital-transformation-trends>

Besides the obvious technological developments, the move to digital education offers advantages for groups that have previously been disadvantaged:

- children from low-income households
- girls and women
- students with learning difficulties

Choosing when and how to learn can benefit students who are not free when to learn. With decreasing costs for internet access and devices (tablets, laptops) even students from households with lower income might participate in courses they could not have otherwise because of the cost of textbooks and other learning materials.

Another implicit advantage of digital education is the affinity of the so-called “Gen Z” to everything digital. These “digital natives” want to do everything digitally. For them, digital learning is the right way to do it, so their motivation will be higher<sup>1</sup>.



## ADDITIONAL CONTENT

Besides the most recent developments dictated by the pandemic, the EU has acknowledged that the digital transformation of all aspects of our society – including education – needs to be managed actively. In September 2020, the EU commission passed the “Digital Education Action Plan” for the period from 2021-2027:

[https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan\\_en](https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en)



Take another look at the table of contents and briefly scan the chapter. Think about what you expect from this training (live and digital). Considering current guidelines on relevant competences and digital development, write down **two expectations and three goals** for the whole training.

Of all the competences listed (in 3 different models) and considering the trend of digital education - which **3 competences** do you think are most **relevant** for students in the 21st century? Which competences do you think are **the most difficult** to develop?

*Write down the answers on a separate sheet to take with you to the live training.*

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<sup>1</sup> <https://edtechnology.co.uk/international/inaugural-future-learning-report-global-trends-digital-education/>



## 2 | INTRODUCTION TO CHANGE

To process this chapter effectively, you will need the following material:

- at least two sheets of paper
- a pen
- internet access + speakers/headphones

### 2.1 THINK ABOUT YOUR REACTION TO THE CHANGES



#### ASSOCIATIONS

*Think about the word CHANGE. Write down associations that occur to you. Now read the associations. What do they tell you?*

### 2.2 EMOTIONAL RESPONSE

Big changes provoke emotions. But sometimes emotions are too difficult to handle, and we become stuck in our feelings. But no matter what kind of emotions we are experiencing, we can always choose our behaviour. Please check the video that explains the difference between reaction and response:

<https://www.youtube.com/watch?v=ObDwK5rezHM&t=137s>



*Think about your past reactions to the changes in school you didn't like. Which emotions did typically occur?  
If you notice any pattern in reactions, what does this pattern tell you about yourself?*



## 2.3 CHANGE QUESTIONNAIRE



### Teacher Attitudes towards Change (TATC)

Take a minute and solve a short questionnaire about attitudes towards change. On a piece of paper, write down the item code (e.g. C4) and your rating on the scale.

|    | ITEM  | Rate the following items on the scale<br>1 (strongly disagree) – 5 (strongly agree) |   |   |   |   |
|----|---|---|---|---|---|---|
|    |   | 1   | 2 | 3 | 4 | 5 |
| C4 | Other school staff think that I support change                      | 1   | 2 | 3 | 4 | 5 |
| C3 | Change often helps me perform better                                | 1   | 2 | 3 | 4 | 5 |
| B6 | I usually hesitate to try changes                                   | 1   | 2 | 3 | 4 | 5 |
| C2 | Most school staff benefit from a change                             | 1   | 2 | 3 | 4 | 5 |
| B1 | I usually resist changes  | 1   | 2 | 3 | 4 | 5 |
| A1 | I look forward to changes at my school                              | 1   | 2 | 3 | 4 | 5 |
| C5 | Change usually helps improve unsatisfactory situations at my school | 1   | 2 | 3 | 4 | 5 |
| A2 | I don't like change   | 1   | 2 | 3 | 4 | 5 |
| B4 | I often suggest changes for my school                               | 1   | 2 | 3 | 4 | 5 |
| B2 | I am inclined to try changes at my school                           | 1   | 2 | 3 | 4 | 5 |
| B5 | I intend to do whatever possible to support change                  | 1   | 2 | 3 | 4 | 5 |
| C6 | I usually benefit from a change                                     | 1   | 2 | 3 | 4 | 5 |
| A5 | Most changes at my school are irritating                            | 1   | 2 | 3 | 4 | 5 |
| A6 | I find most changes to be pleasing                                  | 1   | 2 | 3 | 4 | 5 |
| A4 | Changes tend to stimulate me  | 1   | 2 | 3 | 4 | 5 |
| C1 | Change usually benefits my school                                   | 1   | 2 | 3 | 4 | 5 |
| A3 | Change frustrates me  | 1   | 2 | 3 | 4 | 5 |
| B3 | I usually support changes   | 1   | 2 | 3 | 4 | 5 |



## Dimensions

Cognitive Reaction to Change (thoughts and beliefs about the change) = C1 + C2 + C3 + C4 + C5 + C6

Affective Reaction to Change (individual's feelings about the change) = A1 + A2 (reverse) + A3 (reverse) + A4 + A5 (reverse) + A6

Behavioural Reaction to Change (extent to which individual takes an action to support or initiate change) = B1 (reverse) + B2 (reverse) + B3 + B4 + B5 + B6 (reverse)

*The term "reverse" means that you must subtract a given value from 6. For example: the reverse of 2 is 6-2=4.*

**Cognitive reaction to change** refers to the individual's thoughts beliefs about the need for change. The focus is on the significance of the change, how it will be personally and organisationally beneficial. It also includes thinking about the knowledge required to handle change.

**Affective reaction to change** refers to the individual's feeling about the change. It can play a substantial role in attitude formation. Example of affective reaction to change can be when a person is satisfied or anxious about the change.

**Behavioural reaction to change** measure the extent to which the individual would take action to initiate or support change. It can range from strong positive intentions to support change or to negative intentions to resist it.

For more information read the article below:

Kin, T. M. & Kareem, O. A. (2017). Measuring teacher attitudes towards change: an empirical validation. *Int. J. Management in Education*, Vol. 11, Nr. 4, pp. 437 – 469.

[https://www.researchgate.net/publication/320210975\\_Measuring\\_teacher\\_attitudes\\_towards\\_change\\_An\\_empirical\\_validation](https://www.researchgate.net/publication/320210975_Measuring_teacher_attitudes_towards_change_An_empirical_validation)



*Where are your scores the highest and where are the lowest? How do results show in your approach towards concrete change?*

*Were you surprised by the result?*

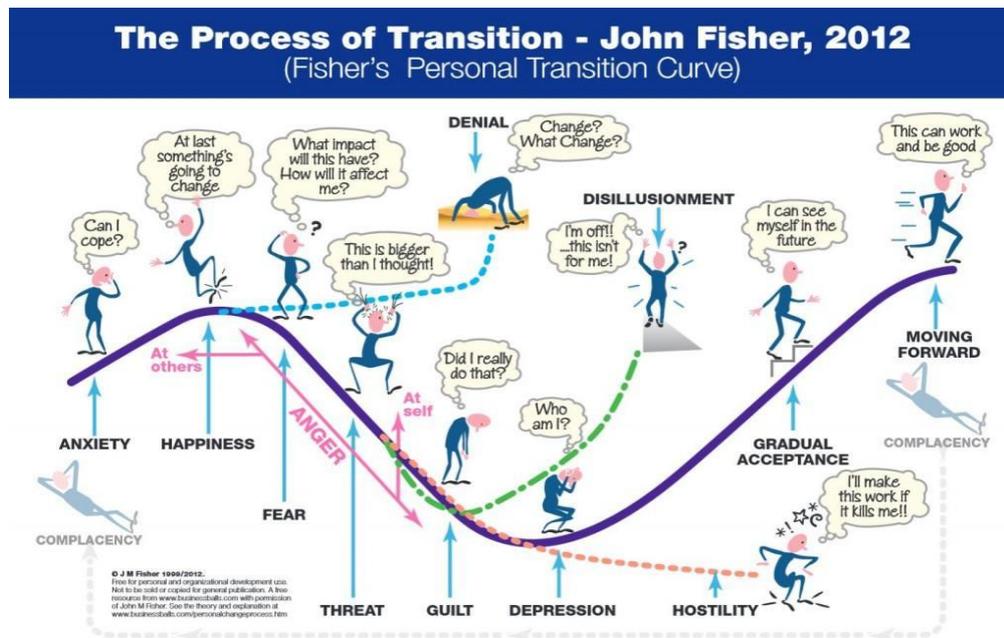
*Did you learn anything new about yourself while completing the questionnaire?*



## 2.4 THE CHANGE CURVE

Change curve by J. M. Fisher (2012) explains how we react to the changes that we perceive as unpleasant. The main idea is that we move through certain »change phases« that shape our emotions and behaviour. Please read the article and watch the video to get a better idea of the model:

<https://www.c2d.co.uk/techniques/process-of-transition/>



Think about how you reacted when you were first confronted with digital education. What parts of the change curve did you notice for yourself? Which part of the curve are you on now?

How well does that model explain the change process of teachers in your school when they faced the introduction of digital education? Where are current teachers in your school regarding digital education?

*Write down the key findings on a separate sheet to take with you to the live training.*



## 3 | DIFFERENCES BETWEEN FIXED AND GROWTH MINDSET

To process this chapter effectively, you will need the following material:

- at least two sheets of paper
- a pen
- internet access + speakers/headphones

### 3.1 INTRODUCTION TO MINDSETS

Please watch this short video of a three-year-old boy:

<https://youtu.be/rlclGDhbyXo>



*What was your first thought when watching?  
Would you have acted the same?  
Was the father right to let the kid fail so often?*

### 3.2 WHAT IS A GROWTH MINDSET?

A mindset is a sort of belief system and determines through key assumptions how we act and react. According to the psychologist **Carol Dweck**, there are two opposing mindsets regarding learning and personal development:

- the fixed mindset
- the growth mindset

Here is a short video about the differences between a growth mindset and a fixed mindset:

<https://youtu.be/ms2SzfUMUfs>

As you see, a growth mindset is the most important precondition for success in learning new skills. Before we can learn more about how to implement growth mindset principles into our (digital) teaching, we must first identify our mindset.



### 3.3 KNOW YOUR MINDSET

Please take this short quiz to learn more about your mindset:



#### MINDSET QUIZ

For each item, circle the number that best describes you according to the given scale. You can also write down numbers on a piece of paper. In the end, you will have to sum the numbers.

|  | Strongly agree | Agree | Disagree | Strongly disagree |
|--|----------------|-------|----------|-------------------|
| Your intelligence is something basic about you that you can't change very much.                | 0              | 1     | 2        | 3                 |
| Only a few people will be incredibly good at sports, you have to be born with the ability.     | 0              | 1     | 2        | 3                 |
| The harder you work at something, the better you will be.                                      | 3              | 2     | 1        | 0                 |
| I often get angry when I get feedback about my performance.                                    | 0              | 1     | 2        | 3                 |
| Truly smart people do not need to try hard.  | 0              | 1     | 2        | 3                 |
| An important reason why I do my work is that I enjoy learning new things.                      | 3              | 2     | 1        | 0                 |
| You can always change how intelligent you are.   | 3              | 2     | 1        | 0                 |
| You are a certain kind of person and there is not much that can be done to really change that. | 0              | 1     | 2        | 3                 |
| No matter how much intelligence you have, you can always change it quite a bit.                | 3              | 2     | 1        | 0                 |
| I appreciate when people, parents, students, or teachers give me feedback about my performance | 3              | 2     | 1        | 0                 |

Total and record your score when you have completed each of the ten questions. Using the score chart below, record your mindset.

#### SCORE CHART

22-30 = Strong growth mindset

17-21 = Growth with some fixed ideas

11-16 = Fixed with some growth ideas

0-10 = Strong fixed mindset

Both mindsets have a set of key assumptions you might have heard somewhere already. Within the growth mindset, they are:

- through hard work and constant effort, you can learn anything,
- everyone can learn, regardless of his/her starting point,



- learning is a process; failure is an integral part of this,
- there are no limits to my abilities,
- curiosity and openness are to be supported and promoted.

When we see someone who has accomplished something extraordinary (like in sports, music, or science), we tend to see only the result – a new world record per example. Our modern media helps with that. But what we do not see and most often forget are the thousands of hours of training that went into this final success. It is hidden like the main part of an iceberg. We don't see the many failed attempts – please remember the video from the beginning!



*Think about the stories of some well-known persons (sports, actors, authors, musicians) who took a long time getting to where they are now.*

### 3. 4 EVERYBODY HAS BOTH MINDSETS



Resource [Fixed v. Growth Mindset](#)



*Chose two statements from either side.  
For each sentence, describe a situation where you or one of your students acted accordingly.  
Try to think of situations for both types of mindsets, both for yourself and your students.*



Even when we have a predisposition towards one of these mindsets, **in everyday life we will find ourselves fluctuating between** them.

### 3.5 REACTION TO FAILURE

When we turn our focus away from the concept of fixed talent and proceed to a growth mindset, failures get a different meaning. They no longer show the limit of our abilities but give valuable input for doing better at the next attempt. They are an opportunity to learn – as we saw in the video. If we use the information we could gain from a failed attempt, our next try will have a better chance of success.

Unfortunately, as we get older, we tend to avoid risks once we have reached a certain experience. Peer pressure adds to this tendency because we do not want to be regarded as losers. Thus, there is some inherent reward for a fixed mindset, partly because of evolutionary reasons. In ancient times it was safer to stay on established paths and avoid unknown areas.

But in our world with accelerating rates of change, this becomes a burden. Risk avoidance in the learning process is no longer an advantage. We have to encourage our students to take risks (within reasonable borders, of course) and to leave their comfort zone. The motto “never give up” is more suitable than ever. The crucial point is to view failure differently.



*What personal or professional accomplishments are you most proud of?  
Do you remember when you gave up on learning something?*



## ADDITIONAL CONTENT

### 3.6 DIFFERENT LEARNING STYLES

Within the growth mindset, the learning style changes from the traditional learning of facts and figures (information) to a broader, more fundamental understanding of things and processes.

Recent studies have shown that about 65% of children in school today will work in jobs that don't even exist today<sup>2</sup>. The value of the information itself is declining rapidly because the rate of change is accelerating. The concept of a multi-volume printed encyclopedia that was popular 30 years ago seems ridiculous today.

Therefore, students (and adults) need to leave the traditional concept of a fixed skillset behind and learn and train new enabling skills like

- critical thinking
- digital literacy

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<sup>2</sup> <https://www.weforum.org/agenda/2021/08/3-ways-disrupt-education-bridge-skills-gap/>



- learn how to learn
- learn how to gain knowledge from failures

The goal is no longer to acquire the result now (that will devalue quickly), but the tools for getting adequate results in the future.

### 3.6.1 Role of the teacher

In a fixed mindset environment, the teacher has the role of a know-all master: he or she shares his knowledge with the students. In this scenario, the teacher is always at least a step ahead of the students. It is up to them if they learn what the teacher offers them.

In a growth mindset setting, the teacher becomes a supporter of the students. This is especially true in the digital realm, where students are most likely more skilled than the teacher. The appropriate new role for the teacher is that of a collaborative co-learner, who is part of a team.



*Which skills do you consider the most valuable for your students?  
Where do you see the biggest problem in teaching them these skills?*

### 3.6.2 Incorporating a growth mindset

Please read the following article: <https://www.edutopia.org/article/incorporating-growth-mindset-into-teaching-practice-donna-wilson-marcus-conyers>



*Does distant learning require a specific mindset to be successful? What is that mindset in your opinion?  
What additional problems can arise from a fixed mindset in digital learning?  
What could the benefits of a growth mindset in digital learning be?*



Based on the chapter you have worked through, think about how you could explain in your own words to students what a growth mindset is. Try to follow up the description with concrete examples.

*Write down the description on a separate sheet to take with you to the live training.*

# MODULE 2:

A deeper understanding of the growth  
mindset and its implementation in  
practice



Estimated processing time: 9 pedagogical hrs



## 4 | BELIEFS IN THE TEACHING ENVIRONMENT

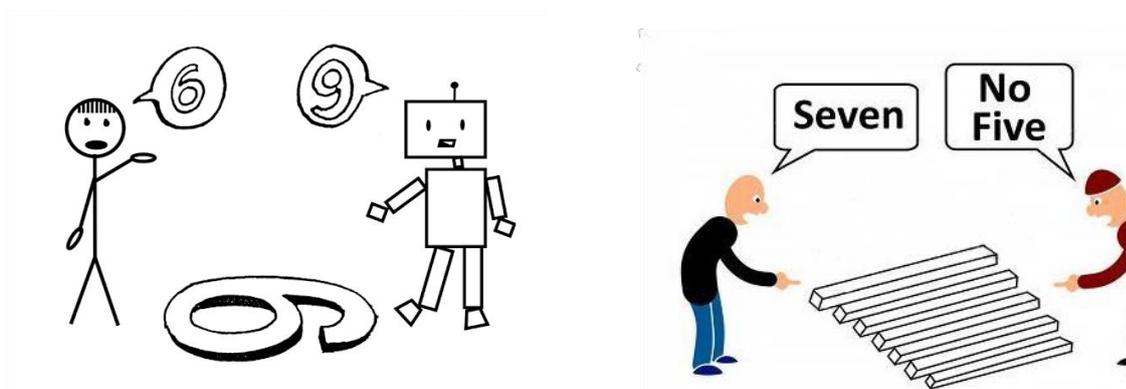
To process this chapter effectively, you will need the following material:

- at least two sheets of paper
- a pen
- internet access + speakers/headphones

### 4.1 HOW WE SEE THE WORLD – OUR BELIEF SYSTEM

We tend to think that we can see the world as it is. We call this an objective perspective and regard it as different from the subjective perspective we might take when we assess people or feelings.

But a short look at these two simple pictures teaches us otherwise:



The point we are looking from changes the outcome.

But there is more than the realization that objective observation is very difficult, if not impossible. In these simple examples, both observers are right at the same time<sup>3</sup>. There is no absolute, objective truth.



*Think about an incident where one of your students revealed a different belief than you. How did you react?*

Even scientific theories and laws are only **valid until someone disproves them**.

Our beliefs determine how we see and value things and persons. And very important: they are not restricted to our religious beliefs.

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<sup>3</sup> if you want, you can add yourself as the third perspective: you are able to see that both observers are right



Some quick examples: If you watch a crime movie, the detectives at the crime scene often overlook evidence because they reach a conclusion about the crime and the person responsible too soon and dismiss stuff that could lead them to the real perpetrator.

Some fundamentalists who (still) believe in creation exactly as described in the bible will look at relics from excavations totally different than everybody else. For him, they are not evidence for long-term evolution but created to look old.

And someone who believes in one of the conspiracy theories that circulates on the internet (like chemtrails for example) will only look for evidence supporting his belief regardless of the credibility of his sources.

**We cannot escape our beliefs, but we can try to become aware of them and of the consequences they have on our perception.**



## ADDITIONAL CONTENT

Here is a video that describes how belief systems work: [https://youtu.be/juNuGdd\\_Cc0](https://youtu.be/juNuGdd_Cc0)

### 4.2 MISTAKEN BELIEFS

When our beliefs are confronted with opposing opinions, statements, or facts, we spontaneously deny them and stick to our beliefs. If we are open-minded, though, we will weigh the differing statements and, in most cases, adapt our previous viewpoint.

But sometimes we insist on our beliefs and deny anything that contradicts them. This effect is called “cognitive immunization”. Our minds automatically neutralize clashing information. In extreme form, we can currently observe this mechanism in people who adhere to conspiracy theories, which have become abundant on the internet in general and especially on social media. Their beliefs become even stronger when challenged.

Our natural and partly unavoidable confirmation bias supports cognitive immunization because it helps us avoid any information that contradicts our beliefs. We only seek and see information that is confirming what we already know.

Once we accept a belief, it only matters if it is useful to us or not. When it does, we defend it rigorously.

There are five major belief enforcing techniques we employ:





1. We isolate ourselves from people who hold outside beliefs
2. We try to reduce our exposure to other beliefs and ideas
3. We connect our beliefs to powerful emotions
4. We associate with like-minded groups
5. We use repetition

Social media channels are clearly extremely well equipped to support all these techniques.

### 4.3 DEALING WITH STRONGLY HELD BELIEFS

If we want to change someone's mind – regardless of the reason for that – we have to be aware that this is a difficult process. Our brains are hard-wired to defend our beliefs. This is especially true for those beliefs that we hold the strongest to and that are part of our core belief system.

Psychology has shown that it is less important what you say to someone than who you are: we tend to believe people we feel close to.

This human element is what matters most. Really strong beliefs are not overcome by reasoning or structured, logical arguments.

There is no generally working method to change someone's belief, but a couple of points have proven useful:

#### 1. Closeness

As mentioned above, we tend to believe someone we feel close to more than others. Remind the person you want to influence of your relationship.

#### 2. Reciprocity

We feel the need to give back to those who have given us something. Paying particular attention is some kind of gift, so this could be a way to get to someone.

#### 3. Authority

People believe others who are an expert in their field (or are perceived as such) more. The areas of the brain associated with critical evaluation tend to flatline when listening to an expert. You can use this when you mention your background and expertise often.

To better understand how to deal with limiting beliefs (including your own), watch the video:

<https://www.youtube.com/watch?v=l8oGEK2BXpM>



Think about the mistaken beliefs you have observed in yourself and other teachers. Write down at least one concrete example of such a belief for yourself and one for another teacher.

*Write down the examples on a separate sheet to take with you to the live training.*



## 5 | NEUROPLASTICITY OF THE BRAIN

To process this chapter effectively, you will need the following material:

- at least two sheets of paper
- a pen
- internet access + speakers/headphones

### 5.1 WHAT IS NEUROPLASTICITY?

Neuroplasticity is the ability of the brain to adapt functionally and structurally to changing conditions and challenges. It allows our brain to adapt, learn, and even recover from injuries. Sometimes this is simply referred to as “rewiring your brain”.

Just like our muscles, the state of the brain is activity-driven! You either “use it or lose it”. Neuroplasticity is the basis of learning: if our brains wouldn’t be formable, we couldn’t learn at all.

Previously it was thought that our brain could only process new information when we are children and that we lose this ability gradually when we grow older. “You can’t teach an old dog new tricks” goes the saying. Newer studies have disproved this theory<sup>4</sup>.

However, there remains some reluctance in many adults to learn new stuff which is often seen as proof of reduced plasticity of the brain in higher ages. This reluctance comes mainly from a traditional concept of knowledge and experience, especially in vocational education. We will dive into this a little later.

<https://www.youtube.com/watch?v=kWlagHUqD8A>



*Think about examples of neuroplasticity in the real world. Describe how you have learned your latest skill. How did it go? What did you experience?*

*Make a list of activities that will help to “re-wire” your brain. Compare your list of useful activities against [THIS ONE](#).*

*Did you find something you haven’t thought of?*

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<sup>4</sup> <https://www.verywellmind.com/what-is-brain-plasticity-2794886>



## 5.2 BRAIN GAMES

There are a lot of exercises, games, and apps that show how neuroplasticity works. They are often called “brain games” and are marketed as tools for keeping your brain fit and healthy.

- Sudoku
- Clevermind
- Lumosity
- Elevate

Especially useful for keeping the brain sharp are these activities:

- play an instrument
- learn to juggle
- learn a new language

Keeping different regions of your brain involved has proven to be especially effective.



*Think of other activities that you would classify as "brain games". Try to list five. You can help yourself by browsing the internet.*

*If you're not familiar with any of the listed games, you can search for them on the internet and try playing.*

## 5.3 CURIOSITY

Curiosity is the urge to experience something new and unknown. It is the main driving force for human development – both as a person and as a society. The joy of exploration and the desire to learn new things and acquire new skills keeps us going forward. Young children possess this ability in abundant quantity. As we grow older, gained experience and the fear of mistakes and failures lead to an increasing reluctance. But the underlying curiosity is not dead, only covered.

So how can we stimulate curiosity?

Please read the following article: <https://www.edutopia.org/blog/8-pathways-curiosity-hungry-mind-marilyn-price-mitchell>



*Think about ways to stimulate creativity that you have already used at work. Describe your experience. Outline and write a new task that could stimulate creativity using different methods.*



## 5.4 CHALLENGES

Everyone likes challenges: card and board games have been around forever and in the last decades, video games have become a multi-billion-dollar industry. If you have tried one, the main factors that keep you motivated to keep playing are challenges and rewards.

We do like to compete with others. Of course, we must win at least sometimes to stay in the game. Game designers create their products with this in mind. We will talk more about games in education later (chapter 15).

For now, let's keep in mind that creating challenges is a proven way to motivate students. Digital learning environments make it easy to do so. You could draft puzzles or quizzes that will engage students and will give them instant rewards.

It is very important that these challenges do not get mistaken for traditional tests or exams. The reason for the challenges is not to grade the students' abilities, but to stimulate them to use their existing skills and to gain new knowledge. Failure to master a challenge must not be punished but created as a motivation to try again. In the best case, the failed challenge offers additional information that helps the student to try something different next time.



*Think about possible challenges for your students in everyday tasks. Think also about how you could motivate them when they fail*

## 5.5 LIFELONG LEARNING

### 5.5.1 Traditional skill path

The traditional concept of mastering a skill – not only in vocational training – was a gradual upskilling pathway. The goal was the status of “master”, who knew everything that was to be known in his or her area of knowledge.

An unfortunate consequence of this model was that people who regarded themselves (or were regarded) as “masters” didn't need to learn anything more. And so, this concept was transferred to other areas. Growing experience and knowledge diminished the need to learn. Therefore, we were led to believe that we can't learn at a higher age, but that this didn't matter because we don't have to.

Many of us still adhere to this concept – knowingly or not. Only a sustained curiosity can save us from this misconception. And if we overcome our reluctance to learn we will find that we are still able to do it and – most important – that it is fun.



*What was the last new skill you learned?  
What would you like to learn? Why haven't you learned that yet?*



### 5.5.2 New challenges

Knowledge is changing very fast nowadays, and the rate of change is accelerating.



*Name three traditional skills that have become obsolete.  
Name three jobs that do no longer exist.  
Name at least 1 job that will most probably not exist in 20 years.*

### 5.5.3 Growth mindset as a precondition for successful lifelong learning

If we stop learning and rely only on our experiences and skills acquired so far, we will:

- devalue our knowledge (because more and more of it becomes obsolete),
- waste an essential ability evolution has given us.

Who would like to do that? Therefore, a growth mindset is the main precondition for lifelong learning. For many adults, lifelong learning is a relatively new concept, as we have seen before. But all the data available shows that without permanent learning many workers will lose their jobs or be unable to find a new one.

Learning to learn and experiencing learning as fun is crucial for the next generations, who will grow into a world that is largely unpredictable right now.



Take another quick scan through the chapter. Think of tasks that both stimulate curiosity and challenge students. Write down some ideas. Try to be as specific as possible when describing the tasks.

*Write down the ideas on a separate sheet to take with you to the live training.*



## 6 | KEY ELEMENTS OF SUCCESSFUL DIGITAL EDUCATION IN HIGH SCHOOL STUDENTS

To process this chapter effectively, you will need the following material:

- at least two sheets of paper
- a pen
- internet access + speakers/headphones

### 6.1 SELF-REFLECTION PHASE



*In this first phase, we ask you to think about digital education and to answer honestly, writing down your answers.*

What are the elements for a successful digital education, according to your role as a teacher?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Now put yourself in your students' shoes: what do you think they will answer to the same question?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

*How many answers are equal?*

*If possible, discuss this topic with your students and collect their real opinions. How many answers are equal?*

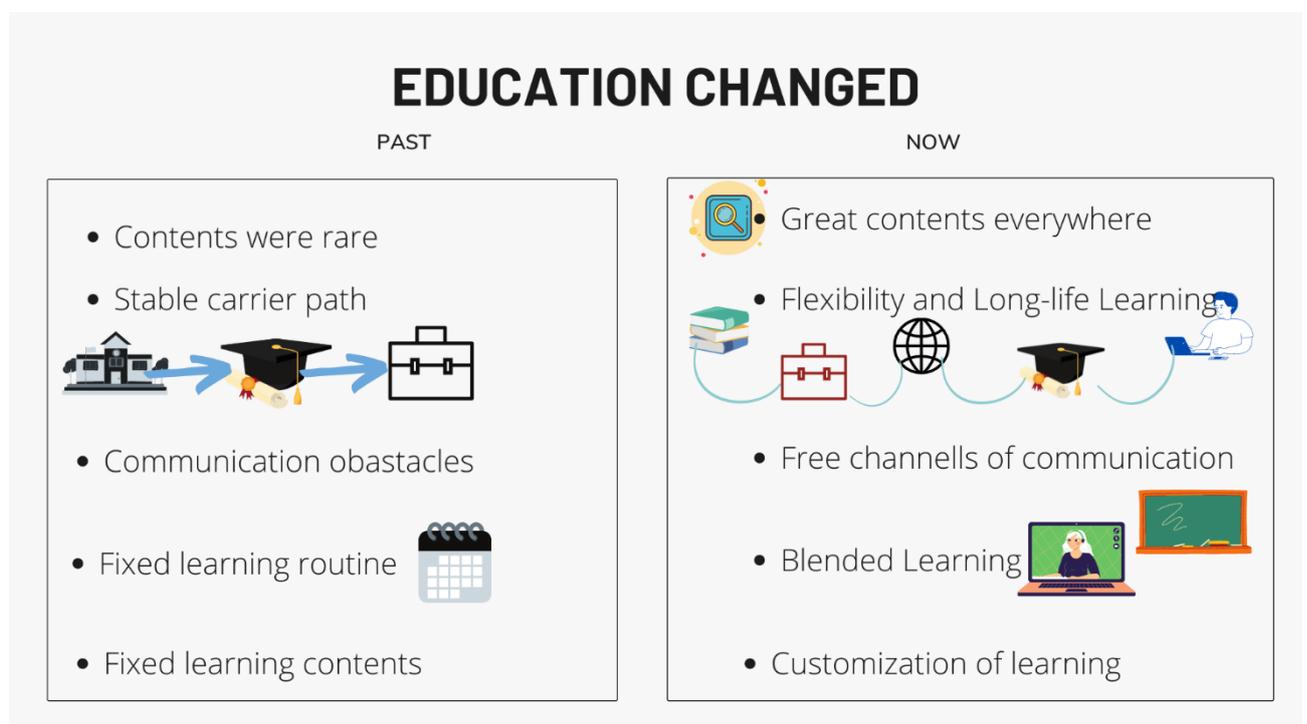


## 6.2 EDUCATION CHANGING HISTORY

Education has changed over time and, very often, as is the case in history, these changes have resulted in progress. The infographic below shows which are the major evolutions that have affected learning and some of these have been radicalised by the forced transition to digital. Others, however, are still far away from becoming commonplace.

What we want to show here is that technological progress has strongly influenced the progress of education itself.

Some of these changes have been taken into account by the students interviewed during the previous phase of the project. They were considered as real advantages of online learning. Among them, a special mention is for the speed of communication and the flexibility of learning.



Relevant for the realization of these infographics was the following video [Re-inventing education for the digital age](#)



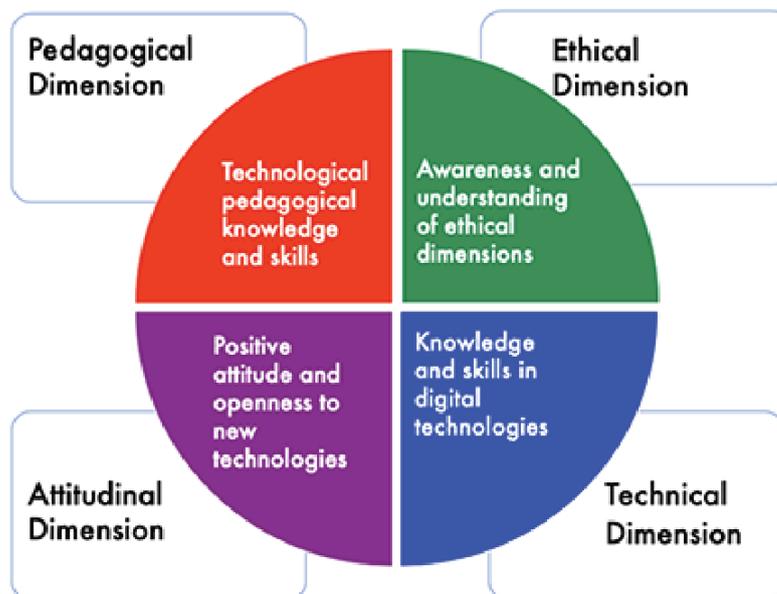
*What are the pros and the cons of these evolutions in education?  
How much have these changes influenced or affected your teaching experience? To what extent, in what way have you taken them into account in your teaching experience?*



### 6.3 KEY ELEMENTS OF SUCCESS: PEAT MODEL

Research carried out by a university consortium as part of the Erasmus project *DiCTE - Developing ICT in Teacher Education* ([DiCTE project](#)<sup>5</sup>) has produced an interesting model that summarises the fundamental characteristics of effective digital teaching.

#### **Pedagogical, Ethical, Attitudinal and Technical dimensions (PEAT model)**



The **technical** and **attitudinal** dimensions have a clear purpose and need no further explanation, while the pedagogical and ethical aspects are much more interesting.

The **pedagogical dimension** is based on the opportunities that technology offers to improve teaching practices, especially concerning the teaching of certain specific subjects. The teacher, therefore, has to continuously search for new technological tools that can make his or her work impactful and effective on the students.

The **ethical aspect** goes beyond the moral and behavioural values, but refers to the teacher's need to know and adopt ethical models also in the use of the digital tool, which includes several aspects: from the quality and quantity of the tools used, to the correct way of using them, up to the knowledge of and respect for the rules of copywriting and privacy protection.

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<sup>5</sup> Dicte (2019), Pedagogical, Ethical, Attitudinal and Technical dimensions of Digital Competence in Teacher Education. Developing ICT in Teacher Education Erasmus+ project <https://dicte.oslomet.no/dicte/>



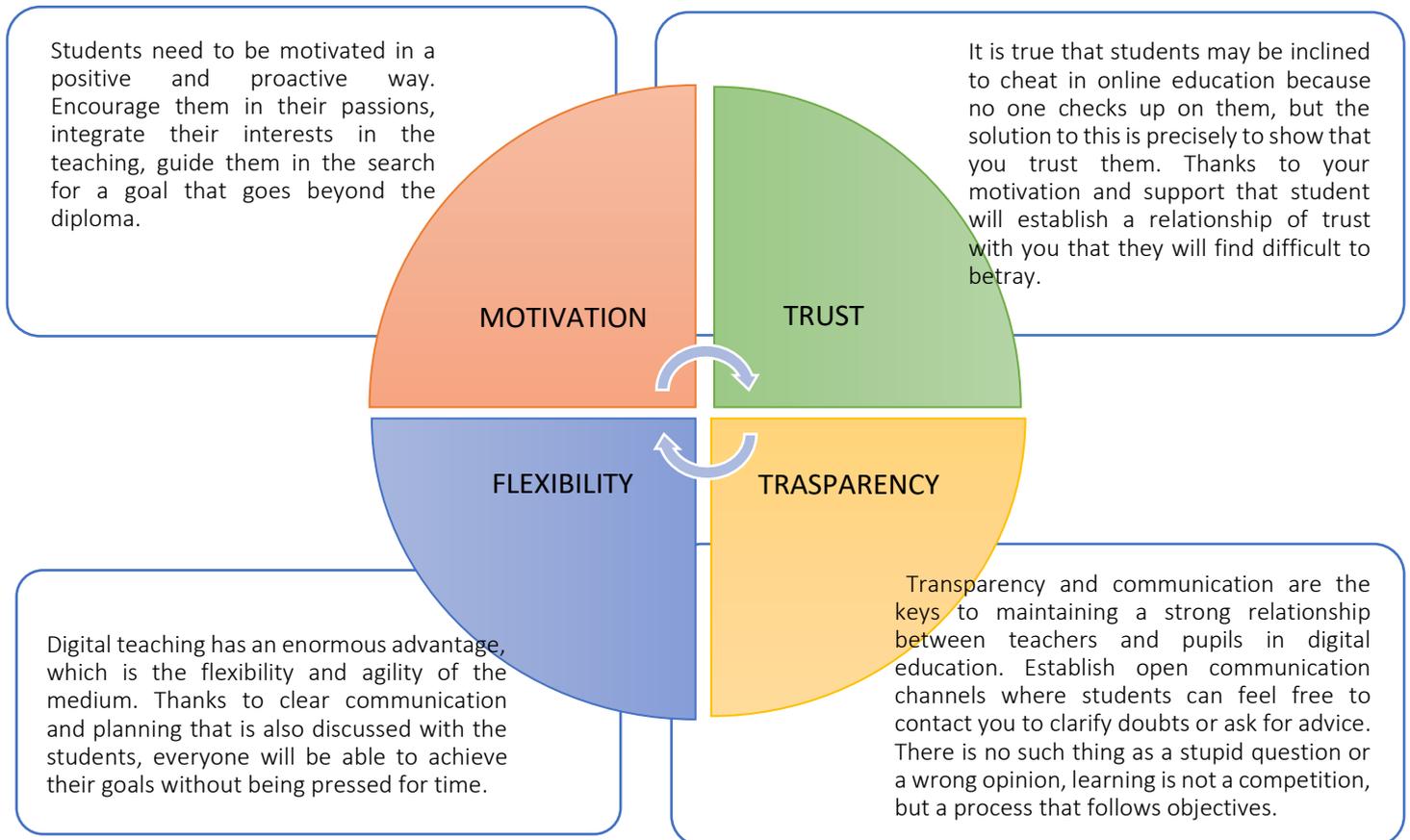
The colours of the table reflect the PEAT scheme. Evaluate your responses concerning the area to which the statements refer.  
 The areas where you put the most answers „very poor”, „poor ” and „neither poor nor good” are the ones you should improve.

|   | very poor | poor | neither good nor poor | good | very good |
|---|-----------|------|-----------------------|------|-----------|
| Video and image editing                             |           |      |                       |      |           |
| Documents creation and manipulation                 |           |      |                       |      |           |
| Emails and communication channel                    |           |      |                       |      |           |
| Tools for creating interactive contents             |           |      |                       |      |           |
| Tools for interacting boards                        |           |      |                       |      |           |
| Open online learning systems                        |           |      |                       |      |           |
| Educational games                                   |           |      |                       |      |           |
| Applying copyright tools                            |           |      |                       |      |           |
| Creative commons rules                              |           |      |                       |      |           |
| Detect and manage cyber-bullying                    |           |      |                       |      |           |
| Evaluate the credibility of used resources          |           |      |                       |      |           |
| Judge if the content is relevant for my purpose     |           |      |                       |      |           |
| Curious about new technology implementation         |           |      |                       |      |           |
| Experiment with digital tools to enrich my teaching |           |      |                       |      |           |
| Positive approach towards new technology            |           |      |                       |      |           |
| Foster students' use of ICT technology              |           |      |                       |      |           |



## 6.4 KEY ELEMENTS OF SUCCESS – HUMAN DIMENSION

After reading many articles and documents related to the human aspect of teaching, we have created this model which synthesises into four basic principles the various educational and ethical theories we have encountered.



### ADDITIONAL CONTENT

#### Student-teacher relationship

For more strategies on how to build a quality teacher-student relationship, read the following articles:

<https://www.edsys.in/student-teacher-relationship/>

<https://apertureed.com/5-strategies-building-relationships-students/>



## 6.5 EXERCISES AND TIPS

### → Use an energizer or ice-breaking exercises

The use of icebreakers and energizers before a lesson helps to create a positive and participative atmosphere, which is much more relaxed and predisposing to learning. Take examples from the internet and adapt them to the content of your lessons.

For example:

**The story around the circle:** start telling a story and let your students continue it. If possible, write down the lines added by students, or if one student is good at drawing, ask him/her to draw the story that they are creating in the meantime. It can be a useful exercise for creative writing or exploring a specific topic.

**The three wishes:** ask your students to talk about a dream or a desire, then discuss together how to reach these goals. Don't forget to express your wishes too.

### → Use unconventional modes to evaluate your students and to implement your lessons.

A film, a short video, poetry, a drawing, a song can be used to assess the students' progress, using interactive tools. This can be applied also in lesson building.



*Reflect on your past lessons. Have you ever used any unconventional methods? Which one?  
Think about how you could plan a lesson using more interactive methods in the future.*



Browse, explore, search for different energisers!  
Try to find new, innovative energisers to motivate students at the beginning or in the middle of a lesson. Write down 2-3 activities. The description of the activities should be precise enough for you to be able to explain or demonstrate them in the training.

*Write down the ideas on a separate sheet to take with you to the live training.*

# MODULE 3:

## Communication and feedback in digital education



Estimated processing time: 7 pedagogical hrs



## 7 | COMMUNICATION AND FEEDBACK IN GROWTH MINDSET THEORY

To process this chapter effectively, you will need the following material:

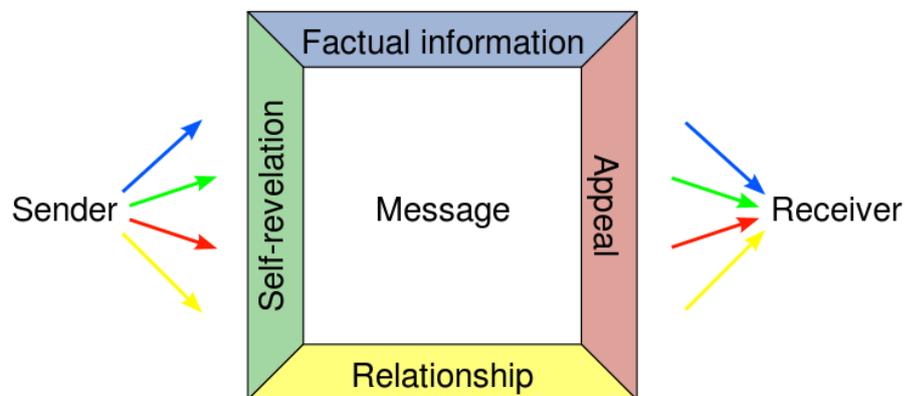
- at least one sheet of paper
- a pen
- internet access + speakers/headphones

### 7.1 COMMUNICATION

What is communication? The word comes from Latin and means originally “to share” or “to be in relation with”. Two important aspects of communication are to find here: **message** and **relationship**.

There are a lot of communication theories. One simple model describes the main dimensions of a message. We can find both core aspects there, but even two more that relate to the relationship aspect.

#### 7.1.1 Four dimensions of a message



Resource [Four sides model](#)

Usually, we do not dissect the messages we send or receive into these dimensions. We have learned to understand the relevant aspects without thinking about them. However, sometimes we tend to communicate indirectly. For example, if your partner says “the trash needs to be emptied”, you might not hear the appeal dimension and interpret this as factual information not related to you.



### 7.1.2 Communication styles

There are different communication styles that reflect how people interact with each other. Scientists have developed a couple of systems to categorize them. We will use one of the most common system which uses 4 categories:

- assertive
- aggressive
- passive
- passive-aggressive



Read this article to learn about the main aspects of these styles:

<https://soulsalt.com/communication-style/>



*Take this test to identify your communication style:*

<https://timetamer.com.au/are-you-aggressive-passive-or-assertive/>



*What is your communication style? Are you surprised by the result?*

*Do you agree with it?*

*In what ways do you think your communication style can influence your teaching?*



# How to become more assertive at work

Assertiveness is about stating what you want or need, but still being considerate of the wants and needs of others.

THE EXECUTIVE BLOG | [www.omarhafez.org](http://www.omarhafez.org)

01

## Recognize your own value

The first step for others to recognize your value is to acknowledge it yourself. Always remember you are a valued member of your organization.



02

## Body language

Walk confidently. When you come into the office, stand tall and keep your head up. Make eye contact with others and smile. Avoid looking down at the floor.



03

## Create boundaries

Create boundaries and enforce them. Others treat you how you let them. You deserve to be treated with dignity and respect. Make sure everyone knows it.



04

## Volunteer to lead a project

When you are in charge of group projects, others get used to listening to what you have to say and doing as you ask. Encourage sharing opinions. Say "Thank you." Share credit with members of the group.



05

## Offer your opinion

Speak confidently and let others know what you think. Always participate in meetings rather than just going along with what anyone else says. Speak in the first person.



06

## Learn how to say "no"

Sometimes a request might cause you hardship or make your own work late. Explain you would like to help, but you are already rushed to finish your own project. Protect your own integrity. They will understand.



07

## Help others

Help your coworkers whenever you can. They will remember this when it is your turn to ask for help. Show someone how to do something. Teaching others will help them and you will gain their respect.



Resource [How to become more assertive at work](#)



### 7.13 Non-violent communication

One concept that might be very useful in growth mindset education is non-violent communication. You can learn the basics in the videos:

<https://youtu.be/8sjA90hvnQQ>

<https://youtu.be/NYkgbrZSAY0>

Non-violent communication is intended to improve the quality of communication by trying to meet the needs of all participants in a conversation.

There is a lot of material and workshops on this concept. For the purpose of this course just let's keep in mind the importance of well-crafted communication.

### 7.2 FEEDBACK

Feedback is extremely important in growth mindset theory. Because in growth mindset theory learning is considered as an ongoing process, failures and setbacks are an integral part of it. They are no exception, but the norm.

**10 PRINCIPLES IN GIVING EFFECTIVE FEEDBACK**

**UNDERSTANDABLE**  
expressed in a language that people will understand

**SELECTIVE**  
cover 2/3 areas in reasonable detail that the person can actually do something about

**SPECIFIC**  
lose generalisations, feedback must be specific and focused

**TIMELY**  
provided at the moment of need so the person can remember the incident and improve

**CONTEXTUALISED**  
framed with reference to what the intended outcomes should be

**NON-JUDGEMENTAL**  
descriptive rather than evaluative. Focus on the facts

**BALANCED**  
pointing out the positive as well as areas in need of improvement

**FORWARD LOOKING**  
suggesting or pointing to areas of improvement in the future

**TRANSFERABLE**  
focused on outcomes, skills and behaviours that the person can actually do something about

**NOT-PERSONAL**  
don't make it about the person, only on what happened and the outcome

Resource [A Quick Infographic Mini Course On How To Give Feedback In The Right Way](#)



Feedback helps students to stay **motivated**. When they get frequent and non-grading feedback, they learn to **accept criticism** and regard it not as a means to be judged, but as a way to gain knowledge for their next try.

Please watch this short video on feedback:

<https://www.youtube.com/watch?v=n7Ox5aoZ4ww>



*What are your experiences with giving and receiving feedback?*

*What do you like most when receiving feedback?*

*A student has failed his latest test for the second time. How do you encourage him to try it again?*

Helpful feedback can come both from the teacher and from other students. However, for peer feedback there need to be some ground rules set first:

<https://feedbackfruits.com/blog/create-peer-feedback-criteria>

To be helpful, the feedback has to **praise the effort**, not the outcome. Traditional feedback and evaluation are mostly outcome-oriented. We grade the results, not the work. As mentioned before, this tends to block the effort successful people made before their success. This way, students may regard themselves as “not talented” or “losers” and give up on their learning.

If we praise the effort, students will feel **encouraged to engage further**. They have something to be proud of, even if the result was not as expected. If we reassure them about their talent or intelligence, it will backfire because they will be afraid of showing a deficit in the next challenge.

Good feedback does not only encourage, but also **causes thinking**. Mistakes and failures should be regarded as experiences and analysed as a source of information for improvement.

The final goal is to let the student develop the ability for self-feedback. This will be most helpful for his or her future life.

A very simple example can explain the meaning of feedback: imagine you do a test with 5 questions and afterward, the evaluator just gives you the result – i.e., the number of questions you answered right. In this scenario, you have no chance to know where you need to put in more effort. If the evaluator had at least underlined parts of your answer, this would have given you more information about the mistakes you made and thus the opportunity to learn. And it would have been even more helpful if he/she had explained your mark.

We often assume that every well-intended feedback from the teacher improves the students' learning. But that is not the case. It is also important to pay a lot of attention to how we construct that feedback.



Below are some examples of fixed and growth mindset feedbacks for different situations:

|  | Instead of... (fixed mindset)                                      | Try... (growth mindset)   |
|--|--|---|
| <b>EFFORT-BASED SUCCESS</b>              | "You are so smart/clever!"   | "I can see you worked really hard on this."   |
|  | "Wow, you did great on that XX problem – you're very intelligent!" | "I like the way you tried all kinds of strategies on that XX problem until you finally got it."                     |
|  | "See, I told you that would be easy – it's because you're smart!"  | "It was a long, hard assignment, but you stuck to it and got it done. That's great!"                                |
|  |  | "Those extra practice problems you did really made a difference!"   |
|  |  | "The ideas you thought of are unique. Where did you learn about that?"  |
|  |  | "You went back to check your work – that extra step was a great idea."  |
| <b>SUCCESS WITHOUT EFFORT</b>            | "You can finish, it is good enough."                               | "Is this really your best work?"  |
|  | "That is correct! You did the task quickly and easily! Great job!" | "It looks like that was too easy for you. Let's try to find you something more challenging so your brain can grow." |
|  | "Nice job, you got an A without even trying."                      | "All right, that was too easy for you. Let's do something more challenging that you can learn from."                |
| <b>FAILURE</b>                           | "Sometimes it is better to just give up."                          | "If one strategy doesn't work, try another."  |
|  | "Be careful, you made a lot of mistakes."                          | "You can use mistakes to help you learn better."  |
|  | "Some people are just not good at XX – don't worry about it."      | "I liked the effort you put in. Let's work together some more and figure out what you don't understand."            |
| <b>CONFRONTING A DIFFICULT CHALLENGE</b> | "This XX problem is too hard for you."                             | "This XX problem may take some time and effort."  |



Look again at the table showing the different responses in growth and fixed mindset language. Think about the other ways you could give feedback in a growth mindset. In which words?

Write at least one example sentence for each of the four situations (feedback in growth mindset language).

*Write down the ideas on a separate sheet to take with you to the live training.*



## 8 | KEEPING STUDENTS' ATTENTION AND ENGAGEMENT IN THE DIGITAL TEACHING PROCESS

To process this chapter effectively, you will need the following material:

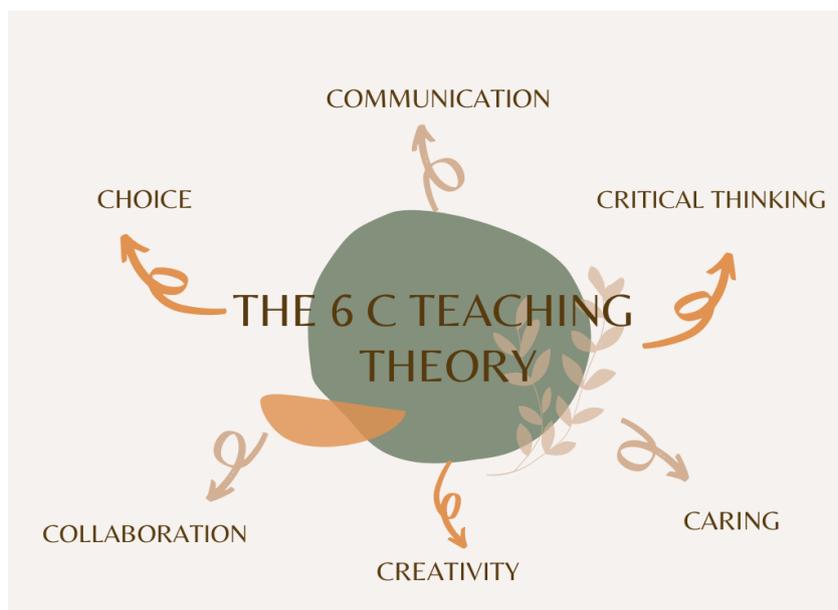
- at least two sheets of paper
- a pen
- internet access + speakers/headphones

### 8.1 THE 6 C's TO ENGAGE STUDENTS

Watch this video about a teaching method for inspiring the students:

<https://www.youtube.com/watch?v=UCFg9bcW7Bk>

In this video, we discuss the theory of the 6 Cs, which are fundamental to successful teaching that engages students and inspires them to bet on their education.



What do these C's stand for?

- **Choice:** the students are more engaged when they can choose between some options or can choose how to express their selves.
  - *Suggestion:* if you cannot let them choose what to study more deeply, involve them in the development of the teaching unit's plan.
- **Communication:** this value has already emerged in previous units. Dialogue is fundamental to the consolidation of the relationship between students and the teacher, and successful teaching is also based on it.
  - *Suggestion:* Encourage discussion, listen, and don't just demand to be listened to, in this way you can get a clear view of the situation and understand how to gain the trust and attention of your students.



- **Critical thinking:** this is one of the key competences for student growth. Encouraging their analytical, thinking activity will make them more confident and participative learners.
  - *Suggestion:* Every topic in every subject can be an opportunity to train and improve critical thinking skills: make your students ask questions and not learn everything by heart.
- **Collaboration:** it encourages teamwork among students as this will enable them to learn proactively. Moreover, the collaboration will encourage them to improve other skills such as communication, problem-solving, and planning.
  - *Suggestion:* Provide for student assessment not only individual tests but also group work such as presentations, experiments, etc.
- **Creativity:** creativity is a value that is gaining importance today because it is what actually allows us to distinguish ourselves from artificial intelligence. It can be seamlessly integrated into everyday school activities and can be the key to engaging even the most reluctant students.
  - *Suggestion:* proposing creative work can be an incentive for real involvement in learning. It can also be a solution to help students with learning difficulties, who can think of a solution that is comfortable for them. Creative does not mean superficial.
- **Caring:** it is crucial for effective and lasting teaching not to neglect the empathic aspect: students, especially adolescents, are more volatile and go through difficult periods in their growth, often related to the social aspect of the school environment.
  - *Suggestion:* Be a guide and a reference for your students, also providing advice on aspects beyond teaching.



*Are any of the C's known to you? Do you remember in which chapter you have read about these skills?*

*How can those 6 C's be accomplished in digital teaching?*

### 8.1.1 Develop creativity: "What if...?" game

What if is, in fact, a way of reasoning typical of creative thinking: it consists, literally, in asking oneself "what would happen if...?", **starting from even extreme hypotheses and forcing the consequences, widening one's view to include opportunities, results or solutions** that would otherwise be unthinkable: a fine somersault of the mind, which catapults itself into the universe of possibilities. It can be used in different ways with students in a lesson (as an energiser, icebreaker, introduction to new material, consolidation of material, etc.).



It is also useful for activating the teacher's brain. We present you with several situations and invite you to find solutions and methods that are different from your usual way of working or that you think might be effective.

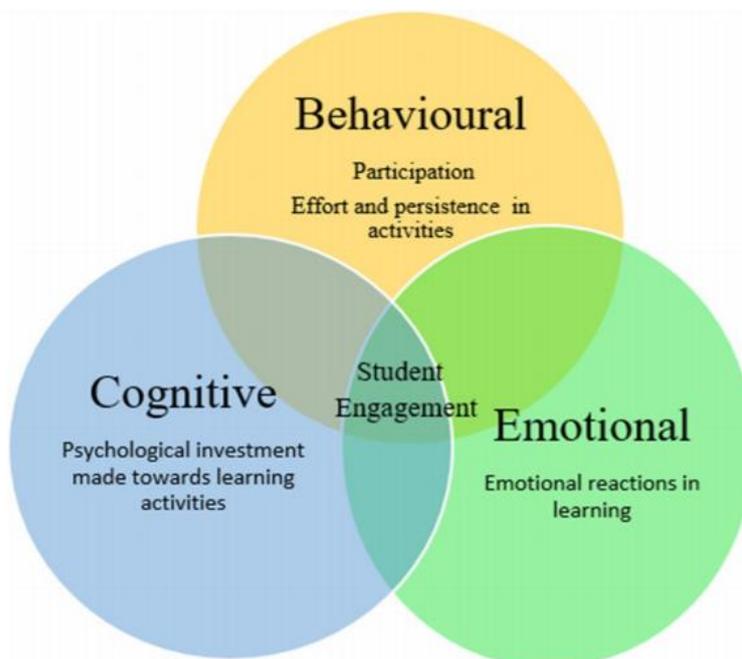
- “A student is particularly distracted, does not listen to the lesson, and does not interact...”
- “One student is particularly rowdy and interrupts the lesson continuously...”
- “The whole class performs poorly...”
- “Pupils are hostile towards each other, lack collaboration and interaction...”
- “One of the best students suffers a severe drop in academic performance...”
- “Discovering a group of students cheating on a test...”
- “One student is particularly shy and reserved, not interacting either with peers or teachers...”
- “Students show little initiative and proactivity...”
- “Some students show learning difficulties in the digital environment...”
- “One student shows signs of dropping out of school...”
- “Students feel very much the competition...”



*Think about (or quickly go through again) the previous chapter on communication and feedback.*

*Choose 4 of the situations listed above and write on a sheet how you would react to each one. Try to be as innovative as possible.*

## 8.2 THE DIMENSIONS OF STUDENTS' ENGAGEMENT



Resource [Nkomo et al. Int J Educ Technol High Educ, pp. 10-12, \(2021\)](#)



In the following article you can find some tips to improve your students' engagement:  
<https://www.3plearning.com/blog/20-student-engagement-strategies-captivating-classroom/>



## ADDITIONAL CONTENT

For more information read the article about triggering students' interest in digital learning environments: <https://journals.oslomet.no/index.php/seminar/article/view/2597>

| DESIGN  |  |   |
|---|--|---|
| ENGAGE PEOPLE: CONTENT DESIGN (YOU DO THIS)                               |  |   |
| Synthesize your learning points into a model with key points or "secrets" |  |   |
| <b>E</b><br>ENERGIZE<br>LEARNERS  | <b>Before Session:<br/>Focus and excite</b>                | <input type="checkbox"/> E-mail invitation<br><input type="checkbox"/> Letter<br><input type="checkbox"/> Pre-assessment<br><input type="checkbox"/> Impact map<br><input type="checkbox"/> Book, article, study guide<br><input type="checkbox"/> Podcast  |
|   | <b>Room:</b>   | <input type="checkbox"/> Protein snacks <input type="checkbox"/> Posters/Visuals <input type="checkbox"/> Music   |
|   | <b>To Start Session:<br/>Thank and involve immediately</b> | <input type="checkbox"/> Greet individually<br><input type="checkbox"/> Opening question<br><input type="checkbox"/> Interactive activity<br><input type="checkbox"/> Key outcomes/Goals for the day  |
| <b>N</b><br>NAVIGATE<br>CONTENT   | <b>Teach:</b>  | <input type="checkbox"/> Lecture, demonstrate <input type="checkbox"/> Visual<br><input type="checkbox"/> Experience, then label <input type="checkbox"/> Handouts<br><input type="checkbox"/> Video/DVD <input type="checkbox"/> Auditory<br><input type="checkbox"/> Stories <input type="checkbox"/> Kinesthetic   |
|   | <b>Review:</b>   | <input type="checkbox"/> Card sort <input type="checkbox"/> Role-play <input type="checkbox"/> Journaling<br><input type="checkbox"/> Case studies <input type="checkbox"/> Game <input type="checkbox"/> Song<br><input type="checkbox"/> Mind map <input type="checkbox"/> Mini-peer teach <input type="checkbox"/> Team activity   |
| <b>G</b><br>GENERATE<br>MEANING   | <b>Move to long-term memory</b>                            | <input type="checkbox"/> Ask: What is the value of using this new content/mode?<br><input type="checkbox"/> Flip chart: What would the benefits of using this content be to you/others/your organization?<br><input type="checkbox"/> What does this new learning mean for you?<br><input type="checkbox"/> How will this learning help you?<br><input type="checkbox"/> What did you learn?<br><input type="checkbox"/> What does it mean?   |
| <b>A</b><br>APPLY TO REAL<br>WORLD  | <b>Demonstrate skills</b>                                  | <input type="checkbox"/> Skills to apply _____<br><input type="checkbox"/> Learning lab <input type="checkbox"/> Highly paid experts<br><input type="checkbox"/> Cross training <input type="checkbox"/> Real-world practice<br><input type="checkbox"/> Team analysis <input type="checkbox"/> Design own model<br><input type="checkbox"/> Action Learning  |
| <b>G</b><br>GAUGE AND<br>CELEBRATE  | <b>Look how much you learned!</b>                          | <input type="checkbox"/> Crossword puzzle <input type="checkbox"/> End with Story: Create an emotional commitment<br><input type="checkbox"/> Group mind map <input type="checkbox"/> Five visible signs<br><input type="checkbox"/> Jeopardy or other quiz show <input type="checkbox"/> Create an acronym<br><input type="checkbox"/> Quiz (multiple choice, fill in, true/false) <input type="checkbox"/> Stump the panel<br><input type="checkbox"/> Create a presentation to each others   |
| <b>E</b><br>EXTEND<br>LEARNING<br>TO ACTION                               | <b>Act on intentions</b>                                   | <input type="checkbox"/> Recognize & reward:<br><input type="checkbox"/> E-mail tips<br><input type="checkbox"/> Podcast<br><input type="checkbox"/> e-Newletter<br><input type="checkbox"/> Lunch and learn<br><input type="checkbox"/> Create a support network<br><input type="checkbox"/> Send out follow-up summary<br><input type="checkbox"/> Gather and share success stories<br><input type="checkbox"/> Contest/award for who used it most<br><input type="checkbox"/> 1:1 coaching to support learning<br><input type="checkbox"/> Business impact/dollarize contest |



*Which boxes can you check at the moment? Which key points do you think are the most important/useful?  
You have already seen some of these strategies in previous chapters. Do you know which ones?*



Take another look at the 6C teaching theory. Think about one of the topics you are currently or have recently covered. How could you incorporate the 6C model into this material? Briefly describe your plan. Make sure you cover all the 6 C's.

*Write down the idea on a separate sheet to take with you to the live training.*

## MODULE 4:

Transfer to practice: applying a growth mindset to digital teaching



Estimated processing time: 12 pedagogical hrs



## 9 | DO'S AND DON'TS IN LONG-TERM DIGITAL TEACHING

To process this chapter effectively, you will need the following material:

- at least one sheet of paper
- a pen
- internet access + speakers/headphones

### 8.1 LESSON MANAGEMENT

To have successful long-term online learning you have to care about the management of your courses. A well-structured and solid management will decrease the most frequent problems observed by teachers during the pandemic, most of them incurred because none was prepared to face such a situation.

# DOES AND DONT'S

## COURSE MANAGEMENT

|  |  |
|--|--|
|  <p><b>Asynchronous Learning</b></p> <p>Let students learn their own pace, using open and always available contents</p>   |  <p><b>Only Synchronous Learning</b></p> <p>Don't use only online lessons as learning moments. Promote self-learning among your student</p>                             |
| <p><b>Set a new timeline and routine</b></p> <p>Online teaching requires different time settlement, generally more brief than face-to-face</p>   |  <p><b>Don't stay fix in your habits</b></p> <p>Change! Things don't work at the same way in each context.</p>  |
| <p><b>"Off course" communication</b></p> <p>Set days and hours when you students can contact you to ask for help or clarification.</p>   | <p><b>Unattainable after lessons</b></p> <p>Students need you help but you mustn't forget about your-self. This setting will help both of you.</p>   |
| <p><b>Consistent tools</b></p> <p>Choose previously the teaching platform, the database for homework and assignment and the communication channel to avoid confusion among students</p>  |  <p><b>Mixed tools</b></p> <p>Have too much tools platform to navigate can be stressful and lead students out of goals</p>  |
| <p><b>Specify expectations and objectives</b></p> <p>Fix the learning outcome of each learning units. It doesn't matter how they reach the goal but that they reach it. Be specific and give realistic assignment avoiding to overwork students. Less is more!</p> | <p><b>Being too open-ended</b></p> <p>Try to complete as much task as possible in a short period will for sure affect students' learning. Don't give a big amount and general homework. Address your requirement toward the result they have to reach.</p> |



Here is also a checklist of things to do before school starts:

|  |   |
|--|---|
|  | Choose the online teaching platform (better if it also contains a section for assignment and a communication channel) |
|  | Plan the learning units and set the learning outcomes for each one  |
|  | Time planning of the learning units   |
|  | Train yourself using digital tools for teaching and content creation  |
|  | Establish a set of rules and netiquette that all must follow during online lessons                                    |
|  | Find valuable resources to share with your students to foster self-learning   |
|  | Prepare a plan that is coherent with the digital online learning  |
|  | Prepare a guide for students about the tools you will use   |

Watch the following video that contains quick and easy tips for your lessons.

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

## 9.2 RELATIONSHIP WITH TECHNOLOGY



Resource [EDTalks website](#)



Technology has evolved enormously in recent years and has invaded many fields of application, irreversibly changing (in some respects) traditional dynamics, especially personal ones.

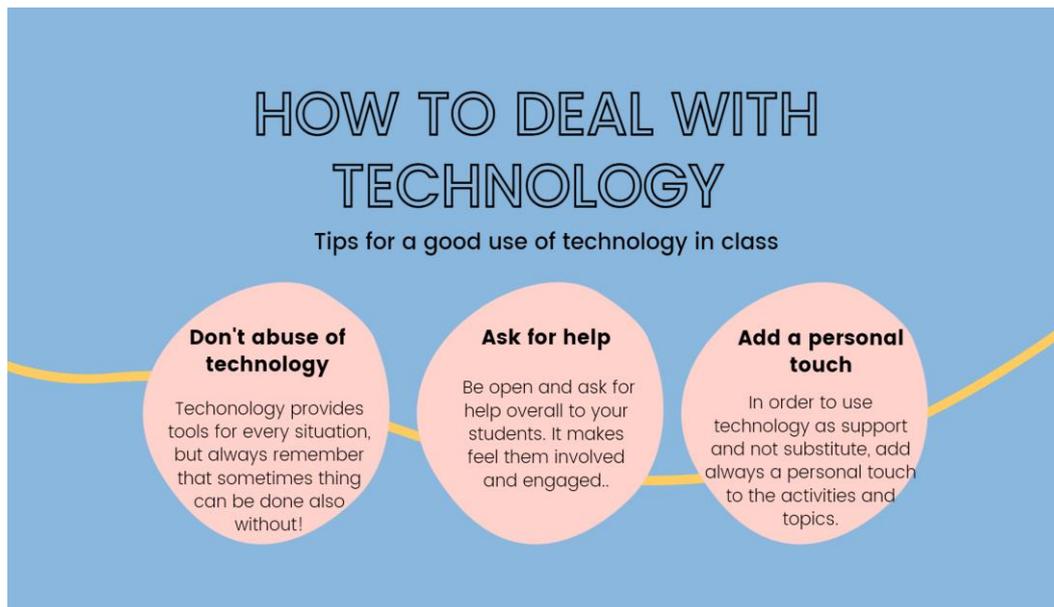
If the world of education had begun to be contaminated by new digital services and methodologies, the advent of the pandemic has accelerated this contamination, which has not always turned out to be natural or easy to apply, but the potential is evident and manifold.



As far as education is concerned, technology can be considered from multiple perspectives:

- **Educational input:** the use of technology constitutes a valuable ally for improving learning processes, stimulating the curiosity to learn of children, who are more familiar with the medium itself, and also constituting a valuable ally for specific learning difficulties.
- **Means of education delivery:** the pandemic has shown us that technology can be the only means of education delivery, but doubts have emerged as to how it affects the educational relationship between teachers and students, and whether it can be an alienating factor for children. Obviously, the answer to these doubts lies in the ability to use technology as a support and not as a substitute for the educational relationship, keeping the relationship between the digital tool and the person's contribution balanced.
- **Digital skills:** the use of technology is now to be considered one of the fundamental skills in today's society. It constitutes one of the main means of information, communication and most of our daily actions are carried out using a digital tool. For these reasons, everyone must possess at least basic digital skills. Children who are considered digital natives are immediately familiar with technologies but need to be guided in a conscious and responsible application of technologies.

There are concerns about technology in schools, especially about the social and relational dimension of schools: the use of technology could weaken the relationship between students and teachers and the relationship between peers. While these doubts may be legitimate, these issues become less of an issue if the right balance is established with technology.



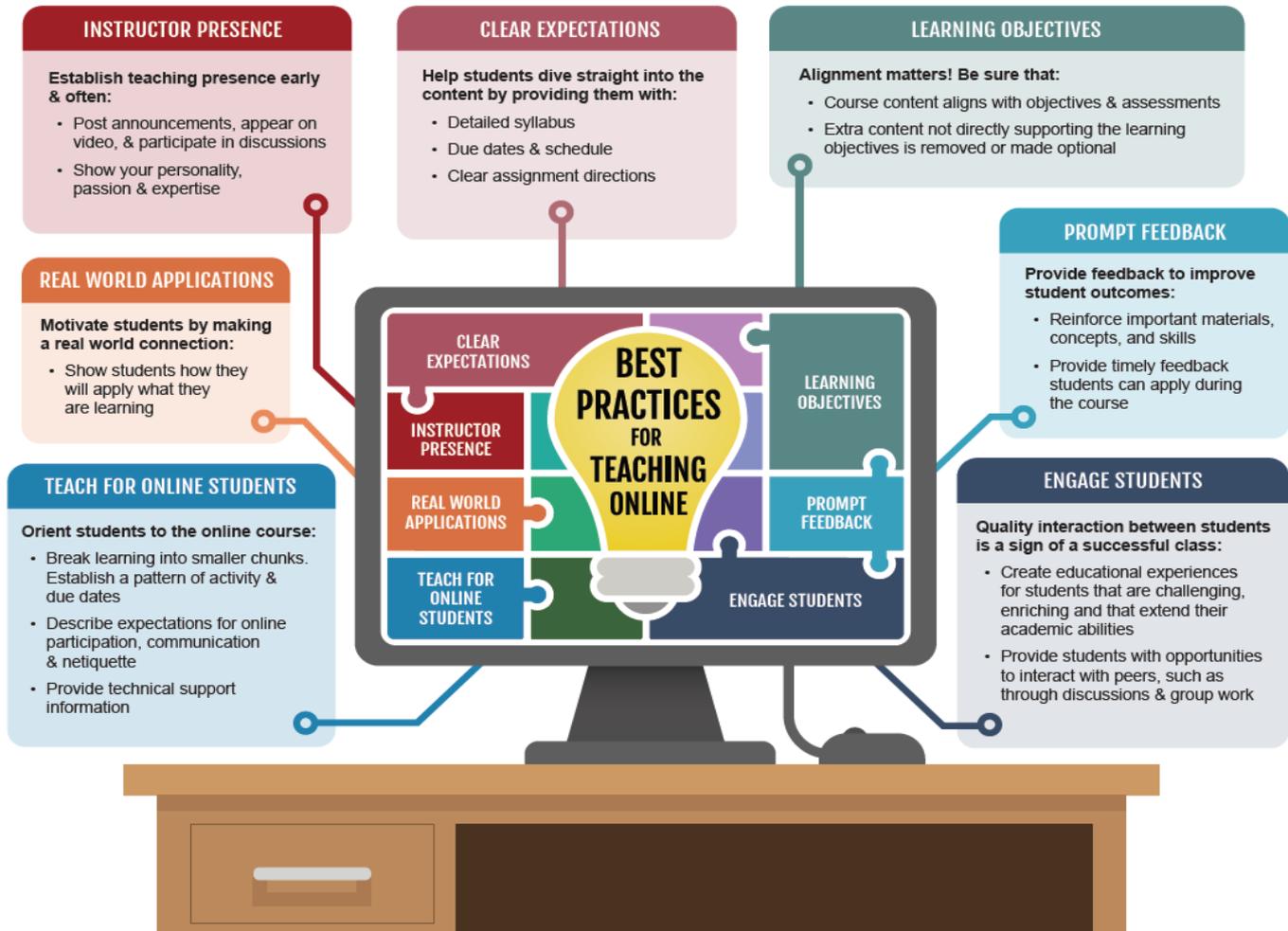
Technology offers a huge number of possibilities, tools, devices for every need and situation. In education, the most common are the ones related to video-chat and online meetings, but a wide range of new software and apps has been created to offer a more intense learning experience.

## 9.2 RELATIONSHIP WITH STUDENTS

- **Be empathetic:** put yourself in your students' shoes. Evaluate and discuss with them the learning path you planned and try to find a suitable way to let them feel comfortable with studying.
- **Seek students' feedback:** ask students what they think about their situation, discover their emotional state, learning preferences, and give them suggestions to improve their condition.
- **Understand their mistakes:** learning in an online environment can make students more nervous and more distracted; correct their mistakes by trying to explain where they were wrong.
- **Foster interactions and discussion:** learning is a dynamic process, and a digital environment can give you the chance to stimulate the debate constructively. Don't let your students miss the social aspects of school.



## ADDITIONAL CONTENT



Resource Online from Arizona University [Best Practice for Teaching online](#)



Which of these good practices apply to your digital teaching? Which ones do you still need to work on?



Reflect on yourself, considering the guidelines for effective digital teaching that you have learned in this chapter. What "do's" and "don'ts" did you do when you started teaching online?

Draw a table with two columns and write as many examples as you can. Also, think of examples that are not mentioned in the chapter but seem to fit in one or the other column.

*Write down the table on a separate sheet to take with you to the live training.*

| THE DO'S I DID | THE DON'TS I DID |
|----------------|------------------|
|                |                  |
|                |                  |
|                |                  |
|                |                  |
|                |                  |
|                |                  |
|                |                  |
|                |                  |
|                |                  |
|                |                  |
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|                |                  |
|                |                  |



## 10 | APPS AND TECHNOLOGY: WHAT TO USE AND HOW MUCH TO USE?

To process this chapter effectively, you will need the following material:

- at least one sheet of paper
- a pen
- internet access + speakers/headphones

### 10.1 HOW MUCH TECHNOLOGY SHOULD WE USE?

One of the most frequent problems related to using technology is the abuse that many people do of it. Everyone knows somebody who spends a lot of time using “smart” devices while forgetting the rest of his or her surroundings.

How can this abuse of technology be avoided?

#### TIPS to avoid abuse of technology

- Evaluate the applications and software available and choose those that are useful to complement your teaching and support learning. **Do not overuse technology** to make your lessons interesting but integrate it in a balanced way with your explanations. Also encourage **debate and dialogue**, which will bring the students back to a more real dimension.
- Create a lesson plan with **timing** that will help to split the use of technology in a balanced way.
- Assign **creative tasks that involve manual and intellectual skills**, don't just require research or essays that would inevitably lead to students spending many more hours at the computer.
- Promote **self-directed learning** by providing offline resources such as books, comics, etc.
- Encourage **group work**: although in some situations, such as the pandemic, virtual meetings may be required, they will stimulate sociability and communication, and prevent alienation from technology abuse.



*Have you ever thought about abusing technology? Do you notice this problem in your environment? Do you notice it in yourself? Do you think there is enough awareness about the abuse of technology?*



## ADDITIONAL CONTENT

Watch this video about technology use and abuse, it gives a very interesting point of reflection and tips to use and to share with your students:

<https://www.youtube.com/watch?v=NnKx1QfwdnY>

### 10.2 APPS AND SOFTWARE USEFUL FOR TEACHING

There are many apps and software available in the app stores and on the web to implement your teaching. We suggest some of them divided into categories.

#### 10.2.1 Apps to build lessons

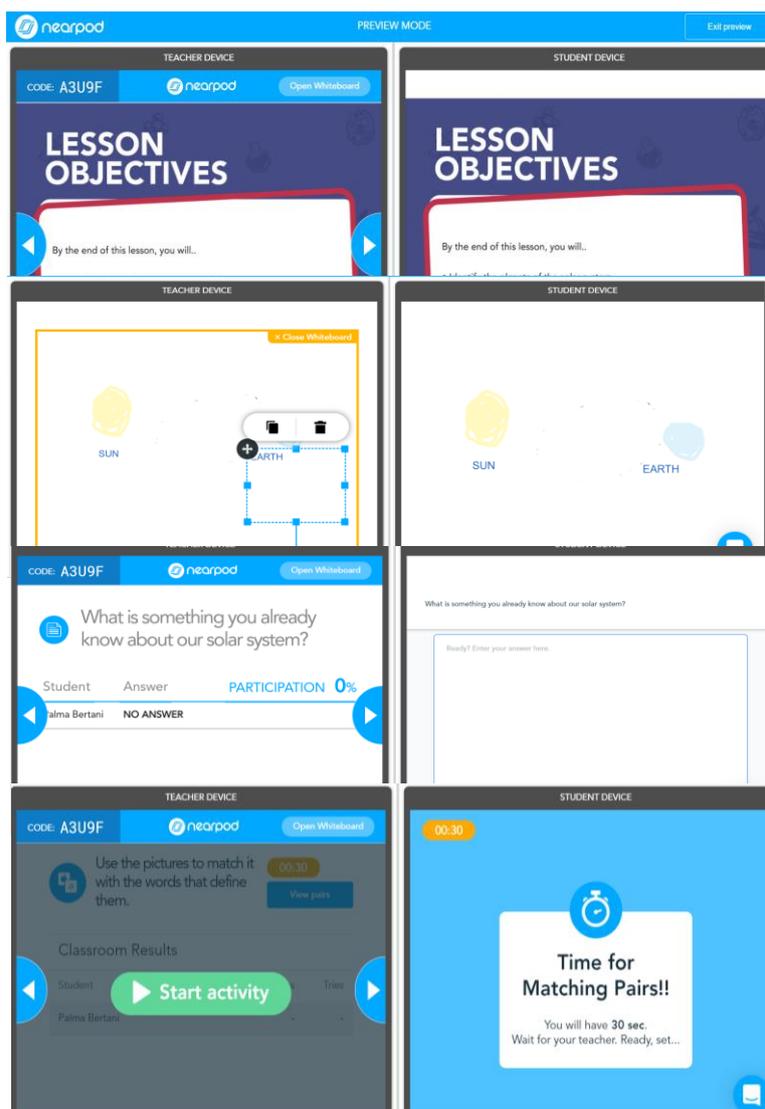
**Nearpod:** Create lessons using your material or an already existing one, introducing quizzes, notes, and animation. You can also check the progress of your students. During the lessons, you can collect instant insights from your students.

You can show a slideshow already existing on the platform or show a new one made by you.

There is also the function whiteboard in which you can create content or write down information impromptu.

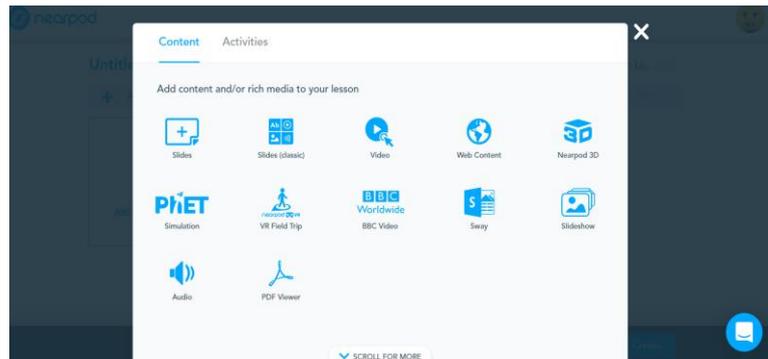
Here there is an example of a test: it's possible to add questions and collect answers from students due to evaluate them.

It's also possible to add an interactive activity for assessment: in this case, it's a matching pairs game.





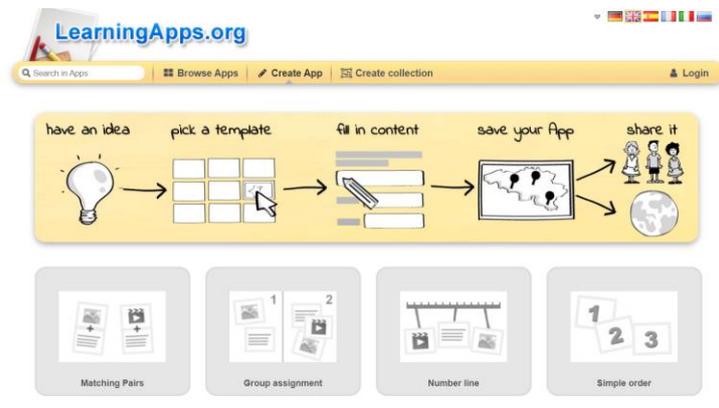
It's possible to use a wide range of contents from the most traditional ones, such as slides, videos, and audios, to the most innovative, such as 3D animation, Interactive exercises through simulation, and also have 3D trips in most famous places in the world. In Nearpod to evaluate students can be used a lot of tools such as games, collaborative boards, quizzes.



Since there are many contents already available, it could be very easy to create an alternative lesson for students, it takes only time to re-adapt it to classroom needs, if necessary. It is for free, just log in and start exploring the present resources about the subjects you teach.

Estimated time of use: 30 minutes

[LearningApps](https://www.learningapps.org/): useful to find learning modules, to create them, and modify according to your needs the already existing ones. It's a free-use platform and it also gives the possibility to create a new game/activity according to the specific needs. For example, it's possible to create matching pairs, puzzles, crossword games, or group assignment activities. A further advantage is the presence of the multilingual function.



Estimated time of use: 15 minutes/30 minutes

[Padlet](https://www.padlet.com/): virtual board where you can create all the contents to support your teaching, sharing all kinds of files from docs to videos. It has two versions: the free one that allows you to create and keep three padlet contemporary and the premium one that allows you to create and use an unlimited number of contemporary padlets. It also has a multilingual function.

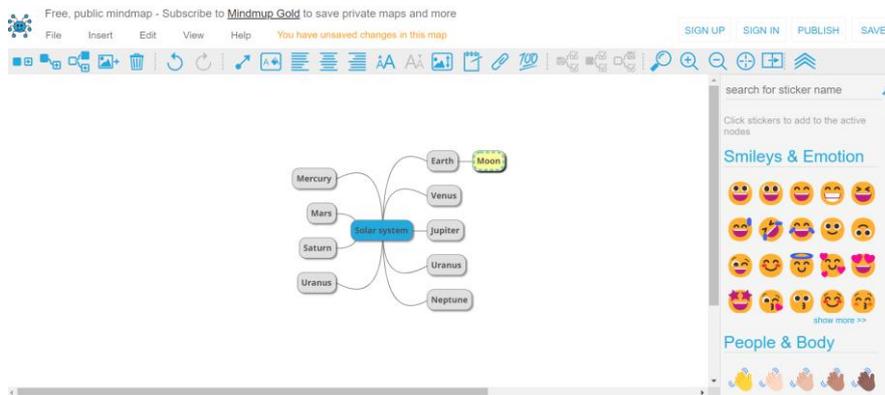
[Kahoot](https://www.kahoot.com/): contains tools for interactive lessons, a section for open resources, a game and quiz section. It has both free and premium versions, with a different range of prices according to teachers' needs. The free one allows you to create quizzes for a maximum of 50 players. It's possible to create different kinds of games to assess your students' such as quizzes, true or false, sequences.



## 10.2.2 Mind Mapping apps

[Mindmeister](#): an app where you can create your mindmaps, but also create them in cooperation with your students. It is also possible to create sessions for brainstorming and has useful tools for project planning. It has both free and premium versions: the free one has a maximum of 3 maps to be created contemporary.

[Mindmup](#): app to build your mindmaps to share with students after lessons. It has two versions



and the free one doesn't require any kind of registration: it's possible to create a map for free and download it as a pdf or image. The tool has basic functions but it's very easy to use and intuitive.

[Mindomo](#): this platform can be used to create mind maps, summary schemes, flowcharts, Gantt charts. It has both free and premium versions: the free one includes the creation of 3 maps and publicizing, sharing, and collaborating with others on them.

## 10.2.3 Open Online Sources



[Europeana](#): to discover the cultural heritage of Europe. The resources can be explored according to different criteria: it can be possible to navigate through them by theme, topic, century, or organization. The topics covered are multiple such as archaeology, music, art, history, and geography. There

are also different types of content like images, 3D representation, videos.



[OER commons](#): contains open resources about any subjects and for all the grades of study. Choose the subject, the education level and will appear all the contents matching with the criteria used. For each content is indicated the label of creative common to understand in which way are usable and replicable.



To understand the creative common license, here is the official page <https://creativecommons.org/about/ccllicenses/>.

### 10.2.4 Other tools

[Canva](#): this platform works on a user-centered approach with a very intuitive board and useful tools to create media content. In Canva it is possible to create a huge number of contents, using and readapting the already existing or creating new ones. Canva is available both in free and a premium versions, the free version is comprehensive and comes with a wealth of tools and content. It's possible to share the project with colleagues or students and cooperate on it.

[Flexclip](#): an online video editing platform. There are many templates for different purposes. There are different functions also about the layout and the framing to be chosen according to the needs.

[Spreaker Studio the Podcast Creation Software & App](#): learning is also exploring new formats to be delivered and podcasts are very popular now. Young people are starting to appreciate them because, unlike videos, they can be listened to in all circumstances. This is a very intuitive and easy-to-use platform for podcasts. The free version allows for a rewarding and complete experience with the possibility to share podcasts also on the mainstreaming platforms.

## 10.3 SELF-REFLECTION ON THE USE OF DIGITAL LEARNING PLATFORMS

In recent years, technology has invaded every field of knowledge, and in many countries, paths have been taken to introduce the use of technologically advanced tools in schools. In addition, the last few years have seen the spread of learning platforms like wildfire.



*Do you use any of the platforms? Do you see added value in using it? What do you think are the most important factors influencing the effective use of such platforms?*



## ADDITIONAL CONTENT

### 10.4 NEW TECHNOLOGIES IN EDUCATION

As already mentioned, technology has developed very rapidly in recent decades, allowing us to do things we could not even imagine. We can control the world around us from our smartphones, access universal knowledge in a matter of seconds through search engines, but among the new inventions, surely the most extraordinary has to do with artificial intelligence and augmented reality. In the following, we will briefly look at both and how they can be integrated into teaching.

#### 10.4.1 AI in Digital Teaching

Until a few years ago, artificial intelligence seemed to be something out of science fiction, present in American blockbusters, but today, unknowingly, we use it in our daily actions. The simultaneous translations of Google translate, the chatbots for customer services of multinational companies, the suggestions on what you can watch in streaming, all these actions fall within the field of artificial intelligence.

Watch this video about the possible use of AI in teaching:

<https://www.youtube.com/watch?v=xW1jg1UiVwo>

#### 10.4.2 VR/AR in Digital Teaching

Another useful resource for teaching is virtual/augmented reality. It comes in various forms: from simple 3D animation visible on the screen to more sophisticated devices that allow us to live an immersive experience in virtual reality.

Augmented reality can effectively support the teaching of school subjects by allowing students to interactively and effectively visualise representations and models that are difficult to understand from two-dimensional images.

Google has developed two really useful and easy-to-use software to explore thousands of topics and places:

- the first one is **Google Art & Culture** where you can find virtual tours of museums, parks, countries, but also history and science topics. [Google Arts and Culture website](#).  
[Tutorial How to use Google Arts and Culture](#)
- the second is **Google Lens** through which you can get information about plants, animals, places, and works of art just by taking a picture.

**Metaverse Studio** is a tool for creating augmented reality learning experiences. With Metaverse you can create games, quizzes, stories, tours, treasure hunts, events, geocache (a container of



information associated with a place with a diary: logbook), and add filters to photographs. Here is a brief video tutorial about [Metaverse](#).

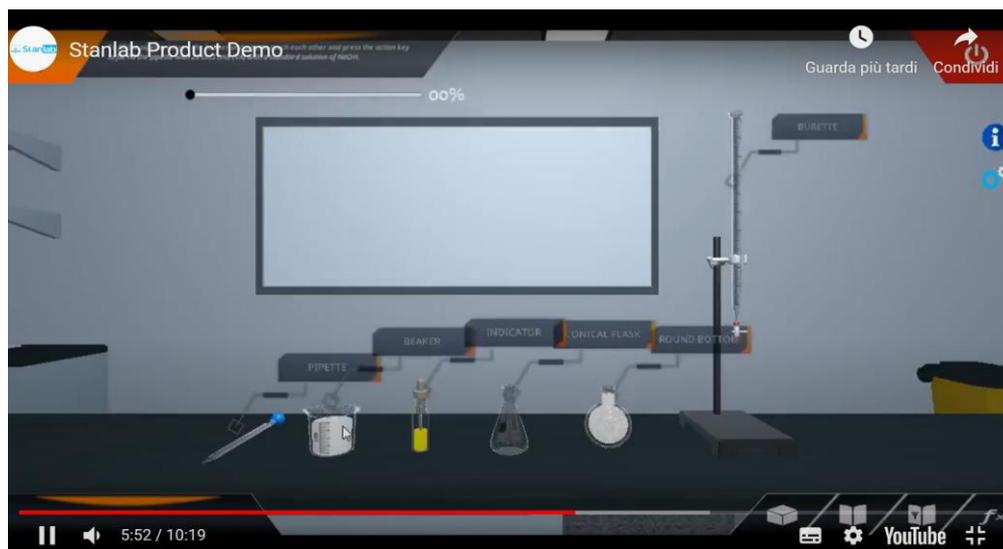
**HP Reveal App** here is a brief tutorial about the HP Reveal app on how to create an augmented presentation. [HP Reveal tutorial](#)

### 10.4.3 High-end technologies

The world of education has undergone many transformations in recent years, especially with an evident surge in e-learning services thanks to many platforms offering courses, even free ones, on the most diverse topics. This evolution had affected the world of formal education more marginally, except for a few universities, but the advent of the pandemic has forced even the smallest institutions to adopt new technological solutions to continue their educational services.

The technologies implemented are very diverse and the most innovative include the use of more sophisticated technologies such as AI and AR.

**3D virtual learning environments:** Some schools and universities have created online laboratories based on 3D technology in which students can have virtual learning experiences simulating those of a real space. Such technologies are effective for hands-on activities, where experimentation is essential to support theoretical knowledge. Chemistry, biology, and physics laboratories have been created, and in each of them, it is possible to carry out experiments identical to those done in a physical laboratory. 3D technologies for the implementation of practical activities could be the ideal solution for schools in shortage of space, funds, and infrastructures. Furthermore, they will be an opportunity to practice or better understand the topics studied also for students affected by cognitive or physical difficulties that do not allow them access to physical laboratories.



One example is **StanLab**, a virtual platform designed by a young Nigerian and funded by the WordClass Education Challenge programme promoted by Deloitte. <https://www.stanlabvr.com/>



**IVR technology:** IVR refers to a system capable of reciting information to a caller by interacting via a telephone keypad. The mobile phone can therefore be used to access and navigate a range of content using the numeric keypad. This technology is particularly suitable for narrative and story-telling contents, without neglecting the possibility of interacting with them. The technology also has enormous potential for use with visually impaired students. The mode can also be used for game experiences based on the user's choice to proceed in the story.

**Learning Analytics:** collecting and gathering data processed through data science, providing an overview of teaching, and learning processes. The programs help educators measure students' growth and make predictions of academic success. When educators receive this analysis, they get an idea of what students enjoy the most. It provides them an opportunity to increase engagement in the classroom and identify any blocks students might be experiencing. These analytics empower educators to develop a teaching pattern that benefits the students and helps them reach their full potential.

Technology has permeated every aspect of our daily lives, we talk about IOT (internet of things), but many remain sceptical about the full integration of technology into the world of formal education. The relationship of young people with the digital world is dichotomous: they experience the virtual world with great ease, using even the most complicated technologies with extreme simplicity; on the other hand, they find it difficult to see the technological tool as an effective tool for learning, considering it mainly as a recreational tool. It is precisely in this gap that the figure of the teacher should be inserted, who, instead, would be a guide to using technologies profitably and intelligently.

The advantages of using technology in education are many:

- **Incorporation of different learning styles:** Student needs are diverse and technology is an ally for the personalization of the learning experience. Electron devices and multiple applications offer solutions for every user and every need, while also accommodating the inclinations of each learner.
- **Improved collaboration:** technology increases collaboration among students. With technology, students can work with each other even outside the school. When teachers assign a project, students are more likely to collaborate with each other to complete it when they have access to tech.
- **Improved student-teacher connection:** the possibility of maintaining active contact even outside the school walls considerably improves the dialogue between student and teacher. Moreover, thanks to technological support, even the shyest students can express themselves and seek a confrontation with the teacher.
- **Preparation for the future:** the labor market and the job itself are changing considerably due to technological innovation. Innovating education and implementing digital solutions already in the learning environment will help children to develop new fundamental skills for their working future and to consolidate others in a more professional perspective.



- **Engaging environment:** technology is certainly a valid tool to make learning more attractive for children. The digital environment offers engaging and challenging activities that encourage student participation and engagement.

As widely discussed, technology can be a valid ally to innovate and make educational processes more effective, on the other hand, it is feared that it may encourage students to detach from the formal educational environment. One of the recurring criticisms that the world of education moves towards technology is its use in terms of substitute for the educational figure. Technology, however, cannot be considered as such, but rather as a valid support for the teacher to maintain and revive the relationship with their students and also improve their professional performances. The teacher, in this new educational scenario, acts as a guide for their students, accompanying them on a path in which it is possible to acquire knowledge and build new skills, where everyone can also work on their own personal growth. Following the pandemic, the world of education was forced to open its doors to the digital world, where before they were only ajar, and now this opening can only remain. An education detached from the path that the rest of the world is taking is harmful to its users: getting children used to interacting and studying in a digital environment will help them to be more aware users even in their private life, as well as making them ready and prepared for the world that awaits them beyond the school walls.



Choose one of the apps or learning platforms listed below. Your task is to study it in as much detail as possible. Try to use it. You can even make one learning content on it. Try out the different possibilities it offers.

Write down the key findings of how to use it. You can also make a note of the thoughts you have while using the app/platform.

*Write down the key findings on a separate sheet to take with you to the live training.*



## 11 | EFFECTIVE ORGANISATION OF LONG-TERM DIGITAL LEARNING/TEACHING

To process this chapter effectively, you will need the following material:

- at least two sheets of paper
- a pen
- internet access + speakers/headphones

Remote learning in a digital environment requires different settings than the traditional one in a classroom. The responsibilities of the students are much higher. They must maintain a certain routine, avoid distractions, and manage their learning process mostly by themselves.

A proactive mindset is necessary, and teachers need to understand how to support and foster this. On the other hand, remote learning helps students to acquire self-management skills they would otherwise not get, but that are crucial for their future professional development.

### 11.1 FOSTERING CREATIVITY AND PROACTIVITY



**Creativity** is defined as the production of something new and useful. Creative thinking is connected to problem-solving: putting together some approaches or tools that haven't been used together before can lead to unexpected solutions. In a fast-changing world, creative thinking becomes more and more valuable. It is no longer sufficient to rely mainly on experience and learned skills. New challenges require new solutions and the way to find them is through creative thinking.

Creativity enhances learning by increasing motivation. It can also facilitate cross-curricular (or extra-curricular) learning and deepen the understanding.

Digital learning offers many possibilities to develop the creativity of students: free of peer pressure they can try out new ideas and ways in a safe environment. Errors are easily detected and deleted or corrected. This environment allows frequent small successes and rewards the student.

There are several ways to develop student's creativity:

- give encouraging feedback and show sincere interest
- use creative instructional methods and models
- discuss creativity myths and stereotypes with students

Finally: teachers need to foster their creativity. If we know what helps us to be creative, we can help our students much better.

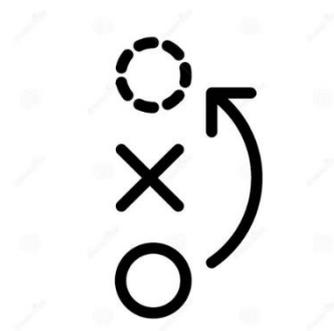


**Proactivity** is a mindset where someone endeavours to solve a problem before it occurs. It is the opposite of reactivity, where someone waits until something happens and orients his or her reaction accordingly.

Proactive students are not waiting for change but are initiating it. They take responsibility. Proactivity is a consequence of a growth mindset because you have to accept your possibilities beforehand and then act accordingly.

To support students developing a proactive mindset, the known principles of growth mindset apply:

- give frequent and encouraging feedback
- praise the effort, not the outcome
- challenge negative thinking
- set reachable goals



Proactive students look for opportunities. They have learned that they are the ones that decide what levels they can reach. Digital learning (as well as project-based learning) offers them plenty of possibilities to discover on their own and to connect information and material found in different sources.



*What helps you get into a creative mode?*

*When was the last time you were reactive rather than proactive and why?*

## 11.2 STRUCTURING LONG-TERM DIGITAL TEACHING

### 11.2.1 Check your priorities

Watch the following video which highlights interesting points about online teaching:

<https://www.youtube.com/watch?v=Bp4BG4Me7TU>



*Below you have listed the different steps in organising the learning process. Rank them in order (from 1 to 12) according to their relevance in your opinion.*

- Distribute the units according to a coherent and logical scheme
- Set a scale of importance between the topics you should face during the year
- Set a timetable for units
- Set the goals for each unit
- Set the learning environment
- Find materials and resources for the units
- Plan lessons
- Organization of materials



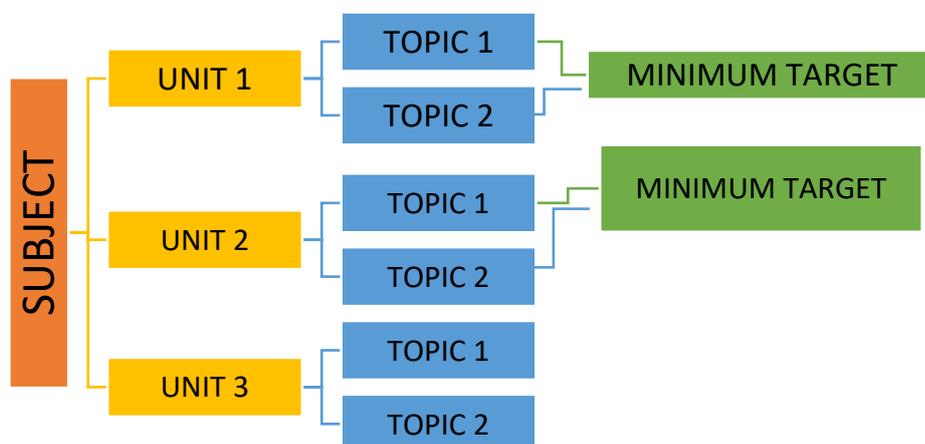
- Set a communication channel
- Choose teaching tools
- Discuss with students about chosen tools
- Discuss with students about expectations



*Did you have any problems choosing the order? Have you ever thought so systematically about the organisation of your teaching? Do you even follow all the steps listed? If not - why not?*

### 11.2.2 Organize the goals/units

The first thing to do is to work out what objectives you want to achieve for each subject in each class. Set, following a coherent syllabus, the minimum targets that students should achieve at the end of the school year.



By following this outline, not only will you have a clear picture of the results to be achieved, but it will also be much easier to understand how to achieve them, by choosing the most effective tools, methodologies, and materials so that these goals can be achieved calmly and efficiently.

This scheme will also be useful in understanding how to differentiate the course according to the needs of the class, also considering students with different needs. Having a clear objective also makes the pathway to it clearer.

### 11.2.3 Organize your materials

To organize the learning units quickly and effectively, it will be essential to analyse, file, and archive the materials you will use during your lessons. Very often, we find ourselves leafing through lots of books, opening dozens of web pages, creating confusion, and wasting precious time. Therefore, the best thing to do is to organize all the material into handy folders ready to be used.

Read the following article about organizing materials for the online classroom:

<https://thesimplyorganizedteacher.com/organize-classroom-computer/>



### 11.2.4 Other tips for organising digital teaching

- Make a clear expectation plan.
- Plan your lessons per time.
- Don't be afraid of using already existing materials: they will save your time to spend with your students.
- Have an open communication channel with your students: share with them the steps of your planning.
- Talk with your students about the digital tools to implement in digital lessons.
- Don't be afraid of experimenting with new tools: step out of the comfort zone also with your students' help.
- Free your imagination: traditional doesn't mean always good. Unconventional methods may help you in creating more interesting and effective lessons.
- Don't forget the social aspects of learning: students need to keep in contact with their teachers and mates. It will create a more peaceful and productive atmosphere.



### ADDITIONAL CONTENT

For more information, see the two articles below:

<https://www.pdsttechnologyineducation.ie/en/PUBLICATIONS/Articles/10-Tips-for-Teaching-Online/>

<https://www.nytimes.com/2020/08/26/learning/80-tips-for-remote-learning-from-seasoned-educators.html>

## 11.3 HELPING STUDENTS TO ORGANIZE THEIR LEARNING PROCESS

Remote learning leaves students with the responsibility to organize their learning process. For some, this could be a huge challenge that negatively affects the overall learning outcome. But if students master this challenge, they acquire valuable skills for their further education and professional life. Self-managed learning will become even more important in the future. Learning to learn is a key requirement.

### 11.3.1 Create the right learning environment

Effective digital learning begins with the right environment. A dedicated workplace that is free of distractions and is separated from everyday activities helps to concentrate on the tasks at hand. Even when individual preferences can be observed in finding and setting up the learning place, certain experiential requirements should be fulfilled:

- make sure the place is comfortable
- eliminate distractions
- organize your files and tools
- take breaks



*Which experiences have you made during the lockdown regarding your work at home?  
Which factors were positive? Which were not?*

### 11.3.2 Time management

A problem that frequently occurs even in traditional, analog settings is an unrealistic plan for completing an assignment. Work is delayed until the latest possible moment (procrastination) and then there is not enough time to complete the assignment in time or high quality.

Project work – regardless of digital or analog - requires careful planning. Students need to learn how to structure their work and assess their abilities. Therefore, teachers should make time management an integral part of remote learning assignments.

### 11.3.3 Break assignments into manageable tasks

When confronted with a huge assignment, many people tend to resign at first sight because they cannot imagine how to accomplish it. Breaking the whole task down into smaller, manageable ones is the way to master it.

One approach to accomplish this consists of the following steps:

1. Look at the big picture

Before diving into the work, you have to make sure that you fully understand what the outcome is supposed to be.

2. Examine the parts of the task

Next, dissect the task into small parts. In a first step, you can just define broader chunks of work (like “research ...”). In a second step break them down even further. In the end, each identified task should take you no more than one hour.

3. Think about the logical order

There might be some inherent logical order in the tasks you need to do. Find that and plan accordingly.

4. Create a timeline

You need to create a realistic timeline for your work. This will be difficult at first because you do not know how much work you can do in a certain amount of time. Once you practice this, it will get much easier.

5. Make a plan

Write down the timeline and the tasks/steps you have identified. This way you will be able to adapt your plan if something doesn't work out as expected.

6. Complete early

When making your plan, aim at finishing a bit earlier than the deadline. This will ensure that you will be able to make some final checking and correcting after completing your assignment and will additionally give you some reserve time.



*Think of a large task you had to complete recently: how did you manage to do it?  
What are your best experiences in task management?*

#### 11.3.4 Encourage extracurricular activities

Remote digital learning can only be successful if there is enough variety in the activities of the student. Regular breaks and time away from a screen ensure a sufficient level of concentration and attention throughout the day. Even when we consider a “normal” setting, in which not the whole learning process is digital (like during the pandemic), breaks and non-digital activities are important. Some ideas for extracurricular activities are creative work (drawing, music, video), sports/physical activities, making things/handicrafts, community/social work.

It can also help students learn different, common skills and values like communication, initiative, endurance, diversity, responsibility, etc.



Think about how you would design the task to encourage students to be proactive. Briefly describe your idea.

*Write down your idea on a separate sheet to take with you to the live training.*



## 12 | NEW APPROACHES IN DIGITAL TEACHING

To process this chapter effectively, you will need the following material:

→ internet access + speakers/headphones

### 12.1 OVERVIEW

A couple of new approaches have been developed that aim at the following goals:

- sustain students' motivation
- make learning fun
- establish challenges as a learning method

Here is a short overview:

[https://www.huffpost.com/entry/5-new-approaches-to-teaching-strategies\\_b\\_4697731](https://www.huffpost.com/entry/5-new-approaches-to-teaching-strategies_b_4697731)

It is clearly visible that these approaches are following the growth mindset principles we discussed in previous chapters.

### 12.2 FLIPPED CLASSROOM

The core idea behind this concept is the exchange of the classroom and the students' homes. What would traditionally happen in the classroom is moved to the students' home and vice versa.

This video explains the concept: <https://youtu.be/BCIxikOq73Q>

As with every complex concept, it has advantages and disadvantages. Please read the article for further insights:

<https://www.teachthought.com/learning/the-definition-of-the-flipped-classroom/>



*What do you like about this concept?*

*Where do you see the largest obstacles for implementing it in your school?*



## 12.3 PROJECT BASED LEARNING (PBL)



Resource [What is Project Based Learning?](#)

Project-Based Learning (PBL) is a concept where students work together on a real-world problem. Examples for that could be:

- create an infographic for a blog post
- analyse viral web content
- fact-check fake news
- develop a business plan
- design a city/quarter

Here is a short introduction video: <https://youtu.be/NehLmrBmqUQ>

PBL requires a lot of preparation and involves different external actors.



*What do you like about this concept?*

*What project could you implement in your class?*



### ADDITIONAL CONTENT

If you would like to know more about project-based learning, you can read the article below:

<https://venngage.com/blog/project-based-learning-examples/>



## 12.4 SERIOUS GAMES/GAMIFICATION

People have played games for as long as history remembers and probably much longer. There are a couple of elements in playing that make it suitable for educational purposes. We have already talked about challenges. We like to master them as long as they are not too difficult. A well-balanced system of challenges and rewards can keep us motivated for a very long time, like popular video games and the success of dedicated consoles show.

Gamification is the process of bringing game elements into other areas, especially education and training. While this concept has been frowned upon in the beginning, it has gained much more acceptance in recent years.

Serious games are games that are specifically designed for purposes other than entertainment.

Here are two videos that introduce the concept:

Gamification: <https://www.youtube.com/watch?v=MuDlw1zIc94>

Serious games: [https://www.youtube.com/watch?v=JmG3fdptY\\_k](https://www.youtube.com/watch?v=JmG3fdptY_k)



*Do you already have experience with gamification?  
What kind of topics would you like to gamify and why?  
What reaction would you expect from students and parents when you use gamified learning?*



Try to learn as much as possible about the gamification approach. Use the internet to find a wide variety of information and concrete examples. The aim is to be able to apply the approach independently in practice.