

DIGITAL RESOURCES

Learning objectives

Teacher is able to choose, create and apply learning material that is

- accessible
- suitable for the learning objectives
- suitable for the students and their competence level
- suitable for the context.

Challenge:

There is not enough accessible and well-structured digital learning material for students with special needs

Digital material supports differentiation

Nowadays there is a lot of digital material that helps both teaching and learning. There are a lot of digital textbooks, multimedia resources (such as videos and podcasts) and even national digital libraries where you can search for suitable material for your learners. But the problem remains: how to know which material is the best for my special needs students? Often the answer is to build something new, but the good news is that there are many tools that are suitable both in VET and for students with special needs.

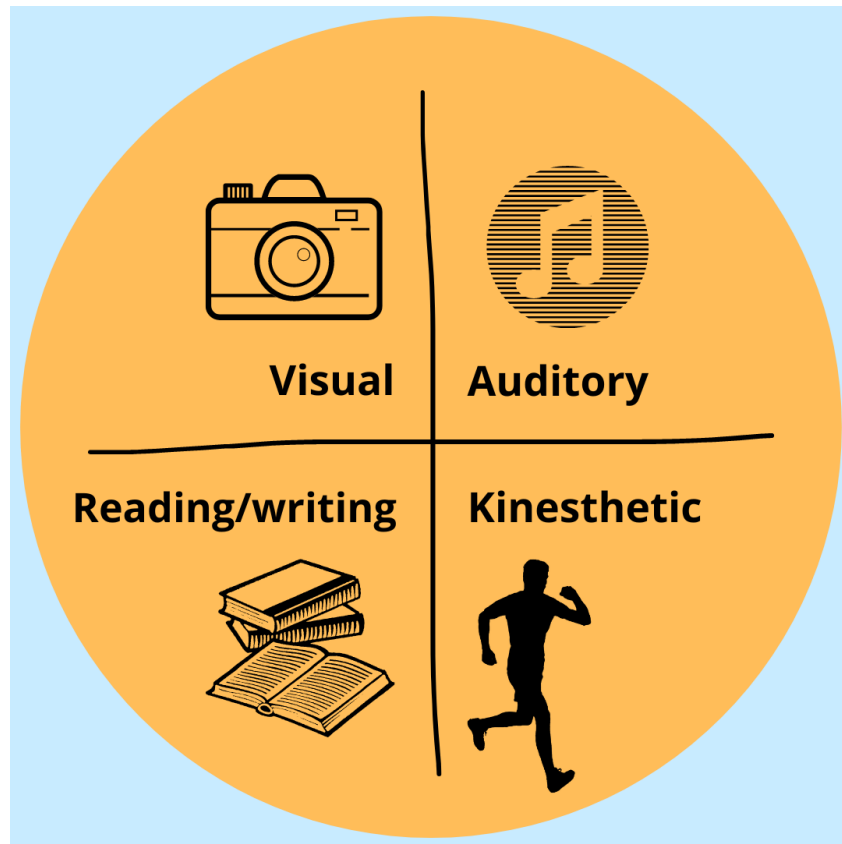
Online learning and digital material can be beneficial for students with special needs as it is possible to customise the learning environment. For example, students with disabilities can access material in alternative formats, such as audio or large print, and use assistive technology to navigate the online learning platform. Additionally, online learning can also provide students with special needs the opportunity to work at their own pace and receive individualised instructions.

When selecting digital material, take into consideration

- age of learners
- learning objectives (with the subject that is learned)
- learning objectives (with the digital tools)
- accessibility
- special needs of the learners
- the need to motivate the learners.

Each learner has their own way of learning, and people benefit from different kinds of approaches. Most people understand and remember more when all of our senses are activated while learning. There are four main methods in multimodal learning: visual, auditory, reading and writing, and

kinesthetic (VARK). It is useful to add elements of all these modes to create learning material that engages the learner.



It is easier to learn with **well-structured material**. This means for example:

- Digital material should be logically organised. The content should follow a well-defined structure, with clear headings, subheadings and sections. This way it is easy to navigate and find specific information.
- The objectives should be clearly stated in the beginning. This helps the learners to understand what and why they are studying. It also gives a sense of direction through the learning process both to the learner and to the teacher.
- The material should be designed to seize and hold learners' attention. It should include multimedia elements such as text, images, videos, and interactive components to enhance the learning experience and serve different learning styles.
- The material should guide learners from basic things to more advanced topics in a structured manner, and the content should be broken down into smaller, manageable chunks.
- The material should be accessible, and the design should be user-friendly with intuitive navigation, clear instructions and layouts that adapt to different devices.
- Instructions, explanations and feedback should be written in clear language, avoiding jargon or difficult words.
- Digital and online learning materials should also include regular assessments to evaluate learners' progress. These assessments should provide meaningful feedback to learners.

Teachers should have a good understanding of **copyrights** to ensure they're using materials ethically and legally in their classrooms.

Copyright is a form of legal protection for original works of authorship, including literary, artistic, musical, and other intellectual works. Copyright is owned by the creator of the work by default. Generally, copyright protection lasts for the lifetime of the author plus 70 years after their death.

Guidelines for teachers

- Always seek permission or use materials that are explicitly labelled for educational use or are within the scope of fair use.
- When using someone else's work, provide proper attribution to the creator/owner.
- Understand the boundaries of using copyrighted material within the classroom. This might differ from using it in published materials or online.
- Here you can check what are the rules and laws concerning copyrights in education in your country: <https://euipo.europa.eu/ohimportal/en/web/observatory/faq-for-teachers>
- Get to know the Creative Commons licence which allows you to share material with other people - and to find material which you can use: <https://creativecommons.org/share-your-work/clicenses/>

Solution 1:

Get to know the material that already exists

In every country there are several online toolkits and material banks. Get to know them and utilise material that is suitable for your learners. Often it is also possible to modify the material to your own needs. Material produced in Erasmus plus project is available to everybody, and many teachers share their teaching material with Creative Commons license on the internet.

Sometimes the best material is already very near you. Collaborate and combine resources with your colleagues in your organisation and in your country. There are a lot of groups in social media where you can share your material and ask help from other people. Embrace the culture of sharing – you, your colleague and your students all win!

Tools

[Tips for Teachers](#) in YouTube

[Professional Development for Vocational Education and Training](#) Playlist in Youtube

In [Kahoot.com](#) choose Discover and search for public kahoots on your topic

[Avointen oppimateriaalien kirjasto](#) (in Finnish)

[Live's Digital Kit](#) (in Finnish)

[Matleena Laakso's blog](#) (in Finnish)

Solution 2:

Evaluate your learning material (that already exists), modify it to more accessible if needed

You don't have to start from scratch. You have probably created a lot of learning material already, and a great deal of it can still be usable. However, evaluate your learning material and check if it suits your learners. A good way to start evaluating is to use a checklist for accessibility.

Check at least the following things:

- Use language that is clear and understandable
- Make your material (web pages, documents etc.) logical and predictable
 - o Reading or navigation order is logical and intuitive
 - o Titles and subtitles are informative
 - o Links and buttons are informatively named
- If there are learners with sensory disabilities, make sure that also they can understand your material
 - o the contrasts are clear
 - o alternative texts (preferably short)
 - o transcripts
 - o subtitles
- It is possible to pause the material or modify the time used for learning
- It is possible to navigate through the material with the keyboard
- It is possible to turn off the sounds or the animations
- Nothing in your material flashes faster than 3 times in 1 second.

Remember that your material must suit your learners! Modify the flaws and problems that make learning harder for your learners. You can start with a small part of your material and make it more accessible little by little. The goal of accessibility is to ensure that all users, regardless of their abilities, can access and benefit from digital content and technologies.

Tools

Accessibility checklists

[Dos and don'ts on designing for accessibility](#)

<https://webaim.org/standards/wcag/checklist>

[Selkeästi meille](#) (Guide for cognitive accessibility)

[Papunet – saavutettavuus » Papunetin WCAG 2.1 -tarkistuslista](#)

Solution 3:

Create an accessible material that completes your already existing material

There are several ways to make good learning material. Think what your learners need and create new material that they find interesting, intriguing and informative. Use examples and platforms that they already are interested in.

For example, video has revolutionised the way we spend our free time, but also the way we learn. Video moves and teaches us, it evokes emotions, it can sell things and build images, it entertains, can be helpful and often stays in the mind. Learners in all ages watch videos daily. By making an interesting video you can reach your learners effectively – and the learners can learn something new while making something they enjoy.

You can also choose examples that your learners will think are interesting and build your material around them. For example, if you want your learners to learn English, let them plan a trip to London by searching information on English websites.

Remember to utilise multimodal learning (*link to vocabulary*), which means taking all the senses into account when learning something new. Visualise with pictures, videos or cartoons. Use podcasts, songs, audiobooks and discussions to activate auditory learning. Get learners active and kinesthetic by putting them to produce material. Don't forget reading or writing either, because the traditional way works for many learners, and all the different ways complete each other.

Tools

[Howspace](#)

[Google Workspace](#)

[Google Forms](#)

[VR](#)

Solution 4:

Organising and sharing the learning material

There are several platforms that allow organising material into different kinds of folders and channels. Google Drive and other Google tools can be used free of charge and most of the organisations use O365.

Through these platforms it is also possible to share material, which makes collaboration easier. It is possible to work on the same file with colleagues and the material can be shared even between organisations. This allows using mutual material banks and creating material together.

A teacher can share material with the learners and the learners can share material with each other. This encourages collaboration and teaches learners to cooperate and work as a team. The working life of the present values teamwork, as it can enhance the outcomes and effectiveness of working places.

The use of digital material is often criticised, especially when the learners have special needs. However, there are several reasons why you should consider using digital material:

- The amount of loose paper decreases, which is ecological.
- The learners don't have to look for the papers they got last week.
- As a teacher you may find yourself more organised when everything is neatly in digital form.

- It may be easier for students to follow the curriculum when they can see everything neatly organised in digital form.
- It is possible to work from anywhere.

Furthermore, get to know the **privacy policy** of a digital learning platform that you are using. You should find it on the webpage of the learning platform or by searching online “privacy policy [name of the learning platform]”. Privacy policies outline how digital tools handle, store and utilise user data.

For educators, understanding these policies isn't merely a formality. It is important to know what information the platform collects, be it student data or personal details, and how it is used. Teachers need to ensure that the platform respects and protects their students' personal information, fostering a safe and secure digital learning environment.

If the platform collects too much information or if it is impossible to control what is being collected, you may want to find another platform. Protect your students' privacy and build a conscientious digital citizenship within the classroom!

Tools

[Google Workspace](#)

[Google Classroom](#)

[Ilias](#)

Solution 5:

Tips for working with learners with certain special needs

Here are some tips on how to use online learning material with learners who are on autism spectrum, have ADHD or other neuropsychological disorder. It is important to understand that not all individuals with special needs have the same kind of needs, so work closely with each individual learner to identify their specific needs and develop a plan to support their learning. Also when you work closely with all the entities that support the learner, it is easier to make sure that the learning material is accessible and inclusive.

What kind of online learning material is useful for ADHD persons?

- **Interactive materials**, such as videos, games and simulations, can help to keep individuals with ADHD engaged and motivated to learn.
- Individuals with ADHD may have difficulty focusing for long periods of time, so it can help to break up lessons into **shorter, more focused parts**.
- **Multimodal learning** is good for everybody, but combining different types of media, such as text, audio, and video, can help to keep individuals with ADHD engaged and reduce the risk of boredom.

- **Self-paced learning** may work for some of the learners. Online learning platforms that allow students to work at their own pace can be beneficial for individuals with ADHD as they can take breaks as needed and come back to the material later when they are ready to focus again.
- **Adaptive** learning systems can provide **personalised** instruction that is tailored to the strengths and weaknesses of individual students.
- Some online learning platforms come with **reminders and goal setting** tools, which can help individuals with ADHD stay on track with their learning.
- Online learning platforms that offer opportunities for **social interaction**, such as online discussions or group projects, may make the learning encouraging for some students.

What kind of online learning material is useful for persons with neuropsychological disorder?

- **The qualities** of learning material **mentioned above** can be useful also for other neuropsychological disorders.
- Online learning platforms that offer **accessibility** features, such as intuitive navigation, clear language, text-to-speech, closed captioning, adjustable font size etc., can be beneficial for individuals who have spatial learning disabilities.
- **Assistive technology**, such as speech recognition, keyboard and mouse alternatives and screen readers, can be used to help individuals with neuropsychological disorders.

What kind of online learning material is useful for autistic persons?

- Autistic individuals often benefit from **structured and predictable environments**, so online learning platforms that offer a clear and consistent layout and navigation can be helpful.
- Online learning platforms that offer **consistent and predictable schedules** for classes and assignments can be beneficial.
- Some learners benefit from **visual aids** such as pictures, videos, and diagrams. These visual aids can help to make the material more concrete and concrete representation of information can be processed more easily.
- Some autistic learners may have difficulty processing visual information, so online learning platforms that offer **auditory aids** such as audio books and voiceovers can be helpful.
- **Social stories** can help to teach social skills, emotions and routines. These are short stories that provide a visual representation of a social situation.
- Some learners benefit from **repetitive learning**, so online learning platforms that offer the ability to review and practice material multiple times can be beneficial.
- **Self-paced learning**: Some learners want to be able to control the pace of their learning, so online learning platforms that allow students to work at their own pace can be beneficial.