

NAME	CONCEPTUAL MAPS
Short description (What)	<ul> <li>Concept maps are a visual way to organise your thoughts and make connections between ideas. They improve our ability to understand and remember concepts, because our brains process visuals better than plain text. Also show others how the ideas or things are connected.</li> <li>Concept maps have three elements: shapes, arrows, and text. The subject is at the top and the related ideas become more specific as you move down the map. In this way, concept maps are different from mind maps that just have information in every direction around a subject.</li> <li>A Concept map helps interpret and visualise information: <ul> <li>For a deep understanding;</li> <li>Helps organise Your thoughts;</li> <li>Helps remember Important Information;</li> <li>Helps understand connections.</li> </ul> </li> </ul>
Purpose/aim (why)	<ul> <li>Co-create contents (Conceptual maps)</li> <li>Acquisition of new knowledges</li> <li>Showing job processes and techniques</li> <li>Systematisation of contents</li> <li>To carry out a brainstorming session</li> <li>Interpret and visualise information</li> </ul>
Contents/learning objects suitable (on what)	<ul> <li>Specific contents/objects trained with this specific solution: <ul> <li>Visualise theoretical concepts</li> <li>Used to visualise theoretical knowledge</li> <li>Images and text can be used to create conceptual maps</li> </ul> </li> <li>Some examples of application: <ul> <li>To create a brainstorming session</li> <li>Mapping problem and solutions</li> <li>To remember important information - definitions</li> <li>Explaining work processes and division of tasks</li> <li>Communicating complex ideas and arguments</li> <li>Creating a synopsis of your knowledge</li> <li>Helps to organise the writing of the thesis / synopsis (topics, subtopics and content).</li> </ul> </li> </ul>
Type and level of interaction	<ul> <li>Integration is immersive:</li> <li>When working in a group, integration is immersive. Participants discuss and think together, including the teacher. Then they create and present conceptual maps in class. Good solution for group work.</li> <li>In theoretical lessons, the student can compile a conceptual map of work processes, terms or learning materials. The student can also submit</li> </ul>





	homework or class work through a conceptual map. The student has to think along, the integration in the class is immersive. The student can also submit homework or class work through a conceptual map.			
Type of learning stimulated by the solution	X Learning from experience X Learning through creative thinking X Learning from peer interaction X Learning from a reflexive process			
Digital solutions' brand names	<ul> <li>The most common and different brands which propose that digital solution.</li> <li>Lucidchart - <u>www.lucidchart.com</u></li> <li>Canva - <u>www.canva.com</u></li> <li>GitMind - <u>www.gitmind.com</u></li> <li>MindMeister - <u>www.mindmeister.com</u></li> <li>Miro - <u>www.miro.com</u></li> <li>Google Drawings - <u>https://docs.google.com/drawings</u></li> </ul>			
<b>Technical equipment</b> (indicate the technical equipment needed to support its use in training/teaching)	<ul> <li>Smart phone</li> <li>Computer (Computer class with modern technology)</li> <li>Tablet</li> <li>Internet connection</li> <li>Application software (plugin program)</li> <li>Smart Board</li> </ul>			
Equipment conditions	<ul> <li>The school must provide teachers with access to a computer, including an internet connection.</li> <li>Smart Board to present the maps.</li> <li>A computer class for students to participate in lessons when using interactive learning platforms.</li> <li>In the case of distance learning, the teacher or school must make sure that the students have the necessary tools / equipment for use of the platform.</li> <li>Lucidchart - Lucidchart helps visually solve complex problems by creating architectural diagrams and flowcharts. It allows multiple team members to collaborate at the same time. Lucidchart offers an educational version for free.</li> <li>Canva - Canva is a graphic design app to design visual materials. This Platform is used to create social media graphics, simple videos, presentations, slides, posters and other visual assets — and has a wide range of customizable templates and royalty free images. There are plans that are basic (limited opportunities) which are free and plans with more additional options for a fee. There is also an educational plan. Canva for Education is 100% free for K12 teachers and their students.</li> <li>GitMind - Offers plans that are free and paid. Free plan Basic includes: Up to 10 mind maps, all features, all platforms. It is possible to add various additional options for a fee. No educational version found.</li> <li>MindMeister - Offers plans that are free and paid. Basic which is free includes: up to 3 mind maps, real-time collaboration, email support. It is</li> </ul>			



possible to add various additional options for a fee. MindMeister offers an educational version for free and for a fee.

• Miro - Offers plans that are basic which are free and plans with more additional options for a fee. Miro offers an educational version for free and for a fee. If you're a student, an educator, or a school, you can apply for a Miro account. Students and educators can use Miro for free.

#### Costs

## Lucidchart

https://lucid.app/pricing/lucidchart#/pricing					
Lucid for Education is free for teachers and students.	Basic With limited options €0	Individual Starting at €6.95	Team Starting at €8.00 per user 3 users minimum.	Enterprise Custom fee.	

### Canva

https://www.canva.com/pricing/

<b>Canva</b> for Education is 100% free for K12 teachers and their students.	<b>Basic</b> Free (Everything you need to start designing)	Pro €109.99/year for up to 5 people (Designing together just got better. Professional design made easy with unlimited access to premium tools and content)	Enterprise €27.00/month per person (Empower your team, manage your brand, and scale your content all in one place. Minimum 25 people)
		content)	

### • GitMind

https://gitmind.com/pricing

Basic (personal)	<b>Monthly (personal)</b>	<b>Annual (personal)</b>	<b>Team Plan</b>
Up to 10 mind maps	\$9/per month	\$4.08/per month	Custom fee.
FREE			

### MindMeister

https://www.mindmeister.com/mind-map-pricing https://www.mindmeister.com/mind-map-pricing/education

Education	Basic - (Up to 3 mind maps. Share. Collaborate. Import) FREE.
Basic - free	Personal - (For individuals and use in personal projects) €4.99/per
Edu Personal - €2.50/per	month.
month	<b>Pro</b> - (For top-notch mind mapping, alone or in teams) €8.25/per
Edu Pro - €4.13/per month	month.
Edu Campus - custom fee	Business - (For enterprise users and mapping enthusiasts) €12.49/per month.
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#### • Miro

https://miro.com/education-whiteboard/

<u>nttps://miro.com/pricing/</u>	
Education	Free - \$0.
Students and educators for free.	<b>Team</b> - \$8 Per member/month.
Institution for a custom fee.	Business - \$16 Per member/month.
	Enterprise - Custom pricing for your company.

## IO1: DIGITAL SOLUTIONS FOR LEARNING



Main technical problems that can be occurred / maintenance needs	<ul> <li>Bad or irregular internet connection.</li> <li>Problems with devices (e.g. computer, phone, tablet). The device battery is empty, no software update has been performed, no plug-ins have been applied.</li> <li>Power outage.</li> <li>The platform is chargeable.</li> <li>The school does not have the appropriate equipment or computer class for teaching.</li> <li>Students do not have the appropriate equipment (computer or tablet, internet connection) at home.</li> </ul>
Methodological indications for trainers/teachers	<ul> <li>Please indicate:</li> <li>how the solution can be used (or is designed to use) during a lesson</li> <li>To involve students in the learning process.</li> <li>The solution is suitable for both group work and individual work.</li> <li>Active learning takes place as students create a map of their own knowledge or ideas.</li> <li>In theoretical lessons, the student can compile a conceptual map of work processes, terms or learning materials. The student can also submit homework or class work through a conceptual map.</li> <li>The teacher can explain more difficult topics using a conceptual map</li> </ul> Needed preparatory activities <ul> <li>The teacher explains what is a conceptual map, compiles a guide to using the platform and Instructs students to use it.</li> <li>An understandable learning guide is required when using this digital solution (verbally or in writing).</li> <li>Check that the equipment is working and can be used in the classroom.</li> <li>A computer class is required.</li> </ul> De-briefing solutions to be adopted <ul> <li>The teacher should be able to use at least two platforms in case something happens to one.</li> <li>Compile a conceptual map on paper.</li> </ul>
Describe the use onsite of that solution	<ul> <li>Students conduct a brainstorming session and use a conceptual map to organise ideas.</li> <li>Students visualise a summary of the study material using this solution.</li> <li>To collaborate, students create a plan and share workflows using this solution.</li> </ul>
Describe the use in the distance setting of that solution	<ul> <li>Students visualise a summary of the study material using this solution (For example, homework).</li> <li>To collaborate, students create a plan and share workflows using this solution.</li> <li>The solution can be used for online collaboration.</li> </ul>

## **IO1: DIGITAL SOLUTIONS FOR LEARNING**



Main pedagogical problems that can be occurred	<ul> <li>The teacher does not know how to integrate a conceptual map into their teaching.</li> </ul>			
Troubleshooting suggestions	<ul> <li>Restart the computer.</li> <li>Check the network connection, restart if necessary.</li> <li>Restart your Internet browser.</li> <li>Update plugins.</li> </ul>			
Role of the teacher/trainer	<ul> <li>The teacher explains what is a conceptual map, compiles a guide to using the platform and Instructs students to use it.</li> <li>Integrates consistent use of conceptual maps into teaching and learning.</li> <li>An understandable learning guide is required when using this digital solution.</li> </ul>			
<b>Strengths</b> (regarding contents, techniques and processes)	<ul> <li>Increases teachers' digital competence.</li> <li>Increases students' digital competence.</li> <li>The use of technology in teaching increases students' motivation and involvement in the learning process.</li> <li>Active learning takes place as students create a map of their own knowledge or ideas.</li> <li>The solution is suitable for both group work and individual work.</li> <li>The teacher can explain more difficult topics using a conceptual map.</li> <li>The conceptual map can also be created with a pen and paper if technical problems arise.</li> </ul>			
Weaknesses (regarding contents, techniques and processes)	<ul> <li>Bad internet connections can interrupt creating a conceptual map.</li> <li>Outdated software does not support the platform.</li> <li>Students do not have the appropriate equipment (computer or tablet, internet connection) at home.</li> <li>The teacher does not have the skills and knowledge to use the equipment and the platform.</li> <li>In general, the best platforms are in English. Lack of language skills can make it difficult to use the platform.</li> <li>The teacher does not know how to integrate a conceptual map into their teaching.</li> <li>The school does not have the appropriate equipment or computer class for teaching.</li> <li>The level of students' digital competences is uneven.</li> </ul>			
Linked practices (if available – see the other scheme)				
Main characteristics (Evaluate each characteristic)	Low Medium High			

# 101: DIGITAL SOLUTIONS FOR LEARNING



	Level of interaction among trainees during the experience			x
	Level of interaction with the trainer during the experience			x
	Autonomy in the use of the solution by the trainee			x
	Easy to use (friendly?) by the trainee		x	
	Easy to use (friendly?) by the trainers		x	
	Level of peer-to-peer collaboration			x
	Inclusiveness (in relation to disadvantaged groups)		x	
	Level of engagement			x
Other relevant information				
Comments	Conceptual maps are a very useful solution for teaching. It teaches students to organise their knowledge and write it down logically. However, if it is used in teaching, the teacher must be able to use it himself and guide students to use it. Problems can arise if the teacher does not know or cannot use this solution in teaching.			
A contribution by	VIKK			