



Tutors of this course are advised to read through the slides and notes and familiarise themselves with the presentation set-up. Tutors should also go through the lesson plan (by following the notes in the slides) and may need to research the subject area. Suggested examples are provided, but tutors can give their own examples or ask/elicit examples from participants.

This seminar is designed to be delivered in the same session as 'Bloom's Taxonomy'. It is a secondary part of the session as it should cover items already known to CLIL teachers. Therefore, tutors should be able to go through this quite quickly. It can be delivered either before or after the Bloom's Taxonomy focus. Suggestions for Mind Maps which link to Bloom's Taxonomy are given and so it could be a good idea to deliver it after the Bloom part of the seminar.

An Outline of Mind Maps: Mind Maps (also known as Thinking Maps) are a set of graphic organiser techniques used in primary and secondary education. There are eight diagram types that are intended to correspond with eight different fundamental thinking processes. They are supposed to provide a common visual language to information structure, often employed when students take notes.

Thinking Maps are visual tools for learning, and include eight visual patterns each linked to a specific cognitive process. Teachers may apply Thinking Maps in all content areas and all grade levels. The eight map types are:

Circle Map - used for defining in context

Bubble Map – used for describing with adjectives

Double Bubble Map - for comparing and contrasting Tree Map - for classifying or grouping Flow Map - for sequencing and ordering events Brace Map - for identifying part/whole relationships Multi-flow Map - for analyzing causes and effects Bridge Map - for illustrating analogies By linking each thinking skill to a unique and dynamic visual representation, the language of Thinking Maps becomes a tool set for supporting effective instructional practice and improving student performance. Teachers and students, therefore, independently apply thinking skills for their own learning while also having a common visual language for cooperative learning. By having a rich language of visual maps based on thinking processes, learners are no longer confused by poorly organized brainstorming webs or an endless array of static graphic organizers. They are enabled to move from concrete to abstract concepts, think with depth, and directly apply their thinking to complex tasks

This information is from: https://en.wikipedia.org/wiki/Thinking_Maps



- Mind Maps can be used for anything from random brainstorming to very intricate scientific processes.
- They can be created freehand or by using special computer programmes or apps.



Go through slides 2, 3 and 4 as a basic introduction. The slides are self-explanatory.



• They can be hand written, typed, visual or a mix.





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We are now going to go through the 8 Mind Maps in turn.

Each slide contains basic information about the format and use with an example.

Go through each point with participants and ask them each time whether they already use them in the class.

Mind Maps are great for CLIL because we often make them using single words, not long sentences.

This helps when students have low ability in English. They can also be 100% visual (see examples).

Mind Maps can be used as a starting point for more complex writing and can be done in groups to help weaker students gain ideas/understanding from stronger peers.

Suggestions for links to Bloom are shown on each slide with some more information in the notes. This is by no means an extensive list. Mind Maps can be related to all areas of Bloom's Taxonomy.

1 – CIRCLE MAPS

USE:

Defining/brainstorming an idea or concept in context and relating it to other areas.

- Central idea
- Words/images placed around idea show common traits
- Can be entirely visual for week students – they only need to understand the central concept

The Circle Map





Here is a basic word Circle Map.

Image from: http://images.slideplayer.com/14/4432686/slides/slide_65.jpg

Bloom Link - REMEMBERING - Use circle maps to name, list, and relate

1 – CIRCLE MAPS

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Here is an example of a completely visual Circle Map.

Image from: http://www.nhcs.k12.nc.us/parsley/Curriculum/ThinkingMaps.html

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1 – CIRCLE MAPS

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Here is an example of a more intricate *Circle Map* which is partly visual.

Image from: http://www.nhcs.k12.nc.us/parsley/Curriculum/ThinkingMaps.html

Bloom Link - REMEMBERING - Use circle maps to name, list, and relate

2 – BUBBLE MAPS

USE:

Describing using adjectives or adjective phrases

- Central idea
- Words/images describe the central idea
- Images used for weak students
- One word adjectives for most students
- Adjective phrases for stronger students





Here is an example of a very simple *Bubble Map.* Image from: <u>https://s-media-cache-</u> <u>ak0.pinimg.com/736x/8c/1c/52/8c1c529b1d3817f0eb022359a62d1acd.jpg</u>

Bloom Link – REMEMBERING – Use bubble maps to *name, list, relate* and *describe.* Bloom Link – UNDERSTANDING– Use bubble maps to *explain, compare, discuss* and *outline.*

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Here is an example showing the use of *Bubble Maps* in maths.

Image from: https://s-media-cacheak0.pinimg.com/564x/67/29/f2/6729f2cd953437a4c37175b1cd3c7b33.jpg

Bloom Link – REMEMBERING – Use bubble maps to *name, list, relate* and *describe.* Bloom Link – UNDERSTANDING– Use bubble maps to *explain, compare, discuss* and *outline.*

3 – DOUBLE BUBBLE MAPS

USE:

Comparing and contrasting

- Two central ideas to contrast
- Ideas to the far left/right show differences
- Ideas in the centre show similarities
- Similar to Venn Diagrams





As with '2 *Bubble Maps', Double Bubble Maps* can be visual, used with single words or with phrases depending on the level of students.

They provide an excellent starting point and give students time to formulate ideas/words before they begin more complex writing in the L2.

Image from:

http://www.ascd.org/ASCD/images/publications/books/marzano2007_fig3.8.gif

Bloom Link – APPLYING – Use double bubble maps to *examine, illustrate, solve*. Bloom Link – ANALYSING – Use double bubble maps to *compare/contrast, examine, explain, identify, investigate*.

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Bloom Link – APPLYING – Use double bubble maps to *examine, illustrate, solve*. Bloom Link – ANALYSING – Use double bubble maps to *compare/contrast, examine, explain, identify, investigate*.

4 – TREE MAPS

USE:

Classifying or grouping

- Category identified above the line
- Sub-categories may be identified
- Mostly used with single word nouns
- Great for ordering groups
- Good for revision of spellings



Tree Maps can also be used with maths. Image from: <u>https://s-media-cache-</u> ak0.pinimg.com/564x/62/59/c8/6259c83ed1413d271ff57a8e222d5c43.jpg

Bloom Link – APPLYING – Use tree maps to *examine, illustrate, classify.* Bloom Link – ANALYSING – Use tree maps to *compare/contrast, examine, explain, identify, categorise.*

Bloom Link - EVALUATING - Use tree maps to justify, prioritise, rate.

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Tree Maps can also be used with languages. Image from: <u>https://s-media-cache-</u> <u>ak0.pinimg.com/564x/62/59/c8/6259c83ed1413d271ff57a8e222d5c43.jpg</u>

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5 – BRACE MAPS

USE:

Comprehension, organising and analysing.

- · On the left cite the item to be analysed
- Itemise major parts in the first set of brackets
- Breakdown the parts in more detail in the next set of brackets



Brace Maps Image from: https://s-media-cacheak0.pinimg.com/236x/81/5b/22/815b22b7d2a07a921771ad88794718a8.jpg

Bloom Link - UNDERSTANDING - Use brace maps to explain, outline. Bloom Link - ANALYSING - Use brace maps to compare/contrast, examine, explain, identify, categorise.

Bloom Link – EVALUATING – Use brace maps to *justify, assess, prioritise, rate.*

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AISLi

Brace Maps Image from: https://s-media-cacheak0.pinimg.com/236x/88/ff/97/88ff97499e599c8ef257cf13023ab0c9.jpg

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Bloom Link – EVALUATING – Use brace maps to *justify, assess, prioritise, rate.*

6 – FLOW MAPS

USE:

Sequencing and ordering

- Show the orders of a process or a sequence
- Show how one item passes onto the next





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Flow Maps can be visual.

Image from: https://www.thinglink.com/scene/698972241055973377

Bloom Link – REMEMBERING – Use flow maps to *describe, list, relate, write.* Bloom Link – UNDERSTANDING – Use flow maps to *explain, outline, restate.* Bloom Link – CREATING – Use flow maps to *plan, invent, compose, design,*

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Flow Maps Image from:

https://wiki.itap.purdue.edu/download/attachments/6390310/Odyssey.jpg?version=1& modificationDate=1239395440000&api=v2

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7 – MULTI-FLOW MAPS

USE:

Cause and effect

- In the centre show an event/central idea
- To the left show items that cause an event
- To the right show the results of the event







Multi-Flow Maps Image from: <u>https://s-media-cache-</u> ak0.pinimg.com/564x/4c/4b/db/4c4bdb352000443e90678247140cda32.jpg

Bloom Link – UNDERSTANDING – Use multi-flow maps to *explain, outline, restate.* Bloom Link – APPLYING – Use multi-flow maps to *examine, illustrate, classify, solve.* Bloom Link – ANALYSING – Use multi-flow maps to *examine, identify, investigate.*

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Multi-Flow Maps don't have to be complicated.

Image from: <u>https://s-media-cache-</u> ak0.pinimg.com/564x/4c/4b/db/4c4bdb352000443e90678247140cda32.jpg

Bloom Link – UNDERSTANDING – Use multi-flow maps to *explain, outline, restate, predict.*

Bloom Link – APPLYING – Use multi-flow maps to *examine, illustrate, classify, solve.* Bloom Link – ANALYSING – Use multi-flow maps to *examine, identify, investigate.*

8 – BRIDGE MAPS

USE:

Making analogies and drawing similarities

- On the left show the relating factor
- Show the first example, above and below the line
- After the bridge show the next example which is related in a similar way



Bridge Maps Image from: <u>https://s-media-cache-</u> ak0.pinimg.com/236x/05/5f/58/055f58667908eb9a092ccbc4d3076c98.jpg

Bloom Link – APPLYING – Use bridge maps to *examine, illustrate, classify, solve.* Bloom Link – ANALYSING – Use bridge maps to *compare/contrast, examine, explain, identify, categorise.*

Bloom Link – EVALUATING – Use bridge maps to justify, rate.



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Bridge Maps Image from: http://images.slideplayer.com/14/4432686/slides/slide_56.jpg

Bloom Link – APPLYING – Use bridge maps to examine, illustrate, classify, solve. Bloom Link - ANALYSING - Use bridge maps to compare/contrast, examine, explain, identify, categorise.

Bloom Link – EVALUATING – Use bridge maps to justify, rate.



- Mind maps are useful in CLIL for teachers and students alike.
- They often require single words or short phrases.
- Mind maps can be completely visual for weaker students.
- Mind maps can contain full sentences for stronger students.

There are hundreds of online Mind Map Creators, for example...

- <u>http://mindmapfree.com/</u>
- <u>https://www.mindmeister.com/</u>
 <u>https://bubbl.us/</u>



Go through the final points.

If you want to show participants the links to some Mind Map Creator pages the first one does not require you to sign up and is immediately ready to go.

Right click on it and select 'open hyperlink'.

The last page of the 'Bloom Fact Pack' contains a brief list of the 8 types of Thinking Maps.





You can brainstorm any comments/feedback here.



THANK YOU FOR LISTENING

