Cognitive organisers:

De Bono's Thinking Hats

De Bono's Thinking Hats: This is an example of a co-operative structure which can be useful in generating design ideas. It encourages learners to think more richly and comprehensively. De Bono believed arguing was a waste of time, so to overcome this problem he divided our thought patterns into six areas to assist the group to think in the same way. He called this innovative thinking pattern "the Thinking Hats". This consists of 6 hats: Blue, White, Yellow, Green, Black, and Red.

Hat	Explanation
White	White hat thinking focuses directly on the available information. What information do we have? What information is missing? How do we get the information we need?
Red	The red hat is for emotions, feelings, hunches and intuition. What do you like about the ideas? How do you feel about this? What don't you like about this?
Black	The most used of all the hats. The black hat is concerned with truth and reality. The black hat is the hat of critical thinking. Is it true? Does it fit? Will it work? What are the problems with this idea?
Yellow	The yellow hat is full of hope—but as it is a logical hat the reasons behind the hope must be given. This hat seeks to find the benefits. What are the benefits? Why should it work?
Green	The green hat is the active hat. It is used for creative thinking. It is concerned with new ideas, alternatives and solutions. What is the need? What are the new alternatives or ideas?
Blue	The blue hat is the overview. With the blue hat you are reflecting on the thinking you have done. Where are we now? Where have we been? What sort of thinking is needed?

The ten thinking tracks

Track 1. What is it?	Clearly describe the issue, product or problem you want to think about.
Track 2. Knowledge	What do we already know?
	What do we need to know more about?
	How can we find out what we still need to know?
	Is this similar to anything else we already know about?
Track 3. Bright side	What are the good features of this?
	What positive outcomes might there be?
	What good opportunities might this provide?
Track 4. Downside	What are the negative features of this?
	What problems might happen?
Track 5. Feelings	How does this make us feel?
	How might this affect the feelings of any of the people involved?
Track 6. Improvement	What changes could make this work better?
	What could be added, removed, reduced or altered to improve it?
Track 7. Thought Police	Have we made any assumptions that could be challenged?
	Do we have enough evidence for what we have been saying?
	What unanswered questions are there?
Track 8. Is it fair?	Are there any safety issues involved?
	Have we considered the impact on individuals, society and the environment?
Track 9. I think...	What opinion does each person have about this and why?
	("I think...because...")
Track 10. We think...	What is our group decision?
	What are our three main reasons for the decision?
	Can we sum up the opposite point of view?

Blooms Taxonomy

Remembering

Factual answers, recalling and recognising infomation.

.Understanding

Translating, interpreting, showing, understanding.

Applying

Using information gained in different situations.

Analysing

Break into parts to examine more closely.

Evaluating

Judge, use criteria, rank, substantiate.

Creating

Combine information with new situations to create new products and ideas.

Positive

Negative

Interesting

This works by the designer listing all of the pluses, the negatives and any interesting points related to a concept, design or proposal. This analysis can be applied to a wide range of objects and ideas.

Idea 1:

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Idea 2:

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