Mind Mapping – An Intuitive Tool to facilitate Alignment and Integration of the Competency Based Curriculum

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Abstract: A mind map is a diagram for representing tasks, concepts or items linked to and arranged around a central concept. making intuitive mind maps can enable the curriculum committee to navigate the linear document on competency based curriculum. It would be prudent to state that making such mind maps can not only facilitate time-tabling, it is also the need of the hour[Paralikar S Natl J Integr Res Med, 2019; 10(3):60-62]

Key Words: Mind Mapping, CBME, Concepts

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Introduction: A mind map allows one to easily brainstorm ideas and structure them in a non-linear manner. This helps in easy analysis and recall.

What is a mind map ? A mind map is a diagram for representing tasks, concepts or items linked to and arranged around a central concept. A non-linear framework allows the user to build a framework as per his preference. Thus, a long list of monotonous information can be converted into a highly organized, colourful and memorable diagram[1].

The Essential Characteristics of a Mind Map :
The main idea or subject is in the centre. It could be preferably in the form of a image or simply put in large letter.

The main themes radiate from this central element. These are 'branches'.

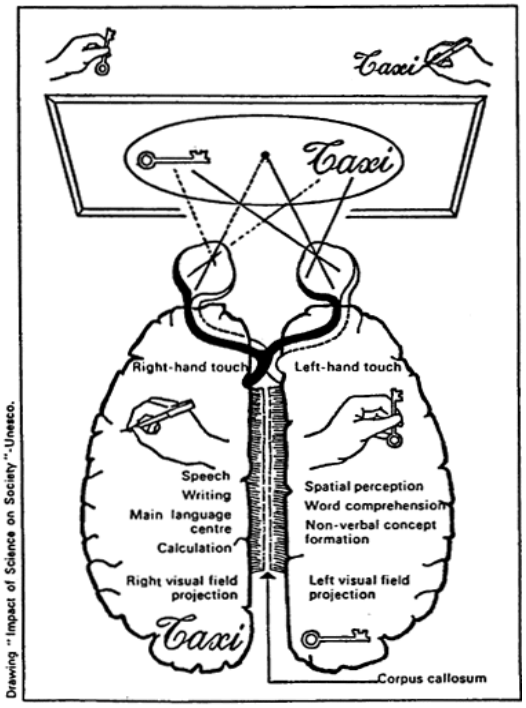
On these branches, the themes could be written. Topics of 'lesser importance' radiate as twigs from the branches.All these elements form a connected nodal structure[1].

The Cognitive Psychology behind Mind Maps :
Roger Sperry unravelled the specializations of each part of the cerebral hemisphere. He demonstrated that the *isolated left hemisphere* specialized in abstract thinking, symbolic relationships and the logical analysis of details. The left hemisphere can *speak, write and make mathematical calculations.* Thus, its function is *analytical and computer-like.* The *right hemisphere* specializes in *concrete thinking, spatial consciousness and comprehension of complex relationships.* It is mute and lacks the possibility to communicate with the outside world. Sperry expresses it as ," a passive, silent passenger who leaves the driving of the world mainly to the left hemisphere."

A mind map has a geometric array. More so, with the advent of software, colours and images can be incorporated in a mind map. Thus, the abstract thinking capacity, the ability to form symbolic relationships and analyse logically (a province of the left hemisphere), would help the right hemisphere in concrete thinking and comprehend complex relationships.

Thus, learning and organising through mind maps has a solid foundation in cognitive psychology. It harnesses the power of both the left and right hemispheres, rather than just the concrete thinking ability (of the right) as in a linear format[1].

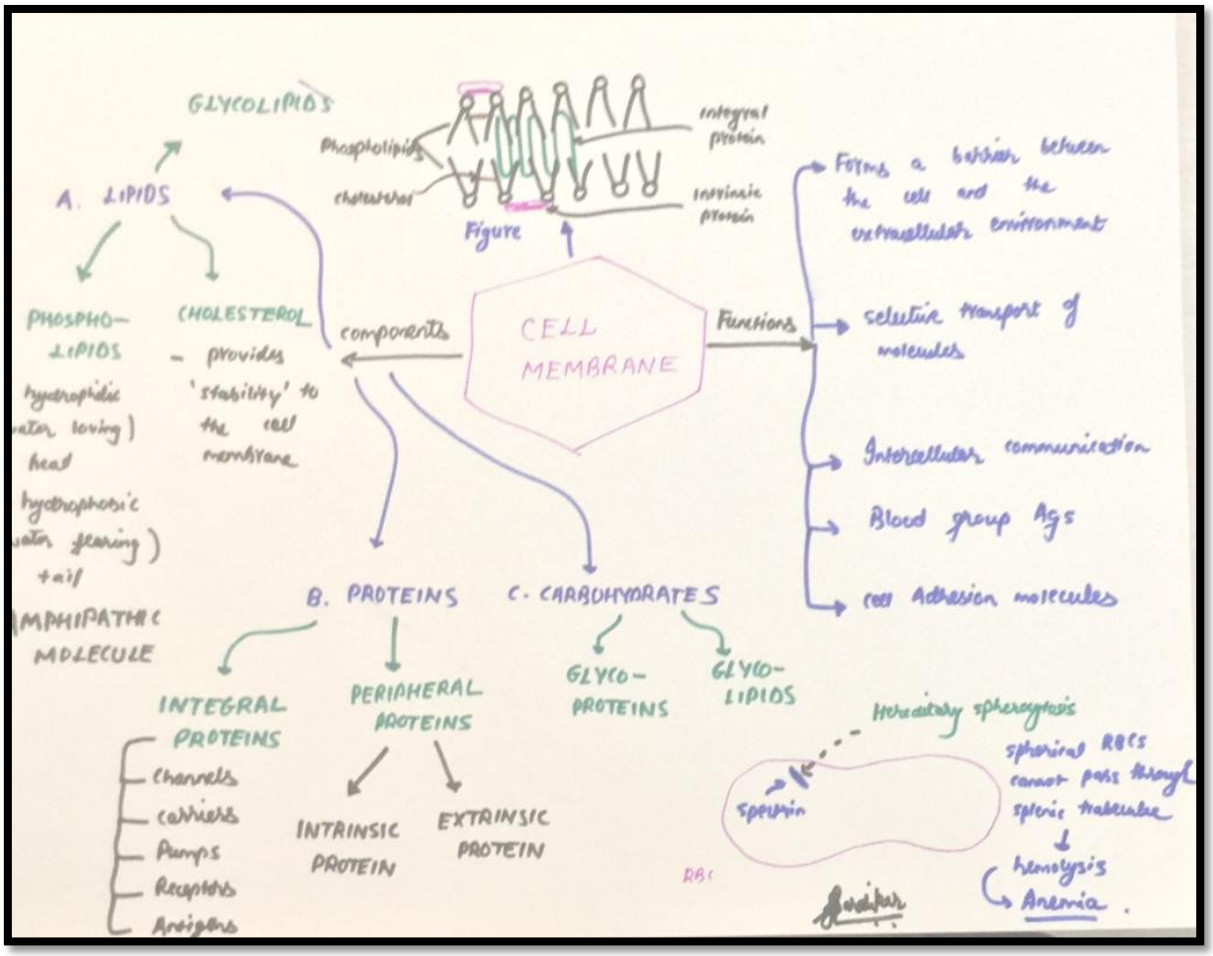
Fig. 1. Schematic illustration of the specialisations of both cerebral hemispheres (www.nobelprize.org)



How to Make a Mind Map ?

Steps in making a mind map :The concept in focus or the central theme should be in the centre e.g. cell membrane.The sub-themes could be represented as branches e.g. one branch could be of the components and the other functions. These branches should be spread out like the web of a spider. Put at least two 'twigs' for each of the branches e.g. for components of a cell membrane – phospholipids, proteins and carbohydrates. Adding images will enhance the memory[1].

Fig.2. Mind Map of a 'Cell Membrane'



Making a Mind Map in the Context of the Proposed Competency Based Curriculum : The Board of Governors in supersession of the Medical Council of India has proposed a new competency based curriculum. The curriculum has to be put into operation in August 2019[3].

One of the cornerstones of this curriculum is Integration. In this new document, "Integration is a learning experience that allows the learner to perceive relationships from blocks of knowledge and develop a unified view of its basis and its application." Alignment is the grouping together in the time table of learning elements from various subjects in a phase that can be grouped under a specific heading (organ system or disease). It is has been made mandatory that at least 20% of the curriculum be Integrated, while Alignment (Temporal Co-ordination), should be at least 80%[3].

Subject wise competencies have been defined. However, the onus of making the time-table has been put on each individual college. Herein, lies the utility of a mind map. A mind map can be used as a simplified content management system (CMS). It will allow the curriculum committee in a Medical College to collect data related to a system at one place. Related competencies of other subjects can be arranged as twigs. Assignment of colours to each subject will facilitate better comprehension of the nitty-gritty. The codes assigned to each competency can also be used written with colour coding. This will facilitate easier organisation of both temporal co-ordination (Alignment) and Integration[3].

To summarize, making intuitive mind maps can enable the curriculum committee to navigate the linear document on competency based curriculum. It would be prudent to state that making such mind maps can not only facilitate time-tabling, it is also the need of the hour.

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