

# **SUCCESS SERIES**



## **The Power of Mind Mapping**

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## INTRODUCTION

We live in the information age, which means that our problem is less one of obtaining information and more one of retaining and organizing all the quantities of information that we are required to ingest both during our studies and afterwards to keep up with rapid changes in many fields and a continual influx of new information.

One of the recent techniques that have been devised to help us in this task is called Mind Mapping.

### **What is Mind Mapping?**

Basically, a Mind Map is a diagram which you create yourself as a way to organize ideas. In conventional note-taking, you write down information line by line or perhaps column by column. Mind Mapping differs from such note-taking in that you present the information more in the form of a diagram, starting with a central key idea drawn in the center of the paper. Other ideas which are somehow related to the central key idea are arranged radially around it, with lines branching out from the central key idea to these sub-topics to show that they are related to one another. Details related to each sub-topic can be shown to be connected to it through more lines.

Mind maps function on the principle of “Radiant Thinking” (a term developed by Tony Buzan, an avid promoter of mind mapping.) Radiant Thinking means our thoughts spread out indefinitely from a key central idea which Buzan says is the natural and automatic way for humans to think. Through mind

mapping, we are able to capture on a flat surface the multidimensional reality that our mind perceives. In fact, different cortical skills come into play when we mind map: line, form, color, visual rhythm, texture, dimension and particularly imagination. Using images in mind mapping produces more precise and powerful associations of ideas.

### **Mind Mapping and the Brain**

Mind mapping is seen as being more compatible with the way the brain functions than the linear mode of note-taking. On the one hand, it resembles the brain's neurological structure, where the brain functions by creating interconnected links of thousands of little protrusions on the 'arms' of a brain cell (neuron) with the protrusions of other brain cells. In fact, one human brain can have an incalculable number of inter-neural links and pathways.

In addition, mind mapping promotes the use of the right side of the brain, which is more visual and image-oriented than the left side. And this can have a positive effect on intelligence, since studies have shown that when the less-used hemisphere (usually the right) was drawn into use in tandem with the dominant hemisphere, this produced a significant increase in the individual's total abilities and effectiveness. Surprisingly, when both hemispheres are stimulated this way, it results in a performance that is not just twice as effective, but rather five to ten times as effective!

## **A Historical Overview**

One of the earliest systems of using visual memory aids is believed to have been invented by the ancient orator Simonides of Ceos. This Greek was among the most respected orators in his time. He relied on strong mental images, coupled with associations he was familiar with (such as a well-known location) to integrate information into his mind. We must remember that having a good memory was one of the most admired skills in ancient Greece.

During the 3rd Century, the respected thinker named Porphyry of Tyros is known to have created the earliest types of mind maps to graphically represent Aristotle's concept categories. Another person who used the concept of mind mapping before Buzan was the Majorcan writer and philosopher Ramon Lull.

Dr. Allan Collins may be said to be the "father of modern mind maps" because he was able to tap into the use of the semantic network as a theory to explain how humans learn, and eventually develop this theory into the concept of mind mapping. Collins' dedication and published research (as well as his efforts to understand the relationship between learning, creativity and graphical thinking) in the early 1960s earned him that noted title. Another respected researcher during that period, M. Ross Quillian, also contributed to the development of the concept of mind maps.

More recently, popular psychology author Tony Buzan has taken the concept of mind maps and developed it. He has a website where one can find books and training to learn about mind maps, as well as software to help you make them. You'll find it at <http://www.buzanworld.com/>

## **Chapter One**

# **ADVANTAGES AND DISADVANTAGES OF MIND MAPS**

### **Advantages**

#### *Balancing the Brain*

The traditional method of note-taking consists of listening to a speaker and writing down what the person says in a linear form. Even though it involves writing, it is very attached to the auditory stream of consciousness mode: one thing after another. Mind mapping, on the other hand, takes the ideas coming from the speaker and distributes them on the paper in various ways, adding the dimension of space, thus translating them into a more visual form. Since spatial organization is more associated with the right brain, this method allows the listener to take advantage of all of the left and right cortical skills of the brain.

Mind maps work by emphasizing the strength of the right hemisphere of the brain. In most people, that part of our brain is tasked with visual, associative, and non-verbal thinking as well as a lot of creative thinking. The left hemisphere, on the other hand, is responsible for analytical thoughts (which can only be examined one at a time) – such as when we are writing. Usually, we find it difficult to express our thoughts on paper. But when the right hemisphere is triggered in tandem with the left hemisphere, such as when we are producing a mind map, we overcome this difficulty.

Mind maps allow you to concentrate because both hemispheres of the brain are trained to be balanced and active at the same time, and because

various sensory channels are being employed at the same time, multiple intelligences can be drawn together to help in comprehension and memorization.

### *Organizing Thoughts*

By using mind mapping to organize and classify concepts in your mind first, you will find it easier to write about a string of concepts which are related in some way. Mind maps present information in relation to other data, which helps to mark which concepts are more important than others. So they are useful when you have muddled thoughts that need to be clarified, or bits and pieces of information whose relationships to one another have to be visualized. Mind maps work well when one is dealing with a complex scenario, particularly those which require a holistic point of view if they are to be grasped. When we use mind maps, complex problems become simpler to think through and find solutions to.

### *The Effects of Mind Mapping on Creativity*

The predominant reason that most people underestimate their creative talents is that formal education has traditionally failed to adequately stress this mental ability, favoring instead more academic pursuits. Academics tend to stress the functions of the left hemisphere of the brain; the functions of the “creative” side of the brain – the right hemisphere – are not emphasized as much except in people who are deemed “artistically gifted”. Fortunately, many educators now try to integrate creative pursuits into a well-balanced education so



that the products of their institutions will have an equally well-balanced personality.

Mind mapping helps one become more creative because it emphasizes brainstorming, free association and radiant thinking. Your present level of comprehension of ideas is graphically represented, which then translates to a higher level of understanding when extended to other ideas or sub-topics.

The human mind does not function the way a computer does. A computer operates solely in a linear manner. Your brain, on the other hand, operates not just in a linear fashion but also in an associative manner. That means that your brain undertakes the functions of comparing, integrating and synthesizing thoughts as you work. Almost all mental functions rely on association to proceed. Words are representations of ideas in your head. So every word is linked to an idea which in turn is connected to a lot of other ideas stored in your brain.

Since every word you can think of can trigger a host of associations in your mind, creativity is encouraged. One person may be able to generate one set of relationships between concepts using one key central idea, while another person could produce another set of relationships between concepts using the same key central idea. It is possible for just one word/term/concept/idea to be related to many others. Mind maps help us look for different and creative ways that ideas are related to one another within our minds. If you are persistent enough, you may be able to come up with a unique combination of relationships of ideas that may translate into a new product or service.

### Speed

The nice thing about mind maps is that drawing your ideas in the form of keywords or symbols is a faster process compared to laboriously writing down lines of notes. Associations may also be created more quickly if you use keywords or symbols.

Relying on keywords during note-taking can reduce the amount of unnecessary notes by 90%. This boosts your effective writing/note-taking speed by up to 10 times its present level. You may improve your keyword writing speed even further if you develop the ability to abbreviate them. One of the best ways to do this is to eliminate vowels from the keywords as you write them. The eye has the ability to discern what words mean even without the appropriate vowels.

Mind maps take up less space than linear note-taking so they are more compact (but not less effective.) If you want to add more ideas to your mind map in the future, this is easily accomplished. Information is less arduous to summarize, especially if you gleaned data from different research sources.

List-style notes take a longer time to read and review, compared to checking out our mind map with just one glance. Furthermore, line-by-line notes are tedious to read which may induce our mind to wander and eventually forget what we have just read.

### Having an Overview of the Subject at a Glance

Mind maps take advantage of the human mind's ability to scan an entire page of information in a non-linear manner. This means that you are also able to

view the entire series of relationships between ideas with just one look, which eases the cognitive load on your mind, and enables you to have a quick overview of the subject.

Presenting the mind map to other people helps them to see where the flow of your thoughts is headed and how ideas are associated in your mind. When you need to review the subject tackled in the mind map, all you have to do is glance at it – it will immediately refresh your memory.

### *Emphasizing Associations*

Mind maps were developed based on the human mind's special way of relating thoughts to each other. A linear way of note-taking, according to Tony Buzan, actually limits creativity and memory since there is little leeway for the brain to create associations about ideas. In addition, using line-by-line or list-style notes trains the brain to think that there is a limit to the links between ideas – that once the reader comes to the end of the list, he has “finished.” Buzan says this dulls the thinking process. In reality, links between ideas go on infinitely in our minds. Line-by-line note-taking is also deemed less effective than mind mapping because we often include superfluous words in addition to keywords in each line. When we are writing down such long phrases and sentences, we may lose out on other important keywords and ideas being presented (particularly if we are listening to a speech.) The other aspect of Radiant Thinking is its use of keywords that are connected to the key central idea we thought of. Research headed by Dr. Gordon Howe of Exeter University showed that note-taking

improves when there are keywords, and the fewer keywords used the better it is for retention of information. A keyword is defined as a term which encompasses the most relevant meaning in the most direct way. It is also the term which provides the fastest recall for the person taking notes. Out of the masses of words which we see, speak and hear, keywords make up just 1% to 10% of that.

### Improved Learning and Memory

Can mind mapping help one to study better? Tony Buzan believes so. The problem with formal education is that we gain content from it, not the process of learning. Buzan claims that his Mind Mapping technique will help users tap into the full range of their intelligence, enhance thinking skills, and significantly add to our memory and creative abilities.

Linking means that you remember better those things which are interrelated compared to those which are not connected in any way. You can prove this to yourself – how many times does the “right” idea crop up in your mind? Doesn’t it usually pop up when you bump into something that is related to that concept? For example, you could be trying to remember where you placed your car keys – you just know you had them with you when you parked the car last night. So you pat down the pants you are wearing today and suddenly you remember – your car keys are in the pockets of the pants you were wearing yesterday. You just had to make the right connection so you could remember.

Linking is obviously valuable for comprehension and understanding, particularly when used during note-making and mapping out your study activities.

You can improve your learning if you deliberately search for ways that different topics are interrelated. This is profoundly demonstrated by mind mapping, where each idea is connected to another by a line, a color, or a symbol.

The effectiveness of mind maps stems from their function as spatial structure mnemonics. That means that your mind remembers where each idea was placed within the mind map. The shape and the structure of the mind map act as visual cues to trigger memory about the location of the idea.

Contrary to what some people might think, mind maps do not eliminate the value of any note-taking processes which you might be using right now. When used in tandem with the note-taking systems you are used to, mind maps will most likely add to their value by enhancing their effectiveness. For example, if you are used to writing down notes line-by-line, a mind map can complement this style by helping you to see how the ideas all relate to one another.

## **Disagreements**

However, some academic researchers dispute Buzan's claims as being mere marketing hype to promote his Mind Maps consultation business. These claims, the academics state, are founded on misconceptions about the brain and cerebral hemispheres. Mind mapping, they say, may not be applied with equal rates of effectiveness to all learning tasks. Farrand, Hussain and Hennessy showed in their 2002 study that undergraduate students who used the mind map technique experienced a limited but noteworthy effect solely for recall (equal to 10% over baseline per 600-word text) while preferred study techniques only

displayed a -6% hike from the baseline. Such an advantage by the mind map users remained strong only for the first week, after which the students were considerably less motivated to use the technique, as opposed to employing their preferred note-taking strategies. The researchers proposed that learners opt for other techniques since they were not used to using mind maps. They also said that learners were not very eager to use mind maps despite their being categorized as a “memory enhancing” method.

Another study done by Pressley, VanEtten, Yokoi, Freebern, and VanMeter revealed that learners absorbed data better when they emphasized soaking up content rather than trying to find a particular style of note-taking that worked.

## **Disadvantages**

Mind mapping can have its drawbacks. As the above studies show, it's not easy to change your ways of doing things, and changing from the linear system that we have been taught to use since childhood to a very different way of writing down notes requires a great effort that a lot of people are not ready to make.

In addition, when you approach a new subject, you may not have a clear enough grasp of it to be able to organize your thoughts about it from the start. To make a good mind map, you need to choose your main subject and the subsidiary ideas around it, and the appropriate keywords. If you're not ready to do that, then linear note-taking might be more appropriate. There's no reason you can't transform them to a mind map later on.

With mind maps, everything is supposed to be contained on a single page, but you don't necessarily know where a subject is going to take you and how much space should be allotted to a particular sub-group. It can be irritating when you want to add something to a category and there isn't enough space in that part of the page.

Even though mind mapping is said to be more intuitive than linear note-taking that is not entirely true. It's not just because we have always used the linear method that we find it comfortable. Language is first and foremost auditory, and writing is translating the auditory messages into a more permanent form. Speaking is necessarily linear, and the linear writing method is the one that comes closest to our way of speaking.

## **Chapter Two**

# **HOW DOES ONE USE A MIND MAP? TIPS AND SUGGESTIONS**

Buzan's Mind Maps have seven key features, namely, Organization, keywords, Association, Clustering, Visual Memory, Outstandingness, and Conscious Involvement.

Here are some guidelines to creating your own personal Mind Map. First, draw an image of your central key idea in the middle of a blank piece of paper. Be sure to use 3 colors for this. You can use images, codes, symbols, and dimensions throughout your Mind Map (when necessary.) From the central key idea, you may radially link supporting ideas – be sure that these are written with upper or lower case letters on their own line branching out from the central key idea. Central lines radiating from the central key idea must be thicker yet flowing naturally to the supporting ideas where the lines become thinner. Each line should allow enough space to print the supporting idea allocated for that space. Colors are important though you may use them to highlight certain ideas as you wish – you are free to create your own color code as you make your mind map. The important thing to remember is that you have to create associations as you create the mind map: which color represents this concept? Does using upper-case letters create focus on a supporting idea? Does one 'tree branch' of radiating lines display a clear relationship or set of ideas?

Note-taking when listening to a speaker is different from note-taking when reading a document or article. But the commonality between them is that you will



have to find out what the main theme is first, then jot down the keywords of that main theme in the middle of the paper.

Keeping an ear or eye out for the sub-themes comes next. These sub-themes may also be indicated through keywords, then linked to the main theme by a line. Good keywords are generally nouns or action words that bring back strong recall of the concept and its meaning. Supporting details may be inked in, in areas near the sub-themes they are related to, then lines are drawn from these supporting details to connect to the sub-themes. You may use polygons of any sort (not just circles) drawn around the main theme and then the sub-themes to set them apart from one another. You could also try numbering each 'tree branch' of information to further organize your thoughts.

You will find as you go along that you will be able to see, with one glance, what the dominant ideas of the speech or article are. But do not think that the ideas have to be confined to what the contents of the speech or article are. You may opt to include any insights you have that cropped up in the course of the study or work session. The advantage of this note-taking method is that it is tailored to the needs of every person since each person has a unique way of organizing his ideas. One person's mind map may be gibberish to another person.

Color coding when mind mapping can be done in three ways: by the theme of your mind map, by the 'tree branch' or area of relationship, by the source of your information, and by keywords. Color coding by theme acts like a traffic sign informing you what that part of your mind map is generally about.

Color coding each 'tree branch' denotes a specific relationship among ideas included in the tree branch. Color coding each area of the mind map based on where you derived the information also works well – this is particularly applicable to group work. Color coding keywords helps you zero in on important concepts without disregarding minor details.

Color coding becomes easier if you have the right tools. These could be colored pens, such as fine point felt-tipped markers, colored pencils (though these may provide less clarity), watercolor pencils, watercolor brushes, and perhaps even paper with different background hues. Some people prefer to sketch their mind maps with sharpened graphite pencils first then color in the appropriate areas later on. This technique is convenient when you want to erase an idea or even a whole 'tree branch' from the paper.

You can create a mind map using plain paper and differently-colored pens. Or you can opt to use the different kinds of mind-mapping computer software programs that are out on the market. Some people might find it easier to take linear notes at the start, then translate these notes into mind maps later on – it's up to you because mind mapping lends itself to each person's unique note-taking style.

When you are creating the mind map, it is advisable to keep your writing small since you will be attempting to place all your related ideas on one page.

Remember that, essentially, there is no limit to how vast your mind map can become. A sub-topic in the first mind map you create may become the

central key idea in the next mind map you draw. This is the beauty of mind mapping – relationships may go on as extensively as they exist in your mind.

Okay, so you drew a mind map, then put it away for awhile. Then you took it out again and looked at it. Does it make sense to you? It should - because the symbols and relationships which you integrated into it are those which have a personal meaning to you. If you used keywords for your central key idea and the sub-themes, all the better. Keywords are easier to remember than whole sentences (which is why mind maps are believed to be superior to linear note-taking.) Good keywords would be those which help you to recall meaning more satisfactorily.

It is possible that in the course of drawing your mind map, you may have repeated a keyword twice or several times. Examine this closely, then decide whether you should use that keyword as the central key idea for a new mind map. It is possible that the keyword may generate a whole host of related ideas which can be organized in the following mind maps. If you are using your mind map to brainstorm solutions to a problem, repeating a keyword is a positive sign – it could mean that you have discovered an appropriate solution.

It is important that you only place one keyword or term on one line because every word and image can make you think of more than one possible association. If you list just one keyword or term, it is possible to generate a lot of ideas from it. It is also easier to remember.

During the course of drawing your mind map, it is possible that you will run out of details to add to it. Don't panic – just add some lines (to the 'tree branch' of

related ideas) that do not contain any information at all. You could take a break during this time, perhaps do something else for awhile, then come back to the task again. You may find that new associations grow in your mind when you do this; you could jot them down later in those blank lines. By the way, there is no such thing as 'stupid' ideas when you are free-associating. An idea that seems inane or dumb when you first think of it may seem like a truly creative, great concept when you examine it later on.

Another thing that could happen is that you could think of a really fantastic idea at inopportune times (like when you're taking a shower or driving your car.) It helps to have a planner you could jot down such ideas in, to transfer them to your mind map later on. What happened is that your mind was thinking of your mind map even when you were doing something else – then it came up with that association which you simply had to write down. If paper is not at hand, try to keep that ground-breaking thought in your mind until you can get to your mind map. You really need to put down your brainchild on paper though – think of it as a brain purge. Otherwise, your conscience will nag you that you have thoughts which need to be jotted down.

### **How to Read Someone Else's Mind Map**

If you were to be given someone else's mind map, you might be confused by the sheer amount of words on it. How does one read a mind map? Well, this is where the use of symbols, colors and conventions proves useful. The middle of the page will contain a central key idea that is usually blocked off by a circle or

other polygon. This central key idea (if it follows the Buzan ideal) will use 3 colors. Look around the central key idea and you will find other sets of keywords that may also have been set apart from the rest of the mind map through such conventions as use of different colors or other shapes. These are the sub-topics of the central key idea – you know this is so because they should be connected to the central key idea through lines (preferably relatively thick ones). Then look for other lines which are connected to these sub-topics – again, if they follow Buzan’s rules, the words connected to these lines are sub-sub-topics because they are linked by thinner lines than the sub-topics. Buzan advocates that the flow of the lines and keywords should be counter-clockwise – which is why some people opt to put numbers at each ‘tree branch’ so that people will know which sub-topic comes first.

By the way, it is not recommended that you show your unfinished mind maps to other people – most likely they will not understand the flow of your thinking and will just get confused as to where your thoughts are headed. Show the finished results of the work, not the unfinished mind maps.

### **The Need to Practice**

At the start, mind mapping requires practice. But those who master the art of mind mapping eventually find that more information is absorbed and recalled in proportion to the effort required to do the mind mapping.

Buzan advocates that people trying out mind mapping should do up to 100 mind maps before they can become comfortable with the tool – whether it is

applied for note-taking, planning, organizing, or simply jotting down one's thoughts and feelings. One persistent user of hand-drawn mind maps believes that it is advantageous for mind mappers to create at least one mind map every month regularly. He feels that mind mappers will eventually want to use larger and larger pieces of paper as the relationships between their ideas expand.

### **The Importance of Colors**

When you communicate, only 7% of the meaning is conveyed to the brain through words. Your mind relies more on visual cues. So, visual elements like shape and color enhance the process of communication. Color definitely has an impact on mood and behavior.

Usually, line-by-line note-taking only relies on two colors – black (the color of your pen) and white (the color of your paper.) The use of these two colors in combination has a hypnotic effect on the viewer – which may explain why so many people fall asleep reading or are lulled into a trance-like state in a classroom. The writer Ronald E. Green, in “The Persuasive Properties of Color” revealed that colorful visual aids make readers more eager to read and willing to participate by an amazing 80%. Companies that stress color as a key feature in their products really know something then – not only can they sell their products better but color really works at imparting knowledge better. Jan V. White of “Color for Impact” noted that presentations which incorporate color are actually 60% more simple to view. In addition, White said such presentations cut down on search time by 80%, boost attention span by 82%, and enhance comprehension

by 70%. White further stressed that color in presentations improves recall by 60% and brand recognition by 70%.

If you have ever looked at the weather map in the newspaper or displayed on the evening news on TV, you will notice that it is colored in different parts to show the differences in the weather in various parts of the country. It is definitely easier to look at and understand than a black and white map, isn't it? This is an application of the same principle in mind mapping: color is the lifeblood of visual aids.

When you make a presentation, such as a mind map, your audience will form a lasting impression within the first 90 seconds. In that time, color will help determine by 60% whether your audience will reject what you have to say or be willing to accept the content. If you use mostly loud colors, it makes you seem like you are trying too hard – thus undermining your authority as a speaker. Having poor color sense gives the impression that your IQ is much lower than it really is. Thus, if you are going to present your mind map to a group, make sure that it is both intelligent and attractive to look at.

### **Are Hand-Drawn Mind Maps Superior to Computerized Ones?**

This boils down to personal preferences. Some people swear by hand-drawn mind maps; others believe computerized mind maps made with the help of specialized software are better. One user engaged in business still likes to use hand-drawn mind maps but opts for the computer software version when he has to create a mind map that will be shared with other people, or has to be

continuously amended and updated over time. Computer software mind map programs are called 'graphical information organizers', or software that falls under 'graphical organization of information networks.'

Tony Buzan himself at first did not consider most mind mapping software out in the market to be part of the mind mapping technique – he devoted himself to the application of mind maps for learning (such as for studying in college.) But now he has also come out with his own personal mind mapping software – the iMindMap program.

Computer software does pose some benefits for mind mappers. One, the map can be quite large, if you wish. With a paper mind map, you are limited by the size of the paper. The software could feature pre-set symbols (as opposed to you inventing symbols of your own.) You can also change the organization of your mind map even after it has been drawn. Web or desktop files can be linked to map nodes. You can email the map to other people or simply post it on your website. There are map templates available nowadays which you could use if you don't want to start from scratch. A mind map made with software can feature as high a level of detail as you wish. If you create a large map, you can search it. With all these advantages, the popularity of mind mapping software has definitely risen – one estimate is that 60,000 people per month try out the mind mapping software sites.

Tony Buzan markets his own software product as THE one program that can duplicate the effectiveness of the traditional hand-drawn mind maps. Its key features (according to Buzan) are: "unlimited visual variety, portability, freedom,



brain friendliness, and effectiveness.” But if you want to explore other possibilities, Wikipedia has a list of 61 programs besides Buzan's here:

[http://en.wikipedia.org/wiki/List\\_of\\_Mind\\_Mapping\\_software](http://en.wikipedia.org/wiki/List_of_Mind_Mapping_software)

## **The Importance of Listening**

Bad listening habits are observed by people around us on a daily basis – and even we may be guilty of practicing them as well. When we listen to a speaker, do we often reject the subject out of hand as being “not interesting enough?” Or do we pass judgement on the speaker based on his mannerisms or delivery, thus not paying attention to the content of his speech? On the other hand, we might get too carried away by the topic of the speech and fail to be critical listeners. Do we listen mainly for facts, or do we predominantly look for testimonials or even entertainment instead? Do we attempt to outline the entire content of the speech? Are we just pretending to pay attention to the speaker? Do we permit distractions to prevent us from listening? Do we dodge difficult portions of the speech? Do highly emotional trigger words have the ability to agitate us to the point that we become very hostile? And do we just daydream throughout the speech, wasting both our time and that of the speaker's?

Bad habits such as these prevent us from taking advantage of someone's efforts to communicate to us. And bad listening habits are also responsible for creating terrible mind maps. How can you create a mind map that makes sense to you if you were not able to listen to the flow of the speaker's ideas? How can you know where one idea links up with another to form a certain relationship if

you fail to listen well? And if you do not know how to listen well, how can you learn to communicate the same ideas to other people when they ask you about it?

A mind map is only as good as the creator's ability to form relationships between concepts. To understand relationships between concepts, you have to listen closely and find out where one relationship ends and another begins. And to become a good speaker yourself, you must first be able to listen to how the source of your knowledge imparted his ideas then attempt to replicate the process. And part of replicating that process is creating a good mind map on which you can base your own presentation.

### **The ARCURRC Model of Listening**

Buzan outlines the steps of the listening process in his ARCURRC model. Looking through this model allows you to zero in on any of the steps that you may be deficient in or experiencing problems in so that you can attempt to improve your listening habits. The ARCURRC model is broken down into seven steps, namely: Assimilation, Recognition, Comprehension, Understanding, Retention, Recall, and Communication (or Use.)

Assimilation pertains to the joint physical capacity of your ears and your brain to hear and grasp the sounds in your environment. If you feel that you might have a problem with assimilation, it might help if you were to undergo a thorough hearing exam to rule out problems with your hearing. Even people who have no doubts about their ability to hear and grasp sounds might find it

beneficial to have such an exam done since they would then definitely know if they are at the normal level – and if they can surpass that level.

Recognition talks about the capacity of your mind to decode sounds and their meaning which has been received by your ears. It gives a base level at which your mind can identify a particular sound as being caused by a certain object – such as words coming from a person, music coming from a radio, or the sound of an engine being revved up. Recognition is an ability we develop quite quickly in early childhood but that we may fail to practice as we grow up because we tend to “tune out” background sounds. You can keep your power of recognition if you keep trying to identify the source and nuances of different sounds – practice makes perfect.

Comprehension is the capacity of your mind to precisely interpret the information that is fed to it. Some people might have a problem with the internal structures connecting their hearing apparatus to their brain, which would explain why they find it hard to comprehend sounds and their meaning. It could also be traced to a problem within the brain itself. This would require a diagnosis by a doctor.

Understanding is concerned with the ability of your mind to form a relationship between information that has undergone assimilation, recognition and comprehension to previously-absorbed knowledge that is now stored in its memory banks. Good listeners try to continuously stay alert about their level of understanding and improve on this skill.

Retention indicates the capacity of your brain to keep previously-heard knowledge in its memory banks. If you find it hard to retain information, you might want to work on your capacity to understand. This would entail structuring and restructuring concepts as they are being communicated to you. In the end, you will be able to find it easier to store information in your memory – or improve your retention.

Recall is also an aspect of memory, as we previously mentioned, and represents the capacity of your mind to draw out stored knowledge from its memory banks. You improve recall by structuring ideas in better ways as you absorb them, just like when you want to improve retention.

The last phase of the listening process is Communication, or Use. In this stage, the information which you have assimilated, recognized, comprehended, understood and retained is then recalled and may be employed for delivering your own message to other people. You communicate with other people either through spoken, written, or representational means. If you want to talk to yourself - yes, this is also Communication – you simply think. A good listener can eventually become a good communicator to other people as well.

As we said before, it is important to have good listening skills if you want to produce good mind maps. A good listener is able to absorb the content of a speaker's message more effectively, can comprehend such ideas better, and is in a better position to create a good mind map since he knows how the different ideas are interrelated to one another based on the speaker's presentation and on how he connects the speaker's ideas to the knowledge in his own memory. The

mind map that results from this will make more sense not only to the person creating it but also to the people who will have a chance to look at it.

## **Chapter Three**

### **USES OF MIND MAPPING**

#### **Note-taking**

All people have to take notes at some point in their life. Even a housewife is required to note down what she needs before she goes to the store for a shopping trip. More so for a white-collar worker who has to attend many seminars and conferences as part of his work. Whatever your occupation, note-taking is probably an indispensable aspect of your job.

Mind maps were initially created to aid learners who take down notes for school. So mind mapping definitely aids in note-taking. As far as learning is concerned, mind mapping should not be used because it is a “better” way of learning. It should be employed because it complements and enhances other learning methods. A college student who employs both mind maps and line-by-line note-taking is making the most of both styles of note-taking. (He might also choose to focus on mind maps alone if he feels that this style helps him retain more content in a more effective fashion.) An instructor who presents his lecture with the aid of a giant mind map is backing up his oral abilities with the effectiveness of a visual aid.

#### **Making Plans**

The mind map is not a plan but you can create a plan using a mind map. When you are developing a plan, make sure to group certain ‘tree branches’ together (it helps to number these too.) This guarantees that the steps of your

plan are interrelated. Your vision and mission statement could be formed through mind mapping. This allows employees, investors, management, and customers to figure out the function of the organization, as well as their roles within the organization. This is especially true now that various kinds of thinking have been identified: analyzing, decision making, critical thinking, strategic thinking and creative thinking. It is important because organizations are now facing waves of change and innovation that produce new sets of problems – each of which is a challenge in itself for the organization to face – requiring that members of the organization possess a greater ability to comprehend, visualize, interpret and share concepts.

Planning has also become a challenge because our time and energy is limited. Mind mapping helps us improve on managing what time and energy we have more effectively. It also assists us in efforts to organize various aspects of our lives – we are able to start, then see projects through to the end.

## **Brainstorming**

Mind mapping is great for brainstorming during meetings. Though each person can create a unique mind map, it is possible for groups to mind map together. In group mind mapping, each person is allowed to post sub-ideas to the key ideas of the group – no one is vetoed. In the end, this allows more associations to be formed about a central key idea. The agenda could be developed in the form of a mind map, while action ideas can be listed down separately – this immediately gives you a roster of things to do and minutes of

the meeting. Leaders of organizations now realize that idea generation and management may be crucial for the survival of the group in today's society.

Mind maps have been found to be applicable for brainstorming and visualizing ideas, as well as creating a structure for such concepts so they can be classified. The lines radiating out from a central key idea help to focus on the semantic relationship of the ideas (indicating the links between meanings of the words or symbols used.) Brainstorming is encouraged because the connections between ideas are displayed in a radial non-linear fashion as a diagram – this can be applied to all organizational tasks. A 'tree branch' of lines drawn in a segment of the paper indicates that the ideas presented are closely related to one another. The key advantage of a mind map is that memory recall becomes easier because the semantic connection between bits and pieces of information is graphically displayed in a uniform manner.

### **Group Mind Mapping**

Similar to brainstorming, group mind mapping is often done during training workshops and seminars. It can be applied for strategic analysis, also known by the acronym S.W.O.T. (Strengths, Weaknesses, Opportunities, and Threats.) It may be used in marketing for creating a marketing plan and product analysis; or generating creative ideas for promotional purposes; or combining analysis about markets and competitors. When determining an organization's performance, group mind mapping can help in finding areas to cut costs or increase revenues, re-engineering a process or envisioning areas of improvement (whether this is at



the level of departments, subsidiaries or entire organizations). Groups will also find it easier to come up with solutions to setbacks, particularly if they are quite complex problems.

The obvious advantage of group mind mapping is like that of collaborative writing – the group gets to harness the brain power of more than one person. This is why some computer software developers have come up with mind mapping software that accommodates the input of more than one user. They realize that, more often than not, employees of any kind of organization are going to have to put their heads together and work together on a project. Some computerized mind maps can be created individually, then shared with other people on the same computer network. Others allow different people to work together on the same mind map file.

But even if you don't have mind mapping software conveniently installed on your PC, group mind mapping can still be done. You could try using a very large whiteboard installed in your office conference room and pens of different colors. Or, if your office does not have a whiteboard handy, you could buy very large-sized blank manila paper and tape the corners to a wall. You could also use small post-it notes to attach ideas to the huge group mind map you are creating. These post-it notes are quite versatile; if you change your mind about where the idea on the post-it should go, you can easily remove and stick it somewhere else on the mind map.

Collaborative writing is another interesting use of mind mapping to help joint authors in their writing.

Collaborative writing has its advantages and disadvantages. The obvious advantage is that when more than one mind is at work on an article, more than one person's skills are brought to the project. Each person has his own unique point of view, experiences, and educational background, so this makes for a rich brew to dip into. However, the disadvantage of having more than one author for a book or article is that sparks can fly between the authors. Each person may believe he has ideas and a style of writing that is superior to that of the other/s. Writing, after all, is a highly personal journey into one's mind – one person may resent the intrusiveness of having to collaborate with another person. Mind mapping can help in this regard, provided that each participant respects and trusts his partner or partners.

How can mind mapping help in a collaborative writing project? Simply put, each author can create an individual mind map to brainstorm for ideas. Afterwards, the partners can put their individual ideas together on a larger, more comprehensive mind map. There should be room for each author to voice his opinions so that this bigger mind map can encompass all their ideas. Since more ideas are produced this way (as opposed to having just one author brainstorming on his own), the project promises to be richer and more fulfilling. There are fewer disputes when the bigger mind map is finally viewed since each participant is able to see how another person's ideas will complement his own. The final product will thus encompass everyone's point of view without losing focus.

## **Problem Resolution**

Mind mapping is also useful for problem resolution since the readers are able to improve their understanding of the scope, background and nature of the problem. Problems can be resolved when participants are able to look closely at what facts, environments, assumptions and opinions contribute to its root causes. They may then try to come up with ways to reach an ideal solution which is effective, ecological and good in the long-term.

### **Using Mind Maps for Presentations**

Another application of mind maps is when they are used as presentations to groups. You will first of all find it easier to do research and prepare them using mind maps. And your audience will be able to follow your presentation closely and you will have an easier time making it because you can pace your speech, you can refer to the mind map when you wish, and you will find yourself more comfortable and relaxed.

Teachers can also use mind maps when educating students. New concepts can be defined with clarity. The instructor can also rely on mind maps for covering new material in lessons and courses. This is particularly applicable since there is an explosion of knowledge in the world – from books, magazines, newspapers, journals, and websites – which we may need to absorb quickly and accurately. Even the smartest person will find the tasks of absorbing, summarizing, and deciphering the meaning of all this information to be daunting without the proper techniques.

## **Mind Maps as Learning Tools**

Of course, mind maps are popularly known as learning tools. You can use them to summarize the results of research, boost exam preparation efforts by improving recall, and allow you to review past material well since you are able to link ideas together while seeing the big picture. More specifically, mind maps are applicable for lifelong learning. This means you can use them whether you are in elementary, high school, or college as well as when you are trying to stay on track of your career by keeping track of developments in your field of specialization. Mind maps need not be devoted solely to serious pursuits either – you can use them in your leisure moments, such as when you are pursuing a hobby.

## **Using Mind Mapping to Estimate Project Time**

Whether you are a student tasked with allocating time for a research paper, or an employee who has been delegated the job of estimating the schedule for a project, you can definitely benefit from the mind mapping technique when trying to estimate project time. How? Well, what is common between the two scenarios is that planning for a paper or a project will both require you to know the TASKS to be done and the TIME it will take for you to accomplish each task. The employee might differ from the student in that he will also have to figure out WHO has to do each task for the entire project as well. But mind mapping will still work anyway.

Let us take the first job which is figuring out what tasks have to be done. As usual, you start with a key central idea. If you are a student, this could be the main topic assigned to you by your instructor – like “The Differences between Monotheistic Religions of the World.” If you are an employee, this would be the project title – possibly “Installing a Computer Network for Company ABC.” Then, having put that down, you start free-associating on all possible ideas that the subject brings to mind. Bear in mind that at this point there is no right or wrong idea – you are simply trying to generate ideas.

After you have jotted down all the possible ideas that you can think of in the ‘tree branch’ where they belong, you are ready to create a list of tasks that have to be done. Each tree branch of ideas will help you narrow down the appropriate task that goes with it. For example, for “The Differences Between Monotheistic Religions of the World”, you might have written down “Judaism” and “Christianity”. Your task for “Judaism” then is to list all the features of that religion which make it monotheistic. Same goes for “Christianity” – you will also have to write down what are the traits of Christianity that would make you classify it as monotheistic. See how easy it is? You now have your first task. Each set of ideas that fall under each religion will help you decide which task comes next. You might disagree and say that determining the features of each religion should not be the first task – that is also possible. With mind mapping, remember that each person might think of different associations for each idea so it is possible that you could come up with a completely different set of tasks. It’s your call.

The next job at hand is to determine the time it will take you to finish each task. You do not have to be 100% precise at this, just give a ballpark figure as to how much time you need for every task. Obviously, not having done the task yet, you do not know the exact time you require. But giving a ballpark figure allows you to budget your time accordingly instead of being on “floating” status. It breaks the paralysis that comes when you panic and try to be 100% accurate at this stage.

Let us examine the case of “Installing a Computer Network for Company ABC.” If you listed the following tasks:

- Ask for client’s specifications for computer network.
- Canvass prices of appropriate personal computer models at computer stores.
- Submit estimated cost of personal computers to client.

Then you may start estimating how much time each of these three tasks would require to be accomplished. The first one might just take one day of meetings with the client. The second one could take a little longer since you would have to talk with the sales representatives of computer stores about their personal computer models. The last one might also take you an entire day of meetings with the client since he would have to consider your proposal closely before coming to a decision. Note that each task might possibly require more time than you initially budgeted for it. So integrate “buffer time” into your estimate – adding more time to accomplish each task so you have leeway to work without the stress of an imminent deadline making your work harder.

The last job for the above employee is delegating each task to the appropriate person on the project team. For example, as far as “asking for client’s specifications for computer network” is concerned, that could be assigned to Employee X. “Canvassing prices of appropriate personal computer models at computer stores” would be designated as Employee Y’s job. And to “submit estimated cost of personal computers to client” - that might be given to Employee X to do. Another possibility is that one person could do all three jobs – you will have to figure out whether delegating the tasks would make the project proceed more efficiently or not.

Do you see now how mind mapping can help you at each stage of your work? At each stage, creating a mind map can bring out a host of ideas which would be applicable. After you produce your mind map, you can then list the relevant ideas using a linear method (i.e. as Task #1, Task #2, and Task #3.) When you have narrowed down the details of your work, you can then put the relevant ideas in the format appropriate for your work. If it is a research paper, use the format recommended or desired by your instructor. If it is a project estimate, there is also a format that would best appeal to the client.

### **An Unusual Application of Mind Maps: Using Mind Maps for Preaching**

One pastor at Fellowship Church - Pastor Ed Young, Jr. – is known for delivering great sermons. He has been able to produce nearly 1,000 messages in 15 years of preaching at this church – all through applying the technique of mind mapping. Since the mind is believed to see things in clockwise fashion, Ed

uses a legal-sized piece of paper where he attaches message notes in a clockwise direction (using both the front and back of the legal-sized paper.) At the start of his career, Ed would take time out to jot down, color code, and illustrate his ideas on the mind map by hand. In time, he has become more dependent on a computer template to create his mind map for each sermon. But even on these computerized mind maps he has opted to keep color coding the key words, illustrations and transitional words that he needs in order to keep track of the flow of his sermon. Ed also keeps integrating handwritten notes into these mind maps when he needs to remember something or change something at the last minute. Ed does not memorize his sermons – rather, he focuses on being familiar with the whole content. This leaves him free to expound on certain ideas during the sermon itself when he feels it is necessary.

### **Creating an Essay Using a Mind Map**

Everyone who has gone through formal education has had to create an essay at one time or another. Essays are considered important by instructors since they help in assessing how much content about a subject has been absorbed by the learner, as well as finding out how individual facts are interconnected in the mind of the student. But not everyone knows how to create an essay the right way. Most people just start writing sentence after sentence – then they wonder why their instructor marks their essay as being “disorganized” or “haphazardly done.”



The Buzan Study Skills Handbook gives instructions on how to write an essay using a mind map. You could try using these steps when you are writing an essay at home or during an exam. First, make a mind map which encompasses the necessary sub-topics of your subject. Of course, it is understood that there should be a central image forming your central key idea – your subject. Then, pay attention to what the subject theme or question is demanding of you – this will give you ideas as to what the next branches of your mind map should be about. Each ‘tree branch’ or relationship of ideas is called a Basic Ordering Idea by Buzan. At this point, you may opt to free-associate as to what keywords (or sub-branches) you should attach to each Basic Ordering Idea. Using different colors will help you organize these details. Next, take some time to rest then re-examine your mind map – Do you need to re-organize it? Should you add or remove individual details or whole ‘tree branches’ altogether? Feel free to draw another version of your mind map, if necessary. Now you are ready to write the first draft of your essay, based on the way your mind map is organized. Make sure to write it fast, and don’t dawdle over any difficult portions – the important thing is to maintain the flow of thought. Then take another look at your mind map and do another draft of your essay – this time you can place cross-references, add quotations or more facts if you feel this will make your essay richer, and change or add to your conclusions where needed. Now, what do you know? – You have just created an essay using a mind map!

### **Enjoying Literature and Drama through Mind Mapping**

Do you ever wish you could enjoy works of literature more? Or would you like to go to the theater and improve your comprehension of the plot of the play you are watching? Perhaps you have seen a wonderful movie but wish you could tell the story to your friends in your own words afterwards. Whichever of these three is true in your case, it is possible through mind mapping.

If you were to read the written work of a master novelist or playwright, the test of your level of comprehension is whether you can tell the same story to another person without losing key concepts in the process. You need a mind map for this. This is not an easy task if you were to read the entire book at one sitting then attempt to create a mind map. Try doing it in bits and pieces – read one chapter first, internalize the story, then create a mind map of it. You may find that your ability to be a storyteller improves as you keep at it. The mind map helps you by creating a graphical visualization of the storyline – isn't this easier than memorizing whole paragraphs out of the book? Be patient and you will eventually be able to finish an entire book this way.

What about watching a play? This is simpler than reading because you only have to open your eyes, ears and other senses to gain valuable impressions of the play you are watching. What costumes are the characters wearing? How strong is the lighting in certain parts of the stage? What color schemes seem to dominate the background during particular portions of the play? These visual cues, in tandem with good listening skills, allow you to recall the play as it was portrayed by the actors. If you attempt to recall the story of the play afterwards as you develop a mind map, these visual inferences will prove crucial.

The same techniques for observation which you use for recalling a play will also help you when you watch a movie. Listen carefully to the dialogue but also keep an eye out for crucial visual impressions. The scenery is one valuable aspect of a movie which you can examine. What country is the story being played out in? Does this have an impact on the storyline? You could also look at the clothes of the characters – not just the lead actors and actresses but the extras as well. What period of history are they attempting to portray? Also, does the director like to use creative color cues in the background lighting to show changes in the storyline or mood? All these (and more) will prove important to you when you eventually create a mind map.

For aficionados of the theater and film, you will find that the use of color has a corresponding impact on your emotions. This is why directors of both plays and movies are often experts in the use of color – even down to the facial make-up of their actors and actresses.

If you rely on mind mapping to recall great works of literature, theater and film, you will not only become a more well-rounded person, but you will be able to keep enjoying way into the future what you experienced in the past.

### **Mind Mapping for Children**

There is a growing movement nowadays among educators who are familiar with the benefits of mind mapping, to try to apply it to educating children. Is this advisable? Michael Tipper is a speed-reading instructor who also teaches mind mapping to children. He says that the approach of the teacher should be

based on the age and maturity of the student because a child who is too young or not mature enough will be bored by mind mapping and will not be able to grasp the process.

Tipper himself does not inform the children he teaches that they are going to learn about mind mapping itself. Rather, he will tell the children that they will learn about a particular topic that is easy for them to grasp – say, a farm. He will use a very large piece of paper, then ask the children to draw a picture of a farm. This picture of a farm acts as the mind map's key central idea.

Tipper then asks the children to name the things which they think belong on a farm. He makes it a point to encourage the children to use generic words to label those things such as Machinery, Barns, Fences, Animals and the like. Tipper draws lines from the key central idea – Farm – on which he gets the children to draw the images of the things that belong on a farm. These things make up the keywords of sub-topics.

Under each sub-topic, Tipper will then draw more lines to reflect the supporting details. He will then pull the children further into the mind mapping process by asking them leading questions – for example, for a sub-topic dubbed Animals, Tipper would ask the children what kind of animals can be found on a farm. The children might say Chickens, Cows, Dogs, Cats, Ducks and so on and so forth. He would then ask the children again either to draw images of such animals or to look for pictures in magazines.

Tipper notes that children do not usually follow the logical approach of mind mapping that is geared for adults. The mind map that results from Tipper's

approach to teaching children is one that is composed mainly of pictures. This is appropriate for encouraging children to become creative and spontaneous.

Tipper discourages linear approaches to teaching children since the child's ability to express himself may be stifled instead. Tipper's approach is also useful for encouraging children to work in groups – one group could be responsible for one 'branch' of information while the other groups work on the other 'branches' of information.

The advantage of using mind maps when teaching children is that they think this way makes sense and makes it fun to go through lessons. After a mind mapping session, ask one of the children who participated what the lesson was about – he will then think of the mind map that was created and be able to describe to you in his own words what the teacher taught them that day. If the children who participate in mind mapping are just learning how to read, the teacher could paste on the mind map the names of the things in the pictures using large letters. The children would then be able to relate the picture to the word pasted beside it.

### **Speed Reading and Mind Mapping**

The skill of speed-reading came into being at the start of the 20th century. It became necessary because the influx of publications of every sort into the public consciousness made up a deluge of information that people found hard to cope with when they adhered to normal reading rates. So speed-reading was developed.

According to speed reading instructor Michael Tipper, most people who are not trained in speed-reading read at the speed of 200 words per minute. These same people believe that this is the normal pace they should be reading at because most of the people around them also maintain the same speed. Tipper states, though, that it is possible for most people to increase their reading speed to much faster rates – essentially to become speed readers, and even to eventually reach the ability to read **1000** words per minute. This is what he claims on his site at: <http://www.michaelonspeedreading.com/>. And he says he has the confidence to predict that because he has taught speed reading to over 70,000 people.

Now you may be wondering what speed reading has to do with mind mapping. Well, to start with, both tasks require you to use your eyes and your mind at the same time. When you learn to speed read, a speed reading machine will guide your eyes down the page at faster and faster rates until you reach your maximum reading speed. You are then required to take a quiz on what you just read to see how much information you have retained. Mind mapping can also be used by a speed reader to note down what information he can recall from what he just read. The difference between the quiz and the mind map is that the quiz takes a line-by-line format; the mind map, on the other hand, allows you to keep adding ideas that you recall from the reading material **infinitely** (at least, until you run out of paper to draw on) in ways that you prefer. A quiz asks for written words. A mind map lets you doodle and sketch in symbols for your ideas, if you believe that will help you recall and retain the information better.

If you learn to speed read, you will find that it will aid you in your mind mapping. You will absorb information at a faster rate – then you can use mind mapping as a complement to speed reading as a learning style. Drawing on a mind map may help you to express ideas you initially read as words at a faster clip. Not only will you comprehend information fast while speed reading, but you can check how much you actually retained in your mind by mind mapping. That's how it works.

Reading fast does not necessarily mean you are doing speed-reading. You might be reading fast but not absorbing the information – your eyes are simply darting from word to word, but nothing is entering your head. A quick attempt at a mind map will reveal if this is true. Genuine speed reading means that you are able to pick up meaning along the way. Again, if you are practicing real speed-reading, you can test yourself with a mind map. For example, try mind mapping what you have just read in this document so far. Remember anything? That's how you will know – through a mind map.

You may attempt to read faster by yourself if you motivate yourself to read two or more words at a glance and try to limit the number of times your eyes regress, look back over past words, or wander off to other sentences. You could also use a visual guide, or a pointer, to hasten the speed at which your eyes read words. Basically, a visual guide such as your own finger helps you to see just where you are in the sentence. Your finger acts as an accurate reference point for your eyes. Other visual guides commonly used are pens and pencils; some people like to use cards but the finger, pens and pencils are better because they

allow you to focus on reading from left to right horizontally – a card just shows one line of words. To use a visual guide most effectively, keep its point trained just underneath the particular words you are reading. Move it along the sentence smoothly and regularly – this permits your eyes to select the right groups of words to look at. Speed-reading will occur when you practice moving the visual guide at speeds that go a little faster at every training session. In response, your mind will cope by concentrating more and improving its level of comprehension in tandem with the speed.

Tony Buzan also developed a speed reading technique, in addition to the mind mapping method. This technique is known as the Tony Buzan Mind Map Organic Study Technique. You start off by browsing through the reading material for around 10 minutes. This allows you to get an idea as to how the ideas are organized – if the reading material is a book, find out whether it employs summaries before each chapter, or graphics, descriptive headings, or lists to make the information easier to absorb. Next step (which should take around 5 minutes) is to apportion the time you will use to read each portion of the reading material – Buzan recommends breaking up your reading time into 20-50 minute segments, with a 10-minute break in between segments. Having browsed through the book, do a fast mind map (around two minutes) of what you understood. This allows you to keep the knowledge in context. The third step is to create a new mind map – this one will be about what questions you may have about the content, as well as your goals for reading in the first place. (Don't take more than 10 minutes for this one.) This gives you an idea of when you have



read enough of the material and should stop. Take note that at this point you have used around 30 minutes preparing to read the material. You might want to rest or stretch for 10 minutes more before proceeding.

Another thing you should observe is that you don't need to follow the rest of these steps for every kind of reading material – we will indicate where each step is applicable. Now, the step known as Overview can be used for any kind of book because you will be looking for the major concepts of the book. Check out any tables, lists, bold-face material, graphics, pictures, and headlines which help you to find that out. You will observe again that this step alone will allow you to draw a central key idea, as well as the first level of sub-topic 'tree branches', for your third mind map. In fact, you might see that this is all that you really need and may want to stop here. If not, proceed to the next step which is called Preview. Here you will be required to practice selective reading – namely, which parts of the book are not clear to you after doing the Overview? You do Preview by perusing the first sentence of every paragraph as well as chapter summaries. This step allows you to spend time looking for information that is crucial to helping you understand the reading material. Then get your third mind map and add more 'tree branches' of information to it. The step Buzan dubbed Inview should be used only if there are difficult paragraphs, or portions, of books which you feel are necessary to your comprehension. This step requires you to simply read through the difficult parts which are stepping stones to your reading goals. If your reading goals don't require it, do not do the Inview step. However, the step labeled Review is necessary for all types of reading material. This entails

redrawing the mind map again - purely from memory this time. Yes, we know, this is your fourth mind map – be patient with yourself. Actually, you need to put this version of the mind map aside then attempt to draw a fifth version the following day. You are then asked to compare Version #5 with your original mind map – Are they the same? Are they barely similar? Which mind map is more thorough?

The very last step is mandatory if the reading material is very important to remember. You are required to draw a mind map of the same material after one week, another mind map after a month, and a last mind map after a year. It is further recommended that you share the information you learned with other people – this may even mean displaying your most recent mind map to them – so that you will reinforce the learning process.

Buzan also gives other tips that should help you in the task of speed-reading:

- 1) “Warm up” your eyes for the task of reading at high speeds by allowing them to take a quick glance throughout the reading material.
- 2) Make sure that the room you will be reading in is not too warm. The ideal is to maintain a slightly cool room temperature that hovers from 16 to 18 degrees Celsius (or 68 to 70 degrees Fahrenheit.)
- 3) Though we all like pleasant surroundings to read in, don’t get too comfortable or you will fall asleep. Also, maintain a reading area that is free from clutter that could distract you from your reading.
- 4) If you will be reading over long periods of time, try to take breaks when

you lift your eyes from looking at the surface of the page and instead examine far-away objects. This allows your eye muscles to relax and rest, preventing you from getting fatigued.

- 5) When you encounter something visually important (such as a graph, photograph, or a page of print text), you may halt your reading, shut your eyes, and try to visualize a mental reproduction of this important image. This tip will aid your recall and hone your powers of imagination.
- 6) Keep a good posture, neither rigid nor tense but relatively upright. Also, your eyes ought to be 15-24 inches away from the book.

Studying how to speed-read the right way will allow you to think faster while becoming more creative, take better notes (your mind map will prove this), find exams easier to take and pass, be more effective at studying, achieve higher reading speeds and comprehension levels, recall practically anything you need or want to remember, enhance the range of your vocabulary and intelligence, increase your visual perception, be mentally aware, shave off seconds, minutes, even hours from your total study time, and even eventually achieve reading speeds of over 1,000-words per minute to around 10,000-words per minute.

## **Chapter Four**

### **OTHER RELATED METHODS**

#### **Concept Mapping**

A technique which is related to Mind Mapping (and is often confused with it) is Concept Mapping. Mistaking Mind Mapping for Concept Mapping is easy since both emphasize the visual format of spider diagrams whose ideas branch out from one another. The basic difference, though, is that while a mind map is founded on one key central idea on one paper, a concept map may feature several key central ideas all located on the same piece of paper. Thus, the appearance of a mind map takes the form of 'tree branches' all connected to the key central idea. A concept map, on the other hand, usually looks like a network representation.

To make visualizing a concept map simpler, think of Concept Mapping as a way of using downward-branching graphs to present knowledge. A knowledge graph allows concepts to be networked together. Each network is made up of nodes/points/or vertices where concepts can be labeled, which are connected through links – sometimes links are also labeled in some Concept Maps. A link may be bi-, uni-, or non-directional. Both concepts and links can be categorized or they could simply be associative. A link is responsible for showing the relationship between different nodes or concepts.

Concept Mapping is believed to have been developed by Prof. Joseph D. Novak of Cornell University – also during the 1960s, just like Buzan's Mind Mapping product. Novak founded his Concept Mapping technique on

“Constructivist” theories by David Ausubel who emphasized that pre-absorbed knowledge is necessary for a person to comprehend new concepts. Thus, Novak realized that learning becomes meaningful only when new ideas and assumptions are integrated into the cognitive structures you already possess. This led to Concept Mapping, which was initially aimed at making learning the sciences more meaningful.

Concept Mapping is useful for brainstorming new ideas, creating a complicated structure for a project, expressing complex ideas during a presentation, supporting continuous learning processes by merging pre-absorbed knowledge with newly-acquired information and determining aspects of processes where a breakdown in comprehension was experienced.

### **Cognitive Maps**

The term Cognitive Maps (along with its related terms Mind Maps, Mental Maps, Mental Models, and Cognitive Models) is used to denote the process of cognition or mental processing made up of a sequence of psychological changes. These changes allow a person to absorb, encode, amass, and translate data regarding phenomena as they relate to their real or metaphorical spatial environment, as well as what features that phenomena have under those conditions. This definition shows us that both Mind Mapping and Concept Mapping are founded on the Principle of Cognitive Maps.

The word “cognition” itself refers to belief systems, or mental models, that people rely on to recognize, contextualize, simplify, and understand problems

which would be considered complex otherwise. Cognitive maps have been employed in different scientific fields, including management, geography, planning, archaeology and psychology – thus, cognitive maps may also be recognized as “frames of reference” or “schemata”.

When we use Cognitive Maps (such as the Mind Maps popularized by Buzan), the cognitive load of the mind is reduced because spatial knowledge is classified and stored by “the mind’s eye.” In addition, Cognitive Maps permit us to remember and absorb more information. Hence the touted effectiveness of Mind Maps. This kind of spatial thinking can encompass even non-spatial activities which rely on memory and imaging. How? Cognitive spaces are perceived as either flat, spatial or abstract representations. When cognitive spaces are merged, they produce a cognitive perspective.

Students in ancient Rome are believed to have relied on “the method of loci”- which is the earliest known formal technique relying on spatial locations – when they were memorizing speeches. This “method of loci” required the oratory student to first commit to memory a familiar place (such as the number and location of rooms in a building.) The student then mentally placed something which represented the concept to be remembered within a part of that familiar place (like imagining a dog within a room.) When the learner had to remember the list of concepts to be remembered (for example, an entire speech), he mentally took a trip through the rooms so he could remember the concepts in the same sequence.

## CONCLUSION

Mind mapping is an exciting tool that can be helpful to everyone, no matter what their situation. Even though it does take a while to become comfortable using it, you will find that it is well worth the effort, because it can become a great time-saver in the long run. Its many advantages and uses are not limited to what you have discovered in this ebook – each person, using their creativity and imagination, can come up with new and interesting ways to apply it.

You can use it instead of traditional note-taking entirely, if that is your choice, but remember that there are no hard and fast rules – just guidelines that you can adapt to your own particular needs. You can switch from one method to another at will, or combine them in whatever way is right for you.

It's up to you now. Have fun with it!