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MIND MAPPING FOR PROBLEM SOLVING AND CREATIVE THINKING IN TEAMS

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ASCAP, New York, NY
CaseStudy



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Mind Mapping for Problem Solving and Creative Thinking in Teams

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Editor's note

This article was developed from a presentation made at The Best of Teams 2000 conference, presented by Linkage, Inc., with sponsorship by GOAL/QPC—Editor.

Background

Marshall Tarley—Our organization, ASCAP (American Society of Composers, Authors & Publishers), licenses the public-performance right of music. (In this context, *Authors* refers to lyricists.) This is a nearly \$600-million-per-year business for ASCAP. We also license the repertoires of over 100 foreign performance-rights organizations in the United States. We have over 600 people in our New York headquarters and in offices in Nashville, Atlanta, Los Angeles, and Miami, as well as sales staff throughout the country.

Diversity of thinking

Creativity is the source of great ideas and often the source of conflict as well. We will begin by examining the communication, note-taking, brainstorming, and planning tool called Mind Mapping®. Then we will take an in-depth look at an application of Mind Mapping that maximizes creativity in teams, clarifies team thinking and communication, and helps teams bring themselves into alignment.

Consider this scenario: Five team members are each given a word common to their environment (in this case, *communication*) and are asked to list six words they associate with that word. Incredibly, there are no matches among their lists. These results have been repeated many times.

Why? It's a demonstration of the tremendous diversity of our thinking. We all come from different educational, cultural, ethnic, and regional backgrounds; belong to different generations; and have different business experiences. When we hear a word, it triggers associations that link with thought patterns we have created throughout our lifetime. We take in information, it links with our long-term memory, and we create knowledge out of it. Thus, the same information becomes different knowledge to different people.

Organizations throughout the world try to find ways to leverage this intellec-

Diversity of thinking, continued

tual capability—to take this diversity of thinking, this powerful source of creativity, and use it in the workplace to get a competitive edge. Frequently, however, it is not harnessed well, and instead it becomes the source of conflict and frustration.

Leveraging diversity of thinking is a challenge

This utilization of our intellectual capabilities is one of the reasons that teams were formed to begin with. When we work in teams, we want to leverage all the diversity of thought among team members, which helps us to innovate bigger, better ideas and contribute more value to our organization. It's the reason that many organizations have stripped out layers of management and brought the workers closer to the customer, the product, and the decision-making process: to leverage the tremendous thinking capacity of the work force.

But is this approach successful? Organizations spend a lot of time at the corporate, divisional, departmental, and team levels on mission, vision, and goals. However, when people make their own knowledge out of these three concepts, they often end up working at cross-purposes. What can be done about that?

The Mind Mapping tool

Mind Mapping is a tool that teams can use to put their intellectual diversity to good use and to minimize conflict. Using a Mind Map is appropriate in any situation where improved learning and clearer thinking will enhance human performance. A Mind Map can be defined as an expression of thinking as a natural function of the human mind. The subject of attention is crystallized in a central image. The major themes of the subject radiate from the central image as branches. Associated information is attached on secondary and tertiary branches attached to the higher-level branches. Additional branches can go out as far as you want. The branches all come together to form a connected, nodal structure. There is one key word or image on each branch. (See Figure 1 on the next page.)

The origin of Mind Maps

Mind Maps were created more than thirty years ago by Tony Buzan, who is one of the world's leading authorities on the brain and learning techniques. His creation of Mind Maps was the culmination of years of research to find a tool to make learning easier and more brain-friendly and to increase memory retention of the material that is learned.

Mind Maps appeal to the full array of thinking skills

Mind Maps operate on our full inventory of cortical skills, which can be more simply described as our thinking skills. They are sometimes referred to as "left-brain skills" and "right-brain skills." These skills—which include rhythm, color, image, spatial relationships, dimension, sequence, analytical capability, logic, detail, whole-picture context, and the use of lines, words, and numbers—are all represented in a Mind Map. Thus, when someone looks at a Mind Map, he or she takes in information at multiple levels that appeal to the full inventory of higher-level thinking skills.

Thus, if two people look at the same Mind Map and one is oriented to analyti-

Mind Maps appeal to the full array..., continued

cal or logical capability while the other is oriented to spacial relationships, the Mind Map serves both persons' preferences with respect to how they absorb information. The Mind Map also allows both of them to integrate the information with their other thinking skills.

Color is important

Color is a very important aspect of Mind Mapping. The brain becomes more active when it sees color. One of the rules of Mind Mapping is that the central image should contain a minimum of three colors. [Note: To view color versions of Figure 1 and Figure 2, go to www.goalqpc.com/membership—Editor.]

How Mind Maps work

The Mind Map of the laws of Mind Mapping in Figure 1 has a bright central image that pulls you right into the picture. The Mind Map is colorful, there's a flow to it, and it has rhythm, detail, and dimension. It gives you the whole picture, the

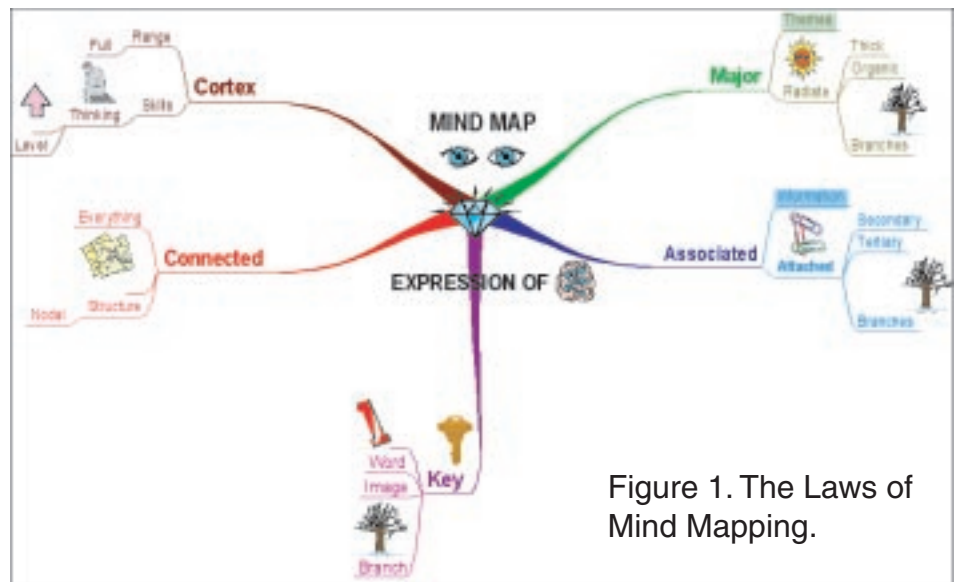


Figure 1. The Laws of Mind Mapping.

full story, all at once. When we learn new information, our brain craves the context; we ask, “What is this all about?” A Mind Map gives you that full picture and allows you to pick out the piece of information that is most attractive to your style of thinking and your world of experience.

Once you are “in” on one of a Mind Map’s branches, you try to take in the rest of it, assimilate it, integrate it, and make knowledge out of it from your own experience. You have the whole picture in front of you all at once. This is much more effective than looking at a slide presentation, where you can easily lose interest once the presenter gets to, say, slide three.

Mind Mapping is a powerful tool, but it’s important to remember that it is just a *tool*. What is interesting is the *application* of this tool. When you use it during a brainstorming session or a strategic planning session, it’s very effective.

A brief history of the STORMM team

How a Mind Map exercise helped the STORMM team

The STORMM (Systems, Technical Operations, and Research in Music and Management) team at ASCAP was formed in 1994. This high-performance team performs a complex process of verification and reconciliation of data that results in a bill to our customer and a distribution of royalties to our members. The STORMM team's effectiveness is measured by the quantity and quality of the data they verify and their cycle time. The speed at which they take in revenue and get it out to our members, accurately, in royalty payments—that's the bottom line of our business.

This team has gone through several changes over the years, but it has always been innovative. It is a highly autonomous team. Its members manage their own budget, do their own recruiting, address performance problems on their own, negotiate with other departments, and create and automate processes.

In 1999, they suddenly started having problems. For two straight quarters, their efficiency declined. Because I started the team in 1994, I was called in to work with them and help fix what was wrong. Team members identified several problems: They weren't acting like a team anymore, people were looking out for only themselves, and they weren't sharing knowledge or communicating.

Design the ideal team

Tasha Mabry, Patricia Perkins—Everyone knew what was wrong with the team. But Marshall encouraged us to focus on the positive instead of the negative. He asked, "If you could invent the ideal team that you would like to be a part of and work with every day, what would that team be like?" Marshall then had us do a Mind Map exercise: Each team member created a Mind Map that outlined his or her own personal vision of the ideal STORMM team.

Communicating with partners via Mind Maps

Team members then partnered up and shared their Mind Maps with their partners. In addition to explaining our Mind Maps to our partners, we were encouraged to share thinking. That is, if a team member saw an idea or concept that he or she liked, that person was encouraged to add it to his or her own Mind Map.

Each person then had to present his or her partner's Mind Map to the entire team. Partners had to ask each other questions about the concepts and images in their Mind Maps to make sure they thoroughly understood each other's ideas. As a result, when members got in front of the entire team, they could express the ideas in their partner's Mind Map without difficulty.

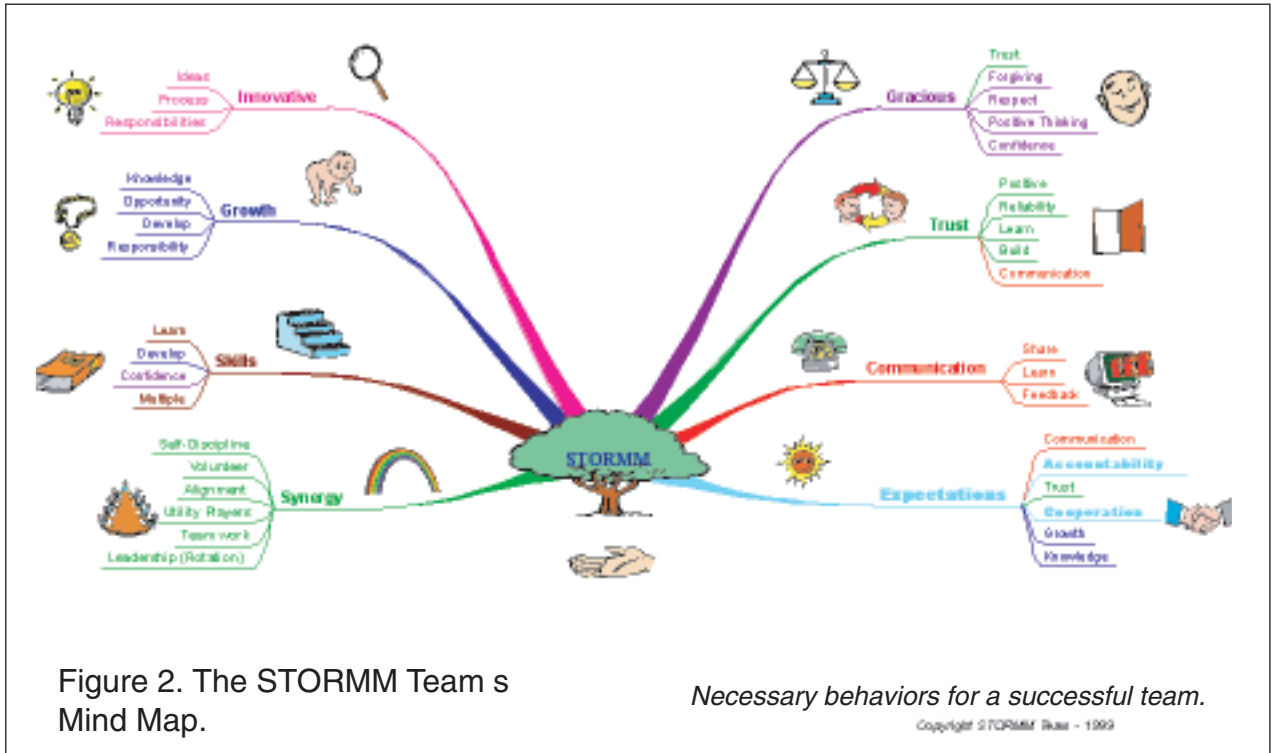
This wasn't an easy task, because at the time there was poor communication among team members; people were suspicious and angry with one another. But this exercise forced us to communicate and make sure we understood our partners.

Consensus building, negotiation, and alignment

Our team then went through a process of consensus building and negotiation to create one unified Mind Map to represent the entire team's vision. We negotiated

Consensus building, negotiation..., continued

what to include in the central image, as well as the merits of all the different concepts and ideas that were contributed by each team member, to create the Mind Map shown in Figure 2 below.



This Mind Mapping exercise forced us to go from a point where there was a great deal of conflict and a lack of communication to a point where we came together to arrive at a common goal using all our different ideas and diverse thinking. When we had completed the exercise, everyone was aligned with what we wanted our team to be.

An explanation of the STORMM team's Mind Map

The central image

The central image of our Mind Map consists of a tree, which represents the growth, maturity, and success that we wanted for our team, and an open hand, which represents the openness, communication, cooperation, nurturing, and feedback that we would need from each team member to achieve that goal.

The four main branches on the left side

The four main branches of the left portion of the STORMM team's Mind Map are labeled Innovative, Growth, Skills, and Synergy.

First branch: Innovative

Innovation is important to our team's success. Our team is constantly thinking about new ideas and developing new processes and responsibilities.

Second branch: Growth

Growth is a natural resource that all teams need; the infant in our Mind Map illustrates growth. Our team members have confidence in one another that we will develop. We are constantly cross-training, learning new skills, and obtaining knowledge that provides us with new opportunities and responsibilities.

Third branch: Skills

We take consistent steps to increase our skills. As we learn, develop, and gain new skills, our confidence increases. A lack of confidence brings on mistrust. But when we have confidence, we have greater trust in ourselves and in each other.

Fourth branch: Synergy

Trust helps build synergy, which is important for maintaining productivity. Synergy is our ability to combine forces; we work together as a team to utilize all our individual skills. Some discipline is required to allow everyone the opportunity to express their ideas. We make sure that everyone on our team can take on any given job function. Volunteering gives us the opportunity to explore new job areas. Every member of the team is expected to volunteer.

We are a self-managed team. We take turns assuming leadership roles. We have to be able to step back and let someone else lead when the situation is appropriate.

The four main branches on the right side

The four main branches of the right portion of the STORMM team's Mind Map are labeled Gracious, Trust, Communication, and Expectations.

First branch: Gracious

The first branch, Gracious, means that team members give one another the benefit of the doubt. The picture of the scale in the Mind Map represents our commitment to analyzing the information we get from our teammates without passing judgment on those people. We believe that a gracious atmosphere helps to build trust. Each person is expected to have a respectful and forgiving attitude toward other teammates. Working closely together sometimes results in people's stepping on each other's toes, but this base of respect and forgiveness helps us to avoid this kind of conflict.

We are expected to think positively about the actions and intentions of our teammates. Before we did the Mind Map exercise, we didn't just question teammates' actions; we became suspicious about the intentions of those actions. Thinking positively about each other's actions and intentions builds confidence in ourselves and in one another. As team members, we know that we are not going to be questioned about everything we do, so we are not afraid to move to the next step.

Second branch: Trust

We believe that positive actions build trust. Each person on the team is expected to be reliable. As we act in a reliable way, trust is increased. We know that our fellow team members are going to be there to lend a hand or to help meet a deadline as needed, and we will do everything that's necessary to get the job done. Trust is something that is learned, and it is built through constant communication.

Third branch: Communication

We have to share information continually to maintain alignment. There's a great deal of information that our team needs to do its job. So, to be empowered to do it successfully, we need to share that information effectively. This effective communication is learned and fine-tuned through consistent feedback. We are constantly asking questions about the information being shared to ensure that we have a common understanding.

Fourth branch: Expectations

We believe that positive expectations will result in positive outcomes. If we feel good about what we believe the end result of our actions will be, then we know we will give our all to achieve that end. Each person is expected to communicate effectively. We are expected to be accountable as individuals, and as an entire team, to the rest of the organization. We are expected to trust one another and to act in a way that's going to earn and maintain that trust. We expect cooperation. We expect all team members to increase their knowledge and growth, both personally and professionally.

Mind Map exercises yield impressive results

The STORMM team's Mind Map was comprehensive

Marshall Tarley—When I saw the end product of this exercise, I was impressed by how comprehensive and perceptive the team was. Every element you would want to have on a team was included in the STORMM team's Mind Map. The team members did not read the works of Tom Peters or Daniel Goleman to prepare for this exercise, nor did they conduct any research about emotional intelligence. They came up with their Mind Map by using their own innate experience and knowledge.

Creativity

In our culture, we focus on convergent thinking. We ask, "What's the common denominator? What's the bottom line?" However, our brains naturally function in terms of creative, or divergent, thinking. (Remember the team members' diverse associations with the word *communication* in my earlier example.) And this naturally diverse thinking is the source of creativity and innovation.

In creating their Mind Map, the STORMM team, first as individuals and then as a group, used divergent thinking to stretch their ideas as far as they could, with no restrictions. It was a fun exercise; the team members were enthusiastic about it, and they were expressive and creative.

After they had partnered up and presented each other's concepts and ideas, they then had to bring all that divergent thinking together and take the Mind Mapping exercise to the convergent thinking stage as they went through the consensus-building and negotiation process.

Participating in this Mind Mapping exercise yielded positive results for the members of the STORMM team.

1) They decided to post the Mind Map in each of their workstations. Suddenly, there was a flurry of positive reinforcement and positive feedback. Every time team

Positive results for the team members

members saw each other exhibiting the behaviors outlined in the Mind Map, they would give each other positive feedback.

2) A manager working with newly formed teams in a different division of ASCAP saw the STORMMM team's Mind Map, asked the team members for more information about it, and then invited the team to do a segment of training for the newly formed teams. The STORMMM team members, who had never expected to be conducting platform training in a corporate setting, suddenly found themselves doing a segment of training about desirable behaviors for a successful team. They did that for twenty-nine different teams.

3) The positive feedback they got from each other and the training they performed created a snowball effect of trust, communication, self-esteem, and confidence.

4) The STORMMM team is now highly aligned, enthusiastic, creative, and innovative in their approach to their work and their team as a whole. The team members are truly supportive of each other.

Key business metrics were positively influenced

This Mind Mapping exercise also yielded some positive results for the STORMMM team's key business metrics.

1) As a result of the team's gains listed above, the key metrics that measure the STORMMM team's business performance shot back up and stayed up.

2) The innovative working style of the team returned, yielding new ideas and efficiencies and an atmosphere of great enthusiasm.

These positive results show how the "soft stuff" really yields hard results that are worth going for and spending the time needed to achieve them.

Supplementary processes

What's the next step to take after this application of Mind Maps? For the STORMMM team, just putting their ideas down on paper and integrating them into their belief system caused the desired behaviors to occur.

In addition, once their Mind Map was completed, the STORMMM team put together processes to support it, including formal feedback sessions (see page 62) and regular meetings to deal with certain issues. In the past, I had trained the team in giving and receiving feedback, and they appeared to be doing quite a good job.

Alignment continued in performance appraisals

A year after the STORMMM team had created its Mind Map, I checked in with them again to see how they were doing. The results were truly amazing. They had just completed their annual peer performance appraisals, and for the first time in three years the process had gone smoothly. This was because they had integrated their Mind Map into the appraisal process.

STORMMM team members' appraisals are weighted at 80% for technical performance and at 20% for team performance. The technical performance ratings have always been relatively free of conflict—each category has objective performance measures, and performance is based on reports derived from measurement systems

Alignment continued in performance appraisals, continued

Making team performance easier to measure

built into their processes. But team performance, which is somewhat subjective, had been a difficult area in the past.

To solve this problem, the team took the behaviors listed on the branches of their Mind Map and related them to their team-performance behaviors by placing them side-by-side on the performance/peer appraisal form (see Figure 3 below). In addition, they instituted formal monthly feedback sessions, which operated under the following three rules:

- 1) Positive or critical feedback must be provided to fellow team members

Figure 3. A Portion of the STORMM Team’s Peer Appraisal Form.

Activity	Defined as:	Mind Map Categories
Communication (oral and written)	Success in communicating ideas, concepts, and other information clearly and concisely, in a grammatically correct form, and in a manner that transfers that information to the other person(s).	Skills, Communication, Expectations
Obtaining knowledge	Learning new information, work functions, and/or processes that are important to your work performance, as well as the performance and success of the team.	Growth, Skills, Communication, Expectations
Providing knowledge	Providing other team members with information they need to effectively perform work functions, understand work processes, and understand other issues relating to the team’s performance (e.g., systems, legal issues, information about the music industry or television industry).	Skills, Communication, Expectations
Interpersonal relations	Obtaining others’ support for your ideas. Obtaining the cooperation and assistance of others. Providing cooperation and assistance to others. Effectively obtaining resources. Asserting oneself constructively and effectively as appropriate. Resolving conflicts constructively.	Skills, Trust, Synergy, Gracious, Communication, Expectations
Interdepartmental/team relations	Working effectively with other teams and departments to resolve differences, plan and execute joint projects and tasks, and obtain resources and information. Helping to maintain an open, constructive dialogue.	Skills, Trust, Synergy, Gracious, Communication, Expectations
Innovation and creativity	Utilizing existing resources in new ways and/or devising entirely new means of performing work to identify, create, and exploit opportunities to improve quality, efficiency, and/or customer satisfaction.	Innovative, Skills, Expectations
Leadership	Guiding team member(s) with process/procedure. Directing an activity or project to completion. Being a principal performer with strong initiative who sets an example of hard work and dedication and exerts a positive influence on the team.	Growth, Skills, Gracious, Trust, Communication, Synergy
Accomplishments	Projects that were achieved. Tasks that are not a part of our technical responsibilities but were important to the team’s success.	Skills, Growth, Trust, Gracious, Expectations, Synergy, Innovative

Making team performance easier to measure, continued

within twenty-four hours of when the issue or action is observed.

2) Feedback may be provided in the formal monthly feedback session only if rule number one has been followed with regard to the issue or action in question.

3) Critical feedback may be raised at the formal monthly feedback session only if (a) rule number one was followed and the action or behavior persists, or (b) the issue is of such a serious nature that it must be raised regardless of whether it persists.

Mind Maps have a big impact on teams

I have used the Mind Mapping methodology with several teams in different situations, and each time it has had a very big impact. Last year, I met with the management team for one of ASCAP's major sales divisions. This team was having difficulties. I took them through an exercise in which they created a Mind Map depicting what they wanted to accomplish as a team.

A few months later, the members of this team met with the teams that report to them from throughout the country. The vice president of the division said she had never before seen a turnaround like the one this team had accomplished. This management team had gone through an amazing transformation, and two of its members are now slated for promotions. Now that the management team is enthused and performing in such an outstanding manner, they want all the teams that report to them to go through a similar Mind Mapping process.

How a Mind Map helped a newly formed ASCAP team

A slightly different situation occurred with a team I worked with that was just starting out. They were a skeptical group of people. I helped them create a Mind Map of what they needed for their team to be successful. After they finished doing this, they actually told me, "All of this sounds really nice, but we don't believe that it's going to happen."

Two years later, there are no more doubters on that team. They have accomplished everything they set out to do. Although the things they chose to accomplish—clear and measurable goals, positive relationships among team members, mutual respect, commitment, clear and flowing communication—were not grandiose, at first they didn't believe that achieving even these basic goals was possible. In the end, they were amazed by what they had achieved. And, as in the other situations, their business results were impressive as well.

Mind Maps vs. other team exercises

Often teams work together to develop a mission, a vision, and goals. This is not always an easy exercise because it's not something that teams do all the time. Mind Mapping gives teams the ability to leverage all their ideas without constraining their creativity. This creative process lets a team come up with a range of innovative and diverse ideas and put them on the table.

When a team starts out with a mission, that mission tends to waver over time. Using a Mind Map is something like creating a mission, but it's richer. It stays in team members' minds. They integrate it with who they are. You can have a mission

Mind Maps vs. other team exercises, continued

but not know how you're going to get there. A Mind Map outlines and reinforces the steps necessary to get there.

The memory value of a Mind Map is tremendous

A Mind Map is a valuable memory tool. Mind Maps use key words together with images, such as pictures and symbols. We remember images at an almost-perfect rate. And when you use one key word, your brain takes in that information as an image.

Studies have shown that when you present a Mind Map to a group of people just once, they can still remember it six months later. And they remember not just the information that's included in the Mind Map, but they also recall the information that they personally associated with it when it was presented to them. So, when you use this application of Mind Maps with a team, the ideas that the team members create and agree on resonate in the team's thinking, driving them forward to positive results.

For further reading

Buzan, T. 1996. *The Mind Map Book: How to Use Radiant Thinking to Maximize Your Brain's Untapped Potential*. New York: Dutton.

Buzan, T., R. Israel, and T. Dottino. 1999. *The Brainsmart Leader*. Burlington, VT: Ashgate Publishing Company.

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