Programme title:

Buzan Mind Mapping

Website/for more information see:

http://www.tonybuzan.com/

What claims does the company make/what does the programme target?

The developer's website refers to mind mapping as "a powerful graphic technique which provides a universal key to unlock the potential of the brain [by harnessing] the full range of cortical skills- word, image, number, logic, rhythm, colour and spatial awareness- in a single, uniquely powerful manner" (Buzan, 2015). Effectively, mind mapping is expected to help individuals improve learning and clear thinking, and the suggested application is generally any area in which graphical representations of ideas and concepts is practicable. The most common usages of the mind mapping technique are as a study method or as a teaching tool.
The specific steps to creating a mind map as described by Buzan (2015) are based on ideas about ways in which the human brain processes information and the particular characteristics of visual stimuli that facilitate the attending to and assimilation of new information. There are seven main factors highlighted in the creation of an effective mind map, as described on the developer's website (Buzan, 2015):

1. Starting in the centre of a blank page in landscape position is expected to allow for the freedom to spread in any direction with more natural expression.
2. Using an image or picture to encapsulate the central concept is based on the idea that images (as opposed to words alone) help to engage the imagination and maintain focus.
3. Adding colours throughout the mind map is suggested because colours are more stimulating.
4. Connecting the branches in a branching hierarchical fashion (i.e., main branches to central concept,
detail branches to main branches, and so on) is expected to facilitate easier acquisition and recall of information based on the idea that learning is done by association at the neurological level.
5. Curving the connecting branches is recommended over straight lines, supposedly because straight lines are less engaging.
6. Limiting to one or two key words per branch is expected to enable greater power and flexibility.
7. Using additional images where possible and appropriate outside of the central image is suggested for the same reasons described above.
With regular use of the mind mapping technique, the company claims that an individual's life will become "more productive, fulfilled, and successful on every level" (Buzan, 2015).

What it involves:

Mind mapping, as developed by Tony Buzan in the late 1960s, is a graphic technique intended to facilitate the learning of information (Buzan, 2015). A topic, idea, or concept is represented with the help of shapes, images, and keywords (Balim, 2013). In effect, information is reduced to keywords and displayed in a bright, colourful manner. The central idea is placed in the middle of a page, ideally within a basic visual representation of that idea, and then main branches are extended from the centre with one- to two-word key topics. The relative importance of these key topics can be

emphasized by the thickness of each line. Each main branch is further extended into smaller branches labelled with more detailed key words (Edwards & Cooper, 2010). Though mind mapping software is available from the website of creator Tony Buzan, the website also describes how to create mind maps independently using only "blank unlined paper, coloured pens and pencils, your brain, and your imagination." The website also offers training courses and books for additional information on this technique.

Prices:

iMindMap Desktop Software:
• Home & Student Edition: from US$100 (1 user) to US$800 (up to 25 users)
• Ultimate Edition: from US$235 (1 user) to US$1,880 (up to 25 users)
• Ultimate Plus: from US$310 (1 user) to US$1,955 (up to 25 users)
• Quotes available for needs exceeding 25 users
iMindMap Cloud & Mobile (12-month subscription): US$20.99
Modern Mind Mapping for Smarter Thinking (Kindle ebook): US$9.99
ThinkBuzan Licensed Instructor Training Courses (available only in the UK): £2495 to £2912.50 +VAT

Evidence for efficacy:

The use of the mind mapping technique as developed by Tony Buzan has been in practice for several decades, and itfollows that research on its applications spans nearly fifty years. However, a substantial portion of this research has concerned itself with subjective assessments of the perceived usefulness and likeability of mind mapping (Al Naqbi,2014; Burgess-Allen & Owen-Smith, 2010; González et al., 2014; Wen-Cheng, Chung-Chieh, & Ying-Chien, 2010). While the generally positive reception reported in these studies is no doubt important in considering the value of this technique, this report is principally concerned with quantitative outcomes of experimental comparisons (i.e., does the use of mind mapping lead to significant improvements in objective performance?). Several published, peer-reviewed studies have addressed this question, the majority of which focused on the use of mind mapping in a classroom setting. The results of three studies characteristic of this body of research are described below:

1. *The Effect of Mind-Mapping Applications on Upper Primary Students' Success and Inquiry-Learning Skills in Science and Environment Education (Balım, 2013):* This study included 64 students in a 7th grade science and technology course. Half of the students participated in four hours of specialised mind-mapping instruction per week for three weeks, while the other half of the students continued with traditional teaching methods. Assessment of the pre- and post-test scores on an academic achievement test specific to the course revealed a statistically significant difference between the post-test scores in favour of the experimental group. The study went on to demonstrate through a subjective semi-structured interview that participating students found the use of mind maps enjoyable and beneficial to their science education. These findings indicate that mind mapping had a positive effect on science learning and achievement that was reflected in the attitudes of the students.

2. *Effects of Mind Mapping on Student Achievement in a Nursing Research Course (Rooda, 1994):* This study involved two different sections of the same nursing research course conducted by the same lecturer; in one section, 24 students utilised mind mapping activities at the end of each unit of content, while in the 36-student control section, there were no special teaching strategies employed. Results were derived from three different multiple choice examinations administered at the conclusion of the course. Overall mean scores were significantly greater in the experimental group, which suggests a positive interaction between the use of mind mapping techniques and academic performance.

3. *The Influence of Mind Mapping on Eighth Graders' Science Achievement (Abi-El-Mona & Adb-El-Khalick, 2008):* This study assessed the influence of a month-long mind-mapping intervention on science achievement in 8th grade students. While a randomly-assigned experimental group of 31 students practised constructing mind maps for 10 minutes at the end of every session, a randomly-assigned comparison group of 31 students received instruction in note summarisation. Post-test achievement categories included conceptual understanding and practical reasoning; results indicated that the participants using mind mapping scored significantly higher than the comparison group in both categories by a factor of about 15 percentage points. Significance levels were maintained when the test results were broken down by basic, proficient, and advanced components. Furthermore, additional analyses revealed that these findings were consistent across all levels of prior scholastic achievement, such that there were no differential impacts on learning gains derived from the use of mind maps based on existing academic skills.

Each of these studies indicates a beneficial impact of the mind mapping technique on academic outcomes, while the additional evidence provided by Abi-El-Mona & Adb-El-Khalick (2008) suggests that mind mapping can be equally advantageous for learners of a wide range of achievement levels.

Conclusions:

From the evidence provided, it is reasonable to conclude that mind mapping can be an effective tool for facilitating effective assimilation of information (Abi-El-Mona & Adb-El-Khalick, 2008; Balım, 2013; Rooda, 1994). It is well understood that different individuals have different styles of learning, and visual learning techniques may therefore be more useful for some individuals than others. However, given the ease with which the mind mapping technique can be taught, understood, and implemented, as well as the fact that there is no cost to learning and using the basic technique, it could well be argued that there is little reason not to introduce students to mind mapping in an educational environment.

References:

Abi-El-Mona, I. & Adb-El-Khalick, F. (2008). The influence of mind mapping on eighth graders' science achievement.
School Sciences and Mathematics, 108(7), 298-312.

Al Naqbi, S. (2014). The use of mind mapping to develop writing skills in UAE schools. *Business and Society: Contemporary Middle Eastern Issues, 4*(2), 120-133. doi:10.1108/17537981111143855

Balım, A. G. (2013). The effect of mind-mapping applications on upper primary students' success and inquiry-learning
skills in science and environment education. *International Research in Geographical and Environmental Education, 22*(4), 337-352. doi:10.1080/10382046.2013.826543

Burgess-Allen, J. & Owen-Smith, V. (2010). Using mind mapping techniques for rapid qualitative data analysis in public
participation processes. *Health Expectations, 13*, 406-415. doi:10.1111/j.1369-7625.2010.00594.x

Buzan, T. (2015). Mind Mapping. Retrieved from: http://www.tonybuzan.com/about/mind-mapping/

Edwards, S. & Cooper, N. (2010). Mind mapping as a teaching resource. *The Clinical Teacher, 7*, 236-239.

González, M., Muñoz, J., Gea, V., María, E., Flores, F., & Francisco, J. (2014). The learning of mind mapping in higher
education: A comparative study between Universidad de Córdoba and Università di Roma-La Sapienza. *European
Researcher, 83*(9-2), 1682-1693. doi:10.13187/er.2014.83.1682

Rooda, L. A. (1994). Effects of mind mapping on student achievement in a nursing research course. *Nurse Educator,
19*(6), 25-27.

Wen-Cheng, W., Chung-Chieh, L., & Ying-Chien, C. (2010). A brief review on developing creative thinking in young
children by mind mapping. *International Business Research, 3*(3), 233-238.