Buzan Mind Mapping: An Efficient Technique for Note-Taking

T. K. Tee, M. N. A. Azman, S. Mohamed, Muhammad, M., M. M. Mohamad, J. Md Yunos, M. H. Yee, W. Othman

Abstract—Buzan mind mapping is an efficient system of note-taking that makes revision a fun thing to do for students. Tony Buzan has been teaching children all over the world for the past thirty years and has proved that mind maps are the magic formula in the classroom for everyone. The purpose of this paper is to discuss the importance of Buzan mind mapping as a note-taking technique for the secondary school students. This paper also examines the mind mapping technique, advantages and disadvantages of hand-drawn mind maps. Samples of students' mind maps were presented and discussed.

Keywords—Buzan Mind Mapping, note-taking technique, hand-drawn mind maps.

I. INTRODUCTION

THE main goal in our education system is to develop students' skills in order to reach information rather than transferring the present information [1]. Tony Buzan introduced mind mapping technique to the world with his books and developed a system which would pave the way for many people [2]. This mind mapping technique was developed toward the end of the 1960s and has been employed in many different areas since the development [3].

Mind mapping is an extremely valuable technique [4] to be learnt and used by the students in learning process. As a note-taking technique, the mind map allows individuals to "organize facts and thoughts" in a map format containing a "central image, main themes radiating from the central image, branches with key images and key words, plus branches forming a connected nodal structure". In addition, the mind map helps students to assimilate new information, to think and to develop their conceptual schema [5]. At the same time,

T. K. Tee is a senior lecturer with the Faculty of Technical and Vocational Education, Sultan Idris education University, 35900 Tanjong Malim, Perak, Malaysia (phone: +601096623328; fax:+6054585893; e-mail: tktee@fptv.upsi.edu.my).

M. N. A. Azman, S. Mohamed, J. Md Yunos, and M. M. Mohamad are senior lecturers with the Faculty of Technical and Vocational Education, Sultan Idris education University, 35900 Tanjong Malim, Perak, Malaysia (e-mail: mnazhari@fptv.upsi.edu.my, suriani.mohamed@fptv.upsi.edu.my, jailani@uthm.edu.my, mimi@uthm.edu.my).

M. Muhammad is a post graduate student with the Faculty of Technical and Vocational Education, Sultan Idris education University, 35900 Tanjong Malim, Perak, Malaysia (e-mail: putra_adlan@yahoo.com.my).

M. H. Yee is a lecturer with the Faculty of Technical and Vocational Education, Universiti Tun Husein Onn Malaysia, Parit Raja, 86400 Batu Pahat, Johor, Malaysia (corresponding author to provide phone: +60109-2630840; fax: +607-4536585; e-mail: yeemeiheong@gmail.com).

W.Othman is the dean with the Faculty of Education and Language, Open University Malaysia, Jalan Tun Ismail, 50480 Kuala Lumpur, Malaysia (e-mail: widad@oum.edu.my).

adopting mind mapping strategy can significantly improve students' achievement [6].

II. BUZAN MIND MAPPING – NOTE-TAKING TECHNIQUE

In the traditional note-taking method, it is aimed to remember the information, to make a written or oral communication, to sort the ideas, to make a problem analysis or a plan and to bring out a creative idea. The standard format used is the linear [1]. In contrast, Buzan mind mapping is a visual tool used to organize and relate themes or objectives. Buzan asserts that mind maps that incorporate pictures and different colors bring ideas to life.

A good mind map is able to show the overall structure of the topic or problem and lines and pictures [7]. Unlike linear thinking techniques, mind mapping is a graphic technique that captures ideas and information [8]. Moreover, the implementation of this technique which enhances the creativity, and makes learning and note-taking easier is extremely simple in which a hierarchical order is followed [1].

Buzan's guidelines as: "A central focus or graphic representation of the main topic is placed in the center of a page; ideas are allowed to flow freely without judgment; key words are used to represent ideas; one key word is written per line; key words are connected to the central focus with organic lines; color is used to highlight and emphasize ideas; and images, symbols and codes are used to highlight ideas and stimulate the mind to make connections."[8].

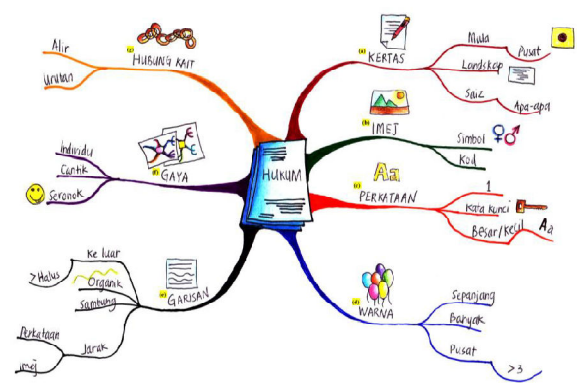The hand-drawn mind map in Fig. 1 illustrates the overall organization of the topic, Laws of Buzan mind mapping [9].

Fig. 1 Laws of Buzan mind mapping (Tee)

Below are three samples of mind maps that were hand-drawn by students (Figs. 2-4).

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Fig. 2 The mind map about Wood Work (Lau)

Fig. 3 The mind map about Wood Work (Muniandy)

Fig. 4 The mind map about Wood Work (Rashid)

III. Advantages and Disadvantages of Hand-Drawn Mind Maps

Note-taking that is described as a boring activity by the students can be turned to a more enjoyable activity by using the mind mapping technique [1]. There are many advantages on using Buzan mind maps in study [10]. Fig. 5 shows the advantages of applying mind mapping technique in learning process [9]:

- Preparing notes from textbooks.
- The Buzan mind map principles are easy and interesting to follow.
- It is economical [8].
- Buzan mind maps involve the use of both left and right brain [2].
- It is among the easiest and most famous thinking tool.
- Students are able to memorize better.

- Students can plan their daily routine with mind map.
- Revision is quick and effective.
- Students will appreciate own product (mind map).
- It increases the creativity [5].
- Parents and teachers are able to monitor the student's performance.

Fig. 5 The advantages of applying mind mapping technique

Mind Maps are also useful [2] for:

- Brainstorming - individually, and as a group.
- Summarizing information, and note-taking.
- Consolidating information from different research sources.
- Thinking through complex problems.
- Presenting information in a format that shows the overall structure of your subject.
- Studying, retaining and recall information.
- Promotes meaningful learning instead of memorization.
  However, the disadvantages [7] are:
- Cannot be digitally stored other than as a scanned document.
- Map size is limited.
- Preference of user for mind mapping software advantages.

IV. The Needs of Teaching Note-Taking Technique at Secondary School

Mind mapping is widely used in education, government and business as a creative method that is useful in training, brainstorming, organizing and problem solving [7]. As seen, the increasing popularity of mind mapping is evidenced by the number of blogs, books and articles that using the Internet search engine Google and entering the search term "mind mapping", yields over 112,000,000 web page hits. As stated above, it is clear that many individuals have an interest in mind mapping [8]

A needs analysis of teaching higher order thinking skills for lower secondary school in Malaysia [11] that had been carried out by Jailani and Tee on 2011, about 90% out of 384 secondary school teachers in Malaysia agreed that the students should use Buzan mind map as their notes and it suites most for the revision purpose [12]. According to the findings,

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teachers complained that they have problems regarding in note-taking for their subjects.

On the other hand, the teachers agreed that there should be a standardized note-taking technique for the students and they strongly believe that students could achieve better results for their subject if they apply Buzan mind mapping technique for note-taking. This is primarily because mind maps are able to determine students' pre-knowledge and deficiencies or misconceptions in their pre-knowledge. It also can facilitate to recall knowledge and conceptions and the interrelations set between them [4]. Besides that, this technique can be applied in all grades of learning and in early years of primary education [5].

V. Teacher Facilitates Students on Learning Note-Taking Technique By Using Buzan Mind Mapping Technique

Mind mapping could provide teachers with a feedback about students' mental structure and development of their mental structure. On the other hand, it could facilitate students' recalling the knowledge by the assistance of using visual elements. Clearly in this situation, it could increase the participation among students in teaching and learning process [4]. Basically, teachers need to explain the purposes of note-taking to the student [l] such as:

- Making notes on a book helps the student to focus on the content and to remember it. The more the student makes notes, the easier it becomes.
- Notes should be easier for the student to re-read than the book itself, as they will be shorter and in his own familiar style.
- Once formal education is finished, the student often has to use documents or other books, so note-taking is a useful transferable skill.
- The student usually needs to acquire specific information from a book, and his notes will select and summarize what is important to him.

VI. Conclusion

Recent years, studies of mind mapping have been conducted with various age groups in the literature [5]. Many studies related to the mind mapping technique are available in the books and articles [1]. Positive and negative effects have been encountered [5].

Mind Maps help students remember information, as they hold it in a format that the mind finds easy to recall and quick to review. It also helps the students to improve their innovative and creative thinking [2]. Furthermore, mind maps can be effective to create learning environments in which students feel desirous to learn and used in different stages of learning process [4].

The technique of mind mapping to be available in almost every area will provide a significant contribution to student's learning, especially in the field of education for the implementation of the constructivist approach by teachers in the class [1]. On account of the aforesaid benefits, there is a need for teachers to know how to teach mind map technique and to associate the mind maps in their lessons.

References

[1] Şeyihoğlu, A & Kartal, A. (2010). The Views of the Teachers about the mind mapping technique in the Elementary Life Science and Social Studies lessons Based on the Constructivist Method. Educational Sciences: Theory & Practice, 10(3), 1637-1656.
[2] Adodo, S. O. (2013). Effect of mind-mapping as a self-regulated learning strategy on students' achievement in Basic Science and Technology. Mediterranean Journal of Social Sciences, 4 (6), 163-172.
[3] Evrekli, E., Iel, D. & Balim, A. (2010). Development of a scoring system to assess mind maps. Procedia Social and Behavioral Sciences, 2, 2330-2334.
[4] Evrekli, E., Iel, D. & Balim, A. (2009). Mind mapping applications in special teaching methods courses for science teacher candidates and teacher candidates' opinions concerning the applications. Procedia Social and Behavioral Sciences, 1, 2274-2279.
[5] Keleş, Ö. (2012). Elementary teachers' views on mind mapping. International Journal of Education, 4(1), 93-100.
[6] Mani, A. (2011). Effectiveness of digital mind mapping over paper-based mind mapping on students' academic achievement in Environmental Science. In T. Bastiaens & M. Ebner (Eds.), Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2011 (pp. 1116-1121). Chesapeake, VA: AACE. Retrieved December 12, 2013 from http://www.editlib.org/p/38011.
[7] Tucker, J. M., Armstrong, G. R. & Massad, V. J. (2010). Profiling a mind map user: a descriptive appraisal. Journal of Instructional Pedagogies, 2, 1-13.
[8] Doss, C. Y., Tiew, C., Tam, L. S. & Richards, T. A. (2010). Buzan Mind Maps for Science Form 1: The Secrets to Good Grades. Selangor: Pearson Malaysia.
[9] Tee, T. K., Md Yunos, J., Mohamad, B., Othman, W., Yee, M. H. & Mohamad, M. M. (2012). The development and evaluation of the qualities of Buzan mind mapping module. Procedia Social and Behavioral Sciences, 59, 188-196.
[10] Tee, T. K., Md Yunos, J., Mohamad, B., Othman, W., Yee, M. H. & Mohamad, M. M. (2012). The development and implementation of Buzan mind mapping module. Procedia Social and Behavioral Sciences, 69, 705-708.
[11] Tee, T. K., Md Yunos, J., Hassan, R., Yee, M. H., Hussein, A. & Mohamad, M. M. (2012). Thinking skills for secondary students. Journal of Research, Policy & Practice of Teachers and Teacher Education, 2(2), 12-23.
[12] Tee, T. K., Md Yunos, J., Hassan, R., Yee, M. H., Mohamad, M. M., Hussein, A., Mohamad, B. & Othman, W. (2012). An evaluation of the Buzan mind mapping module as a guide for teachers on note-taking technique. International Journal of Assessment and Evaluation in Education, 2, 60-74.

T. K. Tee was born in Melaka, Malaysia on the 25th of April, 1979. He obtained his first degree in bachelor of technology with education (civil engineering) at the Faculty of Education, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia in 2002. In 2003, he completed his Master's degree in technical and vocational education at University Teknologi Malaysia, Skudai, Johor, Malaysia in. At the year 2013, he obtained his Ph.D in technical and vocational education at Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia. His Ph.D research focuses on higher order thinking skills and Buzan Mind Mapping.

His working experiences include; secondary school teacher, subject matter expert, e-tutor, e-grader, proctor for final examination at Open University Malaysia, Industrial Practicum Supervisor, Undergraduate Project Supervisor, Undergraduate and Master's Projects' Examiner, Subject Matter Expect, Subject Examiner, and Professional Consultant for Multiple Intelligent Tests and Learning Styles Inventory Instrument Construction Workshop. Now, he is a senior lecturer with the Department of Engineering Technology, Faculty of Technical and Vocational Education, at Sultan Idris Education University, Malaysia. (Email: tktee@fptv.upsi.edu.my). His previous publications include The Development And Implementation Of Buzan Mind Mapping Module (Elsevier Ltd, 2012), The Development And Evaluation Of The Qualities Of Buzan Mind Mapping Module (Elsevier Ltd, 2012), The Needs Analysis of

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Learning Higher Order Thinking Skills for Generating Ideas (Elsevier Ltd, 2012), The Level of Marzano Higher Order Thinking Skills among Technical Education Students (Singapore: International Association of Computer Science and Information Technology (IACSIT), 2011). Current and previous research interests are thinking skills, thinking tools and self-instructional modular approach, teaching and learning styles.

Dr Tee is a member of Universiti Teknologi Malaysia Alumni, Universiti Tun Hussein Onn Alumni and Malaysia Technical and Vocational Education Association.