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Mind Mapping Technique in Language Learning

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Abstract

The current study aims to describe meaningful, powerful and effective tool, used to encourage technical students to apply mind mapping techniques in the language classroom. For this purpose, we overview the previous and the present studies, concerning the problem and describe the implementation of mind mapping techniques in the learning process. The results of this study showed that mind maps help students solve problems, brainstorm creative ideas, remember new vocabulary, take notes, enhance their reading skills, organize the tasks and prepare presentations. This study concludes that mind mapping technique invented in the XX century is considered to be up-to-date, creative, useful and available tool for students, educators and researchers.

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1. Introduction

Although a lot of efforts have been put for successful implementation of different techniques in teaching English as a second language, there are still many problems teachers and students face in the language classroom. We need to make changes in the educational process, otherwise there will be more barriers students and teachers will be unable to overcome in the future. There is a demand to use powerful, creative and adaptable techniques in teaching and learning languages.

Mind mapping can be used to solve the problems mentioned above. We suggest that using mind maps in teaching and learning English will be useful for both teachers and students as the amount of information is increasing every second and our brain, which doesn't work in a linear way can't perceive even a small part of it.

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The aim of the paper is to prove that a mind map is a powerful tool which represents any information in a form of visual frameworks, using words, images and numbers. A person only needs key words, curved branches, colours and imagination to create a mind map.

The first researchers who invented and described a mind mapping technique as an effective aid of visualization, reflecting the structure of our brain were Tony and Barry Buzan (Buzan, 1993). Tony Buzan described the technique, working harmoniously with the way human's brain, processing the information.

The present paper will overview the studies, concerning the implementation of mind mapping techniques and will provide a set of practical guidelines to educators and researchers working in this field.

2. Literature Review

A literature review will be used to study the definitions of mind maps, the previous and the present studies, concerning the given problem. According to Budd (2004) "a mind map is an outline in which the major categories radiate from a central image and lesser categories are portrayed as branches of larger branches" (Budd, 2004, p. 36). For Kisicek, Boras, Bago (2010) designing educational contents in and for the electronic environment with the help of information technology was a great opportunity to involve students in a creative learning process.

Cultivating lifelong learning skills in undergraduate students through the collaborative creation of digital knowledge maps was observed Hanewald (2012). The author indicates that the open-ended nature of mind maps has given students greater control while developing lifelong learning skills (Hanewald, 2012).

Furthermore, in the paper "Real-time feedback systems in a foreign language teaching: A case of presentation course" (Ono, et al, 2014) the authors emphasise that the mind-map picture gives the presenters the opportunities of promoting a new awareness, various kinds of discoveries, and a deeper reflection about their works. They come to the conclusion that their "system can be incorporated into Learning Management Systems (LMS), and it has a large potential for further use in a distant learning environment to capture an overall reaction from the audience all over the world" (Ono, et al, p. 780).

According to Kotcherlakota, Zimmerman, & Berger (2013), "mind maps help students clarify their thinking and lay the foundation for in-depth expertise related to their research focus, review of the literature, and conceptual framework" (Kotcherlakota, et al, 2013, p. 252).

The use of mind mapping to develop writing skills in UAE schools has been observed (Al Naqbi, 2011). The author proved that mind mapping helped "students to plan and organize their ideas for writing tasks under exam conditions" (Al Naqbi, 2011). Monitoring the concept of e-learning in mind maps of university students was also described (Šimonová, 2013). The researcher used the method of mind mapping in the less-traditional form, when learners were provided the Khan's eight-dimension schema of e-learning and defined the dimensions reflecting their individual concept of e-learning (Šimonová, 2013). The educators Vaughan, & Crawford (2013) are focused on the use of concept generation techniques in different cultural settings; on the application of e-learning technologies to study a school subject (Herbst & Mashile, 2014), assessing science understanding through concept maps (Edmondson, 2005).

However, there are still no studies, describing using mind maps in teaching English to engineering students.

Mind mapping techniques were developed in the late 1960s, but only with the occurrence of information and communication technologies, mind maps are being successfully applied nowadays in teaching and learning the languages.

3. Mind Mapping Course Implementation

The implementation of the course, pedagogical objectives, task design, selection of mind maps as an effective tool and its implementation in the educational process have been chosen as the methodology for the survey. The following methods have been used in our survey: the analysis, literature review, observing our own professional experience and data analysis.

According to the aim of the study, implying description of meaningful, powerful and effective tool, used to encourage technical students to use mind mapping techniques in the language classroom, we've formulated the following pedagogical objectives:

- To introduce mind mapping techniques to engineering students.
- To create mind maps and implement mind mapping techniques in the learning process.
- To investigate the effectiveness of mind maps in teaching and learning English.
- To overview the advantages of using mind mapping techniques.

We have implemented mind mapping techniques into the course “General English” taught at National Research Tomsk Polytechnic University. More than 50 sophomore students participated in the experiment.

First, we introduced the mind mapping technique to the participants. Then they created mind maps in the classroom to solve problems, consider creative ideas, learn new vocabulary, take notes, prepare presentations. One important task was given to students - they reviewed mind maps of their group-mates. Although Russian students are not often engaged in partner’s assessment they were enthusiastic about reviewing.

Mind maps were successfully implemented in the decision-making process and helped students to find a more balanced approach to the issues. These techniques tend to intensify associative thinking, which allows to see important factors missed with traditional analysis.

Using mind maps in reading has proven its efficiency either. Students used these techniques for retelling the texts. The benefits of mind maps before the text plan are obvious. It’s much easier to remember ten keywords than ten pages of text.

We tried to follow Buzan’s recommendations (Buzan, 1993) and used a central image, more than three colours, graphic images, different size of font, thickness of the lines and the scale of the graphs to make a clear mind map. We provided students with coloured papers, books, everything they needed to create in the language classroom.

We also introduced an easy-to-use tool – Xmind (<http://www.xmind.net>) to create students’ mind maps. This was a collaborative work for all participants and nobody rejected. Students made their own mind maps with the help of XMind and presented them in the classroom. Using mind maps for preparing presentations allowed students to persuade the audience, keep up and not to lose the main idea, while speaking in public.

4. Findings and Results

After the experiment the questionnaire was conducted to know the students’ attitude to using mind maps in learning English a second language. There were twenty questions to our students.

Our study found that about 90% of students have enhanced their skills in reading, writing, making plans, solving problems, preparing the presentations, speaking in public. All the participants were impressed by the results of their work, although for the majority of students creating mind maps has become their first experience. 98% of the respondents would rather use mind maps to capture the information than simply read boring texts. Only 2% of students found it a bit difficult to make a mind map. The use of mind mapping techniques in the language classroom is found to be significant in providing different opportunities for students.

The last pedagogical objective was to study the advantages of using mind mapping techniques. They are the following:

- A radiant, hierarchical structure of mind maps and triggers help to grasp a lot of information
- Keeping up-to-date and enhancing such skills as brainstorming and making presentations
- Stimulating creative thinking and generating new ideas
- Connecting all the details together
- Visualizing and classifying the information
- Analyzing and collecting the data
- Exchanging the information
- Understanding the learning material
- Using information for collaborative work

5. Conclusion

The study reveals that the use of mind mapping technique in language teaching provides an active role for students, while a teacher becomes a facilitator and a coordinator, helping the students. The most significant results of this study have shown that mind maps are useful for solving problems, brainstorming the ideas, learning new vocabulary, taking notes, improving reading skills and preparing presentations.

Summing up the results of the personal teaching experience, and the results of the survey, it can be concluded that mind mapping technique can be successfully implemented in the language classroom, providing creative and available tool for students, educators and researchers.

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