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INTEGRATION OF MIND MAPS AND CUE CARDS IN THE PROCESS OF TEACHING BUSINESS ENGLISH IN BLENDED LEARNING SETTINGS

The paper investigates the issues of teaching Business English vocabulary through the integration of online tools, such as mind maps and cue cards, its impact on the acquisition of new business vocabulary by learners of foreign languages, as well as suggested online tools, resources, and platforms to be thoroughly used by educators through mutual efforts of teachers and learners.

The research carried out by prominent scientists and educators have been investigated and introduced in the paper. The purpose of the paper is to reveal online tools, platforms, and technologies to envision the efficiency of embedding technology in the process of teaching English in a blended learning modality. The urgent shift from offline to online or blended settings has urged educators to rise to the challenge, investigate, and later introduce novel methods of teaching Business vocabulary to students by entering a new learning environment. All the online platforms, tools, resources, websites, and ready works presented in the paper have been extensively used during our teaching process by proving their efficacy in the blended learning environment.

Keywords: *blended learning, mind maps, cue cards, integration, mental lexicon, Business English vocabulary*

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INTRODUCTION. Blended learning has long been a topic of utmost interest for many lecturers and educators throughout the world, but its role and implementation have skyrocketed in the last four years when lecturers had to shift to an online mode of teaching and it concurrently shook the foundations in offline settings. The role of mind maps and cue cards in vocabulary teaching is immense, especially in the blended learning process.

New Business English vocabulary should be grouped into topics to facilitate learning, namely the following topics can be identified: **money, goods and services, advertising, international trade, e-commerce**, etc. This is one of the ways to arrange a new vocabulary in students' memory, leading to the activation of the mental lexicon, thus, facilitating the processes of word retrieval and reproduction from all the layers of the brain. A **mental lexicon** is not just words, but methods to combine these words and how they acquire a new meaning, a new usage, word collocations to be formed, and how to use them to convey the information we are to share.

LITERATURE REVIEW. The term **mental lexicon** broadly refers to how words are introduced and organized in the mind or mental image of people. Dictionaries only allow one to access words by their alphabetically ordered spelling, which is often accidental in a language and does not allow for them to be accessed by any of their other properties (e.g., their meaning) (Fellbaum, 1998). The notion was introduced into the scientific arena by two authors: Ann Treisman in 1960 (Treisman, 1965, pp. 218-219) and Richard C. Oldfield back in 1966 (Oldfield, 1963, pp. 122-130).

Developed by Tony Buzan in the 1960s, **mind mapping** is now widely used in education, business, and personal development. Tony Buzan (Buzan, T., & Buzan, B., 2002) explains that mind mapping can further utilize the potential of the brain by expressing different thoughts in an imagery and divergent way. Buran and Filyukov (Buran, A., & Filyukov, A., 2015) also point out that mind mapping is not only an effective way of thinking but also a non-linear way of expression. Zhang (Zhang, 2021) believes that mind mapping is a tool that helps people develop cognition and enhance their thinking abilities. According to Buzan's (Buzan, T., & Buzan, B., 2002) summary, mind mapping has the following basic characteristics: Firstly, mind maps are centralized, with attention focused on the central image. Secondly, they are radiating, with branches stretching out from the central theme like a tree. Thirdly, they are hierarchical, based on the level and content of their relationships. Fourthly, they are holistic, with the content of the mind maps not being isolated but interconnected by lines to form a complete knowledge network, and each connection represents a way of thinking. Fifthly, they are diverse, using colors, shapes, code, etc. Research has been conducted on the functions of mind mapping in teaching, and the results generally recognize that mind mapping has functions in promoting creativity, learning ability, and enhancing memory. Futrell and his co-authors (Futrell et al.,

2002, pp. 139-140) believe that as a cognitive tool, mind mapping can enhance students' learning speed and accuracy, and it can also serve as a teaching strategy to promote the development of teaching practice. Li (Li, 2019) points out that mind mapping can convey images, symbols, numbers and new information, and build bridges among them, making it an effective metacognitive tool.

RESEARCH METHODOLOGY. The following research methods have been applied in this study:

- methodological research,
- specially designed mind maps and cue cards,
- a combination of descriptive and comparative analyses.

The requirement to analyze online teaching tools, resources, and platforms and embed them in teaching Business English vocabulary is of utmost importance. These analyses and application of online tools and resources have facilitated the acquisition of new vocabulary and retention of it in the mental lexicon and brain of the learners.

Being a practicing instructor, our teaching used to concentrate on teaching face-to-face which is currently considered to be obsolete. Lecturers should use different methods of teaching, applying new opportunities offered by the new era of the digital world, thus, blending the online tools and platforms in the process of offline teaching as well.

Methodological and descriptive analyses enabled us to organize and manage all the resources and classroom teaching more efficiently and productively, for the benefit of the learners and achievement of the goals set by the lecturer. The immersion in the discovery of the best and most useful websites for the creation and design of **mind maps** and **cue cards** has reaped its benefits.

Materials, mind maps, and cue cards developed and designed in the process have been extensively used during our teaching process and can be used and applied by any educator.

ANALYSIS. It is essential to prepare tasks and exercises to activate words in the mental lexicon and how to store them in long-term memory. Therefore, mind maps can be thoroughly used in the process of activating the mental abilities, skills, and memory of students and keeping all these words in their long-term memory, thus, enriching their Business English knowledge and facilitating its acquisition.

Till the beginning of the 21st century, mind mapping was mainly a written form of expression and thinking instrument. Interestingly, even at the end of the 20th century, the world's best computer brains were not capable, and neither were their computers, of producing the organic and beautifully interconnected nature of real human thought.

We currently witness the interrelation of the electronic and carbon brain and thinking. We are about to witness an explosion in creativity, innovation, and all

other forms of thought when these two massive forms of intelligence merge. The effects will be synergetic and explosive and will create a Paradigm Shift in the development and manifestation of the infinite power of human thought (Buzan, 2007).

Mind maps can be used during any language teaching (especially foreign language teaching), which makes the lesson more engaging and contributes to the development of analytical skills and the improvement of memory with the help of associative images people draw in their minds.

We place the main idea or concept we want to develop in the middle of the page or on the online whiteboard, develop and design it with arrows, and add phrases, synonyms, antonyms, but it should all be related to the main idea. As the cornerstone of our research is Business English vocabulary, we develop it and enrich students' vocabulary by adding synonyms, words that are used with the keyword (e.g. idioms or sentences). When designing mind maps, the lecturer and students are free to fully use their imagination and use their knowledge, and creativity to make the mind maps as attractive and engaging as possible.

The main idea on the mind map should be identified to be further brainstormed and visualized by the learners, and branches can be created and extended outward, reminding the branches of the tree. These branches are subtopics, sub-ideas, or specific categories referring to the central thought or the keyword. However, the science of mind mapping is not just the first layer of such branches. Sub-branches can extend from the main branches to dig deeper into the subtopics of the chosen subject. Mind maps in their nature are a form of data visualization. As we consider visualization prolific, it can be considered as a beneficial professional skill to be developed and applied. When one conveys the points visually, be it highlighted on the dashboard or anywhere else, they leverage that information more clearly and comprehensively. Evident is the fact that traditional education has drawn a distinct line between creative storytelling and technical analysis, but crossing the two is highly valuable from the perspective of the modern professional world: data visualization has positioned itself in the middle of technical analysis and visual storytelling.

Currently, numerous websites allow lecturers and students, or any person interested in mind mapping, to prepare and share mind maps on any topic. Our main focus is to identify the best websites that offer the best tools to create mind maps. Here are some websites to create and design mind maps, namely, www.venngage.com, www.coggle.com, www.creately.com, www.miro.com, and some others, but these are the ones we have extensively used during our teaching process, especially in the blended learning setting. We identified the main idea, the keyword, for example, the word "money" and asked our students to think of any ways they could use this word, and any collocations they would make with it as the first layer of the branches used. They had to identify verbs used with the word 'money' and their meaning through the sub-branches or sub-ideas extending from the first layer of the branches. All the students were

involved in the process that further activated their potential, as well as layers of their brain responsible for information retrieval, and it enabled them to find all possible words and collocations. Here is the mind map created in the process of mutual work between the group and the lecturer.

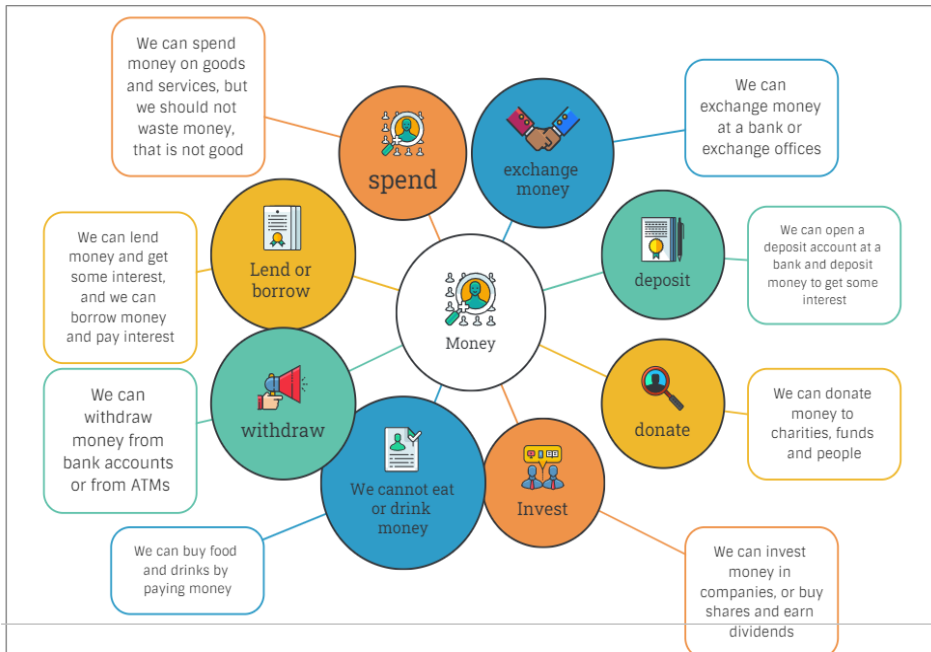


Figure 1. *Mind map where the key word is 'money' and all possible words and ideas related to the notion of 'money' are depicted on the mind map (designed by the author and students)*

The lecturer later sends the mind map designed by mutual efforts to students via messenger, email, or Viber. In this way, students can turn to the mind map from time to time and revise or learn new ideas in order to keep new words in their memory and become a part of their mental lexicon.

After identifying the interest aroused by the students in the design and creation of mind maps, we continued to organize our blended learning lessons by devoting some time to the design of new mind maps.

When we started to study topics on production, goods, and services, how they were produced, and how the decision was made, we designed a new mind map and this time the keyword was the verb 'to produce'. We discussed related words that they could retrieve from memory (e.g. to manufacture, to produce, to bring about, to assemble, to build), collocations with the word 'to produce' (e.g. agricultural produce, imported produce, organic produce, home-made produce, fresh produce), word forms, collocations with the word 'product' (e.g. consumer product, technology product, household product, product line or range, bank product) and some grammatical forms (e.g. produce can be used both as a noun and as a verb). This time, students were more active, they even found all the forms

derived from the word ‘to produce’ (producer, productive, production, product, productively, producible) that was entered into the mind map and later it was again sent to the students’ emails or via messenger.

Here is a mind map that was specially designed to enrich Business English vocabulary (the example of the word 'produce') and keep them in the mental lexicon of students studying at the Armenian State University of Economics (ASUE).



Figure 2. *Mind map where the key word is ‘produce’ and all possible words and ideas related to it (designed by the author and students)*

Cue cards can be used to teach, test, and improve students' memory when they revise information colorfully and engagingly. Cue cards comprehensively cover basic terms in any discipline, and in our case, the sphere of Business English. Designed by the lecturer or students themselves, with the usage of

imagination and creativity, cue cards can be used to lead miscellaneous engaging activities, tests, or games (the method will be chosen by the lecturer based on the preferences of students) which foster a long-term understanding of key concepts or main ideas. Each cue card characterizes the business term or anything we want to convey and a graphic representation on one side of the card and its definition on the opposite side.

There are many websites to prepare cue cards, but the best ones are www.cram.com and www.kitzkikz.com.

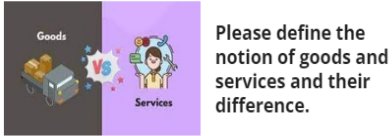



We have extensively used these websites during our research, and experimental teaching proved their efficiency by improving vocabulary knowledge of the students.

Cue cards are not new but can be used in new ways and differently than they were implemented long before the penetration of online technology into the sphere of education.

We have chosen the website www.kitzkikz.com for the following reasons: in the "question" field of the cue card we input the question, word, or assignment, and in the "answer" field we indicate the answer to that question, the explanation of the word, its definition or the answer to the task given, after which we can download it in PDF format. We can turn those cue cards into a quiz, multiple-choice assignment, or matching exercise, which should and can be done in the online setting.

We have prepared many cue cards for our blended lessons, but we will introduce just some cue cards for demonstrative reasons.

Here is one of the cue cards used during blended learning with students studying Business English at ASUE on the topic of goods and services that was included in the first unit of our curriculum.

Front	Back
 <p>Please define the notion of goods and services and their difference.</p>	 <p>Goods are items that we can see, hold, touch or smell and then buy. Services are something that others do for you and you cannot touch or hold it, smell it, you can just feel if it is good or bad.</p>
 <p>What are the characteristics of goods? What are characteristics of services?</p>	 <p>Goods and tangible, material, perishable, transferable whereas services are intangible, non-material, non-transferable and are not perishable.</p>

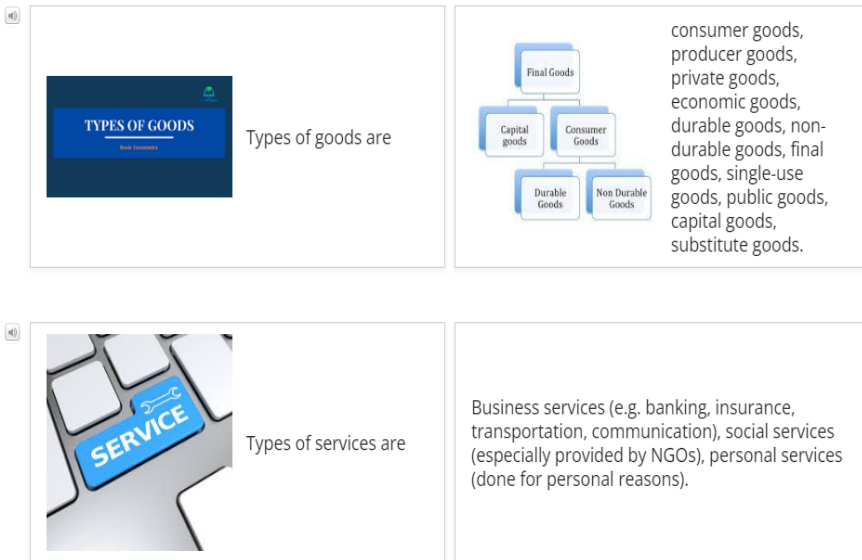


Figure 3. Cue card designed on www.cram.com website on ‘goods and services’ and their characteristics (designed by the author)

You can find another cue card designed on the website www.kitzkikz.com checking some vocabulary and grammar knowledge of students.

Present Simple third person singular of the verbs use, consume, produce	passive voice
grammar form used in the expression 'it is used'	uses, consumes, produces
noun form of the verb participate	owner, ownership
antonym of tangible	participant
noun form of the verb own	intangible

Figure 4. Cue card to test vocabulary and grammar knowledge (designed by the author)

Here, cue cards play an integral role in reinforcing vocabulary learned, where students, using their mental lexicon, penetrate the layers of their knowledge and remember everything they have already learned, which is significant when strengthening the newly-acquired Business English vocabulary.

CONCLUSION. Having carried out research aimed at the identification of the usage and integration of mind maps and cue cards into the process of Business English learning in a blended mode of teaching, we conclude:

1. Mind maps can activate the mental lexicon of the learners and improve their knowledge when learning new words or memorizing and retrieving already familiar notions.
2. Mental lexicon plays a vital role in the process of new vocabulary acquisition, and online tools and platforms (mainly mind maps and cue cards prepared in online settings) can assist in the process of enriching our mental lexicon. Mental lexicon can also assist learners in transferring new business vocabulary from short-term memory to long-term memory and working memory, thus, activating the brain.
3. The following websites have been researched and used extensively to prepare mind maps and cue cards that proved to be beneficial for the learners (it was mainly implemented online, in an interactive mode, although some mind maps and cue cards were prepared during offline lessons and as homework. The following websites (www.venngage.com, www.coggle.com, www.creately.com, www.miro.com, www.cram.com, and www.kitzkikz.com) have been used to prepare mind maps and cue cards related to Business English.
4. Cue cards can test the knowledge of students already obtained and activate the long-term memory of the learners through bright and engaging quizzes and activities. Cue cards are the modern representation of words written on carton cards and used in auditoriums, but we recommend educators to use them in online settings (interactive mode). Moreover, we consider them to be a great tool for the design of engaging lessons and activities.

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