CHARLES UNIVERSITY IN PRAGUE

FACULTY OF EDUCATION

Department of English Language and Literature

Application of mind maps in ELT with the emphasis on lexis

in one-to-one courses, groups and self-teaching

Rigorosum thesis

Mgr. Petra Borovková

Prague 2014

DECLARATION

I hereby declare that this thesis is entirely my own work and has not been submitted before.

Further, I have acknowledged all sources used and have cited these on the works cited pages.

Prague, June 2014 _____

Mgr. Petra Borovková

ACKNOWLEDGEMENTS

I would like to thank to my supervisor, PhDr. Bohuslav Dvořák for his encouragement to continue with my research. I am also thankful for his support and autonomy I was given, to think and express my own ideas.

To my father, Mgr. Pavel Kacafírek for giving this thesis a spirit by his playful illustrations; for dedicating his free time to come up with the ideas and creating them.

To my dear husband, Petr Borovka without whom not only the computer programme MMB would have never come into reality, but neither the whole thesis.

Special thanks to all my students who were not afraid of trying something new, and in particular to Tom, who is now better in using MMB technique than me.

ABSTRAKT

Tato práce se zabývá aplikováním myšlenkových map při vyučování anglického jazyka. Vychází přitom z diplomové práce *Využití myšlenkových map ve výuce angličtiny* a dále zkoumá a rozvíjí její předpoklady. Práce je rozdělena na teoretickou a praktickou část. Teoretická část podává vysvětlení, proč právě myšlenkové mapy by mohly sloužit jako efektivní strategie učení. Věnuje se problematice paměti, organizace myšlenek, strategiím na podporu ukotvení nových informací a stylům učení žáků. V praktické části nalezneme příklady aktivit zaměřených na různé jazykové dovednosti založené na myšlenkových mapách. Stěžejní část je potom ta, které se soustřeďuje na novou techniku učení se slovíček pomocí myšlenkových map. Nachází se zde kapitoly, které se zaměřují na možnosti aplikace této techniky v individuálních kurzech, ve skupinách a pro samouky. Popis nové techniky učení je doplněný výzkumem. Na rozdíl od diplomové práce se výzkum tentokrát soustřeďuje na využití této techniky ve skupině.

KLÍČOVÁ SLOVA

Myšlenkové mapy, Mind map box, paměť, strategie učení, styly učení, mnemotechnická pomůcka, asociace, aktivity

ABSTRACT

This work deals with an implementation of mind maps in ELT. It stems from the master thesis *Mind Maps in English Language Teaching*, and it further explores and develops its assumptions. This thesis is divided into a theoretical and a practical part. The theoretical part gives an explanation why mind maps serve as an effective learning strategy. It is dedicated to the problem of memory, organisation of thoughts, strategies of consolidation, and learning styles. Examples of activities focused on various language skills based on mind maps, can be found in the practical part of the thesis. The crucial part is the one which concentrates on a new technique of learning vocabulary via mind maps. In this part, there are chapters devoted to an application of this technique in one-to-one courses, groups and in self-teaching. Observations are added to the description of the technique. As oppose to the master thesis, this time the research focuses on using the technique in a group.

KEY WORDS

Mind maps, mind map box, memory, learning strategies, learning styles, mnemonic device, associations, activities

CONTENTS

INTRODUCTION

A successful process of searching for effective ways of teaching and learning includes creating new techniques, but also rediscovering the old ones. The concept of using diagrams as a non-linear organisation of thoughts and note-taking is a typical example of a well-established strategy. Mind maps are on the contrary a somewhat fresh thinking and learning tool with strict rules formulated by Tony Buzan.

Mind maps became the principle theme of my master thesis, on which this work is based. Whereas the aim of my master thesis was to introduce mind maps as a viable alternative of teaching and learning English, this work goes further and concentrates much more on implementation of mind maps in lessons. First of all, various ready-made activities were added to the practical part that can be incorporated in any course or can serve as an inspiration for teachers to prepare their own. Second, a new technique of learning vocabulary via mind maps, which was also introduced in my master thesis, was developed and explored further. Since the master thesis was completed, this new technique has been applied to several distinct courses of individuals as well as groups and a great deal of work has been done on its enhancement.

In this thesis, the focus was shifted to an active usage of this technique as some new activities were invented and ready-made tests for students prepared. Moreover, the master thesis implied the idea of making an electronic version. This thought was realised and a computer programme was designed to make the utilization of this technique easier for teachers. An observation of students from one-to-one courses was provided in my master thesis. However, several important questions arose from the observations which prompted me to continue in the research. First, I wondered, whether it would be possible to implement this technique in groups, and whether it would be as successful as in one-to-one courses. Thus, in addition to my master thesis, here I add also some observations done with a group course.

Second, the observations in my master thesis also indicated that the technique could be useful in mastering learning strategies. I decided to explore this further, and thus the major focus in the later observations was on the possible development of metacognitive skills.

As to the structure of this work, similarly to the master thesis, it is divided into a theoretical and practical part. The theoretical part has not been changed substantially, since it stems from the same theoretical assumptions as my master thesis. There are chapters dedicated to terminology and definitions of mind maps, memory and learning, learning strategies, and learning styles. However, it was enriched in some resources and it provides a deeper analysis of strategies of consolidation. The practical part begins with the implementation of mind maps in ELT. The same samples from textbooks as in my master thesis are provided. Some of the original mind map activities, which are shown in this part, are taken from the master thesis and further developed, some are completely new.

It is the second section of the practical part which is the most significant, as it focuses on the new technique called MMB. Introduction of the technique, examples, and a manual how to use it, are provided, similarly to the master thesis; however this time in a greater complexity and usage for one-to-one courses, groups and self-learners. Two kinds of observations can be found in this work, to draw the difference between application of MMB to individual courses and to groups. The former was taken from my master thesis; the latter is new, done with a group of college students. Young adults of upper-intermediate level formed the target group this time.

The thesis includes a large number of figures. There are images taken from monographs and textbooks, and others made by the author. All mind maps were created in the software Buzan's iMindMap^{TM}, *version 5, Home & Student*. If there is no source stated, pictures and symbols were taken from the image database of this programme. Most of the illustrations in mind map activities and illustrations in mind map cards were drawn by Mgr. Pavel

Kacafírek (further PaK). The programme, in which all the word cards and mind map handouts were prepared, was designed by Petr Borovka.

This thesis has the ambition to serve as an inspiration for language teachers and their students in making their lessons variable. It might be useful for teachers and learners who are searching for new ideas and learning strategies, and who are interested in engaging learning.

THEORETICAL PART I – WHAT ARE MIND MAPS

1. TERMINOLOGY AND PRINCIPLES

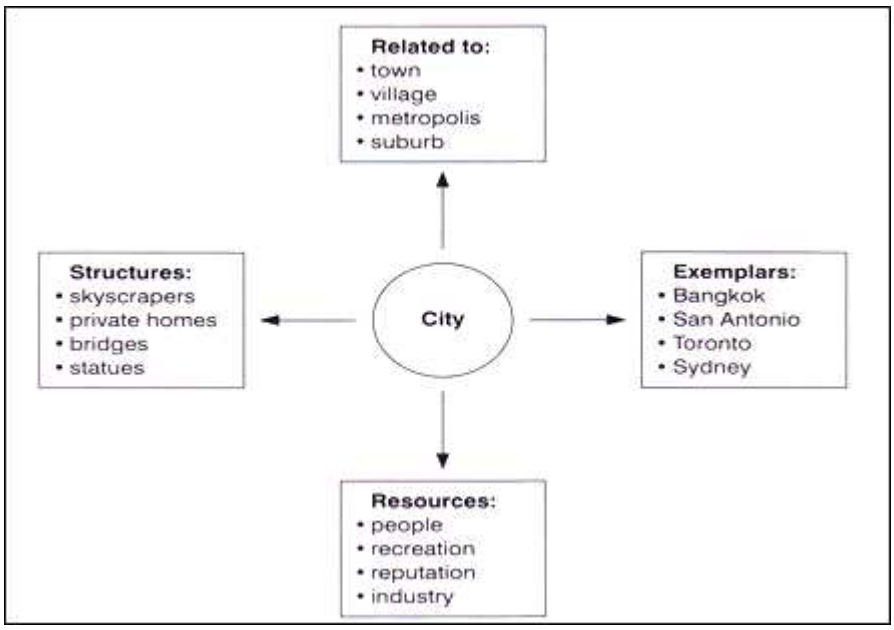
It appears that the concept of mind maps is not completely unfamiliar for most people. This term usually elicits a more or less vague picture of a diagram with structured thoughts and key words of a particular issue. However, there is a significant difference between mind maps in the sense they will be dealt in this thesis and other diagrams. It is therefore necessary, before discussing this tool in depth, to establish a terminology and principles that would provide a framework for everything that follows.

Undoubtedly, the idea of nonlinear organisation of thoughts had been used by many thinkers around the world before; yet the notion of *mind maps* is said to be invented by Tony Buzan in the 1960s. Tony Buzan was the first one to come up with an elaborate system of rules which mind maps should follow to be used effectively in a variety of ways. He defines a mind map as: "…a graphic technique for holistic thinking which supports all brain functions – mainly memory, creativity, learning and thinking in general" (*Mentální mapování* 42, translation PB[1]). Moreover, he establishes the essential characteristics of mind maps. First, the subject of attention is placed in the centre, preferably represented by an image. Second, the branches which stem outwards the centre are in an obvious connection with the central idea. Third, there are different levels of branches, the closer the branch is to the main idea, the closer it is related to it. Finally, each branch carries solely one key word or an image (ibid 42).

[1] "Myšlenková mapa je vizuální nástroj pro holistické, tedy celistvé myšlení, který podporuje všechny funkce mozku – především paměť, kreativitu, učení a veškeré přemýšlení" (Buzan, *Mentální mapování* 42).

However, various resources offer distinct terminology of what has been described above. In my master thesis *Mind Maps in English Language Teaching*, several examples of different notions are presented. First, Schunk proposes the term *cognitive map.* According to him, *mapping*, which is the process of creating a cognitive map, is an organisational technique based on selecting important ideas and subsequently putting them into a relationships network (224-225). Figure 1-1 shows and example of a cognitive map by Schunk.

Figure 1-1, Cognitive map, (Schunk 225)

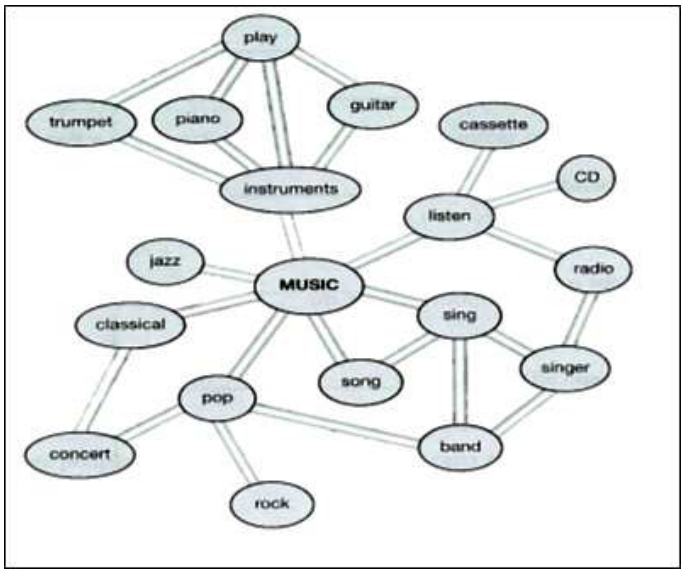


Second, *clusters*, demonstrated in Figure 1-2, are other examples of different terminology. According to Berger and Fuchs, clusters can be considered a predecessor of Buzan's mind maps. Clusters extensively exploit associations. The associations together with feelings and other connected motives are added to the appointed central idea. After this step, the connections and relationships are marked with different colours (29).

Figure 1-2, Clusters, (Berger and Fuchs 29)

Moreover, various terms such as *diagrams, word webs, word network,* or *spiders* can be encountered in handbooks for language teachers or in English textbooks. Those notions are usually presented in connection with recommendation techniques of note-taking and learning new vocabulary. In Figure 1-3 you can see a *word web* taken from the publication *Test your vocabulary 1* by Peter Watcyn-Jones and Olivia Johnston.

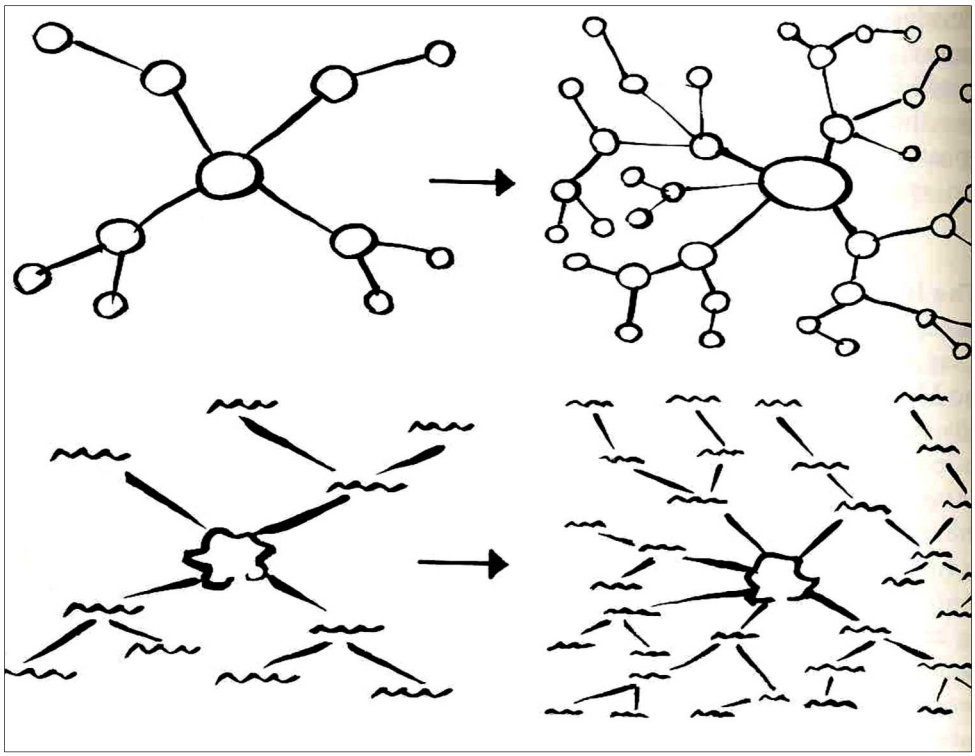
Figure 1-3, Word web (Watcyn-Jones and Johnston 37)



Several common features can be observed in all above mentioned diagrams: apparently, in each case there is a central idea in the middle of a diagram, from which several subthemes stem. Moreover, the relationships between the central idea and those subthemes can be clearly identified. In other words, some kind of network of association is created as opposed to a linear note taking.

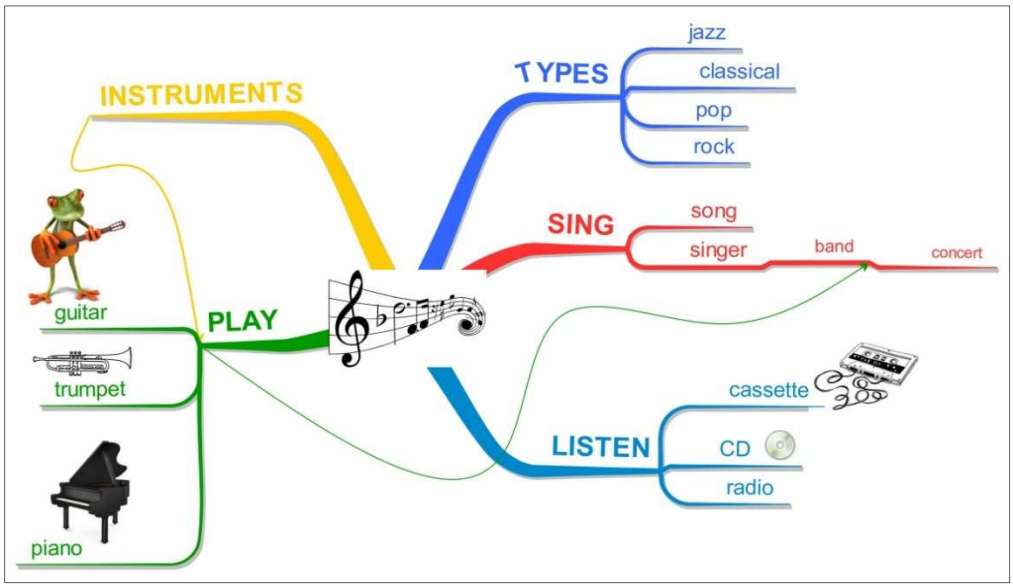
However, Buzan draws attention to the differences between his mind maps and above mentioned concepts. Therefore, not all diagrams can be considered mind maps in the buzanian sense. He puts primary emphasis on clarity and avoiding chaos: “Because the laws of clarity, emphasis and association have been neglected, what appeared to be developing into order and structure has in fact resulted in confusion, monotony and chaos” (*The Mind Map Book* 111). In short, he warns against not following the basic rules, as it might have a contradictory effect.

Figure 1-4, Chaotic diagrams (Buzan, *The Mind Map Book* 112)



It is apparent that the diagrams in Figure 1-4 lack clearly specified hierarchy. On the contrary, Figure 1-5 shows a proper mind map made from a diagram in Figure 1-3 and shaped into a mind map in the buzanian sense. Now it is less chaotic, more appropriate for learning and remembering. The hierarchy is marked by using thicker and thinner lines and bigger and smaller letters. Notice also the pictures used together with words or even instead of them (for instance, the centre picture which represents the word *music*). The relationships among the individual branches are indicated in a clear way. Moreover, colours made the mind map more attractive to our brain.

Figure 1-5, Mind map in the buzanian sense (Compare with Figure 1-3)



All the mind maps created for purposes of this thesis follow Buzan's principles. I believe that maps in the buzanian sense are most powerful in terms of language learning. However, even above mentioned inaccurate mind maps can be useful. If not complicated, these diagrams do follow the basic rules of organisation and can be seen as pre-mind maps from which proper mind maps can be elaborated. For those reasons, in this thesis also pre-mind maps and other suitable diagrams are referred to and analysed.

2. FOUR IMPORTANT FEATURES OF MIND MAPS

After presenting the basic principles of how to create mind maps, let us focus on the reasons why they can be considered as an efficient learning tool. Clear structure, personalisation, creativity and motivation are the essential features of mind maps that indicate their possible useful implication in teaching practice. In this chapter, those features are analysed in depth.

2.1. Clear structure

Non-linearity and a clear hierarchical structure essentially belong to every buzanian mind map. Buzan argues that linear notes block our potential of thinking, and thus make our remembering and learning unnecessarily difficult. According to him, linearity of standard notes inhibits creativity and memory, as it "prevents the brain from making associations" (*The Mind Map Book* 50). On the contrary, non-linear, hierarchical organisation is much more natural as it copies the organisation of thoughts in our brain (ibid 50). Kossak also supports the idea of paying attention to brain functions and using this kind of knowledge in learning. He says: "Only if we respect principles of how our brain works can we achieve the best results" (31, translation PB[2]).

Thus, when we organise either our thoughts or the thoughts of somebody else into a mind map, we follow the same principles as those we use during the process of remembering. What is more, we support establishing connections among items and create our own associations. In other words, mind maps support cognitive depth, which is one of the main learning strategies methodologists recommend.

2.2. Personalisation

Each of us is unique with different ways of perception, creating associations and learning. It has been proved by psychologists that we organise our thoughts according to our specific personal experience, feelings and connotations. Moreover, the information connected to students' personal life appears to stimulate memory; consequently, they are stored better than information about other topics (Sternberg 236). Jensen also emphasises personalisation in a learning process. He recommends working with associations: "Allow time for

[2] "Budeme-li dostatečně respektovat zákonitosti a způsoby fungování našeho mozku, dosáhneme těch nejlepších výsledků" (Kossak 31).

'free association' by e.g. comparison and contrast the subject matter with personal experience" (92). He also points up the importance of personal content, family history and, for instance, current events in learning, as it helps to make it more relevant to learners (ibid). Similarly, Thornbury explores personalisation in learning vocabulary and considers it useful: "The judgements that learners make about a word are most effective if they are personalised" (25).

Mind maps give space for making our notes and learning more personal. They allow to connect known and unknown, old and new, personal and general information and more importantly, thanks to them it can be done in a very personal way. In addition, mind maps created by the students themselves are unique products of theirs and thus much more valuable for them.

2.3. Creativity

Support of creativity is another important feature of mind maps. Sternberg offers the following definition of creativity: "…the process of producing something that is both original and worthwhile" (375). Jensen states that creativity should play an important role in a learning process and recommends teachers to work with a creative insight in classrooms to stimulate thinking. According to him, art ought to be emphasised in school education as it activates creativity. He says: "By learning and practising art the human brain actually rewires itself to make more and stronger connections" (Jensen 38).

Obviously, mind maps bear some artistic features, thus they can be assumed to facilitate creativity. They are based on various colours, shapes and perspectives. Emotions, associations, artistic skills are being used while creating a mind map, which encourages creative thinking. Moreover, as Buzan points out, they help to find new and original associations. Since it is possible to see all the items at once, it is likely to discover more interesting connections (*Mentální mapování* 95-96).

Buzan also argues that creative thinking is based on imagination and associations, and therefore mind maps can be considered as a useful creative technique (*The Mind Map Book* 148). Berger and Fuchs explain that creativity is also of a great significance for co-ordination of right and left brain hemisphere. Thus they underline the importance of using various creative techniques in a learning process as they help to recollect information faster thanks to better interconnection of a subject matter (17). Reinhaus mentions mind maps in connection with creativity as well. He points out that the ideas are transformed into key words that are graphically connected, which requires creative thinking. Furthermore, similarly to Buzan, Reinhaus stresses the role of mind maps in production of new ideas (71).

2.4. Motivation

There is little doubt that motivation plays a principle role in learning. The main reason is most probably the fact that it facilitates engagement of students in learning activities (Schunk 453). Only those students who are motivated enough, are willing to devote their free time to learning, and having encountered some difficulties, they do not give up so easily. Those are the reasons why motivation is of a considerable interest among educationalists.

Mind mapping is a technique that thanks to its originality and creativity generates motivation, and therefore stimulates learning. As Buzan argues, it is its original design, colours and images that attract students' attention. Interestingly, by using key words and simple structure mind maps also seem to prevent negative feelings of disorientation and being overwhelmed (*Mentální mapování* 136). Furthermore, thanks to their high variability of use, mind maps belong to motivational learning tools and serve as an alternative to tedious mechanical exercises.

Thus far, the terminology and four most important features of mind maps have been discussed. It has been asserted that mind maps can serve as a powerful learning tool thanks to a clear structure that copies the organisation of thoughts in our mind, possibility of making notes in a unique way, stimulation of creativity, producing new ideas and increasing motivation thanks to its original design. In the following theoretical part, a discussion about learning and remembering will be put forward and the assumptions underpinned by psychological and pedagogical findings.

THEORETICAL PART II – MEMORY AND LEARNING

1. MODELS OF MEMORY

Undoubtedly, memory is the basic condition of learning. It connects our past, present and future; therefore, it is an essential element for people's adaptation to changing environment. In a learning process, we use our previous experience, enrich them and thus change our behaviour. All that would be impossible without memory (Vašina 113). A discussion about structure and function of memory is logically of a considerable interest while analysing mind maps as a learning tool.

Various models of memory are used by cognitive psychologists. The prevailing model distinguishes types of memory according to the amount of information they are able to store and the period of time the information is kept there. The basic types are *sensory, short-term memory* and *long-term memory* (Stenberg 186-192). Sensory memory keeps images or sounds merely for intervals less than one second without processing them (Hill 124). As it does not keep or process meanings, this kind of memory is of little value for learning and teaching. However, selected information from sensory memory can be transferred to short-term memory (STM), where the individual bits of information are kept for a sufficient amount of time so that we are able to use them. Various research proved that in STM about seven chunks of information can be stored and they can be kept there for approximately 15-30 seconds (Hill 124). Afterwards, the bits of information are either forgotten or transferred further to long-term memory. Thus, teachers' focus ought to be on long-term memory, thanks to which we are capable of keeping a great amount of information relatively unlimitedly, yet where the possibility of losing them still remains (Fontana 156).

In connection with remembering, the term *consolidation* can be encountered in various psychological and methodological handbooks. This term is commonly

used for the process of transferring information from STM to LTM. Fontana says: “Apparently, this transfer from STM to LTM plays a crucial role in learning” (156, translation PB[3]). Thus understanding how consolidation works will be the primary objective as it seems to be highly vital for teaching implications.

It is noteworthy to mention the notion of *working memory* which stores the recently activated information. It is considered to be a part of long-term memory which at the same time includes short-term memory. Its task is to transfer the recent information into short-term memory to work with it and then back to long-term memory. However, some researchers see working memory only as another term form short-term memory (Sternberg 234-235).

Beside the above mentioned division of memory according to the length of keeping information, there are also different approaches that some cognitive psychologists adopt. A different model of memory distinguishes *declarative* and *nondeclarative memory*. Declarative memory is further divided into *semantic memory* which is connected with facts, and *episodic memory* which serves for storing personal events, and usually includes a specific time and place. Nondeclarative memory includes, besides other types, *procedural memory* which focuses on processes and cognitive and motoric strategies.

Logically, from the above stated information, semantic memory seems to be vital for English language learning. As Wickelgren observes: “Semantic memory refers to impersonal memory for concepts and principles, especially the grammar and word-meanings of language” (232). Similarly, Vašina points out that semantic memory concerns meanings, relationships between terms and symbols, and patterns of working with those meanings (126). However, elsewhere he admits the importance of other types of memory in language learning as well, and claims that the both declarative as well as procedural

[3] “Tento převod z krátkodobé paměti do dlouhodobé má zřejmě rozhodující význam pro učení” (Fontana 156).

memory are equally important and their relationship is “dynamic” (115). This can be demonstrated on a process of creating a meaningful sentence. The knowledge of the process of creating a sentence is done by procedural memory, whereas the content of the sentence is the matter of declarative memory (ibid).

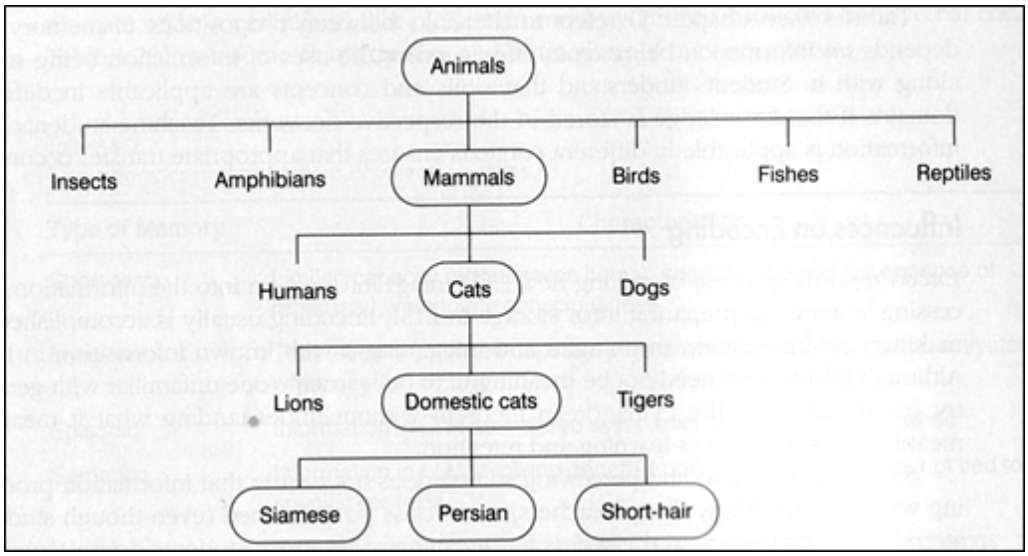
2. PROCESSING INFORMATION IN LTM

Turning back to the first model, with respect to language learning, long-term memory is the type which should be discussed further. In short, there are three types of operations that occur in long-term memory. These operations go in sequences, but they are also in a mutual interaction. Cognitive psychologists commonly speak about: *encoding, storage* and *retrieval*. As to the first process, it has been proved that whereas in STM, information is encoded primarily acoustically; encoding in LTM is rather semantic (Hill 125). To put it into other words, people encode information rather according to the meanings of the words. However, it is necessary to point up that some recent research has shown that other types of encoding play its role as well. As Sternberg observes, in some context the information is encoded also visually and acoustically (252-255).

There are several ways in which the individual pieces of information can be organised in LTM. For instance, facts create a hierarchic structure or they are divided into semantically related categories (Vašina 125). Schunk explains that as it has been found out, LTM is based on associative structures and he concludes: “The more often that a fact, event, or idea is encountered, the stronger is its representation in memory” (151).

The associative structure of LTM is created by linking together the old and the new information during encoding. In Schunk’s words “Encoding is usually accomplished by making new information meaningful and integrating it with known information in LTM” (153). Figure 2-1 demonstrates an organisation of information bits in memory. Words are categorised and integrated in a hierarchical structure.

Figure 2-1, Organisation of information in memory (Schunk 154)



Obviously, many methodologists and psychologists endorse the view that there are means that can help to facilitate encoding. Having the knowledge about relations among pieces of information and understanding the character of those relations is the basic assumption of efficient learning. Schunk proposes three important factors that support remembering: *organisation, elaboration* and *schemata* (153). Various handbooks for teachers, psychological handbooks and monographs on cognitive psychology suggest a lot more strategies. Some of them are discussed below in depth under an umbrella term *strategies of consolidation*, as they facilitate a transfer from STM to LTM.

3. STRATEGIES OF CONSOLIDATION

3.1. Organisation

Proper structuring of information is one of the key factors that influence remembering. Schunk explains: “Organized material improves memory because items are linked to one another systematically. Recall of one item prompts recall of items linked to it” (154). Moreover, the amount of information to remember can be reduced by creating chunks. As Wickelgren observes: “Material that has been chunked together to form a familiar single

unit appears for most purposes to function as a single unit in learning and memory" (244). Similarly, Lewis recommends to use chunks in teaching language and considers crucial to increase awareness of those patterns in students (122).

The earlier mentioned *clusters* are based on meaningful chunks. Clustering can be seen as the first step of creating a mind map. In this stage, we appoint the central idea, search for the key words, and add some associated ideas and feelings. However, unlike mind maps, clusters lack hierarchy among the individual key words, and neither is it organised into categories (Berger and Fuchs 29-31). Therefore, after clustering has finished, it is necessary to do another process, categorising. Mentis explains that categorisation involves an organisation as well as comparison process. Throughout process of organisation, we discover relationships among items, and thanks to comparison, similarities and differences between those related items will emerge. Categorisation is then the process of grouping the similar items together (18).

Apparently, mind maps can play an invaluable role in the process of organisation. New information can be structured in a mind map very systematically. Moreover, they support learning in chunks, help to create relationships among items, and creating a map involves categorisation as well as comparison.

3.2. Elaboration – Cognitive depth

Elaboration is another factor of effective remembering is *elaboration* as it is also based on linking the old and the new information. It seems that elaboration is much more helpful than simply repeating the information over and over. In short, to remember a new piece of information, it is necessary to process it properly. Schunk speaks about *elaborative rehearsal*; pieces of information are linked one to another, and therefore the transfer from STM to LTM is stimulated (155).

Similarly, Sternberg considers elaborative rehearsal as an effective way of remembering. He explains that thanks to elaborative rehearsal we process the subject matter in a way that: "…makes the items either more meaningfully integrated into what the person already knows or more meaningfully connected to one another and therefore more memorable" (260). Whereas *maintenance rehearsal* is based only on repetition of the same item, elaborative rehearsal is much more active, and therefore effective (ibid). Both authors agree on the fact that proper elaboration can be stimulated by using effective mnemonic devices, which will be discussed in more details later on.

In handbooks of methodology, a term *cognitive depth* is commonly used, which expresses the process of elaborative rehearsal. Thornbury points up using cognitive depth repeatedly in his work. He argues that: "The more decisions the learner makes about a word, and the more cognitively demanding these decisions, the better the word is remembered" (25).

There is little doubt that mind mapping encourages elaborative rehearsal. Creating a mind map uses cognitive depth as a considerable amount of decision-making is necessary. Already mentioned chunking, categorising, adding association are examples of how to facilitate cognitive depth, therefore consolidation.

3.3. Schemata

Schemata are other memory facilitators. Schunk defines schema as: "... a structure that organizes large amount of information into a meaningful system" (155). Sternberg demonstrates this concept even more vividly using an example in which there are three different people sitting on park benches in a playground: a 75-year-old woman, a 45-year-old man, a 30-year-old nun and 25-year-old woman. After setting this scene, Sternberg asks the following question: "A young child falls from some playground equipment and calls out 'Mama!' To whom is the child calling?" (199).

According to Sternberg, schemata have various characteristics. He observes that there are schemata which are very personal, context-dependent schemata, either very simple or with many subschemata. Schemata serves as a guide in the world around us (198-201). As we explore the world, we constantly create interrelated associations of individual entities in our mind. The already acquired knowledge thus influences our further perception of the world and our memory (Field 39-40).

Understanding the concept of schemata helps us to find some teaching implications. Since schemata are based on what is known and expected, they can be useful when creating a context for a new piece of information. It seems that they can be used to develop receptive skills. To illustrate that, Schunk proposes using schemata for guessing and learning new words from a text (156). In short, working with schemata means working with expectations and context. Mind maps can be a good tool for developing schemata as it works with associations and personal experience of learners.

3.4. Mnemonic devices

Vašina mentions the following definition of mnemonic devices: "…a set of various methods which facilitate remembering and enlarge a memory span by making additional associations" (123, translation PB[4]). Thus making connections by associations seems to be the basis for all mnemonic devices.

3.4.1. **Associations**

When one thought evokes the other, we speak about associations. Associations, which can be described as connected thoughts, support connection making between items in reality. This relation can be based on language similarity, situation and context, or contrast. Associations help to make our thinking and searching for solutions more creative and innovative (Pstružina 71-73).

[4] "Mnemotechnika je soustava různých metod, které ulehčují zapamatování a zvětšují rozsah paměti pomocí utváření tzv. dodatečných asociací" (Vašina 123).

As the well-known mnemonic device, method of loci demonstrates, using associations to improve memory reaches back into history. This method seems to be the very first example of a mnemonic strategy used to facilitate memory. It is said to be invented by the Ancient Greeks as far back as in the fifth century B.C. The rules of this technique are very simple; learners imagine a special location where they place the items to remember. In the retrieval process, they go back to this location in their mind, and imagine that they pick those items up from the places where they had left them (Berger and Fuchs 56-57).

Mind maps support finding new connections and help to create new associations. While we draw a new branch of a mind map, our brain gets an impulse to create new associations and thus new ideas and thoughts (Buzan, *Mentální mapování* 90-91).

3.4.2. **Keyword method**

A large number of mnemonic devices are based on visual images. As Buzan suggests, when we use or draw pictures during memorising process, we involve more areas of our brain, such as recognition of colour, form, line, dimension, texture, visual rhythm and imagination (*The Mind Map Book* 73). In Buzan words: “Images are more evocative than words, more precise and potent in triggering a wide range of associations, thereby enhancing creative thinking and memory” (ibid). Reihnhaus also emphasises the role of images in learning process. In particular, he points up the fact that pictures elicit emotions, thus he strongly advises to connect pieces of knowledge with images (22-23).

The keyword method is one of the highly recommended strategies based on images. This mnemonic device chunks together the visual and acoustic unit of the target word in the first and second language in order to be retrieved more quickly. The task in this method is to create a vivid image that would link the sound and meaning of a foreign word with the sound and meaning of a known word (Sternberg 263). Figure 3-1 demonstrates the keyword method used for the words *icicle* and *cat*. The first picture shows the *International Student*

Identity Card, called *ISIC*, which reminds of the pronunciation of *icic-le.* The beard of the student is 'icicled' to create the connection. Similarly, there is the resemblance of the word *cat* in English and *kat* (executioner) in Czech, therefore those two images were put together.

Figure 3-1, Keyword method applied to the word *icicle* and *cat* (Pictures by PaK)

The keyword method has been proved very useful, however, it seems to be more effective when the connection is made by students themselves rather than supplied (Cohen and Macaro 261-262). In addition, not only do we remember better when we make mnemonic devices by ourselves, but also when we connect a new piece of information with our personal experience and emotions. Sternberg speaks about a powerful memory trigger that has been termed self-reference effect. It says that information related to ourselves is usually much better encoded and elaborated than the information which does not include us (236). Thornbury calls this personalisation *affective depth* and considers making personal judgements about subject matter equally important to cognitive judgements (26). Similarly, Mareš draws attention to the fact that students store bits of information that they consider interesting, meaningful and important, or those pieces of knowledge, teachers convince students about their relevance (Čáp and Mareš 481)

As it has been stated at the beginning of the thesis, mind maps support personalisation, therefore they appear to be a great tool for creating self-

generated mnemonic devices. Thanks to them, we can make the subject matter more relevant to our thinking and emotions.

3.5. Both-brain learning

It has been discovered that specific cognitive functions, behaviour and abilities are controlled by different areas in the brain. Cognitive psychologists speak in this respect about a term *localisation* as some functions are localised in the left and some in the right brain hemisphere. The left hemisphere controls, for instance, language, logics, analytic thinking and calculations, whereas the right hemisphere is responsible for creativity, spatial vision, drawing and other skills (Hill 98). Based on neurological studies, in the past, it was believed that people are either left brain, and therefore rather analytical types – thinkers; or right brain dominant, thus artistic and creative. However, this has been proved as a radical simplification. Focusing solely on the development of one hemisphere appeared to block mental development rather than enrich it. There are many opinions supporting both-brain learning (Kacafírková 27).

More recent research has led to the conclusion that the division of functions in the brain should not be considered as strict. In Schunk's words: "Very little mental processing likely occurs only in one hemisphere. The hemispheres work in concert; information is available to both of them at all times" (375). Moreover, he observes that according to the brain research, whereas academic content is processed mainly in the left hemisphere; context is processed in the right one (376), which again supports the idea of both-brain learning. Similarly, Jensen emphasises the importance of both hemispheres cooperation in learning process. He rejects the division in left-brain thinking, which was emphasised in school in the past, and right-brain subordinate activities. He says: "Current research tells us that much learning is 'both-brained'" (38).

Buzan's mind maps are based on left and right hemisphere working together. According to him, this cooperation helps to enhance learning abilities: "If we rely only on one of the hemisphere and the second is neglected then we limit

drastically the total potential of our brain" (*Mentální mapování* 45, translation PB[5]). For this reason, he encourages to use and draw pictures, add colours and crazy shapes to our notes.

Apparently, this has many implications to learning and teaching: using visual aids, images together with mind maps, and working with context as much as possible. As to vocabulary teaching, both situational and language context should be emphasised during the lesson.

3.6. Vocabulary learning

As various strategies of consolidation are listed here, it is necessary to mention two significant learning principles – distribution and spacing. They are especially important for learning vocabulary. As Fontana observes, subject matter needs to be distributed into parts of the size that would be possible for memory to process without problems (156). It was noted earlier that short-term memory is limited in number of stored items; this ought to be taken into account while teaching new words. The same view is held by Kossak who adds that there has to be also enough time to transfer information from short-term memory to long-term memory. Overloading can be contra productive and eventually nothing will be stored in long-term memory (111).

Thornbury, who uses the term *spacing* in connection with strategies of learning vocabulary, suggests frequent recycling of new words before learning new ones. He says "…over a sequence of lessons, newly presented vocabulary should be reviewed in the next lesson, but the interval between successive tests should gradually be increased" (24). The following chapter focuses in depth on a technique of *card database* that follows the principles of spacing and distribution.

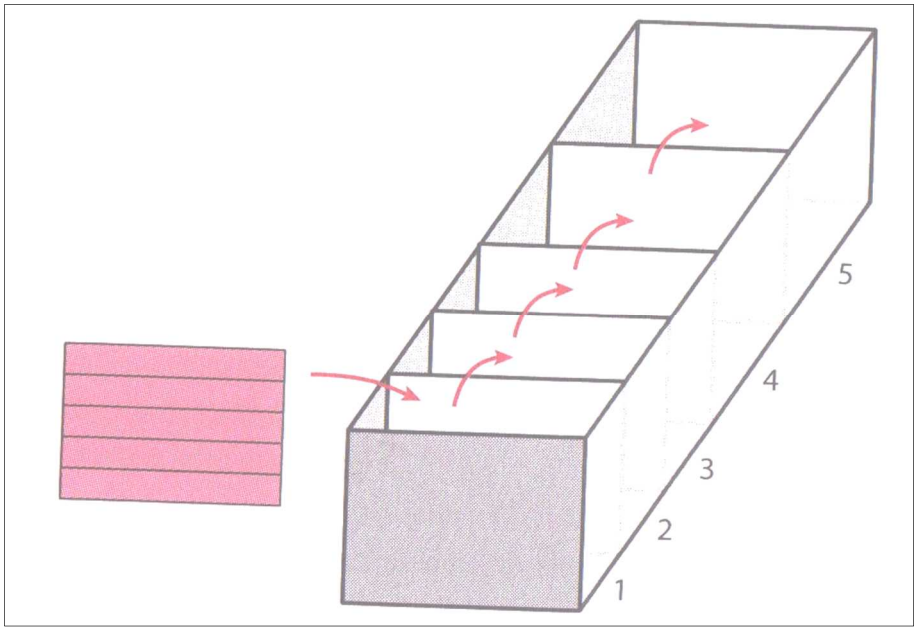
[5] "Jestliže se spoléháme jen na jednu svou mozkovou hemisféru a druhou zanedbáváme, potom drasticky omezujeme celkový potenciál svého mozku" (Buzan, *Mentální mapování* 45).

3.6.1. **Word cards and card database**

Using word cards method is strongly recommended by various handbooks for teachers and students. In this technique, individual words are written down in the way that each new word has its own card. Both sides of the card are used, on the first side, a new word is written in the foreign language, whereas on the reverse side, students write the translation of this word into their first language. This way, students can create their own set of cards which they can use for practising in the class or on their own. Thornbury points out that in comparison with traditional word lists, using word cards allows to study the words independently on the other unrelated words that we are learning; in other words, it avoids so-called *serial effect* that occurs when we can recall the words precisely in the same order as they are in the list. These kinds of connections are, however, of no avail in a real life situation. In Thornbury's words: "This is not of much use for real life vocabulary use, when words must be recalled independently of the context in which they were learned" (33).

A great advantage of the word card technique is that it can be integrated into card database system developed by Sebastian Leitner (Reinhaus 90). Consider Figure 3-2, which demonstrates an empty card database.

Figure 3-2 Card database (Reinhaus 90)



As you can see, the database is divided into five files of different size. All the new word cards should be put in the first file. As soon as the first file is full, the testing should start. If you remember the card well, you can put it into the second file. If you do not know the word on the card, the card stays in the file number one. The whole process is then repeated with the cards in second, third, etc. files until they are safely stored in your memory (Reinhaus 90-91).

3.6.1. **Collocations**

The importance of context has been already emphasised. In terms of vocabulary learning, methodologists speak about *co-text* which appears to be as well important. In other words, the primary focus should be on teaching collocations. Thornbury defines collocations as follows: "Two words are collocates if they occur together with more than chance frequency, such that, when we see one, we can make a fairly safe bet that the other is in the neighbourhood" (7). If those words frequently occurred together are learnt at once, it increases the chance that they will be processed and stored in long-term memory. This process has been already described as chunking.

Lewis explains another reason why it is so crucial to make students aware of collocations:

> "In many cases extracting words form context destroys meaning, and thus violates the nature of language itself. In many cases collocation is a principal characteristic by which words may be located or even defined" (119).

Consequently, collocations should be of considerable interest to English teachers. It is self-evident that mind maps offer numerous possibilities to note and practise collocations. The effective use of mind maps to practise collocations will be demonstrated in the practical part II in detail.

4. WHO TO TEACH – INDIVIDUAL DIFFERENCES

After discussing how memory works, let us consider another important factor of learning – individual differences. It was already noted that individuality of learners plays a crucial role. Learner differ in abilities and learning preferences, which indicates that to one stimuli, there might be several different responses (Harmer 89). Scrivener lists various kinds of individual differences among English learners. They may include the following:

> "Motivation, previous learning experiences, topics that students find interesting, ability to remember things, reasons for needing English, knowledge of the world and special areas, skills and abilities, intelligences, sensory preferences, learning styles" (63).

For the purpose of this thesis, the three last mentioned will be analysed further. Learners show different aptitude for languages, sensory preferences, and they also differ in the type of intelligence they have developed most strongly. Consequently, there are many different learning styles, and thus different learning strategies.

4.1. Learning styles

From a large number of learning styles theories, two wide spread theories have been chosen for analysis; one is based on our sensory preferences, the other on types of intelligence.

4.1.1. **Sensory preferences**

It has been observed by researchers from Neuro-Linguistic Programming that people tend to respond differently to sensory stimuli. In other words, some people prefer hearing things, others seeing them, and others respond best if they can touch and feel tangible, physical objects (Scrivener 64).

The mentioned observations had led to development of VAK[6] model. VAK is an acronym which stands for the three different types of learners: visual, auditory and kinaesthetic. However, it does not mean that there is just one way of how a person perceives information, we always use all senses, but we differ in the extent we use them: “Most people, while using all these systems to experience the world, nevertheless have one 'preferred primary system' (Revell and Norman qtd. in Harmer 90). Obviously, it might cause some differences among students at schools where they are thrown upon teachers’character of activities. In natural acquisition, setting people subconsciously pick those stimuli that satisfy their perception preferences which might not be in accordance with stimuli received at schools (Lojová and Vlčková 47). This is the main reason why teachers should take learning style theories seriously.

Learners with visual preference appear to be the most numerous group. These learners learn best through seeing, which means they prefer visual aids such as slides, diagrams, images, tables (Lojová and Vlčková 47-48). As mind maps are primary a visual technique, they seem to be particularly suitable for this kind of learners. Lojová and Vlčková explicitly mention association maps and mind maps as a good tool for learning languages, especially for learning vocabulary (49). As oppose to visual learners, auditory types respond more powerfully to listening. To put it simply, the prefer communication face-to-face, lectures and tapes. They would also appreciate mnemonic devices based on sound similarities, associations and drills (ibid 50-52). As for kinaesthetic learners, they enjoy learning via experience, physical activity, moving, touching, and being active. Lojová and Vlčková point out that those learners very often rewrite passages from the textbook or their own notes many times. They also benefit from physical objects, 3D aids, cards or flashcards (53). In this respect, mind maps could be helpful too as they connect physical activity

[6] Some literatures suggest variation on this model VARK or even more extended VAKOG – model in which O stands for Olfactory (we smell things) and G for Gustatory (we taste things) (Harmer 89-90).

and information processing. Mind mapping is an active process of creating something physically and mentally.

4.1.2. **Multiple intelligences**

Not only do people differ in their sensory preferences, but also in abilities and intelligence. Psychologist Howard Gardner claims that the question of intelligence is much more complex than it was realised earlier, and thus considers this notion inaccurate. He has introduced a concept of multiple intelligences (MI). In short, each person has a range of intelligences; each type of intelligence is, however, pronounced to a different extent. Originally, Gardner distinguished seven basic types of intelligence: *Musical/rhythmical, Verbal/linguistic, Visual/spatial, Bodily/kinaesthetic, Logical/mathematical, Intrapersonal and Interpersonal.* Later on he added some more types, for instance *Naturalistic* intelligence which we use for recognising and classifying patterns in nature (qtd. in Harmer 90).

Naturally, students will prefer activities that appeal to the type of intelligence that they have mostly developed. Moreover, Lojová and Vlčková observe that whoever has a possibility to learn a language through his or her dominant type of intelligence, learns much more efficiently (86).

Tanner suggested language skills activities for various dominant intelligences. Interestingly, mind maps (or at least some features of mind maps) are mentioned for almost every type of intelligence as a suitable tool (qtd in Harmer 91). As it was noted, mind maps support making associations and thinking of related words. It is advisable to use this feature in activities for linguistic and logical-mathematical types of intelligence. For linguistic learners Tanner suggests: “Learners make mind maps of related words”; and for logical types: “Learners discuss how many words they can think of related to another word (e.g. photograph, photographer)” (qtd in Harmer 91). An implementation of associations and a focus on logical connections is also emphasised in the list of activities for those kind of learners by Lojová and Vlčková (88-89).

As well as the visual types in VAK model, students with high level of spatial/visual intelligence would appreciate mind maps as a tool with colour, images and other visual features (Lojová and Vlčková 89). Furthermore, Buzan repeatedly points out that the by their structure, mind maps copy nature. They resemble, for instance, a tree with branches, or the sun with the sunbeams (*Myšlenkové mapy* 36-39). Presumably, this characteristics could appeal to students with well-developed naturalist intelligence. Elsewhere, Buzan demonstrates that mind maps are a useful tool for various kinds of brainstorming and teamwork (*Myšlenkové mapy* 178-179). These activities would undoubtedly fit the students with high interpersonal intelligence, which is connected with communication and cooperation among students.

Another important feature of mind map, personalisation seems to be appreciated mainly by students with significant intrapersonal intelligence. Musical intelligence analogous to auditory type in VAK theory can be supported by using various mind map activities concentrating on drills, and mnemonic devices based on sounds and similarities of languages, for instance the earlier mentioned keyword method.

Finally yet importantly, students with highly developed kinaesthetic intelligence, similarly to the kinaesthetic type in the VAK theory, would appreciate some physical activity connected with learning. For such learners, creating a mind map using either physical objects or their own body could be an interesting task (More on this topic in MA *Mind Maps in English Language Teaching*, practical part).

4.2. Teaching according to the styles

4.2.1. **Learning and teaching strategies**

There has to be drawn the difference between two highly interwoven, yet not identical notions *learning styles* and *learning strategies*. Above described VAK and MI theories operate with given predispositions of learners and discuss how

the learners approach a learning task. Those predispositions are relatively stable. Thus they are considered learning styles (Lojová and Vlčková 32). On the contrary, learning strategies are specific methods that we learn throughout our lives and which we use for particular tasks (ibid).

The above stated assertion that people with different abilities and preferences react in many different ways to activities, obviously has its implication for teaching. Teachers should learn to be more sensitive to the variety and try to apply as many different strategies and techniques as possible in their lessons. As Harmer says: "Although we cannot teach directly to each individual student in our class all of the time, we can ensure that we sometimes give opportunities for visualization, for students to work on their own, for sharing and comparing and for physical movement" (91). Similarly, Kossak recommends to use more than one sense channel in learning process. According to him, variability is the key to a successful learning (126). Moreover, Brown points out that using activities based on different learning styles and preferences is a possible way the teacher can make sure that "…a maximum number of students will be 'reached'" (21).

In sum, this chapter showed that mind maps despite being primarily a visual learning tool, they can be used for activating other types of intelligence and senses at the same time. This is the reason why their implication in classrooms can be seen as useful and effective.

4.2.2. **Change of styles/strategies and metacognitive learning**

It can be concluded that teachers' knowledge of different learning styles is essential for designing various activities to satisfy students' individuality. However, it is also noteworthy to mention that this knowledge is also important to give students possibility to adopt various learning strategies regardless of their sensory or mental preferences. In Harmer's words: "Our job is surely to broaden students' abilities and perceptions, not merely to reinforce their natural prejudices or emphasise their limitations" (94). Brown endorses the same view and claims that sometimes it is necessary to "…push [students], into more face-

to-face communicative activities than their preferences would indicate" (21). I seems to be advisable that teachers endeavour to enhance students' range of learning strategies. If merely the most suitable strategy for a particular learning style is constantly stimulated, students' true learning potential might be blocked.

Whereas abilities and sensory preferences appear to be fairly rigid, learning strategies can be modified throughout the learning process. Being aware of students' preferences and learning styles is the first step to help students to enrich their range of strategies and experiment with different learning techniques. "Particularly significant part of second language learning is the necessity to raise metacognitive awareness of students – increase their consciousness and knowledge about learning styles[7]" (Lojová and Vlčkova 99, translation PB). Mareš adds that students' recognition of their learning style can be useful for applying the adequate learning strategies and choosing suitable environment and conditions for learning. Learning styles are based on inborn dispositions; nevertheless, some kind of adjustment of learning styles is also possible and they can be changed, albeit not easily (76).

It has to be noted that not only the learners and their personality, but also the subject matter plays a significant role in choosing the appropriate strategy. "We can say that the attention that is drawn to strategies of learning, in other words, how a person learns, cannot end in undermining or ignoring of what the person learns. The particular subject matter asks for a particular learning strategy"[8] (Mareš 75, translation PB). This is the reason why the first section of the practical part will discuss using mind maps in teaching various language skills.

---

[7] "Obzvlášť důležitou součástí cizojazyčného vyučování je potřeba zvyšovat metakognitivní uvědomělost žáků – zvýšovat jejich povědomí a informovanost o stylech učení" (Lojová and Vlčková 99).

[8] "Můžeme tedy říci, že pozornost, jež se věnuje postupům při učení, tedy tomu, jak se člověk učí, nemůže a nesmí vyústit v podceňování či ignorování toho, co se člověk učí. Vždyť specifické učivo si vyžaduje specifické postupy při učení" (Mareš 75).

PRACTICAL PART I – WHAT TO TEACH THROUGH MIND MAPS

1. TEXTBOOKS SAMPLES

In my master thesis *Mind Maps in English Language Teaching,* I offer a description of various samples from textbooks which use mind maps to teach different language skills. For illustration, I enclose this chapter here exactly as it is presented in the master thesis (Kacafírková 35-44). Samples are divided into the following subchapters: vocabulary, grammar and speaking, writing and listening.

1.1. Vocabulary – Note-taking

Scrivener, in his publication *Learning Teaching,* presents some alternative ways of recording lexis, and a mind map technique is one of them. As he underlines, mere recording of a word is not enough. He says that while creating their own mind map students search for connections and that helps remembering: "...thus the learning of new words and the recording of them are part of the same activity" (242). Furthermore, Harmer points out that note taking is a highly personal matter and students should be given the opportunity to use the technique that suits them the best. He states: "…rather than telling students how to take notes, we should offer them various possibilities for them to choose from (398). However, the above mentioned authors vary from each other in labelling mind maps. What Scrivener calls a *topic web,* Harmer names a *spidergram.* Nevertheless, as both examples observe the conditions specified at the beginning of this thesis, we call them, and also the other later on mentioned examples, mind maps. In Figures 1-1 and 1-2, you can see both, Scrivener's Topic web and Harmer's Spidergram. Although they slightly differ in form, they both bear the main idea of non-linear organisation of thoughts.

Figure 1-1, Topic web (Scrivener 145)

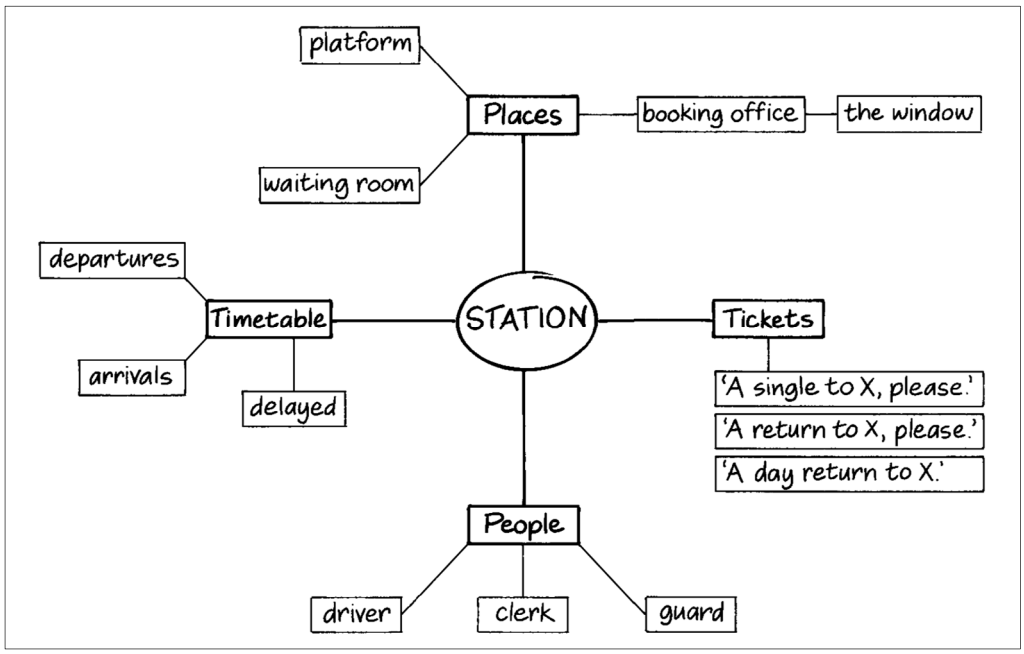
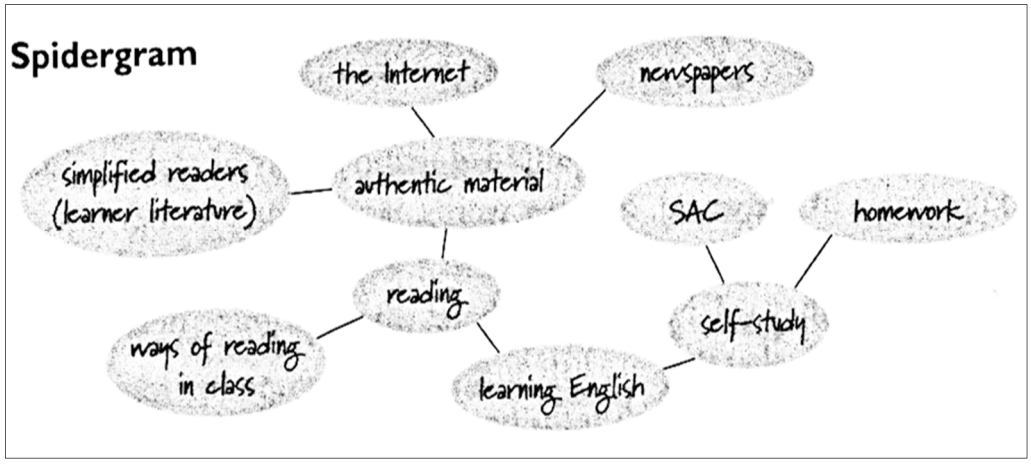


Figure 1-2, Spidergram (Harmer 398)

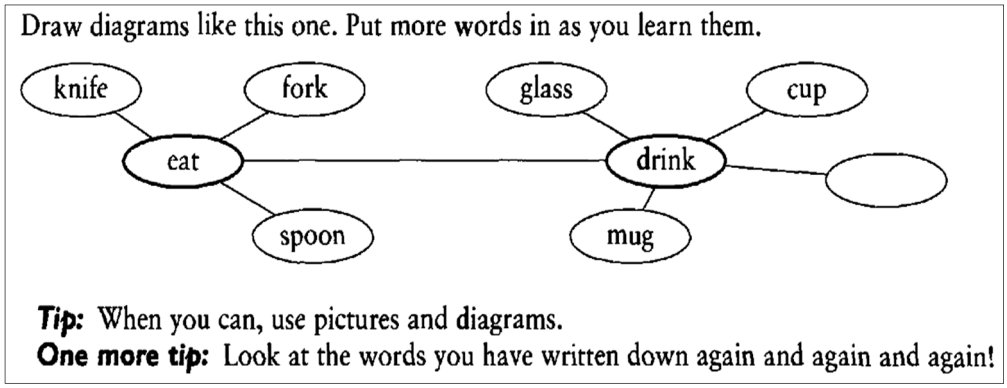


In addition, Thornbury mentions mind maps (in his interpretation they are called *diagrams*) in connection with learning vocabulary. He explains the resemblance of the way the words are stored in our brain to a network or a web: "…the mind seems to store words neither randomly nor in the form of a list, but in a highly organised and interconnected fashion – in what is often called the mental lexicon" (16). Scrivener endorse the view that mind maps copy the structure of our brains, and thus it makes learning and remembering

easier. He claims: “This way of recording lexical items may reflect more accurately the way that we store lexical item networks in our brains – and may therefore be more useful for students than the traditional lists” (245).

Another example of recording vocabulary using some kind of mind map can be found in the publication *Vocabulary in Use (Elementary)* by McCarthy and O’Dell. As Figure 1-3 demonstrates, the authors instruct students to use mind maps and various visual aids while note taking to learn effectively new vocabulary.

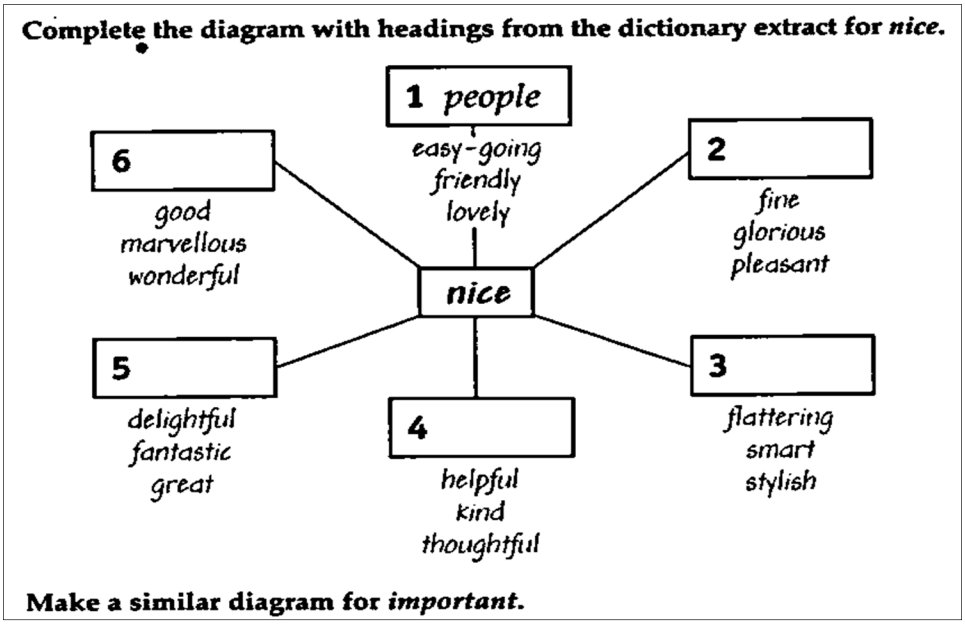
Figure 1-3, (*Vocabulary in Use: Elementary* 8)



Nevertheless, knowing vocabulary is not only about learning individual words by heart. As Thornbury explains, it is much more complicated: “…knowing the meaning of a word is not just knowing its dictionary meaning (or meanings) – it also means knowing the words commonly associated with it (its collocations) as well as its connotations, including its register and its cultural accretions” (15). Thus not only the meaning and translation should be presented by teachers but also collocations, word families, word-formation, semantic/lexical field, hyperonymy and other information about the words (ibid 15-20). Mind maps thanks to its well-organised structure offer a practical way to show all the information about new vocabulary at once and very clearly. This is the reason why English textbooks very often use them to present or practise vocabulary, in particular collocations; sense relation, such as hyperonymy and synonymy; and semantic fields.

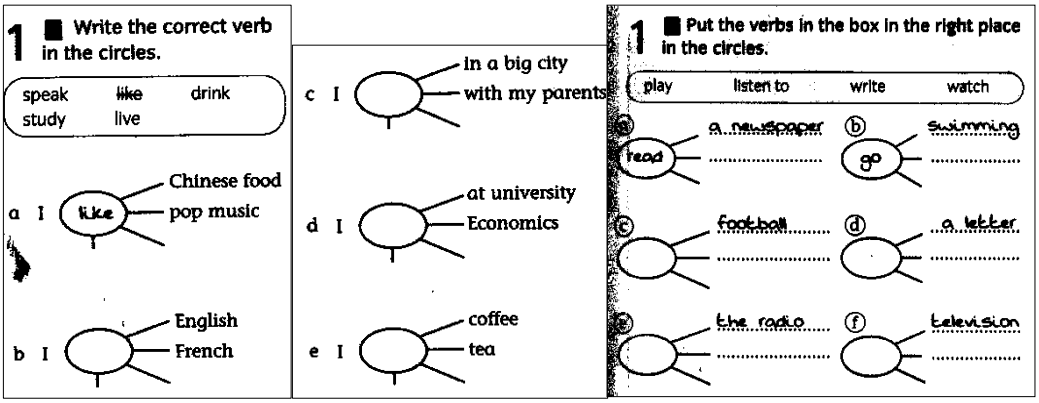
Figure 1-4 is taken from *Inside Out (Intermediate)* by Jon Hird and Jonathan Marks. As you can see, one mind map shows a great deal of information about words. First of all, it teaches and practises the correct collocations; for instance, whereas people can be *easy-going, friendly*, and *lovely*, clothes are rather *flattering, smart*, and *stylish*. Secondly, this map is significant also from the sense-relation point of view, since it teaches synonyms of the word *nice*.

Figure 1-1-4, (*Inside Out: Intermediate* 19)



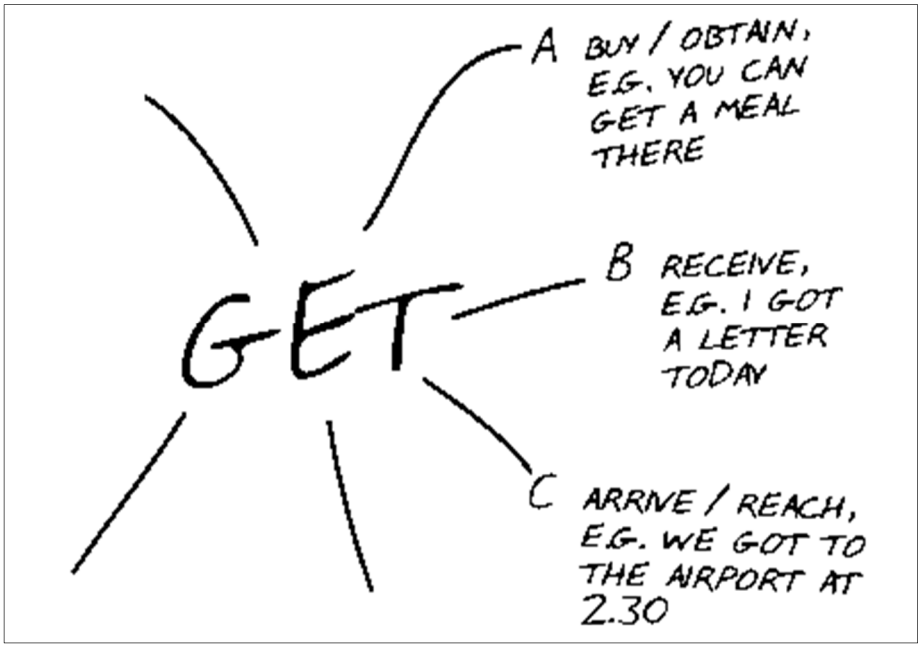
The following examples, in Figure 1-5, are taken from *Cutting Edge (Elementary)* by Sarah Cunningham, Peter Moor and Frances Eales. Not only do students practise basic collocations but they also learn to use their own associations in vocabulary learning. To demonstrate this, after they match the correct collocation *drink – coffee, tea*, they must add some other words to the blank branches; thus, somebody adds *beer*, whereas another student writes *wine* or *water*.

Figure 1-5, (*Cutting Edge: Elementary* 24, 35)



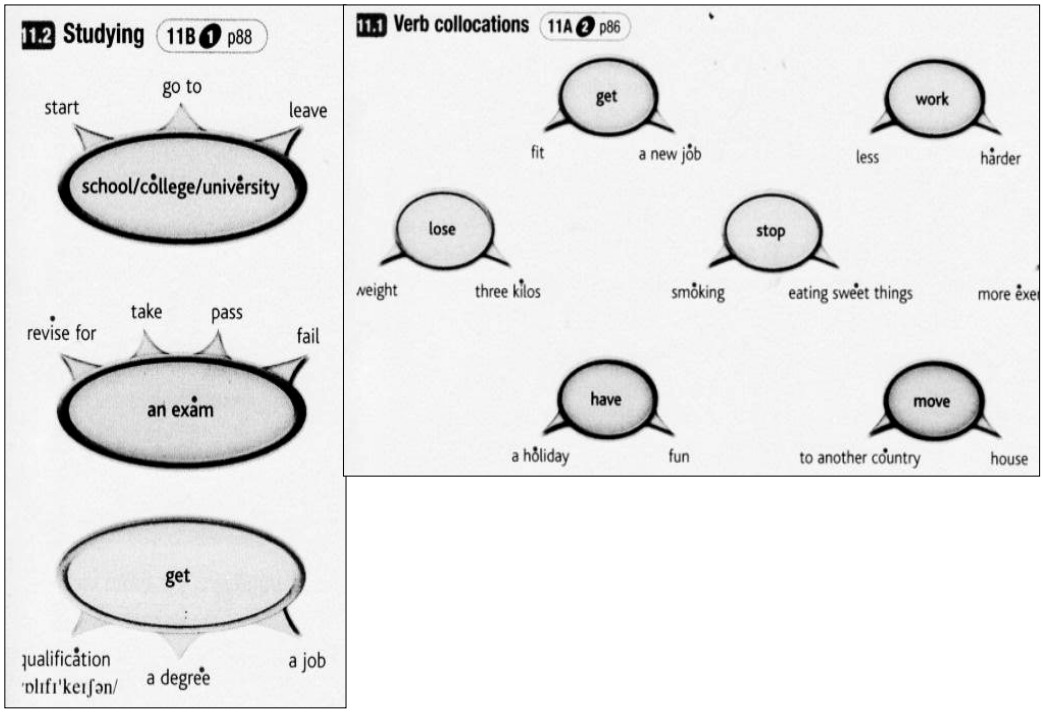
Mind maps are also often used for collocation presentation as Figure 1-6 demonstrates. It shows different uses of the verb *to get.* This example is from *Natural English (Intermediate)* by Ruth Gairns and Stuard Redman.

Figure 1-6, (*Natural English: Intermediate* 63)



Another style of mind maps is offered by the textbook *English Face to Face (Elementary)* by Chris Redston and Gillie Cunningham. It is noteworthy to mention the different style of mind maps they used for collocations of nouns and verbs; whereas branches of the first mentioned point up, the other's point down to highlight the difference between the word classes.

Figure 1-7, (*English Face to Face: Elementary* 24)

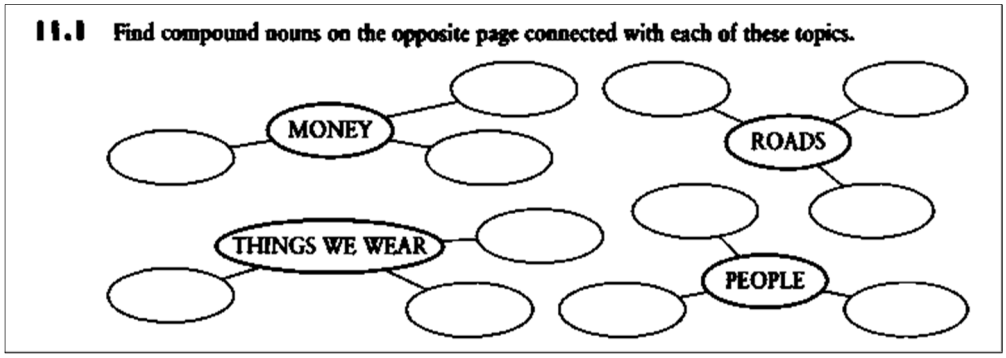


Learning through the related words seems to be a very common way to learn vocabulary. English textbooks frequently work with so-called lexical/semantic fields; words that relate to one another by their theme, that are connected to the same idea. Thornbury demonstrates lexical fields on an example of Christmas themed words, such as *carols, tree, fireplace,* or *snow.* "Words that have this kind of thematic relationship are said to belong to the same lexical field" (10). Presenting or practising words that relate to the same topic can be done using mind maps. An obvious advantage that mind maps offer in this sense is that the relationships of the related words are clearly visible at the first sight and it encourages the recollection. Harmer also recommends mind maps while working with lexical fields of words: "Using mind maps to create vocabulary

fields is something that teachers can incorporate into their regular vocabulary teaching. Indeed such activities can form a useful prelude to work on specific topics" (166).

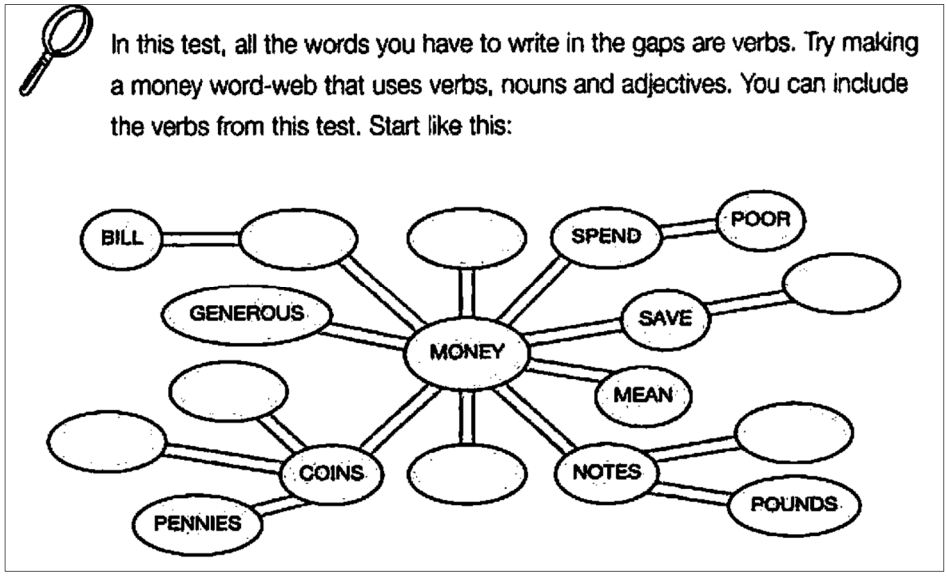
Figure 1-8 demonstrates the use of mind maps in creating lexical fields. This sample taken from *Vocabulary in Use (Pre-intermediate/Intermediate)* by Stuart Redman concentrates in particular on practising recently presented compound nouns.

Figure 1-8, (*Vocabulary in Use: Pre-intermediate/Intermediate* 27)



The following example, in Figure 1-9, is from *Test your vocabulary 2* by Peter Watcyn-Jones and Olivia Johnston. In this sample students complete the words from the same lexical field (*money)* regardless their word classes.

Figure 1-9, (*Test your Vocabulary 2*, 23)

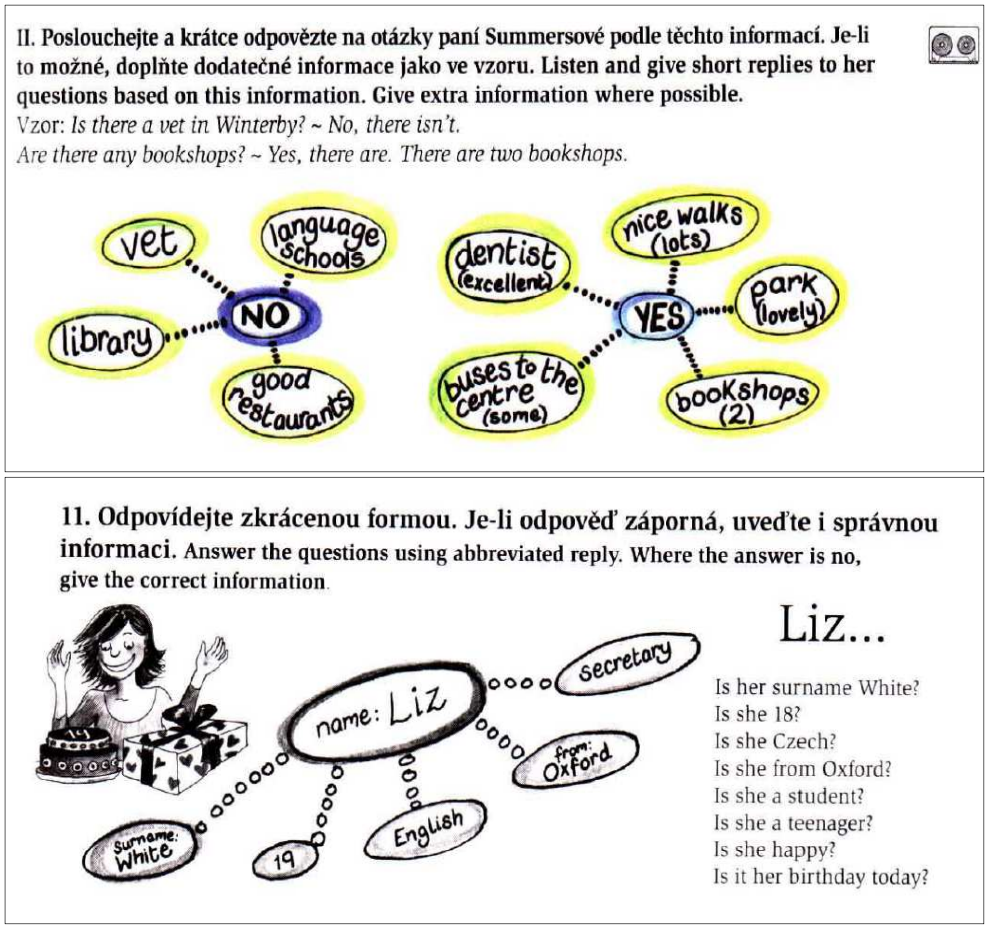


Not only do mind maps appear to be a good tool for vocabulary learning but as various English textbooks show, they can also be applied to learning the basic skills such as listening, reading, speaking and writing. The following samples illustrate some possible ways to use mind maps in teaching skills.

1.1. Speaking and grammar

To start with, Figure 1-10, taken from *Time to Talk 1* by Sarah Peters and Tomáš Gráf, demonstrates a task focused mainly on speaking and practising grammar.

Figure 1-10, (*Time to Talk 1* 65, 151)

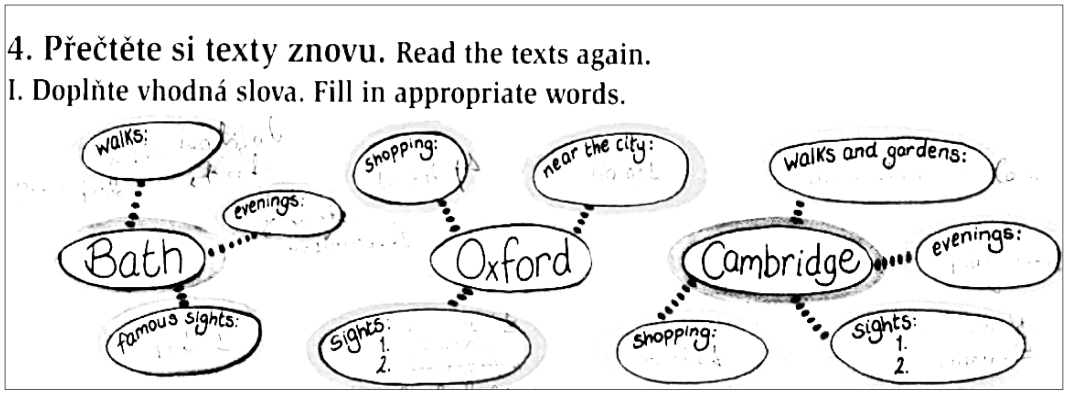


1.2. Reading

Figure 1-11 shows how to use mind maps in reading activities. The given mind maps consist of the key words from the text read by students. They serve as a

help to identify the message of the text and facilitate understanding. Those mind maps also offer a speaking follow-up activity in which students retell the text about the cities using the keywords from the mind maps.

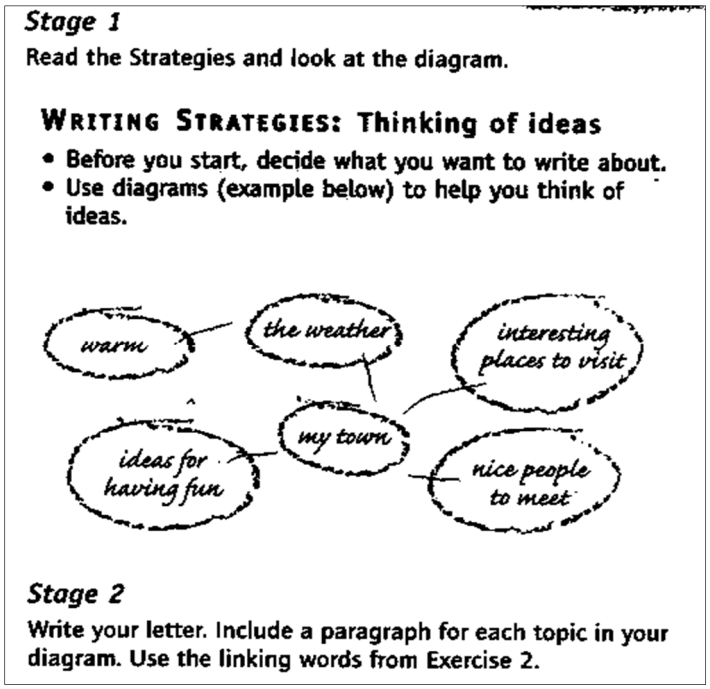
Figure 1-11, (*Time to Talk 1* 94)



1.3. Writing

English textbook *Opportunities (Elementary)* by Michael Harris, David Mower and Anna Sikorzynska suggests using mind maps to prepare a writing task. In Figure 1-12, you can see how mind maps can be used to organise thoughts as a preparation for the writing of a short text.

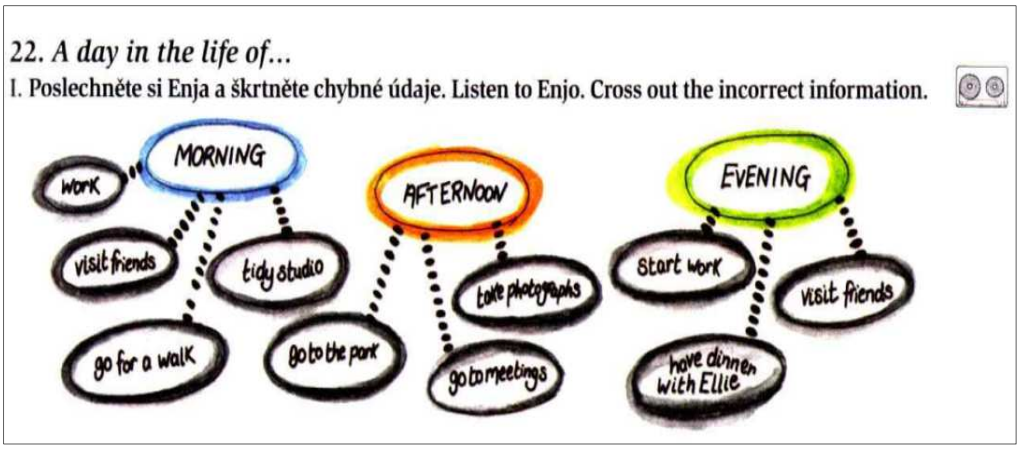
Figure 1-12, (*Opportunities: Elementary* 30)



1.4. Listening

Figure 6-13, taken from *Time to Talk 1*, illustrates using mind maps while practising listening skills. Thanks to those mind maps, students concentrate on the important information from the listening and catch the main message much more easily.

Figure 1-13, (*Time to Talk 1* 41)



(Kacafírková 35-44)

A large number of textbooks and other materials for teachers suggest incorporating mind maps as an effective learning tool. The above selected samples demonstrate that they are commonly used for either presentation or practice of vocabulary, but also other language skills. Although those samples do not represent mind maps in the buzanian sense, they enhance the valuable features of non-linear organisation of thoughts. Activities based on proper mind maps with all the important features are presented in the following chapter to show how to use mind maps even more efficiently.

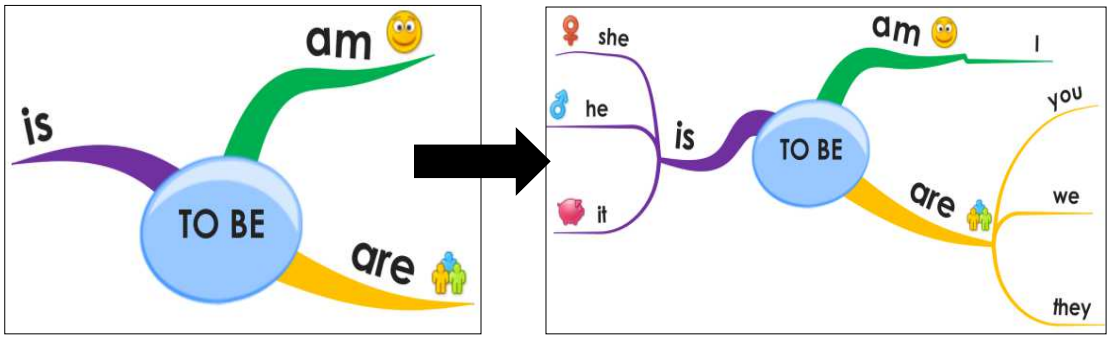
2. MY ACTIVITIES - SELECTED SAMPLES

There is a vast amount of possibilities to use mind maps in language teaching. This stimulating and vivid tool serves as an alternative to often-boring exercises in textbooks. This part will present activities based on mind maps which practise grammatical structures as well as speaking skills and lexis. The activities were designed for my courses and were used in the lessons. I have already introduced some of the maps in my master thesis; some are completely new. My master thesis offers more examples, in particular for kinaesthetic learners which are omitted here.

2.1. Grammar presentation

Mind maps can be used for both grammar presentation and practice. Through them, very simple grammatical structures, as well as ones that are more complicated, can be introduced. Figure 2-1 demonstrates an alternative way to present the forms of the verb *to be* to elementary students or beginners.

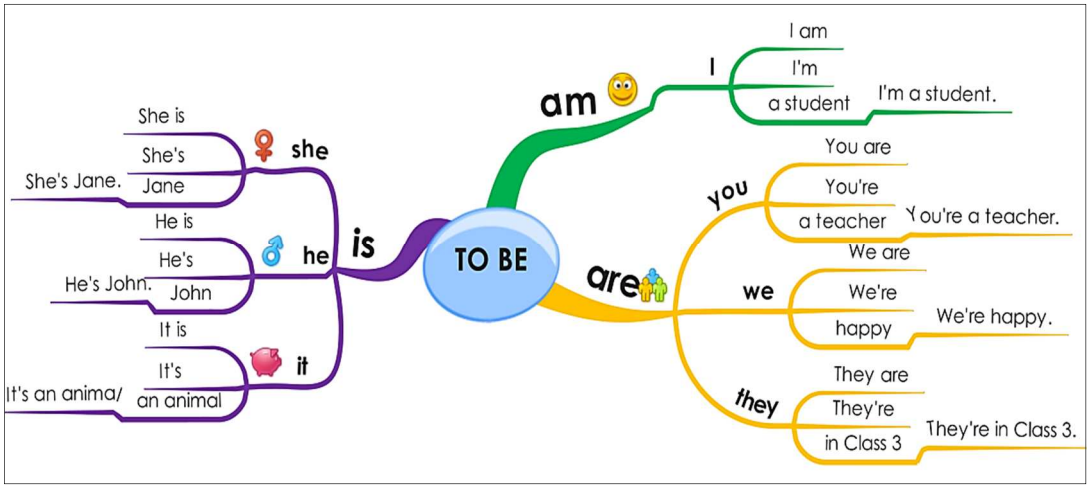
Figure 2-1, To be (Kacafírková 45)



In comparison to the traditional presentations, in which all personal pronouns are usually presented in a list with a corresponding form of the verb *to be* (I am, you are, he is..); here, firstly the basic forms of *to be* are given and then the corresponding pronouns are added. This way of learning takes advantages of similarities, and underlines the differences between singular and plural (Kacafírková 45).

After presenting the basic forms, the teacher can introduce contracted forms of the verb *to be* and provide some examples as it is demonstrated in Figure 2-2.

Figure 2-2, To be – examples (Kacafírková 46)

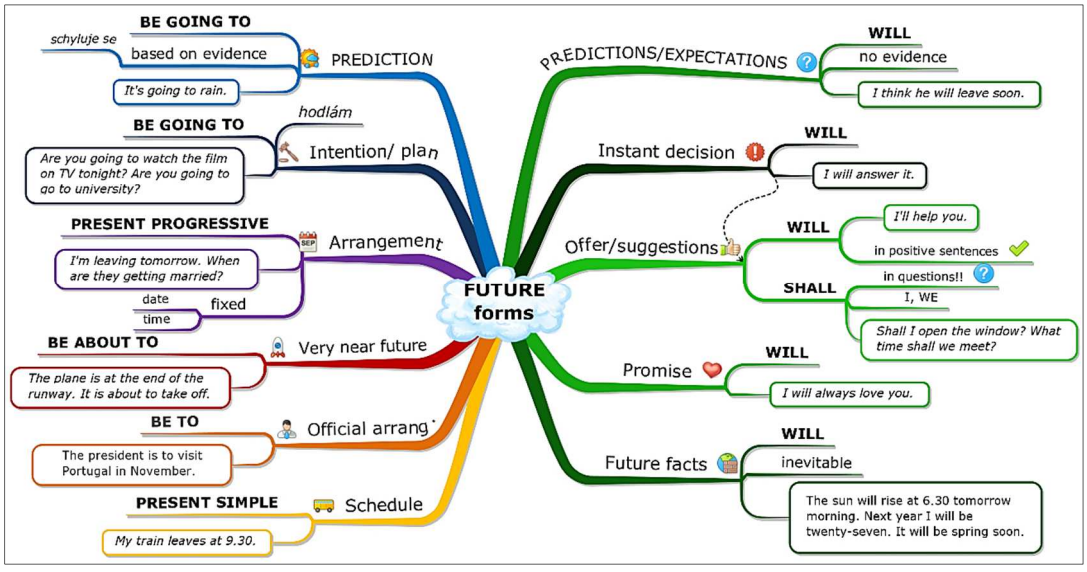


The above presented mind maps can be used either as an alternative way of presenting grammar or as an additional exercise. The teacher can draw such a map on the board or give it to students as a handout. Moreover, by simple changes, the very same map can be transformed into an exercise. First, if you delete some words from the branches, you will get a fill-in activity. Second, the map serves as a material for drills. To illustrate, the teacher points at a particular branch and without using students' first language, elicits from students the required response. Students read the particular branch and drill the pronunciation of full forms, contractions or the whole sentences (ibid 46).

In this manner, all the other grammatical structures can be presented and practised. I have used this kind of presentation in my group course for beginners and from my observations, I can say that the students reacted very positively on this kind of presentation and picked up the rules very quickly. Furthermore, it seems to be suitable for various types of learners. For its logical structure, it appears to be appealing to those types of students with well pronounced logical/mathematical intelligence. Visual/spatial types would appreciate it because of the pictures, colours and symbols. Auditory learners or those with well-developed musical intelligence could take advantage of the drill activity done with the whole class (ibid 46-47).

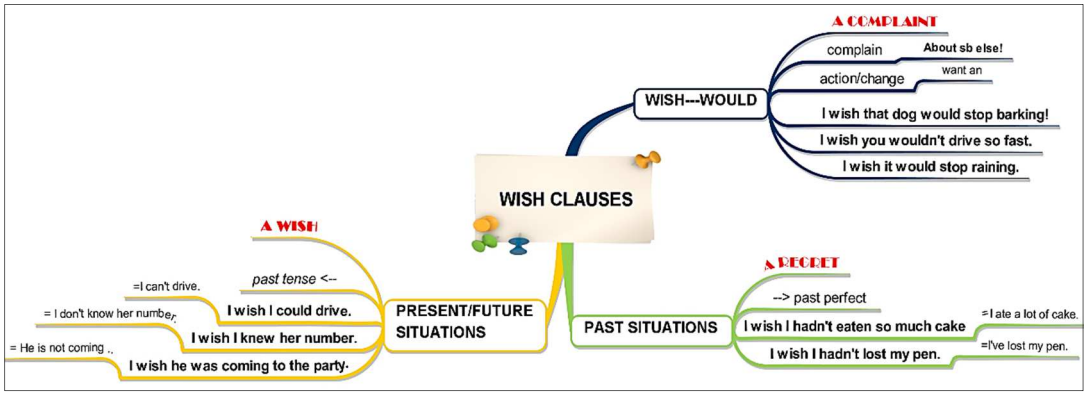
Similarly, mind maps serve as a presentation tool for more advanced students. The following examples were used in a group of college students of intermediate/upper-intermediate level. A map, similar to the one in Figure 2-3, was created by the teacher together with students on the board. The teacher can elicit ideas of a possible use of future forms from students and distribute the ready-made map at the end of the lesson. In this approach to teaching future forms, the primary focus is on functions, in other words, firstly we realise what the meaning of our utterance is, and then we look for a suitable form. Traditionally, textbooks do this the other way round. Firstly, they introduce the new form, e.g. *be going to*, and then its possible usage. However, students at upper-intermediate level already know all the forms, so the opposite approach was chosen to give students some kind of outline and possibility to revise and compare the usage. Moreover, symbols on the map stimulate remembering the individual uses of future forms.

Figure 2-3, Future Forms (see Appendix IV)



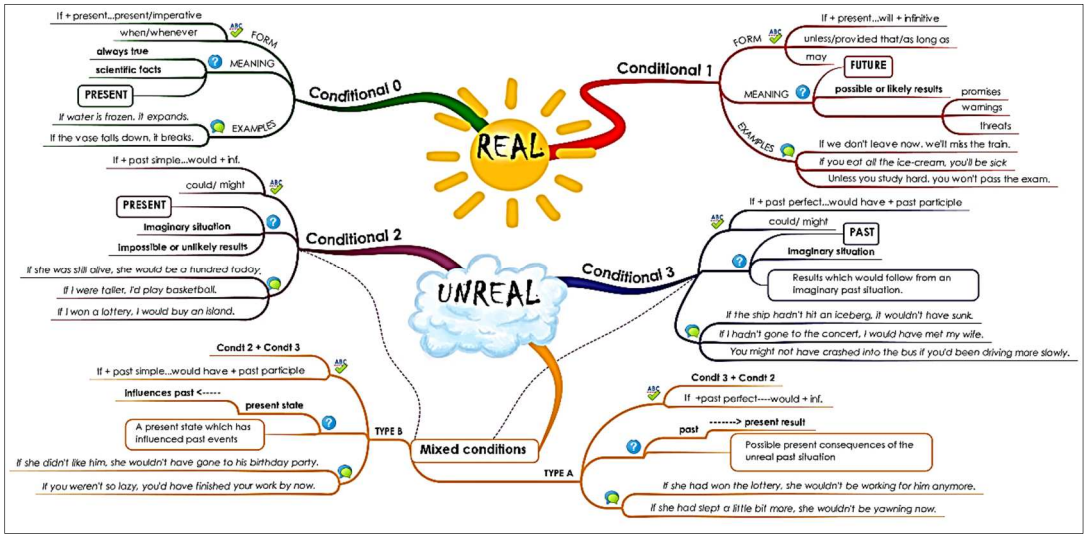
Consider also Figure 2-4, where the presentation of the wish clauses is demonstrated. In this case, students were given this handout, they read the examples and then did exercises concerning this grammar in the textbook.

Figure 2-4, Wish Clauses (see Appendix IV)



The same group of students was supposed to practise also the conditional sentences. Figure 2-5 shows a way to do it via mind maps. The most important feature is a graphically underlined difference between real and unreal conditions. The analogy in meaning and form of different conditional sentences is apparent from the map, so it seems to be suitable for students with well-developed logical intelligence. In the lower map, symbols substitute redundant words – *form*, *meaning*, *examples*. Such approach would appeal to visual types of students.

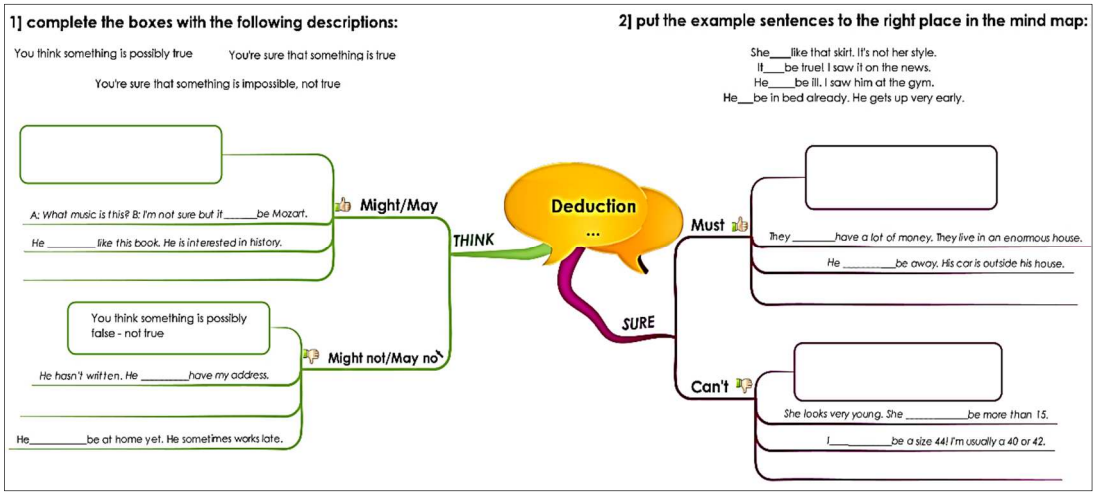
Figure 2-5, Conditional sentences (see Appendix IV)



The map on the conditional sentences was used for a presentation. As it was explained in the theoretical part, it is always better if students write those kinds of maps by themselves. Thus a basic map with rules and examples was created on the board during the lesson together with students, and they could download a ready-made designed map with symbols from the student portal later on.

Besides a ready-made map and a map created together with students on the board, there is also a possibility to make a half-complete mind map handout. It puts together presentation and practice of a particular grammatical structure. Figure 2-6 illustrates such a handout. The map was based on example sentences and sentences from exercises in *New English File (Intermediate) 2nd edition* (pp 134, 135) by Clive Oxenden and Christina Latham-Koenig. Whereas in the textbook traditional fill-in exercise and presentation in grammar tables is served, in this map students are supposed to complete the rules by themselves. This activity was tested with a group of intermediate adult students. As I could observe, they did not have any problems with understanding the map, and they appreciated the clear division between meanings of those modal verbs, which the map offers.

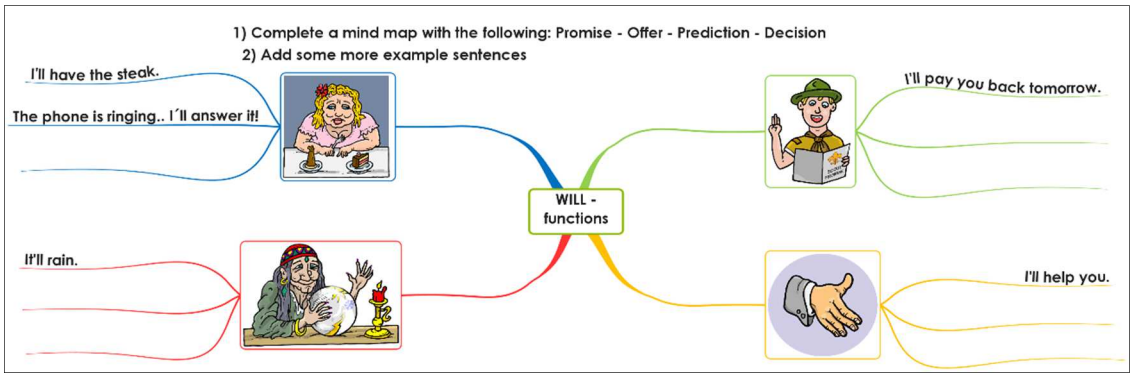
Figure 2-6, Modal verbs – deduction (see Appendix IV)



The following activity, showed in Figure 2-7, illustrates mind maps used for grammar revision and practice. It is designed for pre-intermediate students and practises different functions of *will*. In this exercise, students complete the branches

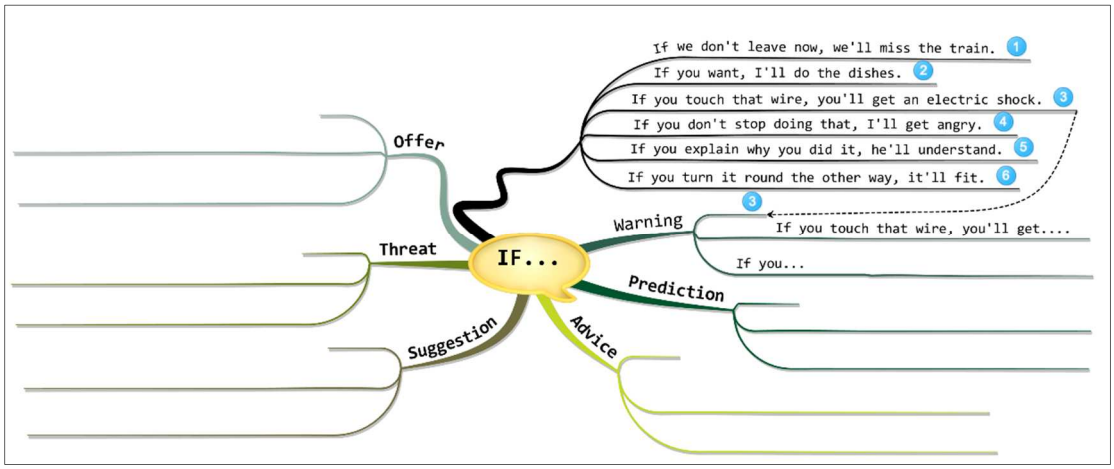
with a suitable function of will: *decision, promise, offer, prediction.* After finishing the first task, they add their own examples to the individual functions. The activity appears to be appropriate especially for visual types of students and for students with high intrapersonal intelligence as they can think of their own personal examples that are connected to their life and that would function as prediction, offer, promise, and decision (Kacafírková 47).

Figure 2-7, Functions of *will* (Pictures by PaK)



Similarly, Figure 2-8 shows a possible way to revise the first conditional and its meanings. Originally, it was designed for and tested by pre-intermediate students, but it can also be used with students of intermediate level.

Figure 2-8, First Conditional - functions



2.2. Grammar activities focused on speaking

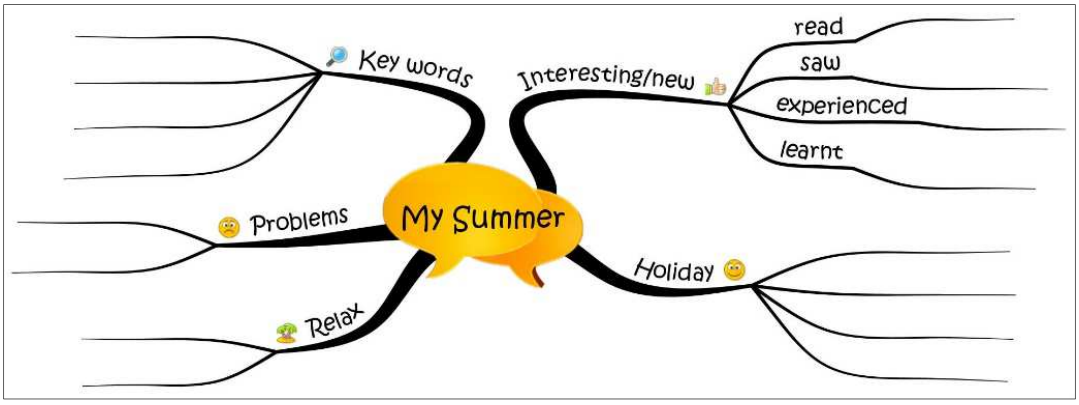
Mind map technique seems to be a good tool to practise speaking skills. Mind maps teach to work with key words, which is very useful, for instance, for giving presentations. Figure 2-9 shows an activity designed to practise speaking skill as well as grammatical structures of the past simple, therefore it is suitable for elementary or pre-intermediate students. They are asked to complete the mind map, each branch with one word, according to their own experience. They write some examples of something interesting they saw or read, something that made them tired or happy, the key words of their weekend and workdays, etc. After they have finished the first task, in pairs they swap their maps and ask each other about the words they wrote. Students have to say at least five sentences about each branch they completed. This mind map activity seems to be appropriate not only for visual types of students, but also for students with well-developed intrapersonal intelligence as they speak about their own experiences; and it also appeals to the interpersonal type of intelligence since it encourages students to share their experiences and communicate with their peers (Kacafírková 48).

Figure 2-9, Last week (Kacafírková 48)

In addition, this exercise can be modified into much more creative and playful activity. Consider Figure 2-10, where the activity *My summer* is introduced. Students complete a very similar map to the *Last week* map, but this time after completing, they swap their maps in pairs and pretend that the information from the

map are theirs. They speak in front of the class about their summer, which in fact is the summer of their partner. The partner then corrects some information that was misinterpreted from the key words of his or her map. It is suitable as a warming up activity after summer holidays. I would recommend it for pre-intermediate/intermediate learners in smaller groups. It was tested in the class of five adult learners of intermediate level. It created a very positive and relaxed atmosphere in the class. Moreover, it might help to overcome problems with students who are shy to speak about themselves and their own experience. To put it simply, some students do not feel comfortable sharing information about themselves and in this case, invented or not accurate information can help.

Figure 2-10, My Summer

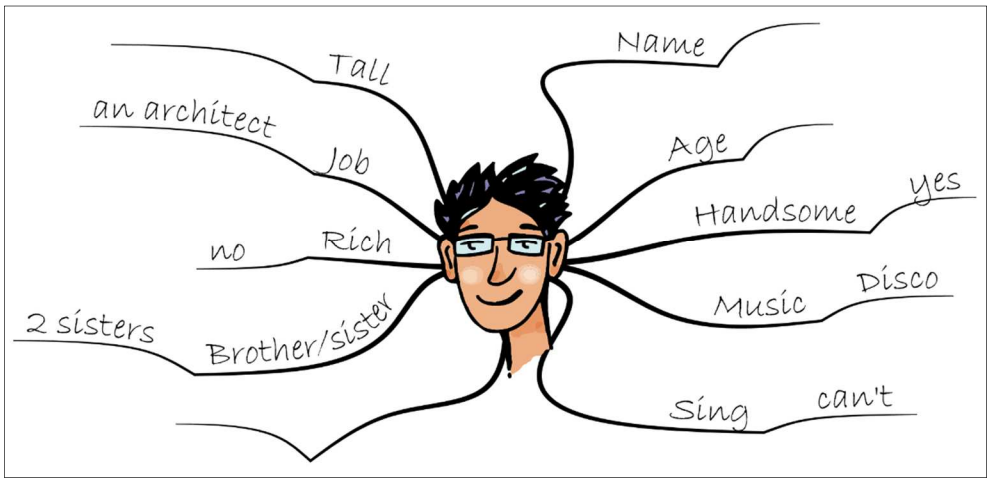


As I suggest in my master thesis, analogously to this activity other grammatical structures can be practised. To illustrate, if we change the central idea and instead of *last week* put *this year*, and slightly modify the branches, students will speak about what they have done, learnt or experienced this year, and thus practise the present perfect (Kacafírková 48).

The speaking activity demonstrated in Figure 2-11 is also suitable for learners with high interpersonal type of intelligence. It practises the present simple questions and the verb *to be*. However, this mind map activity is designed to be done with the whole class. The teacher draws a face of a boy (or a girl) on the board, then says to students to imagine their friend having a new boyfriend and that they want to know

all about him. Students take turns; the first student asks the question, the second one answers it and asks a new one, etc. The teacher writes the key words about the boy on the board (ibid 49).

Figure 2-11, A new boyfriend (Picture by PaK)

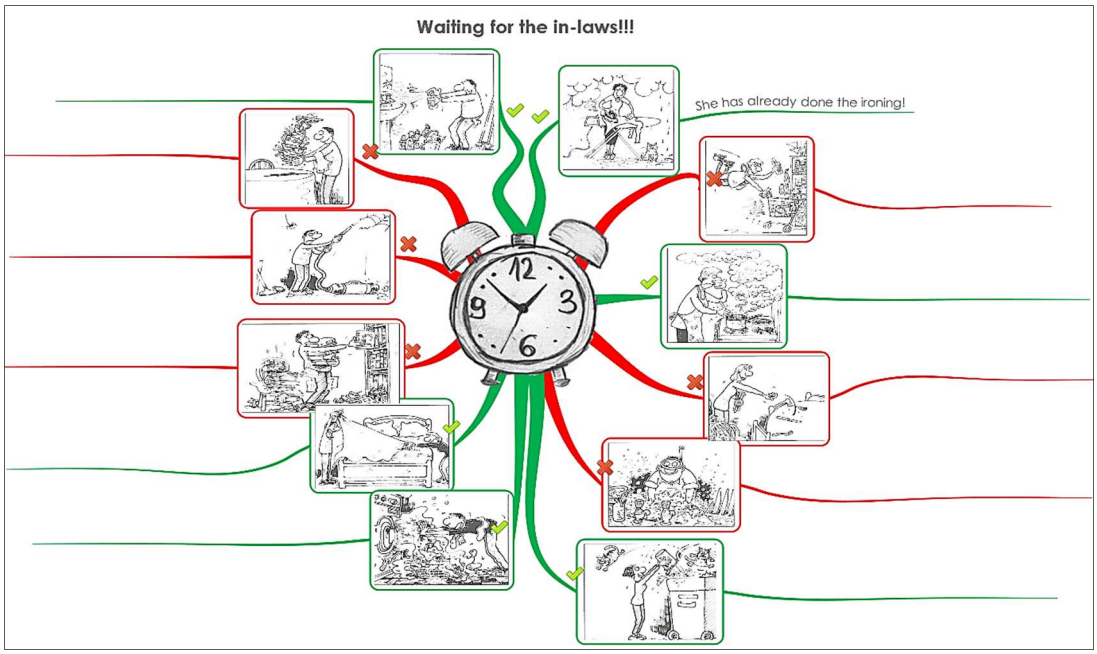


There can be a follow-up activity in which students talk in pairs about this boy and add some details, for example, *Tom listens to disco music. He goes dancing every Friday. He has got two sisters, their names are Jane and Adel.* Naturally, this activity can be modified as well. For instance, the teacher draws a face of a girl who is preparing for a date. Students discuss what she has already done and has not done yet to get ready for the date; and therefore practise the present perfect. *A new boyfriend activity* has been tried out with a group of teenage students of elementary level. The students seemed to be genuinely interested in the activity; they were focused, and thus much more accurate in making the questions than usual (ibid 49).

Moreover, *A new boyfriend* game can be turned into a jigsaw activity. This time, a ready-made mind maps have to be prepared. Each student from the pair gets a half-complete mind map with different information about the boyfriend (girl), and then their task is to complete all the missing information.

The following activity is based on the same strategy; however, this type was prepared for adult learners of pre-intermediate level, so the topic was modified to fit them better. In this activity the present perfect + *already, yet* is practised together with a revision of housework vocabulary. In the previous lesson students learnt the vocabulary from *Test your Vocabulary 1*, pp 68-69. Then the pictures from this textbook were taken and put into a map in Figure 2-12. People in the pictures are waiting for a visit of the in-laws. Students have to write sentences, either positive or negative, according to the symbols. For example: *She has already cooked the dinner*, *He hasn't done the washing up yet.*

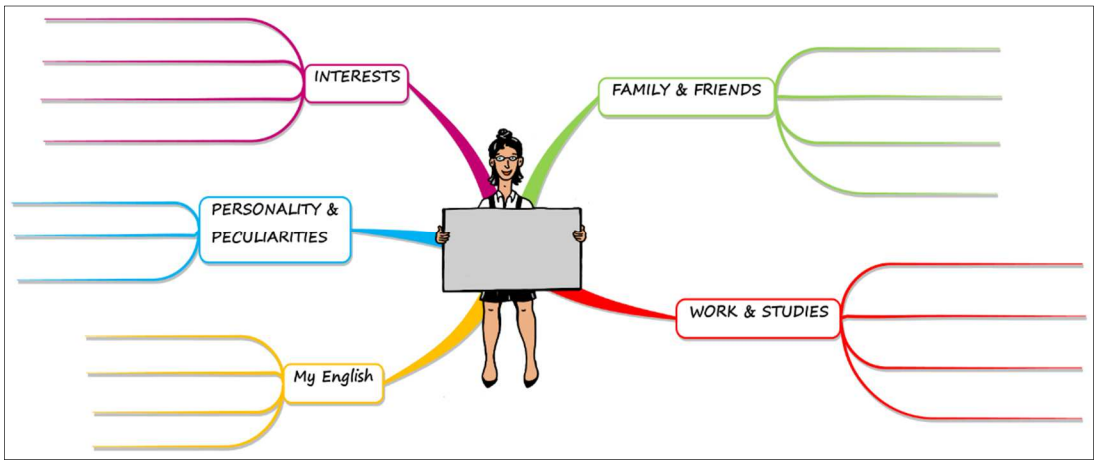
Figure 2-12, Waiting for the in-laws (Pictures from *Test your Vocabulary 1*)



Mind maps are also suitable for doing the needs analysis in the very first lesson. Consider Figure 2-13, students are given this handout and fills in their personal data that they want to share. Each branch is supposed to be completed with one word. Afterwards they speak about themselves. If they prepare their talk via this kind of mind map, it helps them to structure their speech and deal with the problems when they are stuck and do not know what to say. Moreover, in a course with more students, a motivation brainstorming map can be drawn with the whole class on the board. Students come up with the ideas of motivation for learning English in

general or they add their own personal reasons (Kacafírková 49-50). The teacher can take the completed map from the student and use it for preparing the course regarding student's needs and interests.

Figure 2-13, Introduce yourself! (Picture by PaK, see Appendix IV)



2.3. Vocabulary

It has already been demonstrated by several examples from English textbooks that using mind maps while practising or presenting vocabulary can be very useful. Via mind maps collocations, sense relations and related words are illustrated very clearly and elegantly. The following examples will introduce some other possible usage of mind maps in practising or presenting vocabulary.

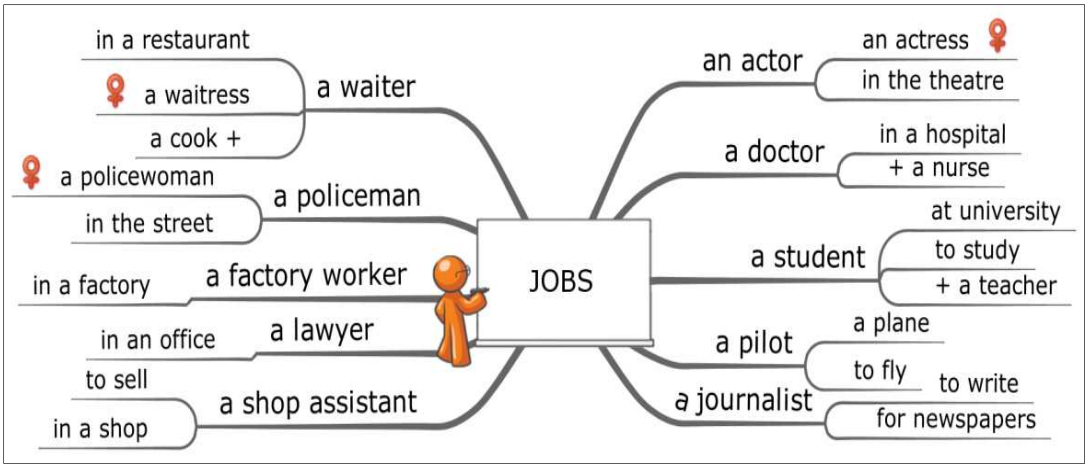
2.3.1. **Brainstorming**

The brainstorming technique seems to be a very popular way of presenting new vocabulary. In this technique, new ideas and language are obtained from the students. The teacher proposes a topic and the students come up with their ideas, which are written on the board. In comparison with traditional lists, mind maps add some extended possibilities to use this technique. Figure 2-14 shows how to do a proper brainstorming via a mind map on the board (Kacafírková 51).

Not only does the teacher elicit the new vocabulary from the students, in our case, individual examples of various occupations, but also as the shape of mind maps gives more space to each item, the teacher can add some more commentary, and

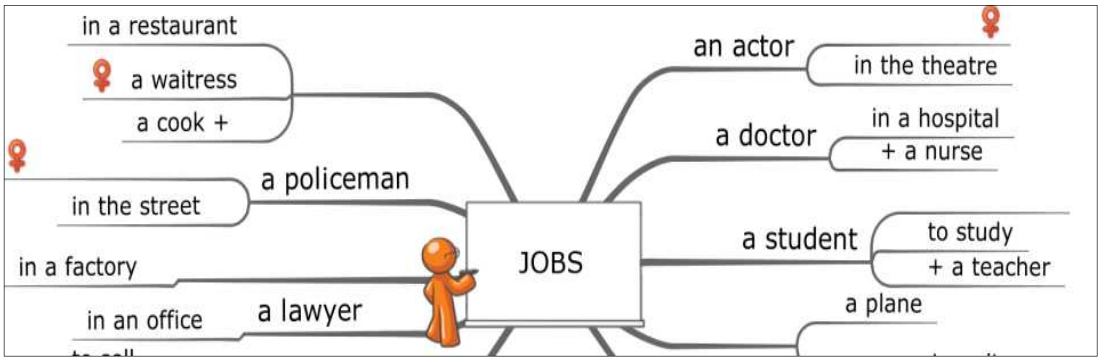
thus provide better context for the individual words. The questions that can be asked the students are as follows: *Where does a doctor work? What is a woman who does the same profession called?* (ibid 51).

Figure 2-14, Jobs (Kacafírková 52)



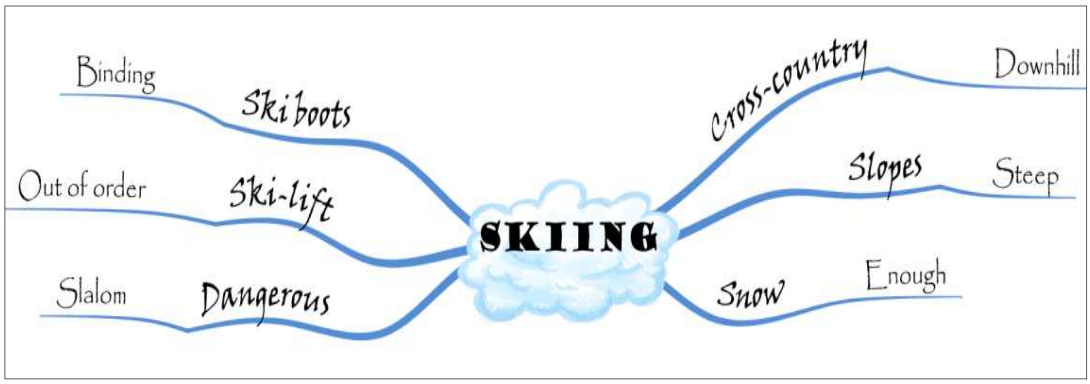
If there is enough space on the board, the mind map can be kept there for the rest of the lesson. At the end of the lesson, the teacher erases some items from the mind map and changes it into a revision activity as we can see in Figure 2-15. From my experience, using brainstorming while presenting new vocabulary is usually appreciated by students as it is very interactive and allows them to contribute to the lesson with their ideas and knowledge (ibid 52).

Figure 2-15, Jobs – revision (Kacafírková 52)



Furthermore, the brainstorming technique in general can be used for practising speaking skills. For instance, the following activity demonstrated in Figure 2-16 focuses on vocabulary as well as on communication. It is a pair work activity. Each pair is given a piece of paper and their task is to write a central idea, in this case – *skiing* – and draw six branches each carrying a word connected to this activity. After they have finished, they swap their maps with another pair and add six more words to the map. Then the last exchange comes and now each pair has a finished mind map. In their pairs, they give each other some questions using the given words. For instance: *Do you prefer cross-country skiing or downhill skiing? Do you think that slaloms are dangerous?* The second task is to make a story connected to skiing and try to use all the vocabulary from the map they have got; then they tell the story to the class (ibid 52-53).

Figure 2-16, Brainstorming in pairs (Kacafírková 53)



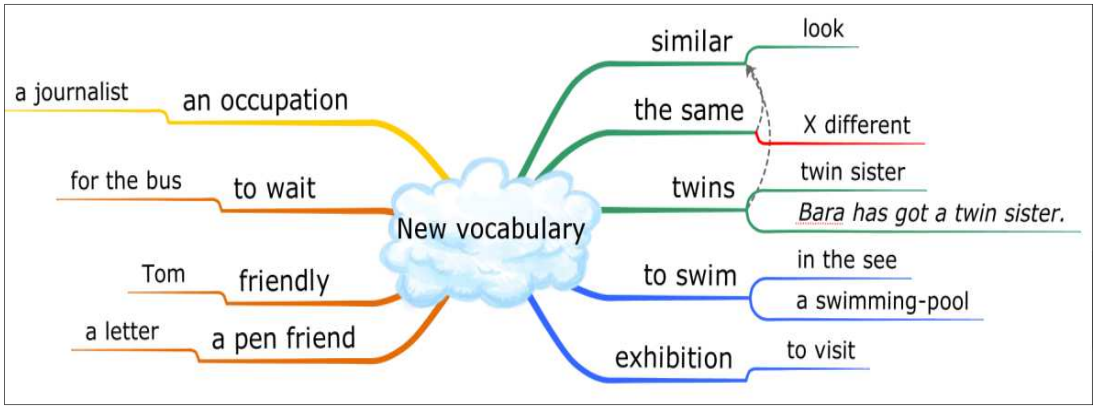
Obviously, this activity offers possible modifications. It can be, for instance, transformed very easily into a writing exercise. Students are given a piece of paper with a central idea, e.g. *Bad luck, Pink, Accident, etc.* They can have either the same topic or each student a different one. Their first task is to add four branches, each branch carrying one association to the central idea. Then they pass the paper further and add two more branches with associations to each branch of another map (altogether 8 new words), then pass this map further one more time. Now they have to use at least 10 words from the map they have to create a story with a title of the central idea. This activity was tried out with a group of college students of upper-

intermediate level; they were engaged in the activity and created intriguing stories based on the maps in less than 15 minutes.

2.3.2. New vocabulary of the lesson

The class comes across some new vocabulary every lesson. The teacher, the textbook, or the students themselves might be the source of that vocabulary. Figure 2-17 demonstrates a situation in an elementary class. During the lesson, nine new words emerged: *an occupation, to wait, friendly, a pen friend, similar, the same, twins, to swim, exhibition.* The teacher explained the meaning of the new words and wrote them on the board into a mind map where they were kept until the end of the lesson. The first advantage is that the students can see the words throughout the lesson and they can try to incorporate them into their speech. The second advantage is that the mind map serves as a tool for a revision at the end of the lesson (Kacafírková 53).

Figure 2-17, New vocabulary (Kacafírková 54)



There are various possibilities to use the created mind map to practise the new vocabulary. Some of them are demonstrated in Figure 2-17. First of all, the teacher can elicit some grammatical context of the new words and ask, for instance: *Where do you swim?* the teacher adds the answer – *in a swimming-pool* – to the mind map pointing out the double *m* in the word *swimming.* Another grammatical example might be eliciting of the preposition *for* that goes with the verb *to wait.* Secondly, the teacher can ask about some vocabulary context of the words, such as sense

relations and collocations: *What is the opposite of "the same"? What verb do you use with "exhibition"? Give me an example of an occupation.* Again, the teacher writes the answers on the board. In the end, the teacher can tell students to use a word in a sentence to ensure that they use it correctly with the correct collocation and grammar. Moreover, this mind map can also be used for making personal associations. The teacher asks students to choose some words from the new vocabulary and add their personal associations. For instance, somebody knows a person who is very friendly, so he or she writes down the name of this person next to the word *friendly.* An association to the compound *pen friend* might be for somebody *a letter* for others *an email* (ibid 54).

The shape of the mind map is convenient to practice and learn new vocabulary as it allows to provide the context of the words but also to highlight some connections between them. To demonstrate that, the teacher might say: *They are twins. They look similar but they are not the same*. All the techniques mentioned encourage understanding, and facilitate remembering of new words. They seem to be suitable mainly for analytical students who enjoy logic and structures, visual types and as they focus on personal associations they appear to be liked by students with well-developed intrapersonal intelligence (ibid 54-55).

2.3.3. **Vocabulary revision**

As the two following examples show, mind maps are suitable in particular for vocabulary recycling. Figure 2-18 demonstrates an activity in which students match words with pictures. In comparison with traditional matching exercises, here the pictures were put into a mind map, and therefore the relationships and connections among the individual words are emphasised. It stimulates remembering, and also it appeals to students with well pronounced logical intelligence who like searching for relations and analogies.

Figure 2-19 illustrates a similar activity but this time, there are only words. This mind map serves as a quick revision of the words connected with education that were taught the previous lesson.

Figure 2-18, Electronic Media[9] (see Appendix IV)

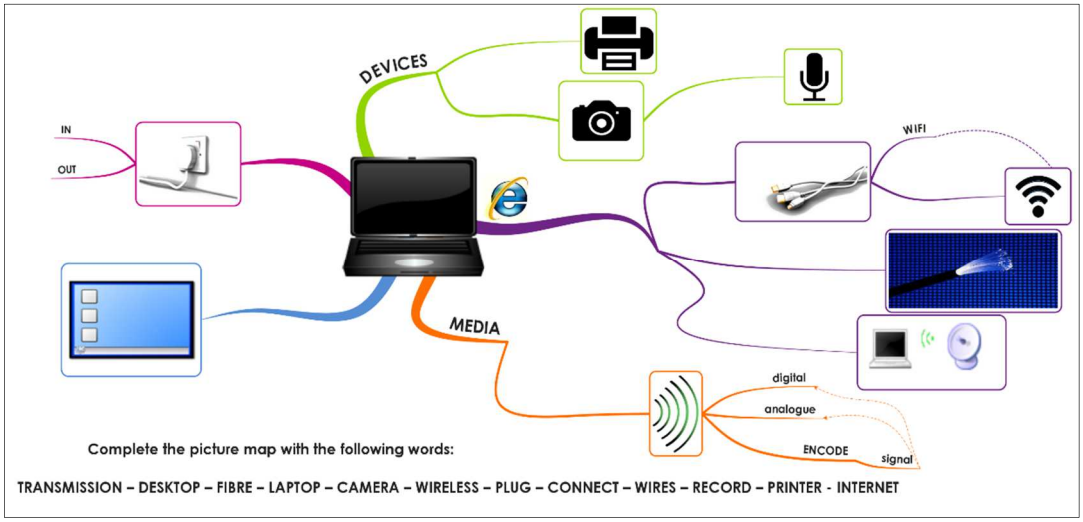
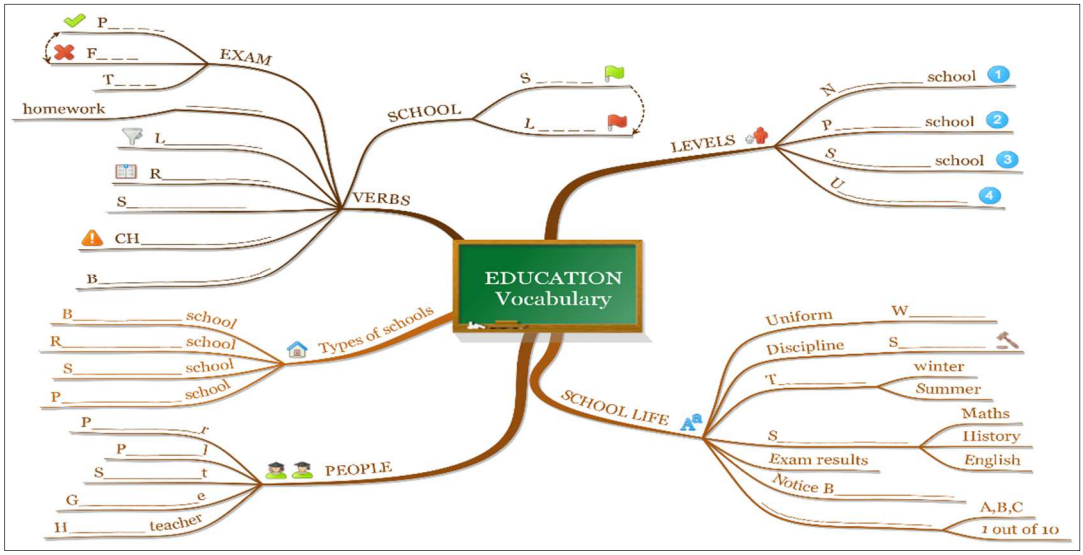


Figure 2-19, Education vocabulary



The above mentioned activities were designed by the teacher. However, it can be done the other way round. Students are given a list of words and their task is to find connections among them and create a mind map. They need to invent their own categories, for instance, *neutral*, *positive*, *negative*, *people*, etc. It supports cognitive depth and more importantly, as those maps are self-generated, they stimulate remembering and are, therefore, much more efficacious.

[9] Picture of *optical fibre*: *Some interesting facts.* n.p., n.d.Web 5 March 2014. < http://someinterestingfacts.net/the-tiny-filament-of-glass-of-optical-fibre/>.

PRACTICAL PART II – MIND MAP BOX

Mind map box is a new technique that I have developed for learning vocabulary. The basic principles of the technique were introduced, few samples were provided and possible activities offered in my master thesis. In this section, I present other examples and describe the technique in more details. This thesis is also richer in activities that can be used in one-to-one courses, group courses and self-learning. Besides the research done with students from one-to-one courses, which has been presented in my master thesis, I add my observations from using this technique with a group. Moreover, a computer programme for using Mind map box by teachers will be described.

1. PRINCIPLES OF MMB

1.1. Recollection

Mind map box is based on the word cards method already described in the theoretical part. However, this technique works solely with translations, which does not seem to be sufficient for remembering new vocabulary actively, therefore some more strategies, which facilitate recollection, were incorporated into Mind map box. First of all, as it was shown in the theoretical part, better recollection can be achieved by using mnemonic devices, in particular those which are based on images. I recommend to use the keyword method as it seems to be very powerful. However, if somebody does not want to draw, he or she can use a mnemonic device based rather on words than pictures or simply write a personal association with the new word that would be helpful for later recollection. In Mind map box, there is some space for any kind of mnemonic device depending on students' preferences (Kacafírková 58-59).

1.2. Collocations and related words

Traditionally in language coursebooks, new vocabulary is presented in lexical sets. This new technique also uses related words to provide a context for the words

which are unknown. However, it has to be noted that learning words belonging to the same lexical sets at the same time, is not always recommended by educationalists. Thornbury argues that it might be sometimes confusing for students as words with similar meaning tend to interfere with each other. He explains that, for instance, if students are supposed to learn all the means of transport at once, it might be a more difficult task than if they were presented individually each in a different context (37). To avoid the interference, Mind map box tries to show the words in their typical combinations and frequent occurrence. In short, not only does the technique focus on various sense relations, such as hyponymy, synonymy, antonymy; but more importantly, it notices collocations of the unknown words. Furthermore, the technique works with lexical fields, which means that thematically related words that however do not belong to the same lexical sets, are presented together with the new vocabulary. This appears to be helpful since students can learn possible situations and contexts the new words might be used in (Kacafírková 59).

The focus on collocations is one of the most significant features of Mind map box. Many methodologists underline the importance of learning possible combinations of words. Lewis argues: "'Knowing' a word involves a great deal more than being able to establish a one-to-one relationship between words and real-world object, or between words in L1 and L2" (119). That is the reason why Mind map box contains branches specifically dedicated to collocations and typical prepositions.

1.3. Metacognitive skills

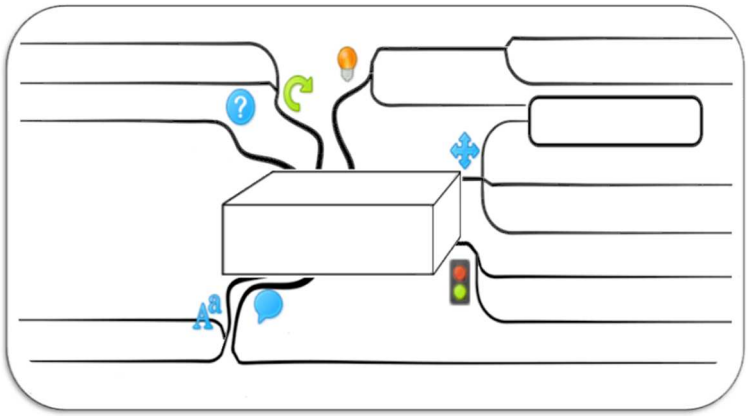
Furthermore, the technique teaches students some possible ways of learning new vocabulary. The aim of this technique is to teach students to be independent on their teachers. Thus it concentrates on metacognitive learning. Active use of monolingual dictionaries is, therefore, an important feature of Mind map box as well as teaching register, some grammar terminology and the dictionary language (Kacafírková 59). Teaching how to use dictionaries in vocabulary learning is supported by a large number of educationalists. As Thornbury says: "Such training also provides them with the means to continue vocabulary acquisition long after their course of formal

study has been completed" (151). Moreover, competence to learn belongs to one of the key competences expressed in the Framework Education Programme. Mind map box stimulates this competence, and therefore is suitable for adult learners as well as for pupils. If they adopt this strategy of learning vocabulary, it can help them to develop their own in the future.

1.4. Design

All the above mentioned strategies have been put together to create one comprehensible mind map that would help with active remembering of new vocabulary. Figure 1-1 shows a blank card that serves as a template to be completed.

Figure 1-1, A blank card

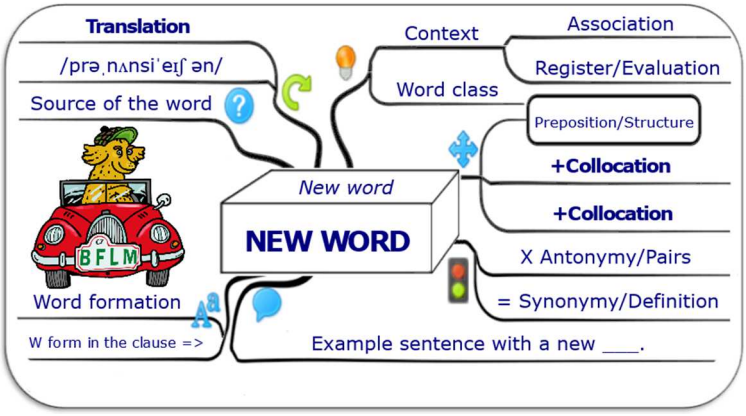


As you can see, only one side of the card is used. In this manner, all the significant information is available at once. The card includes important features that Buzan underlines in connection with mind maps. First of all, it has a clear logical structure. There is a central idea in the middle of the card and some other branches that stem upwards it. The central idea is supposed to be written into a 3D block to make it more attractive to the brain. Moreover, some symbols and pictures are used to distinguish different functions of the branches (Kacafírková 60). The functions will be presented in the following chapter.

2. HOW TO COMPLETE A CARD

Apparently, this technique requires some training and teacher's supervision before students learn how to complete cards accurately and for their best benefit. Thus at the beginning it is advisable to provide as many examples as possible. Before presenting several examples, some general information about creating a card should be expressed. Figure 2-1 demonstrates the basic utilisation of the branches.

Figure 2-1, New word (Picture by PaK)



First of all, a **new word** is written as a central idea of a card. The branches that are connected to the central idea are then divided into two parts. The first group includes branches focusing on a recognition of the word and help with the correct recollection, in short they concern passive learning. The branches from the second group bear the information that leads to a proper active use of the word. Five basic pieces of information are conveyed in the first group: **translation** into students' first language, **pronunciation** (using international phonetic alphabet), the **source of the word** (page in a textbook, title of an article), and in the left lower corner, there are two branches that demonstrate the **word-formation** (different word class) and the **word form** of the central vocabulary (plural form or past tense which is used in the example sentence). On the left side of each template card, there is also some space for a **mnemonic device**. It can be the keyword method or any other mnemonic technique that would help a particular student to remember the word better.

As to the second group, there are branches that carry **collocations** of the central idea and the **prepositions** that are used with the words. In case of a noun, in particular beginners can write a definite or an indefinite article there. A typical structure connected to the word (verb + to infinitive) can be demonstrated here as well. Secondly, branches for sense relations, such as **synonymy** and **antonymy** are provided. Instead of synonymy, a short definition can be given here, and in the antonymy branch, students can write the second meaning of the word. The bulb symbol in the left upper corner represents a **context,** in which the new word might be used in the future. It is either thematic context or **hyperonymy**, personal **associations** and **related words;** but also grammatical context – **word class** with grammatical information about the word (regularity, irregularity, countable vs. uncountable nouns, etc.) and **register** (formal, informal, slang). The last and longest branch should carry an **example sentence** or a clause that would contain the new word; for the further practice the unfamiliar word can be omitted from the sentence (Kacafírková 61-62).

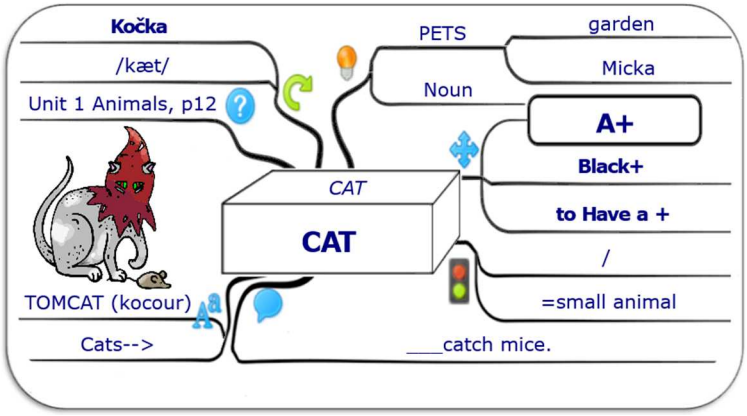
The above described instructions are nonetheless merely a general model of a properly completed card and cannot be applied in every situation. Each word class requires slightly different treatment, and the level of students' English also limits the information that can be provided. Thus the completion of a card has to be done accordingly. The following samples will demonstrate the differences among the cards of different word classes designed for various levels of students (ibid 62).

2.1. Nouns

Consider Figure 2-2 where the noun *cat* is demonstrated. This card is designed for a complete beginner, so the information provided in the card is limited. As you can see, translation, pronunciation, the source of the word, word class and mnemonic device (via keyword method) are offered. They are self-evident and do not need further commentary. In the upper right corner, there are some related words, such as hyperonymy *pets*, related word *garden* and personal association *Micka*, as it is the name of student's cat. In the collocations branches, we can see words connected to the central idea – the adjective *black* and the verb *to have.* An indefinite article is

also provided, as it is the grammar that is being learnt at that time. As to the sense relation branches, the antonymy branch is left blank and the synonymy branch is used for a very simple definition – *small animal*. The important part is also the example sentence which shows another collocation – *to catch.* Moreover, students can practise plural form of the word, as the word is left blank in the example sentence and the correct form of this noun is provided in the lower left corner to check their answers. For some strong students, a derived word *Tom-cat* can be given or the branch can be left blank.

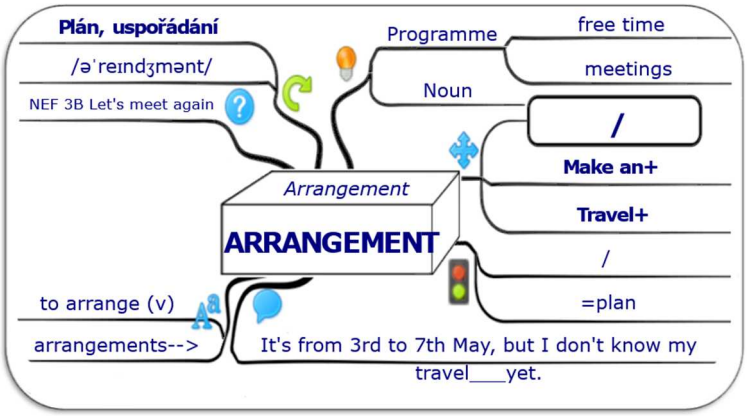
Figure 2-2, Cat (Picture by PaK)



This way students from the very beginning get used to the fact that words should be learnt in context. They learn more words at once and are also able to utter some simple sentences with the new word; it means, they are able not only to recognise it, but also use the word in a broader context.

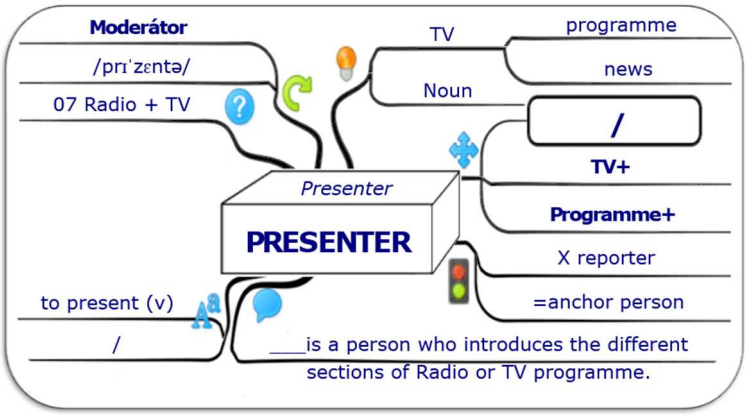
Figure 2-3 shows the noun *arrangement* learnt by a pre-intermediate student. The branches are completed in a similar way to the previous example. There is, however, more complicated example sentence which is taken from the source of the word (New English File, Unit 3B text: *Let's meet again*). Notice also the word formation branch. Students at this level should know how to make the verb *to arrange* from the noun *arrangement.* Using indefinite article should be understood at this level as well, on this card it is recycled as the phrase: *make an arrangement* is introduced.

Figure 2-3, Arrangement



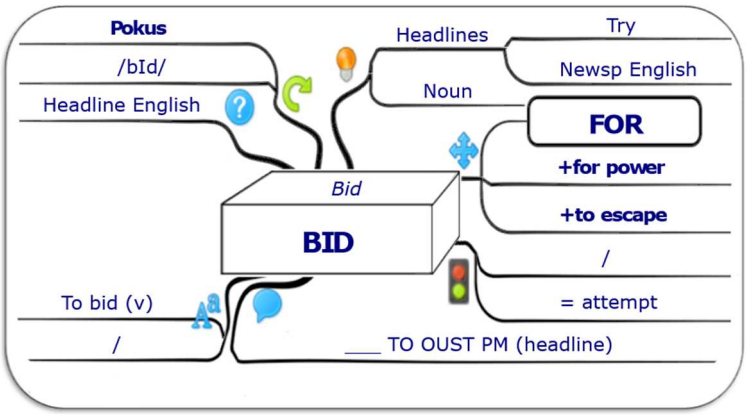
The following example in Figure 2-4, is suitable for intermediate students. The branches do not differ considerably from the previous cards. Contexts, word-formation and collocations are noted. However, this time the example sentence serves as a definition of the central word. Moreover, the word *reporter* is written in the antonymy/pair branch to point out the difference between those two words that are commonly confused. This word was designed specifically for college students in a course of media English who need to be aware of a particular terminology.

Figure 2-4, Presenter



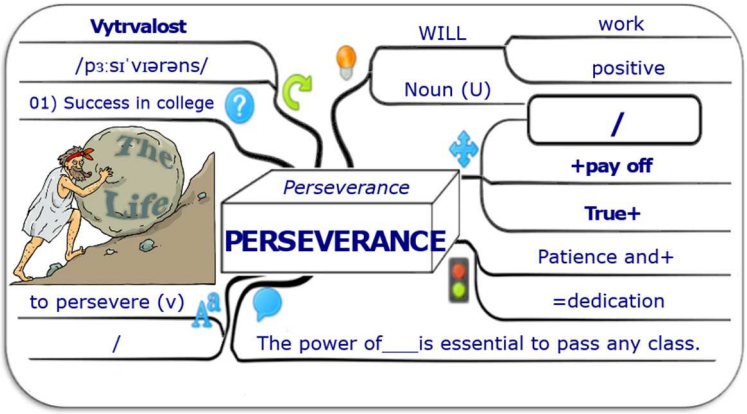
Another example of a noun card is demonstrated in Figure 2-5. This card was used for upper-intermediate students to learn the word *bid*. However, in this case, students learn also important structures connected with the word: *bid for + noun* and *bid to + verb*. Moreover, they understand that the word is usually used in newspaper English in headlines, so they learn its register as well, and how to use headline English in practice, which is demonstrated in the example sentence branch.

Figure 2-5, Bid



In Figure 2-6, a personal evaluation of the word is added – *positive*. A typical pair *patience and perseverance* is demonstrated, and most importantly, the grammar of the word *perseverance* is introduced in the word class branch (U – stands for *uncountable noun)*. Students at this level should understand what an uncountable noun means and how to use it in a context.

Figure 2-6, Perseverance (Picture by PaK)



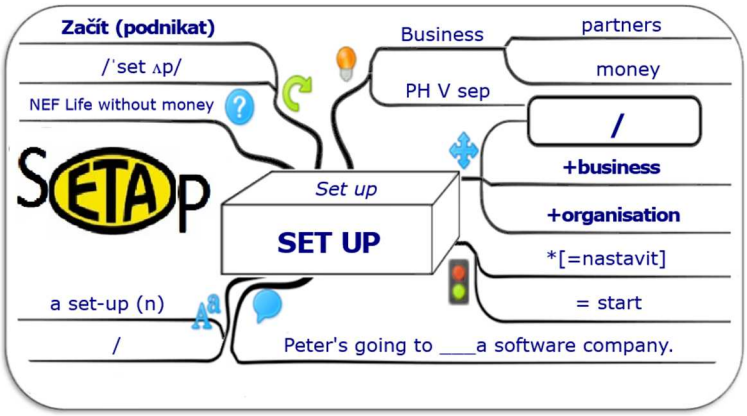
To sum up, noun cards will share some specific features. First, word grammar can offer the information about countability. Second, the collocation branches are usually used for verbs and adjectives. As to word-formation, typically a verb derivate from the central noun will be provided. In the sense relation branch, we will find a typical pair or contrast word rather than the opposite. The example sentence branch will practise plural forms or articles. Moreover, we could observe that this branch can also serve as a definition of the word, especially for special

terminology, tools and animals. It also ought to be noted that the language and words used in individual cards respect the level of students.

2.2. Verbs

Figure 2-7 shows the first example of learning verbs via MMB. In comparison with noun cards, here the keyword method is applied for the recollection of the correct particle of the phrasal verb as it is difficult to remember. This card is suitable for intermediate students as richer grammatical context of the word is given (*separable phrasal verb*). As you can see, the other branches are completed in a similar way to the noun cards. The other thing which is worth noting is the content of the antonymy branch. In this branch, we can find another meaning of the verb *set up*. The difference between those verbs is made by collocations of the central meaning.

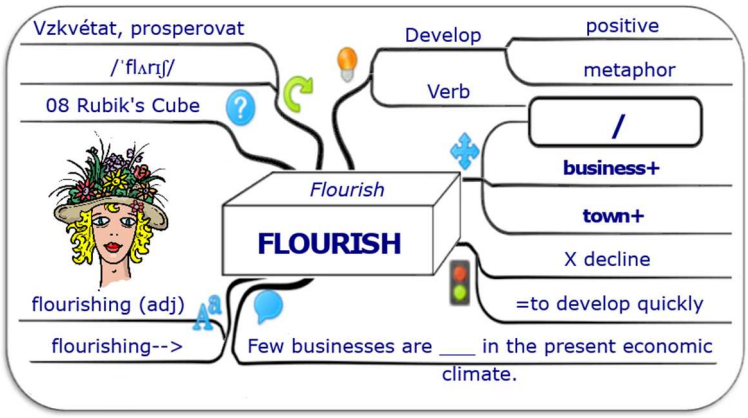
Figure 2-7, Set up[10]



The card in Figure 2-8 was prepared for an upper-intermediate student, which is the reason why the language of the card is more complicated. In the context branches, there is an evaluation of the word, and also the metaphorical character of the word is noted, which will help to connect it to the picture. The example sentence also helps to recycle grammatical structures, as the present continuous is required to complete.

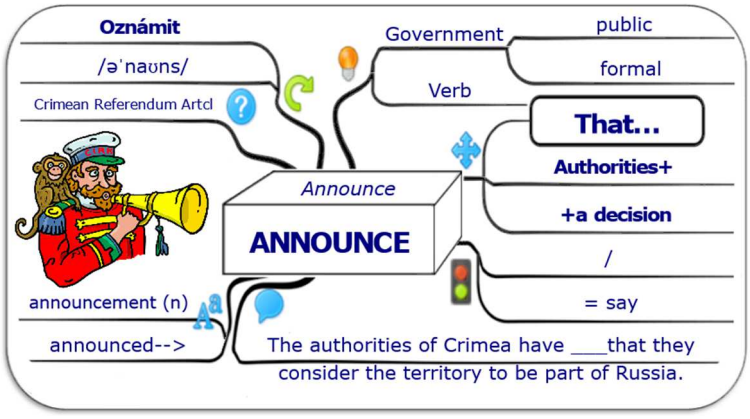
[10] Picture of the logo ETA source: *Font.* n.p., n.d. Web 4 Jan. 2013. <http://www.font.cz/logo/eta-po-vice-nez-60-letech-meni-logo.html>.

Figure 2-8, Flourish (Picture by PaK)



A very similar way of completing a card is demonstrated in Figure 2-9. Again, grammatical structure is practised – in the left lower corner branch. The collocation branches show possible use of the verb *to announce.* We can either *announce* **something** (e.g. *a decision*), or **somebody** can *announce* this decision (e.g. *authorities*). The symbols +, +, serve as an explanation which way the words are connected. The box for structures says that the verb *announce* can be used with *that* plus the whole clause. It can be learnt from the card, that *to announce* means *to say* (synonymy branch) but in a formal way (register branch).

Figure 2-9, Announce (Picture by PaK)



The two following examples in Figure 2-10 and 2-11 show vocabulary from newspaper English. Both words were familiar to students, however, only as nouns. Students now learn the words in a different context and with a slightly different meaning. In such cases, in particular, it is important to provide students with suitable collocations, context and also structures in which the word normally

occurs. It is noteworthy to mention especially the example sentence branch, which shows the language of headlines – in 2-11 and practises verb form – in 2-10.

Figure 2-10, Back (Picture by PaK)

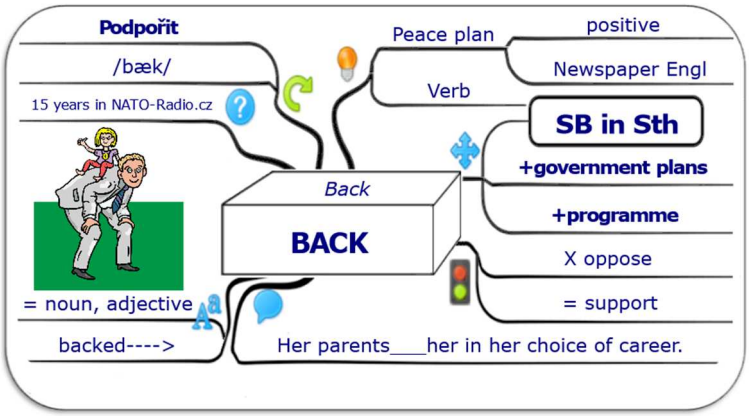
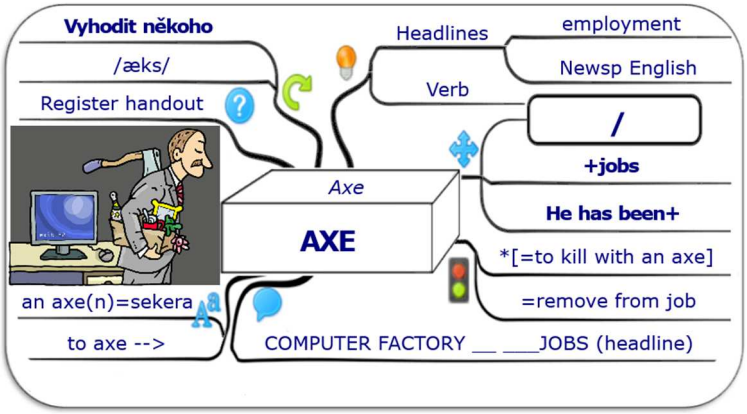


Figure 2-11, Axe (Picture by PaK)



Logically, the word class of collocation branches will differ in verb cards from noun cards. On verb cards, we can typically find nouns and also adverbs. Similarly, the word formation branch will be used for making nouns from verbs. Structures, such as *verb + to infinitive*, or *ing form*, should be marked on verb cards. The greatest difference can be found in the example sentence branch. In case of verbs, this branch will most often practise tenses.

2.3. Adjectives

How to complete a card with another part of speech, adjectives, is demonstrated in Figures 2-12, 2-13 and 2-14. Adjectives are very often defined by their opposites

and synonyms. This is the reason why the sense relation branches are usually completed. To avoid an interference with similar and opposite words, some context is provided on the right upper branches. To demonstrate that, in case of the word *generous*, students should write somebody specific, e.g. *mum*. Another typical feature for adjective cards is also the hyperonymy branch and the evaluation branch, which helps to stimulate memory.

Figure 2-12, Generous (Picture by PaK)

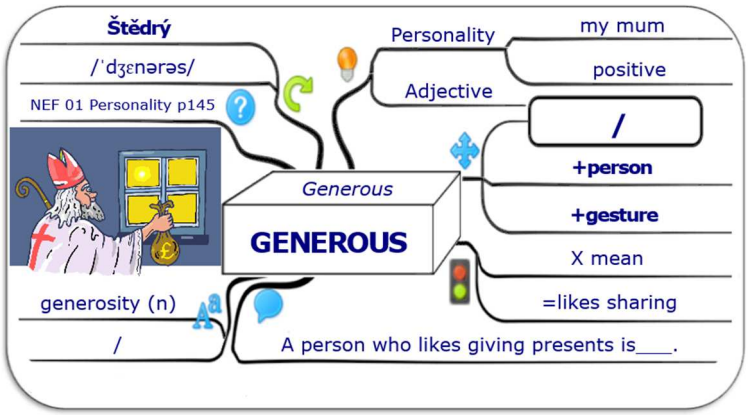


Figure 2-13, Hilarious (Picture by PaK)

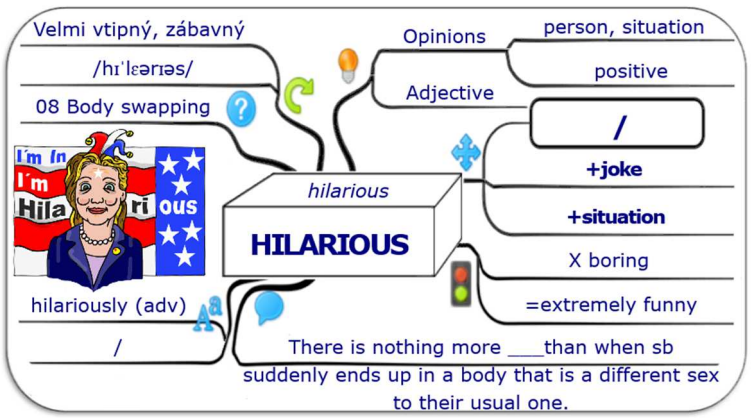
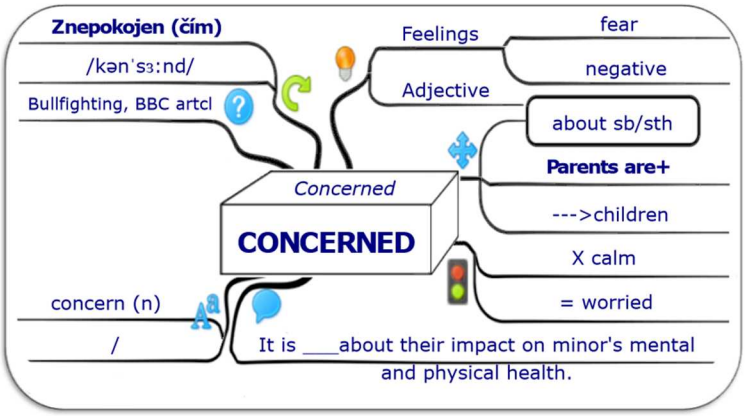


Figure 2-14 demonstrates an adjective which is specific in the sense that it requires a particular preposition (*about*). Students should understand the symbols and abbreviations on the map or write down notes in the way they would be able to recollect it later on. To illustrate that, from the collocation branches students should be able to compose a clause very similar to the following one: *Parents are concerned about their children.*

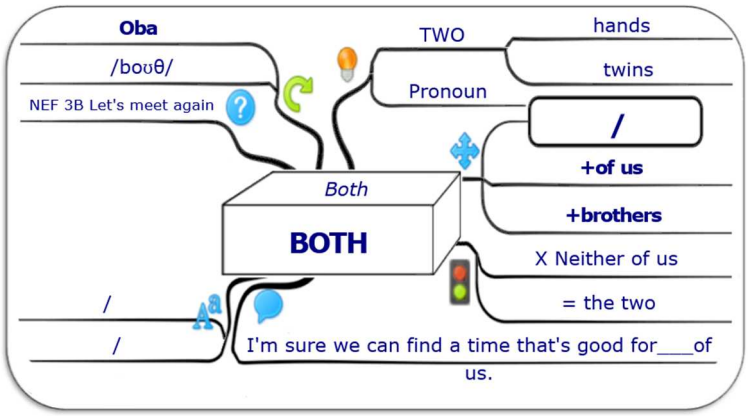
Figure 2-14, Concerned



2.4. Phrases and other word classes

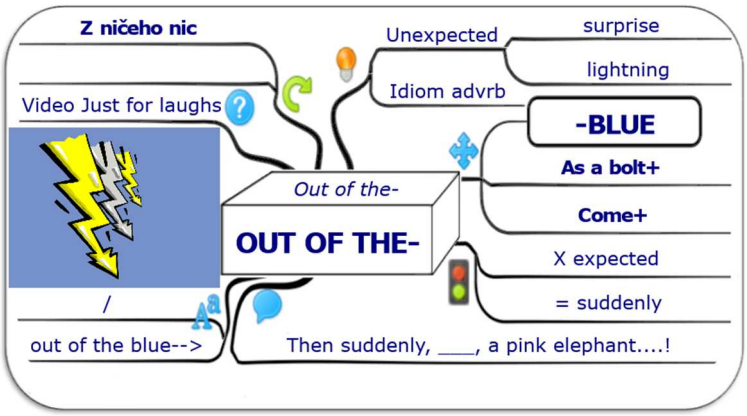
Besides the common word classes, such as nouns, verbs and adjectives, all other word classes can be learnt via Mind map box. Consider Figure 2-15, which shows a card with a pronoun. A significant feature of this card is the use of the antonymy branch. Not only do students learn how to say *the two* (*both*), but they also learn how to express the opposite (*neither of them*). For some word classes it seems to be useless to use a mnemonic device, associations and word-formation or even synonymy and antonymy. However, those words can still be learnt in chunks as it facilitates the recollection and more words can be practised at once. The conjunction *and* can be learnt in the chunk *cats and dogs*, the conjunction *but*, can be noted in the clause *I felt tired but happy.*

Figure 2-15, Both



This technique seems to be particularly suitable for learning phrases and idioms. Either the whole phrase can be written in the central idea, or it can be divided into halves as the examples below demonstrate (Figure 2-16 – 2-18). Evocative pictures, which students can add to the cards, help to facilitate their memory.

Figure 2-16, Out of the blue (Picture by PaK)



Not only do the cards help to remember a particular form and meaning of idioms, but they also show their usage in a context. For example, as Figure 2-17 suggests, we say *I was rooted…* or *I stood rooted…* and as we can see in Figure 2-18, idiom *pull somebody's leg* is usually in the progressive form. This kind of information is provided so that students can use those idioms correctly.

Figure 2-17, Rooted to the spot (Picture by PaK)

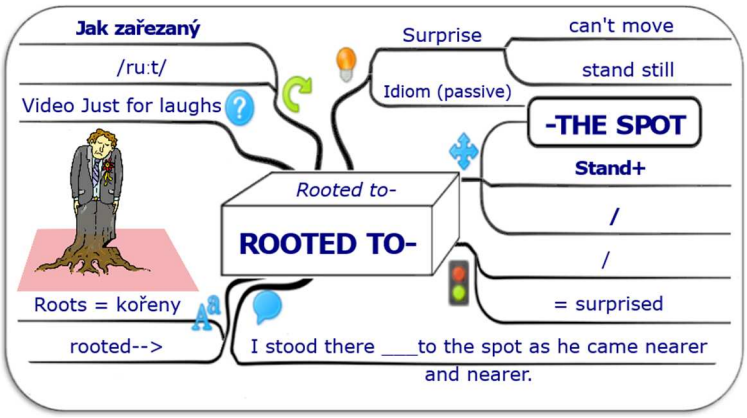
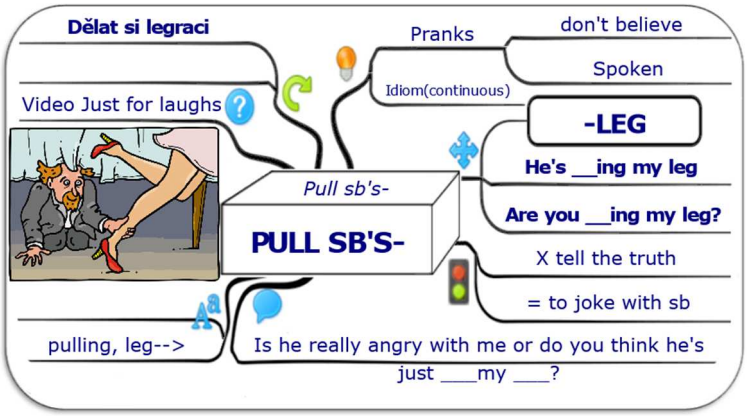


Figure 2-18, Pull sb's leg (Picture by PaK)



3. HOW TO USE MMB IN SELF-TEACHING

Unlike other vocabulary exercises, Mind map box (MMB) incorporates presentation and practice in one card. Thus, it can be used with broader variability. However, to make this technique effective, it is crucial to follow the basic rules and stages of learning.

3.1. Rules

Rule number 1: Have 20 new cards at the most in your *carry-on box* and keep the already learnt cards in a *stock box*.

Before you start using Mind map box, get two boxes, one small for everyday practice of the new words and one bigger to store all the words you have already learnt (see the *Appendix I*). It is very important to discard old and known vocabulary every week. If you have more than twenty new words to learn it might be discouraging and you might feel overwhelmed by such amount. Thus the motivation to open the box and practise would decrease.

Rule number 2: Take your *carry-on box* wherever you go and practise.

The carry-on box ought to be small enough to fit into your pocket or a handbag. Whenever you have a five-minute break, open your box and practise.

Rule number 3: Recycle.

Keep your stock box neat and organised, preferably according to the word classes, or alphabetically. From time to time, go back to your stock box, take out twenty random cards and test yourself. There is a fundamental principle of learning vocabulary regardless of a technique, and it is spacing. Practising ten minutes every day seems to be much more effective than studying many hours only one day a week (Kacafírková 66).

3.2. Preparation

Immediately:

Learning with Mind map box starts in the lesson. There are branches to be completed with a help of the teacher. The teacher should provide the meaning of the word, pronunciation, grammar of the word, possibly register and the basic collocations. The source of the word should be noted down by the student as well, to trigger memory later on, and also to have the possibility to go back to the source (e.g. if the source was a text in a textbook or an audio) and retrieve the context. Listening to and reading authentic materials or simplified materials for students are other possibilities to encounter new words. If you come across a new word while reading, write down the central word and the source – the name of the book and the page. After finishing reading a chapter (or the whole book), you can go over the book again and complete the basic branches such as translation, example sentence, word class, basic collocations and preposition from the context of the book. Afterwards, think of the word and add your association, context or hyperonymy and evaluation. Moreover, think of a mnemonic device if you feel that the word will be difficult for you to remember in the future.

Working with a dictionary:

The second stage of completing the card requires a monolingual dictionary. It can be done the same day or later. First, if the teacher did not provide a pronunciation of the word, now it is a good time to complete. Second, find some important collocations, check the register and word-formation. Add definition or synonymy and antonymy or the second meaning of the word. It is not necessary to go through

this stage with all your words. You can skip this stage, for instance, with conjunctions, pronouns and with words which do not require such a treatment and are easily remembered. Now you are ready to practise.

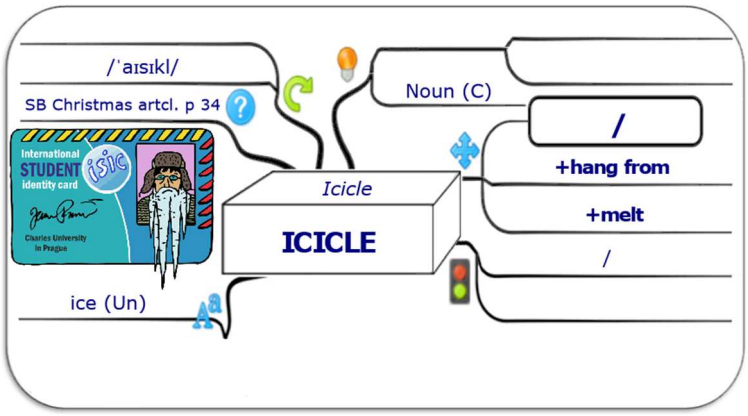
3.3. Learning

At this moment, there is a lot of information on the card, however, we do not work with all the information at once. While learning from the cards, some branches are always hidden and only some are visible. There are four types of testing, which should be used. The testing cards in the examples below are taken from the computer programme MMB; however, you can easily prepare your own hand-made testing cards that will do the same job. Examples of self-made testing cards can be found in the *Appendix II*.

Test 1

Learning vocabulary should start with Test 1, which assumes that the user is not familiar with the words yet. As Figure 3-1 demonstrates, in Test 1 you can see the following branches: *pronunciation, source* and *picture, the central word, word family* and *word class,* and *collocation branches* (possibly *preposition*). First, you should read aloud the word and its collocations (pronunciation will help you): *icicle hangs, icicle melts* and try to remember the word in your first language. The other branches serve as hints. Second, you should say a synonymy or a definition of the word (possibly *antonymy*), *icicle = piece of ice*. Finally, think of a context of the word and think of your own associations: *winter, cold, danger*. Do this test with all your words in the carry-on box.

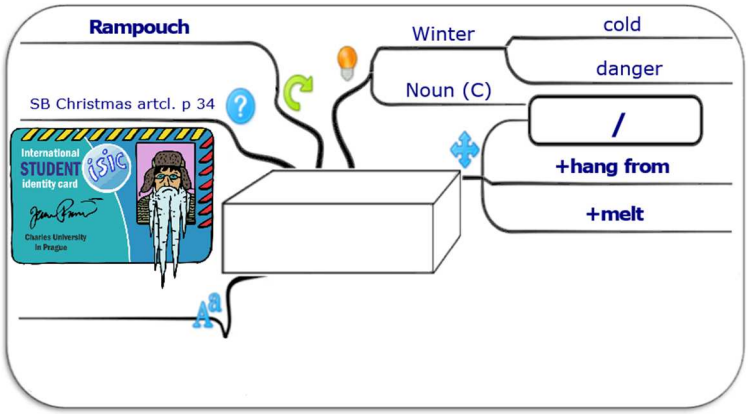
Figure 3-1, TEST 1



Test 2

The second testing can be done the same day or possibly later. Figure 3-2 shows which branches are hidden this time. You can see *translation*, *source* and *picture*, *grammar* and *situational context branches* and *collocations branches.* This test asks for the central word and its pronunciation and, if possible, a different word class/family of the central word as in our example: *ice – uncountable noun.* Do this test with all your words in the carry-on box.

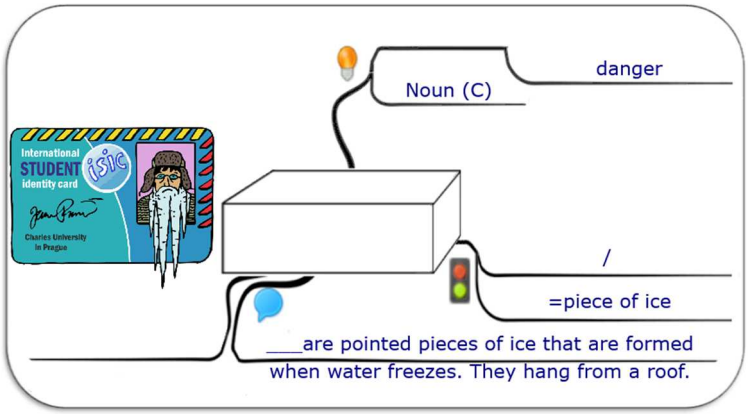
Figure 3-2, TEST 2



Test 3

After practising the words properly via Test 1 and 2, you can proceed to Test 3. This test focuses on the central word as well as on grammar. As it is apparent from Figure 3-3, in this testing card we can see *picture, example sentence, synonymy and antonymy, word class* and *register branch* (if a special register is needed, in our case we see only association/evaluation of the word). Complete the central word but also the correct form of this word that would fit the sentence, *Icicles are pointed...*The correct form should be written in the lower left branch. This test is useful in particular with verbs, as it practises different tenses. Do this test with all your words in the carry-on box.

Figure 3-3, TEST 3

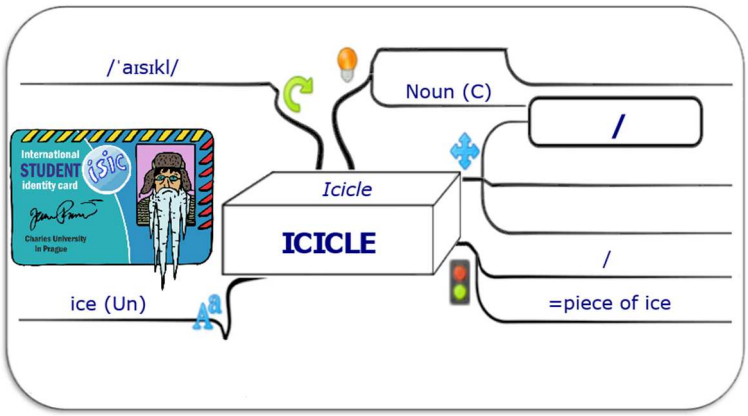


Test 4

Finally, there is a test, which checks if you can use the word independently. Test 4 concentrates on collocations and eventually register or style. The information on *antonymy (or possibly different meaning)* and *synonymy* is uncovered to draw the difference between them and the central word. The difference is made by the collocations you connect with the word or with the different register in which the word is used. For example, if there is *say* in the synonymy branch and *announce* in the central box, it is clear that the style branch should be completed with the word *formal.* The collocations then will be for example: *government, authorities.* Similarly, if the central word is *wed,* obviously you will have the verb *marry* in synonymy branch, in this case you should know that we speak about *newspaper*

English. There might be a situation when the antonymy branch is occupied by a different meaning of the central word. In case of the word *set up*, the central meaning of the card might be *start a business* and second meaning *to arrange something* (see Figure 2-7). Those two meanings differ in collocations. The correct collocations which are required here are *company, business*, not *meeting*. The above mentioned detailed testing is, however, aimed at students with higher level of English. In this test, simply words that go together can be tested as it is demonstrated in Figure 3-4, *Icicle - melts, - hangs.* Do this test with all the words.

Figure 3-4, TEST 4



4. HOW TO USE MMB IN ONE-TO-ONE COURSE

Mind map box offers a large number of ways to practise lexis during the lesson in one-to-one courses as well as in group courses. There is no doubt that the way of notes taking is rather irrelevant if the student does not study his or her notes at home at all. Thus it would appear that whether students write down the new vocabulary in traditional lists or they create a mind map, the result is the same. Yet for those types of students who do not pay any attention to their notes, Mind map box seems to be more advantageous since the cards can be used for practice in the lesson and serve as a good tool not only for students but also for teachers. The teacher can take the cards from the student and test him or her in the lesson (Kacafírková 69).

The following activities practise listening skills. They are in particular suitable for auditory learners. The simplest way to practise the use of lexis, which is being learnt, is to test the forms and collocations of the word. The teacher reads the central word and elicits desired forms and collocations from the student.

Example – Word-formation:

T: *Give me a noun of the verb 'replicate'.*
S: *Replication.*

Example – Collocations:

T: *What can we set up?*
S: *Business, organisation, company.*

A lexical field game is another speaking activity that also practises the forms of the word. It is based on the context branches of the map. The teacher reads the words from the context and collocation branches and asks the student to make a story or sentences including the given words.

Example – Lexical field:

T: *I'm looking for* ***an adjective*** *connected with having* ***lots of money*** *and* ***possession****, it describes* ***people.***
S: *Wealthy.*

T: *Make a sentence from (create a context for) some of the following words - tragedy, violence, furious, take revenge on sb.*
S: *In Shakespeare's tragedies characters take revenge on somebody because they are really furious.*

Other activities are based on associations. The first activity is very simple. The teacher takes student's cards and reads the central word; the students then react with their association, the first word that comes to their minds.

Example – Personal associations:

T: *Chimney sweep.*

S: *Luck.*

A slightly more difficult activity can be done with a student of higher level; in this case, the teacher reads the branch with the sentence and the student completes the missing word and reacts with another sentence that could logically follow to make the story continue.

Example – Sentence branch:

T: *Forrest Gump _____ for the bus.*

S: *Is waiting. Forrest Gump is waiting for the bus. He is sitting on a bench at a bus stop.*

Besides listening skills, mind map cards also help to practise writing. The following activity recycles words from the stock box and thus should be done as homework. The student is asked to pick six random words (cards) from his or her stock box and write a one-hundred-word story using all of them. As the cards already include the correct collocations, forms and typical context either grammatical or lexical of the central word, it helps students to learn to use the words correctly and to reduce a negative influence of their first language (Kacafírková 70).

5. HOW TO USE MMB WITH GROUPS

The following activities are designed in particular for groups. First, various speaking activities will be presented, which can be used in individual courses as well. Nevertheless, they seem to be more suitable for groups as students compete against each other in them. Second, completing handouts will be described as an alternative to the basic use of Mind map box.

5.1. Speaking activities

Mind map box activities practising speaking skills are based on inventing stories and context from the words on cards. In the first type of games, two different cards are used and put together. It can be done through a ***domino*** or **a *pelmanism game***.

For a domino game, you need ten cards with the words you want to practise. One card is chosen and put aside. The aim is to get rid of all the cards. Students play in pairs or small groups. They take turns and add one of the ten cards to the chosen one and make a sentence or sentences including both words. They do that with the rest of the words, card by card, and create a chain of the cards like in the traditional domino game, so every other new card has to be added only to the card which is at the end of the chain (left or right). In a pelmanism game, the situation is similar. However, this time all the cards are on the table face down. Students pick two cards and if he or she is able to put them in the same sentence or context in a time limit, he or she wins the cards. The words can be used in any forms and word classes. These activities are suitable for all levels of students.

Example – pelmanism game:

> Words picked out by a student in a pelmanism game: *hard-working, paint.*
> S: *He is a very hard-working painter.*

Other speaking activities are more creative and facilitate thinking in English. The following games are rather time-consuming; they on the other hand practise speaking, fluency, active use of the words and creativity. As they require basic fluency, I would recommend to play them with students of pre-intermediate level and higher. For the first game, called ***Story teller,*** you need six different pictures or photos for each group of students. They ought to be selected carefully to elicit as many associations as possible. The six pictures are on the desk face up. Students pick six word cards from their carry-on box. The task is to connect words with pictures and make a short story, then leave the word card on the picture. Students play in small groups of 2-4 and take turns. In one round, they can connect only one word to the picture or add another word to the picture where there already are some words connected. In this case, they need to use all the words which lie on the picture. Who adds the third word and connects all the words in a short story, wins the picture. After using a word card, he or she takes another one from the deck to have again six words in their hands.

Another game is called ***What is the connection?*** and is also based on associations. Each student (or a student and a teacher) holds six pictures in his or her hands. There are four word cards on the desk face up. Students pick a picture and search for a connection between this picture and one of the word cards. Then without a word put the picture on the desk face up. The other students then must guess which word had his or her partner connected to the picture and why (what is the connection). After making a guess, students reveal their connections and explain the reason. The word (words) that has (have) been used will be swapped for new ones.

Finally, there is a game called ***Freud's dream,*** which is also played in pairs. One student plays the psychoanalyst Sigmund Freud and the other is his patient. The patient picks a word card and invents a dream he or she had last night using this word. It is important to repeat the word more times in the story. The psychiatrist repeats what the patient said, and then gives an interpretation of this dream and provides some recommendations. Then students swap the roles.

Example Freud's dream:

> Patient: *Doctor, I had a very strange dream last night, in my dream there was a huge **icicle hanging from a roof**. I was standing under the roof and the **icicle** was exactly above me, but I couldn't move. This **icicle** was about to fall down and kill me. What does it mean, doctor?*
>
> Doctor: *Well, it is a very strange dream, indeed. So, there was a huge **icicle hanging** above you and you couldn't move, is it right? Dreaming of **icicles** usually means that you are in a danger. This **icicle** represents some fear that is hidden in your mind. Is there anything you were supposed to do but you didn't because you were too scared? When you find this cause of your fear, you will never dream about **icicles** again.*

Experimenting with words is a crucial feature of the above mentioned games. For learning vocabulary, it is very important to know how to use the word, but also how not to use it. The teacher goes round the class and monitors, corrects and helps students to use the words correctly and eliminates wrong collocations, register and

grammar. One would say that for those games, it is not necessary to have mind map box and simple flash cards with mere English forms would be sufficient; however, it is not the case. Those flash cards would not be as effective as in mind map box cards where you can find the following advantages. First, the correct forms and collocations are provided on the cards and students can practise the correct usage of the words and facilitate the recollection. Second, they can add more information to their own cards while practising, according to the teacher's or peer's recommendations, for example, different register, information about grammar of and word, more collocations, word-formation. Third, students practise the vocabulary they really need to practise, because the words are taken from students' carry-on boxes. If the teacher takes a list of words from a textbook or an activity book, the words which they practise might be too easy or too difficult for the particular student. This is also the reason why those activities can be used for various levels, yet not complete beginners. The given words will set the level of their speech and the level of the game in general.

5.2. Handouts

Using Mind map box in the original sense means to be familiar with the basic rules of completing and learning from the cards, and it obviously requires some practise. Unfortunately, there is not always possibility to dedicate time to teach MMB technique in all courses. However, regardless of whether teachers use MMB with students or not, they still can use handouts based on this technique, which are easier for students to use, and they still bear the essential features. They serve as almost ready-made cards and can be used regularly after finishing a unit or randomly as some additional work. The greatest advantage is that those tailor-made handouts practise the vocabulary which should be recycled. The teacher picks ten most important lexis from the unit and creates the cards in a Mind map box computer programme. Then, he or she deletes some words from the branches and generates the missing words into a table. Students' task is to complete the map (according to an example card) by using the words from the table. For those students who do not have experience with this technique, the cards ought to be simple with fewer branches than in the original mind map template.

Three examples of such handouts are introduced in the *Appendix II.* The first example was used with a group of four adult learners of elementary/pre-intermediate level. This group gets such handouts regularly, and the students are familiar with them; moreover, after completing, the students cut out the cards so that the cards can be used for the activities described earlier. The second example is from a course of general and media English at the College of Media and Journalism. During the course, several mind map handouts are used only as voluntary work for students to practise words required for the exam. Students can get some extra points if they complete the handouts. The last example is from a mind map box course at the College of Media and Journalism. Those students are taught the technique from the beginning of the course and are used to completing the cards on their own. The occasional handouts serve as a help to teach the students to complete it properly and for their best benefit.

Moreover, handouts can be designed not only as an individual task but also as a pair work activity. Figure 5-1 shows an example from a jigsaw game, in which students are given ten incomplete cards. First of all, they try to complete the missing branches; then they check their answers with their partner who is also given a handout with incomplete branches, but in his or her case, different branches are missing.

Figure 5-1, Jigsaw activity – Student A and Student B

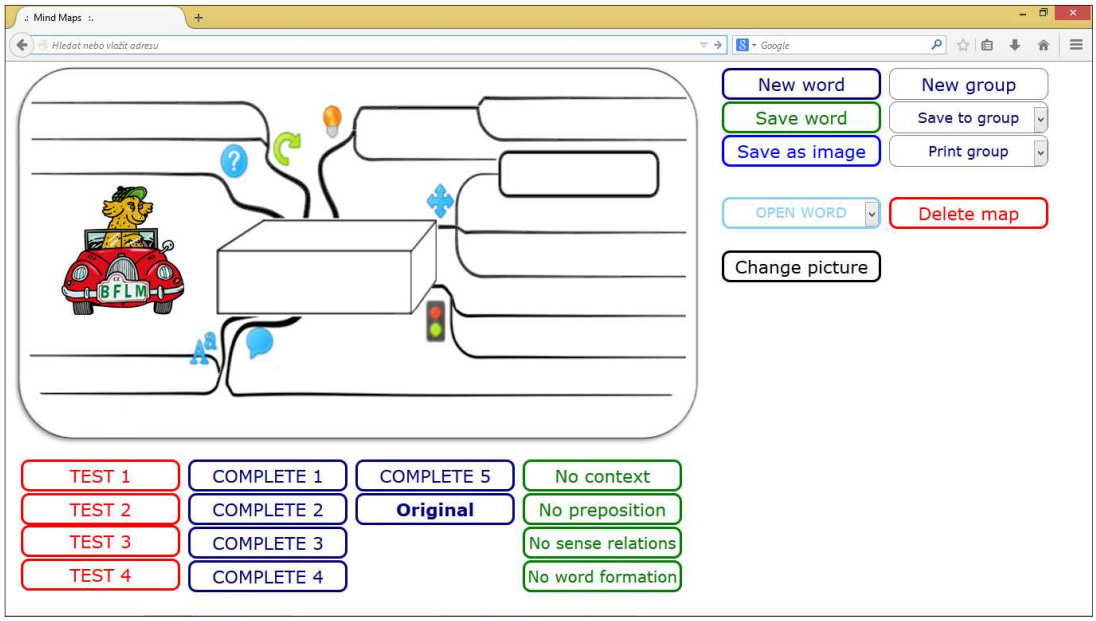
6. TEACHERS' MANUAL – COMPUTER PROGRAMME

Not only is MMB beneficial for students but it brings advantages also to teachers. First of all, in case of one-to-one course, the teacher always knows which words is the student currently learning – not only the words they come across in the lesson, but also all the lexis encountered outside of the class. Additionally, the teacher can prepare more activities and create more exercises to practise those words very easily just using the word cards. A computer programme has been developed to make working with the cards easier and more accessible. So far, it can be used only by teachers, but the plan is to expand the programme so that it can be used by students in the class and as home study.

Figure 6-1 shows the interface of the MMB programme. As you can see, there is a MMB template into which it is possible to type the information about the new word, add a picture and save it into a database. This way, the whole database of words can be created and later used for further work (preparing handouts, exams, and class testing). Each word can be added to a certain group. It is possible to make various groups based on units in textbooks, lessons, courses or any other criteria. Besides database, the programme serves as an exercise tool. If there is a projector in the class, the teacher can use the programme to practise the words with the whole class using the *test* buttons that represent tests 1-4 described in the chapter 3-3. The saved cards seem to be also useful for creating end-of-the course tests or progress tests using the information from the mind maps. The teacher can just go back to the completed words and use the sentences and collocations to prepare matching, gap-filling or multiple choice exercises. Moreover, it is possible to create jpg images from the cards, so they can be used for games and further practise in a class.

Preparing handouts is another important usage of MMB programme. First of all, the teacher has a possibility to delete some branches and make the cards simpler, easier, fitting the students' needs and level. With the help of the *complete* buttons, which delete the contents of particular branches, teachers prepare half-completed cards and create handouts described earlier. Afterwards, the missing words can be generated into a table only with one click on the *print group* button.

Figure 6-1, Computer programme MMB



7. APPLICATION OF MMB – ONE-TO-ONE COURSES

I have been using the technique with most of my students from one-to-one courses, with some of them more than two years. In my master thesis, observations and analysis of four selected students were offered. This chapter provides these observations exactly as I present them in my master thesis (Kacafírková 71-84) to draw the difference between the use of MMB in individual courses and groups which will be described later on.

7.1. Different students′ needs

All of my students described below are attending one-to-one courses. They are young working adults in their late twenties, two women and two men with different levels of English.

The first student (S1) is a woman aged 27. She is a beginner and she has been using this technique for three months. The main reason we started using MMB was her dyslexia and the difficulties with learning languages in general. Owing to her disorder, she tended to worry about the new vocabulary and was rather anxious about mistakes. She is also preparing for a long stay in the United Kingdom and needs to learn effectively and quickly to gain a basic fluency in the language. The technique was supposed to make learning new vocabulary easier for her and thus build up her self-confidence in learning English. Moreover, as she admitted at the beginning of the course, she tended to lose motivation and she usually gave up each language course after a few lessons. Therefore, the other aim was to help her with her motivation. This student has been using the technique from the very beginning, so it has been proven that it is suitable even for the students with no knowledge of English language. She seems to enjoy using the cards. I could observe that after some time she got over her shyness while speaking. She learned to connect the new words to English songs as she had already known the lyrics but not their meaning. That mnemonic device facilitated her recollection and quick reactions. Thanks to the collocation and word-forms branches of the cards, we could practise grammar while learning vocabulary during the lessons. Moreover, as she learns the words in

whole chunks (*wear glasses, wait for, live in a flat*) it helps her with making sentences. In comparison to other beginners who do not use this technique, I have noticed less strong influence of Czech language while using prepositions and other collocations.

The second student (S2) is also a 27-year-old woman, this time of a pre-intermediate level. She has been using the technique for four months now. I had been teaching her for a year before she started with Mind map box, therefore I can draw an accurate comparison. I suggested starting with MMB when I noticed the ineffectiveness of her notes. She used to write down the new vocabulary into the same notebook that she used for her grammar notes and she recorded it in traditional English-Czech lists. I noticed that she kept writing down the same words repeatedly. Moreover, I observed some interference among the unrelated words in her list. She had also some difficulties with word-formation and she used to confuse different word classes. Another reason for incorporating MMB was the necessity of enriching her vocabulary while preparing for the PET Cambridge exam. Thus the aim of using MMB was mainly to avoid wrong collocations and interference and replace them by the correct ones, draw the differences between word classes and extend her vocabulary. Since she started to use MMB, her ability to choose the right word class and collocation has increased. The amount of the new words has advanced as well since now she learns the word just once.

The third student (S3) is a 29-year-old man who has been using the technique for over a year now. His level of English is pre-intermediate. I did not notice any special problems with remembering vocabulary. However, as his education was always focused rather on technical studies he had never been taught any language properly, and thus he had not adopted any good strategy to learn languages. The task for MMB in his case was to overcome his occasional hesitation and lack of fluency. Furthermore, the aim was to help the student to develop metacognitive skills and adopt effective strategies to learn vocabulary. This student has been using MMB the longest, therefore the effect has been most noticeable. The most significant influence I can see is when we encounter a new word he always automatically asks about its collocation. Apparently, he now prefers learning in

chunks. He has started to be more independent in learning vocabulary. He observes and learns new vocabulary from some other sources beside the textbook, such as articles, simplified books, or people and announcements he encounters during the day, and he remembers the typical context, either grammatical or situational, of the new words. As it will be shown in one of the following chapters, he has even designed his own template card observing the MMB rules that suits him best.

The last student (S4) is a man aged 29 of an intermediate level who has been learning via MMB for five months. He is rather communicative and a very imaginative and creative person. He also enjoys reading simplified English books. I recommended the technique to him to facilitate remembering vocabulary from his reading and support the change of mere passive knowledge of those words into an active use. He was also interested in alternative and effective strategies of learning vocabulary. As he tends to think in pictures, there were no doubts that MMB would suit him. Moreover, at this level, students learn more specific words and the vocabulary becomes much richer; thus working with synonyms and different collocations is crucial. Different types of phrasal verbs, register and colloquial expressions are introduced at this level, so the theoretical knowledge of the language is much detailed. MMB is supposed to make the orientation in metalanguage and terminology easier. It turned out that this type of students, thanks to his creativity and visual preferences, was the most suitable user of the technique. He seems to be very motivated to learn vocabulary now. I have also noticed an improvement in an active use of the new words while speaking, and in particular in writing activities he very often incorporates the new vocabulary. Furthermore, using mnemonic device greatly intensified his recollection of the learnt words.

7.2. Different mind maps

In this chapter, some samples of my students' cards will be provided. Different approaches to MMB will be apparent from the examples. The dissimilarities are caused by different levels of students, but more importantly, by their different learning styles and personalities. We usually come across about ten new words each lesson with our students. I have been using the technique with my students for some

time, so I had a wide range of cards to compare. I picked four cards from each student to demonstrate their most typical features.

First of all, figure 3-1 illustrates the cards of S1, a beginner student. As you can see, almost all branches in the cards are filled. She adds the information to the cards in successive steps, which is also a good practice for her. This student usually uses some pictures to accompany the information about the word. At her level, a great number of new words is concrete and easier to picture than at higher level when more abstract words are learnt. She also uses some mnemonic device for words that she does not remember well; for instance, she added *Men in trees*, which is a title of a drama series she watches, to a *tree* card. We also usually fill together the word-formation and word families branches, so she can learn more words at once without any problems, e.g. *glasses* and *sunglasses*, *heart* and *sweetheart* – this word she already knows from a song, it helps her with pronunciation of the word *heart* (especially difficult for the Czech learners). Moreover, some context branches (or hyperonymy) are completed as well, such as *body parts* in the *heart* card, or *nature* in the *tree* card. If a preposition is required, she fills it as well to be sure how to use the word in a sentence, e.g. *I go on a date.* However, we do not work very often with synonymy/antonymy branches as this kind of information would cause some confusion for students with dyslexia.

Figure 7-1, S1 Beginner student

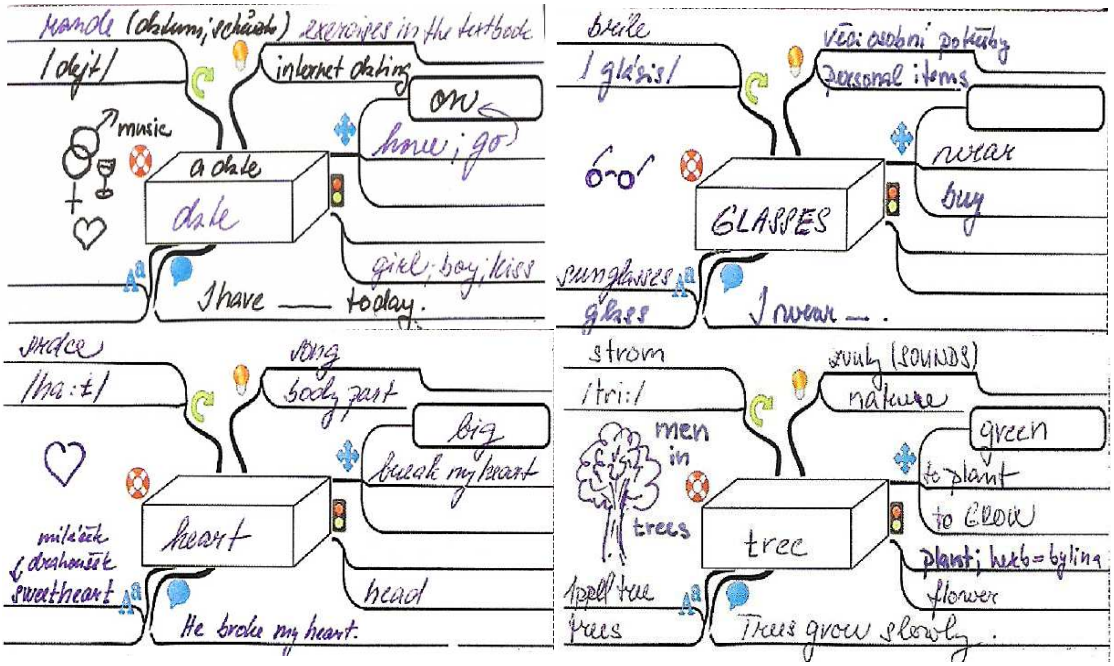


Figure 3-2 illustrates the style of Student 2. At the first glance you can see that the student uses a pencil to complete the cards, which is quite practical when she needs to make some corrections; on the other hand, it makes the card less contrasting. As it can be seen, she usually adds a picture to the words. However, she does not use the keyword method or any other mnemonic device; she rather uses illustrations to demonstrate the meaning. It can be also noticed that in all four examples the branches for sentences are filled. In her case, the sentences do not serve for practice (as she does not leave out the central word) but as a demonstration of a grammatical and lexical context of the word. In this manner, she can see the correct form of the word in the sentence, which is easier for her and it avoids confusion. The student also uses branches for hyperonymy, if it is possible. To demonstrate that, she wrote *Mammals* on a hyperonymy branch in the *hedgehog* card. This kind of categorization helps to connect the old and the new piece of information, and therefore encourage the recollection of the word. Moreover, this student always fills in the word-formation branches so that she can see the differences between the word classes and learn them together with the new word. It teaches her to remember typical suffixes of particular word classes.

Figure 7-2, S2 Pre-intermediate student

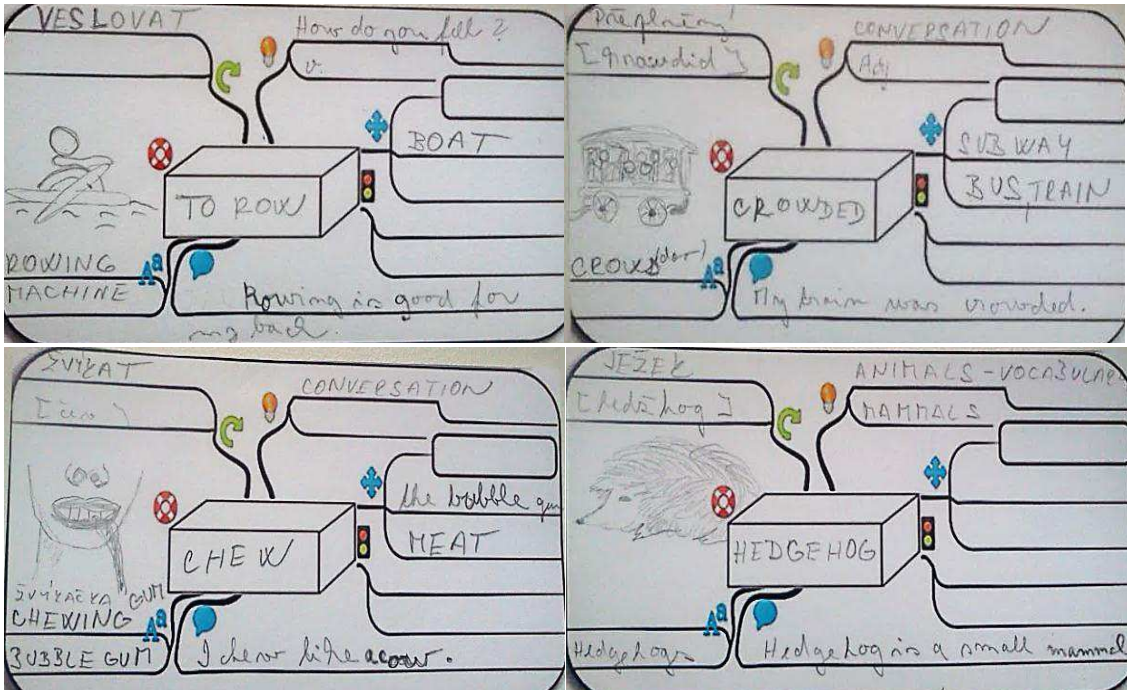
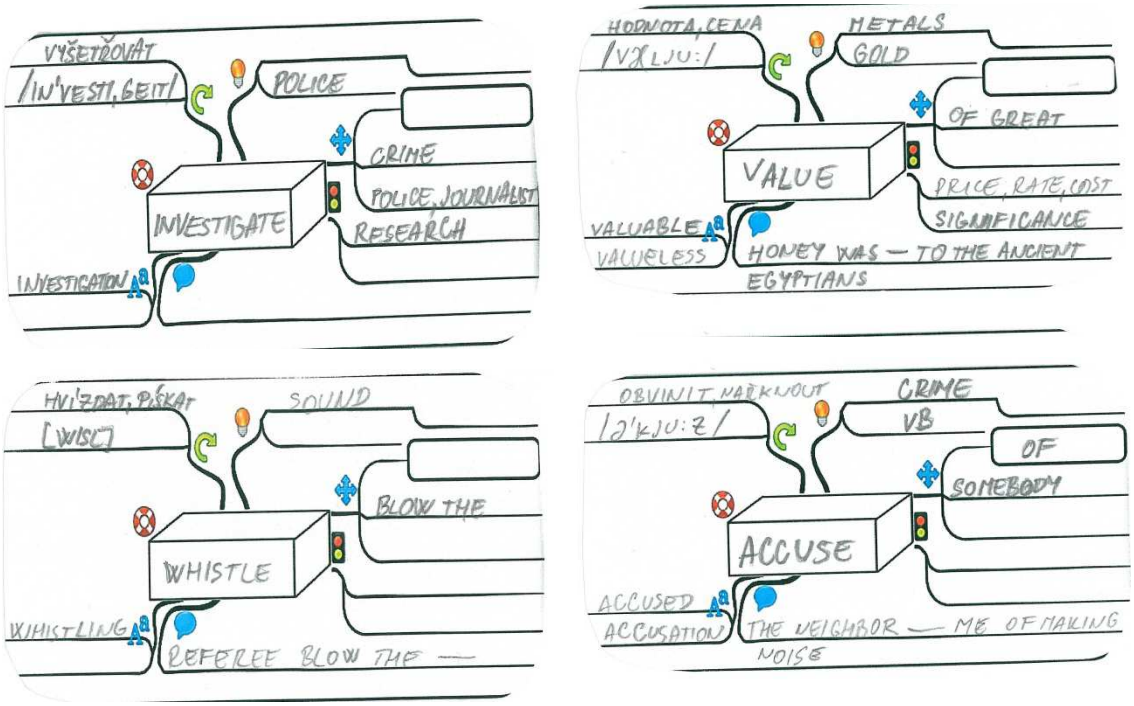


Figure 3-3 shows the cards from Student 3. His style of completing is very simple. He uses just a pencil and does not need any special effects such as colours, pictures or other symbols. The mnemonic device is missing as well. As you can see, some branches are left blank, for instance some context branches or a sentence branch. However, the most important information, such as collocation or word formation is added almost in all cases. To demonstrate that, you can see in the *investigate* card the following collocations: *investigate-crime*, but also *police-investigate, journalist-investigate.*

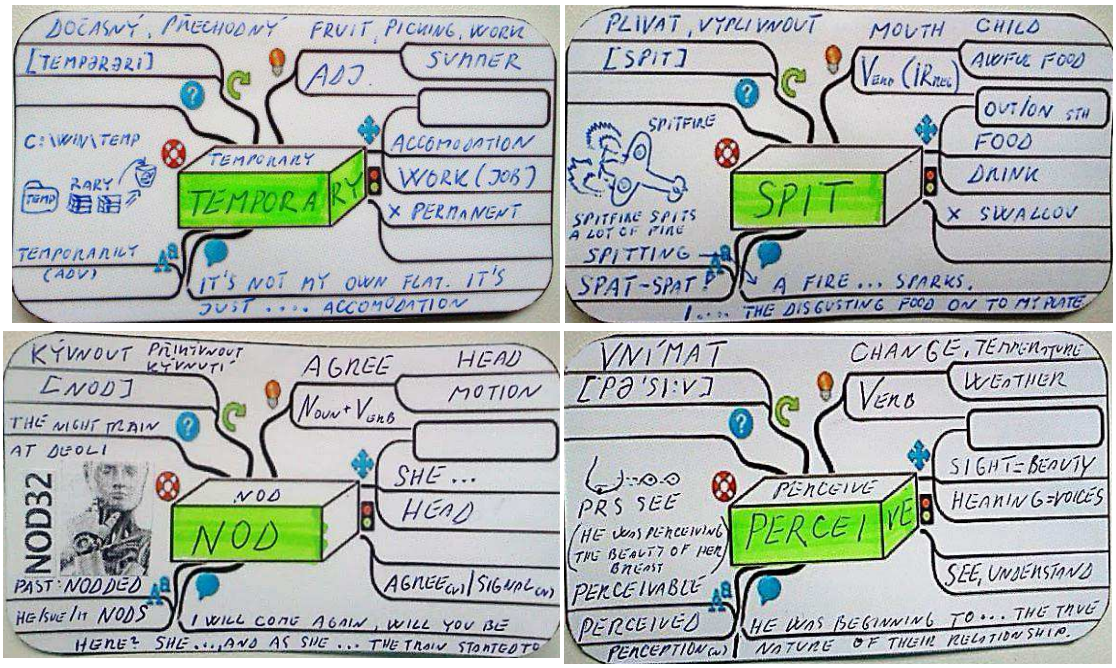
Figure 7-3, S3 Pre-intermediate student



In comparison with the former student, student 4's cards are almost completely filled. As you can see in Figure 3-4, he always highlights the central word, uses pictures and his personal associations. This student is a typical visual learning type, and that is the reason why the keyword method works for him. He uses his personal associations to create an illustrative connection to something familiar. Moreover, proper work with a dictionary is apparent here. The dictionary helps him to add more collocations, for instance *temporary-accommodation*, but also *temporary-job.* The pronunciation branches are completed as well. As you can see, he is learning to use the International Phonetic Alphabet, which appears to be very useful since it is

used in most monolingual dictionaries. He also uses branches of mind maps to point out some irregularities, grammar context and word-formation. For instance, in case of the *spit* card, he marked the verb as irregular and added the past form and past participle.

Figure 7-4, S4 Intermediate student



7.3. Different opinions

From the above described observations it can be concluded that the technique is suitable for various types of students with different needs and that some positive results were achieved. Nonetheless, the mere observations are not sufficient for answering the question, whether the students consider the technique convenient and helpful, and thus whether they will adopt it and use without teacher's support and supervision. In other words, the inner insight was necessary. This is the reason why a short questionnaire was designed and given to the students to complete. The main points of students' ideas will be introduced here. The questionnaire consists of eleven questions concerning the time dedicated to learning, the type of completing

of the cards and self-testing, evaluation of activities done during the lesson, and the method in general.

1. **How much time do you spend on MMB at home? Do you study while commuting?**

The technique was designed to make learning more accessible. A carry-on box with the brand new words should be taken everywhere and used whenever the student finds a few free minutes to practise. Ideal opportunity is while commuting, travelling, waiting at the doctor's, etc. Based on the students' answers, it can be assumed that students are aware of this beneficial feature of MMB and use it quite often. Moreover, it seems that students are used to practising the words regularly. S1 practises 10 minutes on a daily basis, she also learns while travelling, long or short distances, and if she travels with friends, they use the cards to test her on the new words. S2 also practises regularly, 15 minutes a day, as she is commuting to work she learns on a train and underground. S3 spends about one hour a week practising and creating cards at home. Then he mainly practises on the way to work. S4 dedicates the most time from all the students. He spends about two hours every couple of days by creating cards. He goes by car to work so he practises exclusively at home.

2. **Do you always fill in all the branches in the card? Which branches do you always complete and which are usually blank? Which branches are in your opinion of no use?**

MMB includes branches that are obligatory, which are considered crucial for the technique, and are highly encouraged to complete, such as collocations/preposition, word-formation, pronunciation, translation, and in some case grammatical context/register; and optional branches that are rather personal and help with recollection, such as mnemonic device/picture, sense relation branches, context and sentence. The question was asked to check if the students feel the importance of obligatory branches and if they appreciate the possibility of completing optional branches.

It was proved that the students complete the obligatory branches almost in all cases. S1 tries to fill in all the branches step by step, mainly for those words that she needs to practise more. She considers completing a card as a kind of exercise which helps her to remember the new words better. S2, besides the pronunciation, word-formation and other obligatory branches, she mentioned also the source branch that she usually fills in as well. S4 points out that he usually leaves blank those branches that are not necessary or impossible to complete, in connection with a particular word class or word (for instance, if there is no antonymy for a particular word). Moreover, he adds that he usually skips the source branch as he very often encounters a new word while creating a card for another one, so there is no specific context that would trigger his memory. There were no mentions about useless branches in the students' answers. The students consider all branches useful and important. S3 states that the reason for leaving some branches blank is a lack of time.

3. **Do you use any mnemonic device? Which one? If not, why?**

Three students (S1, S2, S4) agree on using mnemonic device or a picture for more complicated words or words difficult to remember. S1 says that she sometimes adds a picture or some mnemonics if she finds out that even after some practice she is not able to remember the word. S4 uses the keyword method. As he explains, sometimes the picture represents a *mini-story* that includes some triggers to his memory. As to S3, although he considers the mnemonic device good to use, he does not use any. He mentions not enough space in a card and his lack of imagination as the main reasons for not using it.

4. **What activities do you use to practise and test vocabulary from the card?**

The aim of this question was to reveal which techniques the students have adopted, and which they are used to using, in addition to the activities we do together in the lesson. It turned out that the students differ slightly in the style of practising and testing. S1 mainly does translations into English, when she covers all the branches except the Czech translation and tries to recollect the English word and its

collocations, then she recollects or makes similar sentences to those that she has on the sentence branches. On the contrary, S2 uses mostly the English-Czech translations. She reads all the branches except the Czech branch and tries to recollect the meaning. S3 also uses mainly simpler testing. He usually does the classical Czech-English translations, and he uses the other branches to help him with the recollection. S4 besides the translations does some more variations, such as testing the collocations, reading (memorising) the whole mind map and generating new sentences.

5. **Which activities that we do in the lesson do you consider most effective, most entertaining, most demanding?**

From the students' answers and also from my observations I can conclude that domino and pelmanism seem to be the most entertaining activities, whereas 100-word-story the most demanding and effective, however not so popular.

6. **Why did you decide to use the technique? What has the technique helped you with?**

This question was designed to prove if my expectations met with the expectations of my students and if any of them were fulfilled. The results appeared to be very positive. The task for S1 was to help her to overcome her difficulties with learning vocabulary caused by her dyslexia and increase the motivation to learn. She herself says that she uses the technique because it is comfortable; the cards are space-saving and can be used wherever. She considers the technique fun and motivating, as it helps her to dedicate more time to English. It is easier for her to do a ten-minute practice every day with the cards than study something from the book. She usually did not open the textbook at all in the past, but opening the box and practising just a few minutes every day is not seen as a problem.

The expectations for S2 were to help her with the difficulties with remembering new words and enriching her vocabulary. She says that she wanted to try a new strategy which would help her to remember more complicated words, as she had always had problems with memorising words from the traditional English-Czech

lists. She thinks that learning with MMB is fun and effective. Moreover, she admits that it helped her to transfer the new words into active vocabulary.

One of the aims of MMB in case of S3 was to show him some alternative strategies to learn. What he says is that the technique helped him to understand how to learn vocabulary properly. Thus it can be assumed that this aim was fulfilled. As to S4, in his answer he emphasises the creativity of the technique in the comparison with boring traditional memorising. Moreover, as he claims, it helped him with enriching vocabulary and dedicating more time to English.

7. **Do you think you remember new vocabulary better than before you started using MMB?**

As S1 points out, she feels that she can remember the new words much better since together with the word she also picks up the collocations, and therefore she knows how to use it in a sentence. Moreover, it helps her with the recollection. She adds that in the beginning, she did not believe in it much but now even people around her noticed that the technique had helped her.

The answer of S2 was also positive. She says she can remember the words better and she recollects the collocation and a sentence she has in the card. S3 admits that before he used just traditional lists for learning, which he now finds insufficient. S4 considers his learning and remembering vocabulary more comprehensive than before.

8. **Do you feel more motivated to learn vocabulary while using the technique?**

S1, S2, as well as S4 feel more motivated to learn vocabulary than before. S4 adds that the reason is the creativity of the technique. S3 considers MMB more pleasant rather than motivating.

9. **Do you work with a dictionary?**

S2, S3 and S4 admit using the monolingual (English-English) dictionary, more often than before. They consider it necessary for proper completing of cards. S1 says she cannot compare as she is a beginner and she is only learning to use dictionary.

10. What are the advantages and disadvantages of MMB?

The advantages of MMB mentioned by the students mostly concern the comprehensiveness of learning vocabulary. S3 as well as S4 appreciate that they have more information about the word together at one place. S1 likes the variety of testing and practising activities that can be done with the cards, and that she does not have to be forced or persuaded by anybody to learn, MMB itself is motivating for her. S2 also points out the various possibilities to practice. She also considers the technique fun way of learning, and she appreciates that it supports active usage of new words. S3 underlines the advantage of learning and consolidating new vocabulary while completing cards. S4 believes that he can learn greater amount of vocabulary with this technique, as he also comes across some new words while making a card.

As to the disadvantages, for S1 the cards seem to be too small for so many branches. She would rather appreciate more space for the words. From time to time, she also has problems with identifying which branch she should use for which piece of information. S2 as well as S4 consider the technique time-consuming, whereas S3 sees the biggest disadvantage in manipulating with cards; for instance, on the public transport, where there is a possible danger of dropping them and losing them.

11. How would you change the design of the card to suit you better?

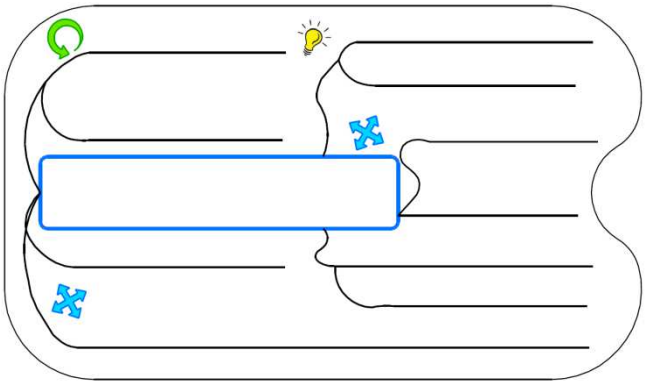
Learning to complete the cards properly and using it regularly, those are only the initial aims of the technique. However, the secondary focus of MMB is on helping students to develop their metacognitive skills. One possible way is to let them do things their own way and let them experiment. This is the reason why this question is more important for students themselves than for my research. It was supposed to

make them think what they would change to fit the technique to their personal needs.

In general, students seem quite satisfied with the cards. Whereas S2 did not suggest any improvements and said it had everything she needed for learning, S1 made some comments on the design of the cards. She would make the cards bigger, instead of a 3D block in the middle, she would prefer only a simple box, and she would add different symbols to the branches that she could understand better. An interesting comment was made by S3 and S4 who both suggested using the other side of a card. S3 thinks he could use the space of the other side for a mnemonic device.

S3 has been using the technique for the longest, and thus the question of adjusting the cards to his needs has been already discussed. After he learnt how to use the original cards properly, he developed his own design of cards following the basic rules, such as keeping the obligatory branches. The rest (size, design, length, colours, symbols) can be changed according to individual preferences. Figure 3-5 demonstrates his card template that he has been using for several months.

Figure 7-5, Student's original design of MMB



As you can see there is no space for a picture or a mnemonic device, the central frame is much wider and there are fewer branches (there is no source branch, just one branch for word-formation, and one for context instead of three and two for collocations/preposition instead of three). He also changed the shape of cards for better manipulation.

7.4. Conclusions & results

From my observations, it is apparent that the technique can be used for various tasks related to learning vocabulary. The observations have proved that students do have various expectations and preferences. Different students can enjoy different benefits of MMB. It has been shown that the technique supports regularity in learning and practising. Thanks to MMB most of my students (not only the four mentioned) practise new vocabulary more regularly, as the cards are ready to use whenever and wherever. Some students appreciate its effectiveness and comprehensiveness in learning vocabulary. It seems that the wide variety of practice and self-testing that MMB offers together with its creativity make the technique motivating and fun for adult learners. Although they consider the technique slightly more time-consuming, they are still willing to spend the time on it.

A significant conclusion which can be drawn is that in general, adult learners feel satisfied with the technique and will most probably continue using it after we finish our course. It seems that they have learned to use a monolingual dictionary to look up synonymy, collocations and other important information about the words. Moreover, they have discovered the possible advantage of mnemonic devices. In this manner, students can adopt important skills for learning vocabulary (Kacafírková 71-84).

It has been over a year since the research was conducted. S4 passed successfully FCE exam and at this moment, he is on his travels. As far as I know, he still uses MMB with all the original features for learning new words. We had finished course with S1 before she left to the UK and I am not currently in contact with her. S3 and S2 are still continuing with the course and we are still using MMB for new vocabulary. Moreover, at this moment I am using MMB also with a pre-intermediate student in her late thirties, another pre-intermediate student in his fifties, and with one elementary student in his fifties, who finds learning language extremely difficult, mainly due to dyslexia. Especially for him, I prepared a simplified template card which bears less information.

8. APPLICATION OF MMB – GROUPS

As it was noted earlier, the technique was designed not only for one-to-one courses but also for groups. Thus MMB has been applied to a group of students from the College of Media and Journalism to demonstrate a possible usage of this technique in courses with more students. Here I present my observations.

8.1. Course description

The course, called *Reading news,* in which MMB was applied, focused on critical reading. Ten students at the age of 19-21 of upper-intermediate level were attending the course. It consisted of ten ninety-minute teaching lessons and one revision lesson. The whole course lasted eleven weeks. The aim of the course was to introduce to students the most important British and American media, analyse the contents and language of the articles and reports, and enrich their vocabulary in terms of media language. We concentrated on newspaper articles, but also on style and register, formal and informal language, pronunciation, and written versus spoken language.

MMB as a learning strategy was incorporated to show students how to learn vocabulary more effectively. We were using the technique since the very beginning. The first lesson was dedicated to an explanation of the general principles, and then each lesson consisted of a media part, in which we worked with articles and reports, and a language part, which focused on a particular branch of a MMB card (collocations, sense relations, associations, register etc.). After each lesson, students were supposed to complete ten mind map cards as homework, and thus learn ten words from the lesson. Altogether, students learnt 90 new words via this technique and created 90 MMB cards. Either they completed cards on their own or via handouts. At the beginning of each lesson, there was a revision of the new words from the last week, either via very quick whole-class tests (using the computer programme) or through activities described in chapter 5-1. The last lesson students were given an end-of-the-course vocabulary test to check if they were able to learn

those 90 words, understand some concepts such as idioms, register, headline English, and if they were able to use the technique MMB.

8.2. Assumptions

Before the beginning of the course, I formulated several questions concerning usage of MMB in the whole class. Those questions were at the same time the primary objectives of the course from the teacher's point of view. First of all, I asked: **Is the technique understandable enough to be explained in ten-week time and are the students able to learn it without difficulties?** In one-to-one course, the teacher can spend as much time as the student needs on explaining and practising the technique. That is however not possible with the whole group. There is limited time to spend on checking if they use it correctly. Thus the technique ought not to be too complicated. It should bring order not chaos to students' learning.

The second question was the following: **Does the technique help with development of metacognitive skills in learning language?** The observations done in one-to-one courses showed some positive results in this sense. It is not absolutely necessary, whether students will continue using the technique without any changes after the course finishes. Nevertheless, the most important task of MMB is to teach students certain strategies in learning vocabulary that they would fully adopt and carry on using, such as learning in chunks, focus on collocations, using situational and grammatical context to know how to use the word, understand the terminology of monolingual dictionaries etc. Learning metacognitive skills is highly stressed in primary and secondary education at this moment. Therefore, this question was crucial as it would imply if the technique could be also applicable and useful at high schools and primary schools.

The third question concentrated on support of recollection: **Does the technique help students to remember vocabulary effectively?** Having considered the effect which the technique had had on students in one-to-one courses, I assumed that it could be similarly effective in groups. MMB supports comprehensive learning of vocabulary, it helps to create more connections and therefore remember the words

deeply and for a long time. However, the main question was, if ten-week time would be enough for students to realise the importance of cognitive depth, and whether they could feel the efficiency of the technique in their language production.

Finally, the question about motivation cannot be avoided: **Do the students find the technique motivating?** In one-to-one courses, adult learners enjoyed completing and learning from MMB, and thus felt motivated to learn English. The situation is however different in this course. Even though the students are in their early twenties, in terms of a life situation, they have more in common with teenagers from high schools rather than working adults who decided to attend a language course. I wanted to observe, whether they enjoy completing cards and learning from them, although it is rather time-consuming in comparison with simple memorising Czech-English translations. Moreover, the question was, if the activities and games based on MMB technique would be appreciated as useful or considered as a waste of time by the students.

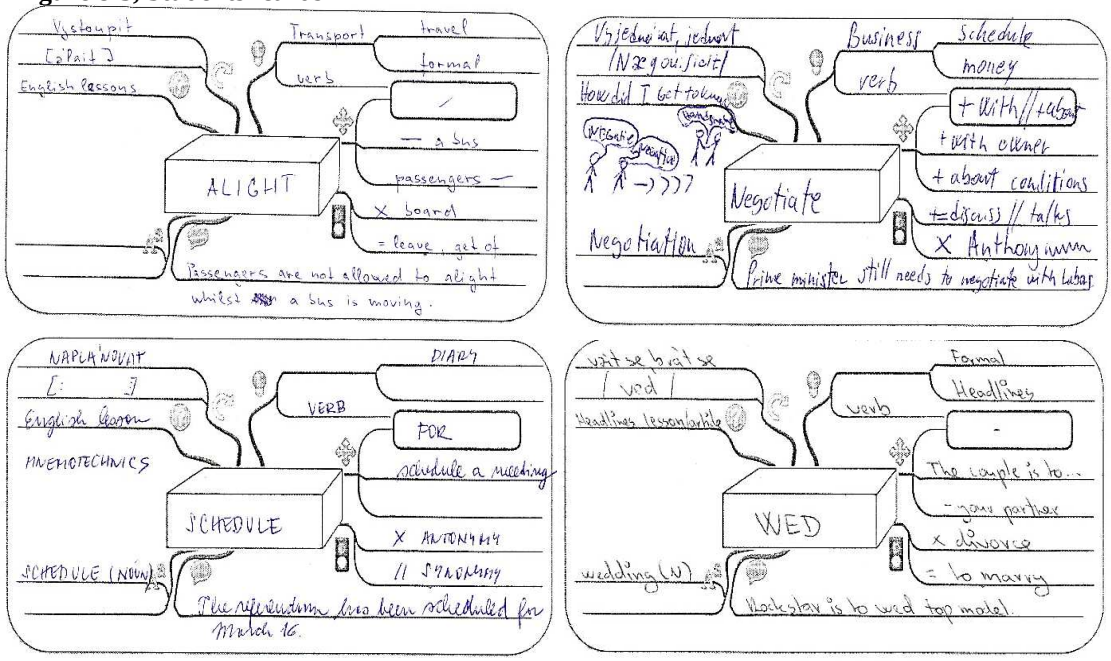
8.3. Course observations and students' answers

The following chapter shows if my expectations met with students' results and opinions. There were several ways to check it. First of all, the above mentioned end-of-the-course test was designed. It consisted of nine exercises of various types: matching, gap-filling, translation, word-formation, odd-one out exercise, and one exercise dedicated especially to MMB technique. Moreover, at the end of the course, each student handed in 90 cards which they had completed and learnt throughout the lessons. Students' evaluation of the technique was of a great significance for this survey, thus a questionnaire was prepared to analyse their opinions. The questionnaire consisted of seven closed or half-open questions with one or more answers to select, and students own commentary. The questionnaire can be found in the *Appendix V.* Some questions were added to encourage students to express their opinions in their own words. Only those students whose absence did not exceed 70 per cent, participated in the questionnaire. There were eight students who fulfilled the conditions.

8.3.1. **Question of accessibility**

The first assumption was about accessibility and understanding the technique. Throughout the course, I could observe that students picked up the rules of the technique very quickly and were not confused of completing the cards. It soon became apparent that students of upper-intermediate level are able to work with the technique independently. This was also confirmed when I checked all students cards at the end of the course. Not only did I find out that students were able to understand the technique and complete the cards as homework, but I also learnt that they were able to use MMB on the spot without any hints. This was proved by one of the tasks in the end-of-the-course test. In the test, students were supposed to pick whichever word they had learnt in the course and complete a blank template. If they did not know exactly the form of the word to write into some branches (or if there was no option for this word in this branch), they were allowed to substitute it with a general term for this particular branch. All students were able to finish this task successfully. Most of the students filled in correctly all the branches that were possible to complete. Only one student omitted more than three features of MMB but the branches she completed, were without problems. Figure 8-3 shows some examples taken from the revision test of four selected students.

Figure 8-3, Students' cards



8.3.2. **Question of metacognitive skills**

The second assumption about MMB concerned metacognitive skills. There were three questions in the questionnaire dedicated to this issue. Firstly, I asked which skills (if any), students had learnt via MMB. There was a multiple choice, but students could add their own commentary or answers. The most favourite answer was: *learning vocabulary in context and its collocations*, which was selected by five students. Four students selected the option: *understanding the pronunciation symbols* (IPA), three students appreciated that via MMB they had learnt terminology which might be useful for their future language learning, and other three students learnt to use mnemonic device. The option: *working with various dictionaries* as well as: *using associations* were both selected by two students. It is very satisfactory that none of the students selected the option which said that the technique had not teach them anything new nor the option: *it did not teach me anything I would use in the future*. It seems that in terms of metacognitive skills, all students had learnt something that he or she considers important in vocabulary learning.

Secondly, another question connected to metacognitive skills was the one about terminology. In this case, the answers differed considerably. On one hand, three students marked terminology used in cards as a complication in their learning. On the other hand, two students considered it understandable and easy to learn and one student even considered it very helpful in learning. For one student the terminology was not new at all and another one could not see any use of knowing and understanding the terminology. No valid conclusion can be drawn from students' answers. However, it seems that students need more time to get used to the terminology to use it without difficulties.

A very satisfactory results came from the third question concerning metacognitive skills. I asked, whether students will use any of the features or the whole technique in the future. All students but one will use at least some features of MMB. Only one student answered that he or she will go back to classical English-Czech lists without any change. All the other students will adopt the features that they had learnt via

MMB. They mostly underlined the following: using associations, collocations, mnemonic device, context, word-formation, synonymy and antonymy. Moreover, two students would appreciate the technique if it was in an electronic version and another student will continue using the whole technique MMB in print version with some personal changes of design and branches. In sum, the technique proved to play an important role in metacognitive learning for most of the students, thus it fulfilled the expectations in this sense.

8.3.3. **Question of remembering and effectiveness**

As it was stated earlier, I believe that MMB helps learners to facilitate memory, and therefore remember new vocabulary better and comprehensively. There were two questions in the questionnaire to check if this opinion is shared by the students as well. First, the students were asked whether they remember the vocabulary they had learnt in the course via MMB better (there were more options to explain how exactly), worse, or the same as via some other techniques. Students could select more options. Only one student claimed that he remembered the vocabulary worse via this technique, another one could not see any difference in MMB and the technique he or she was used to using. The rest of the students' answers were positive. Three students selected the option: *I know how to use a word in a sentence because I remember the collocations and grammar of the word from the card.* Two students responded that thanks to MMB they could easily connect the new vocabulary to the already known words. The option: *the vocabulary is easy to recollect when I see it in English,* was selected also twice. One student believes that he or she remembers the words better and will remember for longer time than when he or she learns only by translations.

Secondly, there was a question which explored if the students considered the technique effective, ineffective, or effective the same way as the other techniques and why. Three students marked MMB as an effective tool, two students find the technique equally effective to the other strategies they use, and three students consider the technique ineffective. The students who believed in efficiency of MMB gave the following reasons: they learn more quickly, they learn more vocabulary,

learn vocabulary in-depth, (it means they know how to use them). One of those students said: “Frankly, it takes more time than vocabulary learning in a traditional way. On the other hand, I think that it is much more effective” (translation PB). A student who considered it equally important as the other techniques argued: “This technique is for me too time-consuming, but I appreciate that via this technique I could practise and learn the use of the words, because this way I remember them better” (translation PB). Students who did not appreciate the technique and see more disadvantages, mostly agreed on the fact that it takes a lot of time to use it, they would rather use the time for learning more vocabulary only from Czech to English. One student claimed: “I am used to using only Czech-English lists, which do not show me the use of the words in a sentence, collocations, etc., which is the advantage of MMB, however, I remember the words better that way” (translation PB). The two questions concerning recollection and efficiency proved that most students were able to use the technique for their benefit, in terms of remembering vocabulary. However, there are still some students who do not understand the importance of spending time on learning vocabulary.

8.3.4. **Question of motivation.**

The question of motivation was also raised. Firstly, the students were asked if they enjoyed completing cards and learning from MMB. Three students responded positively, they appreciated that MMB differed from traditional textbook exercises. One of them also explained that he or she learned more quickly thanks to context branches. Two students, however, did not enjoy using MMB very much as it took too much time and one student even did not see the required effect. Another two students responded neutrally, as they claimed that they did not mind completing and learning from the cards and they considered it as any other task or homework.

In comparison with the former question, the responses on MMB activities and games turned out to be unanimously positive. Not only the supporters of MMB, but also students who responded negatively in some other questions in the questionnaire, considered MMB activities useful. Nobody marked the games as boring, waste of time or useless. On the contrary, all the students appreciated that

they could practise speaking skills via those activities, some considered using the words in context useful and some marked the games as good fun.

It is not surprising that in terms of motivation, MMB applied to groups of college students was not as successful as in one-to-one courses of working adults. However, it showed that at least some of them realised that the affective part of learning should not be underestimated. To demonstrate that, there is a quotation from one of the students' responses: "A kind of relationship is being built up while completing a card, and also a feeling is evoked connected to a particular word" (translation PB).

8.4. Conclusions & results

The observations showed that an application of MMB to groups is undoubtedly possible. The students quickly understood the basic principles of the technique and at the end of the course, they were able to use it independently.

The results of the observations and the questionnaire suggested that MMB can help considerably in developing metacognitive skills. Not only were students taught the basic principles of learning vocabulary, but more importantly, thanks to this technique, the students had a chance to learn them by experience. It would not be so effective if the teacher only explained to the students that it was necessary to remember collocations and other aspects of language. This way they could realise by themselves the importance of those features through activities and games we did, and through completing the cards and learning from them.

It appears that even though the students enjoyed the technique, or found it effective, or at least helpful in terms of remembering the new words, there is only little motivation to use it regularly without a teacher's support or surveillance. As the main reason lack of time was given. Obviously, most of the students still do not understand the necessity of cognitive depth in learning. In the further courses, it would be worth devoting more space to this issue.

It cannot be underestimated that there will always be a small percentage of students who will have difficulties to use this technique for an effective learning and who

will require a special help. The teacher should help those students to adjust the technique, or the features which it represents, to their best benefit. Under no circumstances should a learning strategy make learning more complicated and incomprehensible.

CONCLUSION

Mind maps are a learning tool which helps to organise pieces of information into a comprehensible unit. It captures a complexity of relations as well as details. The theoretical part of this thesis tried to show how they parallel the organisation of our thoughts and information storage in the brain, and therefore correspond with the basic learning strategies recommended by educationalists.

As they are primary a visual tool with an attractive design, mind maps seem to be suitable mainly for visual types of learners. However, their valuable features can appeal to students with various learning styles. Regardless of learning preferences, they stimulate creativity and make the learning process more engaging, and possibly motivating. Each map is an original piece of art which expresses individuality of the author and elicits personal associations.

The prime aim of this thesis was to demonstrate variety of use which mind maps offer in English language teaching. Various textbooks incorporate mind maps in their syllabi to teach and practise different language skills. Nevertheless, the thesis suggests that the role of mind maps in teaching and learning languages could be expanded. Thus some new mind maps activities were introduced to illustrate the possible utilisation of them. They were supposed to serve as an inspiration to teachers to create their own activities based on mind maps which would exploit all the important features, and thus be even more effective.

The fact, that mind maps might be of a considerable use in learning vocabulary, was shown in the practical part II, in which the new technique Mind map box was analysed. So far, this technique has been applied to adult students of different levels and age – working adults in one-to-one courses, groups of adults, groups of college students, dyslectic students and self-learners. However, a research which would focus on children and young pupils is yet to be conducted.

The greatest advantage is the interconnection between presentation and practice, which MMB offers. Various activities for one-to-one courses, self-learners, and groups were introduced to prove the variability of usage of this technique. An

observation of college students using MMB was added in this thesis to show that this technique can be easily applied not only to one-to-one courses but also to groups. The observations proved that MMB might be useful in developing metacognitive skills, and can help students to invent their own learning strategies. Moreover, it proved to be a good memory stimulating tool as well.

The application to several one-to-one courses and groups showed also some limitations of this new technique. First, note-taking using MMB is more demanding than recording vocabulary in simple Czech-English lists, especially due to printing and cutting out the cards. Whereas some students might find this enjoyable, others might consider this extra work as highly demotivating. Incorporating modern technology to this technique had been suggested before to outweigh the mentioned disadvantage. Thus a computer programme was developed which allows to create a database of word cards, prepare handouts, and test words with the students in the class. So far, it can be used only by teachers but it implies the possible utilization also for students.

Another possible challenge of MMB concerns the complexity of this technique. Teachers and students have to be familiar with the basic rules, which apparently requires some training and time. This thesis presented a possible alternative to this technique via using handouts that can be easily prepared by teachers. They do not require profound knowledge of Mind map box. They are easier to use and simple for students to follow. The greatest advantage of handouts, in comparison to other exercises from the textbook, can be seen in the fact that they practise what the students really need as they are created by the teacher from the vocabulary database of learnt words.

In conclusion, mind maps appear to be a very helpful tool in language teaching. However, it depends merely on teachers and their students to what extent they will exploit their potential. They can be used exclusively as the key strategy of language teaching, or they might serve as an occasional alternative to make a particular lesson special. Some mind maps activities require teachers' elaborate preparations and systematic training with the class; others can be done spontaneously without

any students' knowledge of what a mind map is. This thesis, which is about to end, had one vital message to convey: the most difficult yet beautiful task of teachers is to make lessons engaging and varied. The teacher should always make sure that all their students, who have different learning preferences, experience and personality, feel driven to learn.

WORKS CITED

- Berger, Elisabeth, and Hildegard Fuchs. *Učíme děti učit se: Praktické využití poznatků o školní komunikaci; učení a prezentace*. Plzeň: Fraus, 2009.

- Brown, Douglas H. *Teaching by Principles: An Interactive Approach to Language Pedagogy*. Englewood: Prentice Hall Regents, 1994.

- Buzan, Tony, and Barry Buzan. *Myšlenkové mapy: probuďte svou kreativitu, zlepšete svou paměť, změňte svůj život.* Brno: Computer Press, 2011.

- Buzan, Tony, and Barry Buzan. *The Mind Map Book: How to Use Radiant Thinking to Maximize Your Brain's Untapped Potential*. New York: Dutton, 1994.

- Buzan, Tony. *Mentální mapování.* Praha: Portál, 2007.

- Cohen, Andrew D., and Ernesto Macaro. *Language Learner Strategies: Thirty Years of Research and Practice.* Oxford: Oxford University Press, 2007.

- Čáp, Jan, and Jiří Mareš. *Psychologie pro učitele.* Praha: Portál, 2007.

- Field, John. *Psycholinguistics. A resource book for students*. London: Routledge, 2010.

- Fontana, David. *Psychologie ve školní praxi. Příručka pro učitele.* Praha: Portál, 2010.

- Harmer, Jeremy. *The Practice of English Language Teaching*. 4th ed. Essex: Pearson Education Limited, 2007.

- Hill, Grahame. *Moderní psychologie: hlavní oblasti současného studia lidské psychiky.* Praha: Portál, 2004.

- Jensen, Eric. *Teaching with the Brain in Mind.* Alexandrie: Association for Supervision and Curriculum Development, 1998.

❖ Kacafírková, Petra. *Mind Maps in English Language Teaching.* MA. Charles University in Prague, 2013.

❖ Kossak, H.CH. *Jak se snadno učit a vice si pamatovat.* Praha: Grada Publishing, a.s., 2012.

❖ Lewis, Michael. *The Lexical Approach: The State of ELT and Way Forward.* Hove: Language Teaching Publication, 1993.

❖ Lojová, Gabriela, and Kateřina Vlčková. *Styly a strategie učení ve výuce cizích jazyků.* Praha: Portál, 2011.

❖ Mareš, Jiří. *Styly učení žáků a studentů*. Praha: Portál, 1998.

❖ Mentis, Mandia, et al. *Bridging Learning.* Thousand Oaks: Corwin, 2009.

❖ Pstružina, Karel. *Etudy o mozku a myšlení.* Praha: Vysoká škola ekonomická v Praze, fakulta informatiky a statistiky, 1994.

❖ Reinhaus, David. *Techniky učení: Jak se snadněji učit a vice si pamatovat.* Praha: Grada, 2013.

❖ Schunk, Dale H. *Learning Theories: An Educational Perspective*. Upper Saddle River: Pearson education, 2008.

❖ Scrivener, Jim. *Learning Teaching: A Guidebook for English Language Teachers.* 2nd ed. Oxford: Macmillan, 2005.

❖ Stenberg, Robert J. *Cognitive Psychology*. Fort Worth: Harcourt Brace College Publishers, 1996.

❖ Švancara, Josef, Lubomír Vašina, and Lubomír Kostrň. *Kapitoly z kognitivní psychologie.* Brno: Masarykova univerzita - Filozofická fakulta, 1991.

❖ Thornbury, Scott. *How to Teach Vocabulary*. Essex: Pearson Education Limited, 2002.

❖ Wickelgren, Wayne. *Learning and Memory*. Englewood cliffs: Aspen Law & Busines, 1977.

TEXTBOOKS:

❖ Cunningham, Sarah, et al. *Cutting Edge: Elementary*. Harlow: Longman, 2001.

❖ Gairns, Ruth, and Stuard Redman. *Natural English: Intermediate*. Oxford: Oxford University Press, 2003.

❖ Harris, Michael, et al. *Opportunities: Elementary*. Harlow: Longman, 2001.

❖ Hird, Jon, and Jonathan Marks. *Inside Out: Intermediate.* Oxford: Macmillan, 2006.

❖ McCarthy, Michael, and Felicity O'Dell. *Vocabulary in Use: Elementary*. Cambridge: Cambridge University Press, 1999.

❖ Oxenden, Clive, and Latham-Koenig, Christina. *New English File: Intermediate.* 2nd edition. Oxford: Oxford University Press, 2007.

❖ Peters, Sarah, and Tomáš Gráf. *Time to Talk 1: učebnice angličtiny pro střední a jazykové školy.* Praha: Polyglot, 2003.

❖ Redman, Stuart. *Vocabulary in Use: Pre-intermediate/Intermediate.* Cambridge: Cambridge University Press, 1997.

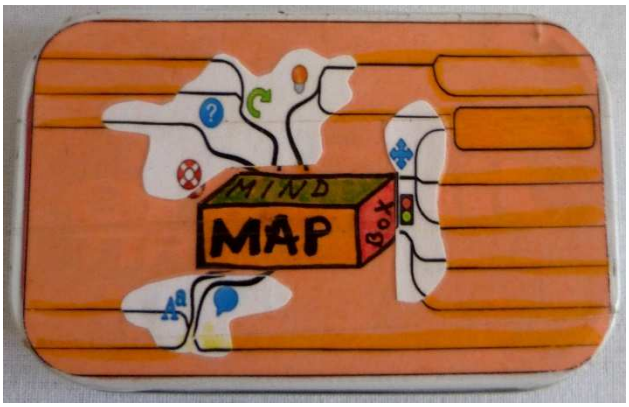
❖ Redston Chris, and Gillie Cunningham. *English Face to Face: Elementary.* Cambridge: Cambridge University Press, 2005.

❖ Watcyn-Jones, Peter, and Olivia Johnston. *Test Your Vocabulary 1*. Harlow: Penguin English, 2002.

❖ Watcyn-Jones, Peter, and Olivia Johnston. *Test Your Vocabulary 2.* Harlow: Penguin English, 2002.

APPENDIX I – MIND MAP BOX

CARRY-ON BOX:

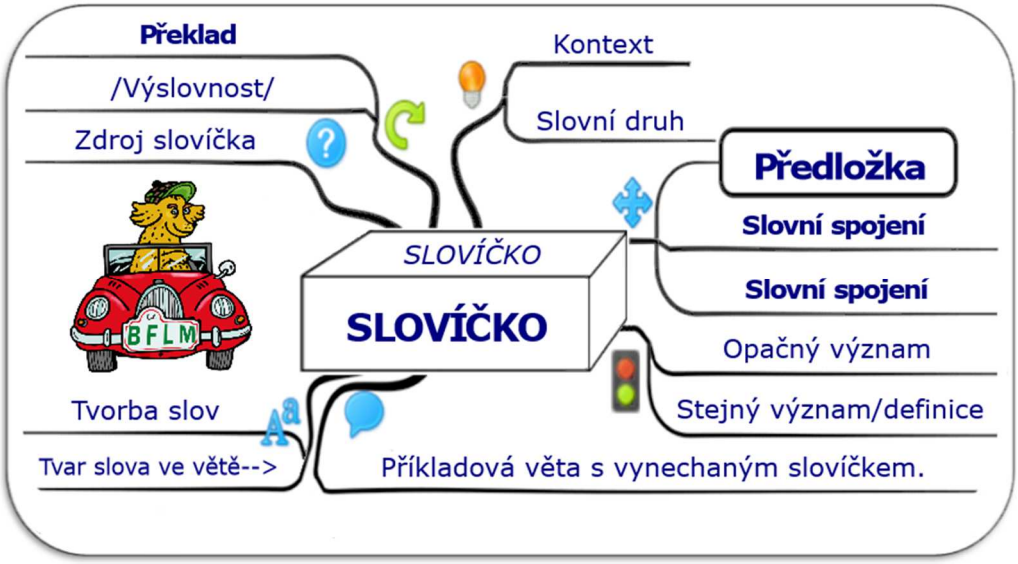


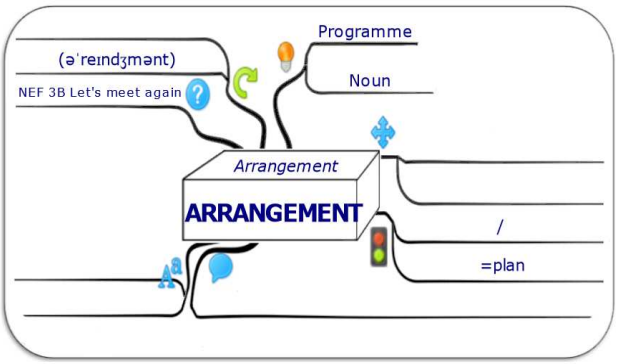
STOCK BOX:

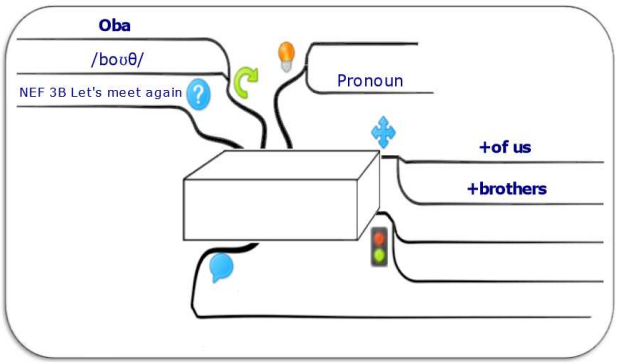
APPENDIX II – SAMPLES OF HANDOUTS

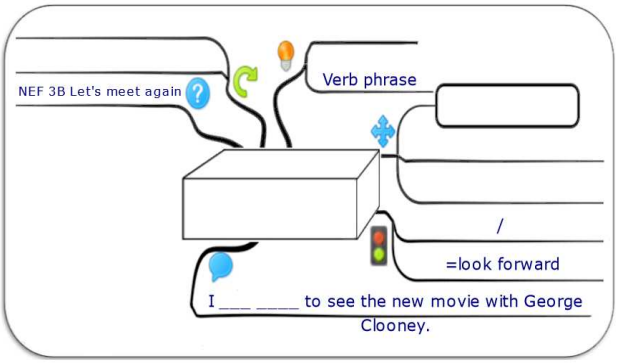
Handout for elementary/pre-intermediate group: 1) a table with the words, 2) an example how to complete a card, 3) a handout with mind map cards

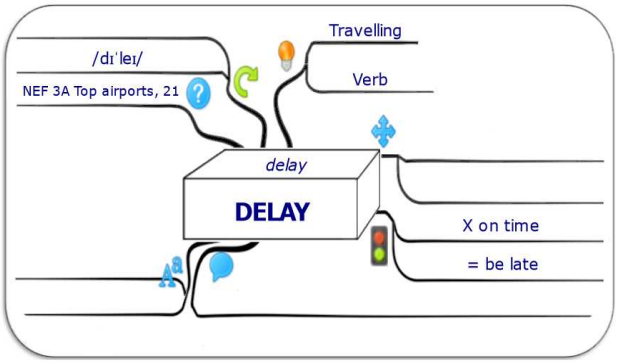
Překlad	**Kontext**	**Slovní spojení/předložka**		**Příkladová věta**
Plán, uspořádání	Communication	Long+	+ answer	____is a person who shares a flat with one or more people.
Ve spojení	Family member	Make an+	+ flight	
Nemůžu se dočkat	Feeling	Stay+	+to meet you	You can go to the hairdresser and have beauty___or a massage.
Fronta	Living together	Be+	+to see you	
Zpozdit	Relax	Travel+	To+infinitive	Why does Lily get in ___with Ben?
Nové slovíčko	Two	Wait in a+	Get+	
Mother-in-law	Time		In a+	I had to join a ___ for the toilets.
Flatmate	**Tvorba slov (jiný slovní druh, odvozené slovo)**		**Opačný/Stejný význam**	
Both				I`m sure we can find a time that`s good for___of us.
Treatment	Father-in-law (M)	a delay (n)	neither of us	
Can`t wait	to queue (v)	Age=věk	procedure	It`s from 3rd to 7th May, but I don`t know my travel___yet.
For ages	to treat (v)		roommate	
	Mate=parťák		daughter-in-law	No news from you___.
	to touch (v)		for a long time	Sorry I`m late. My flight was ___.
	to arrange (v)		the two	

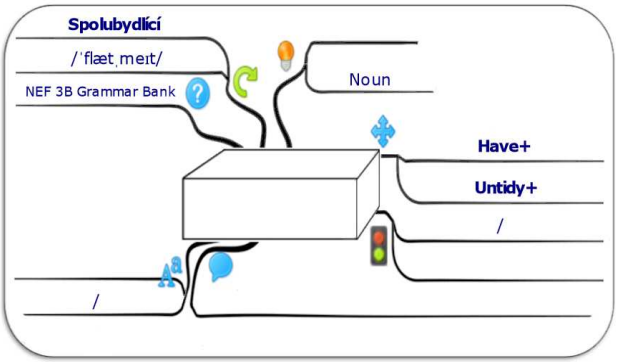


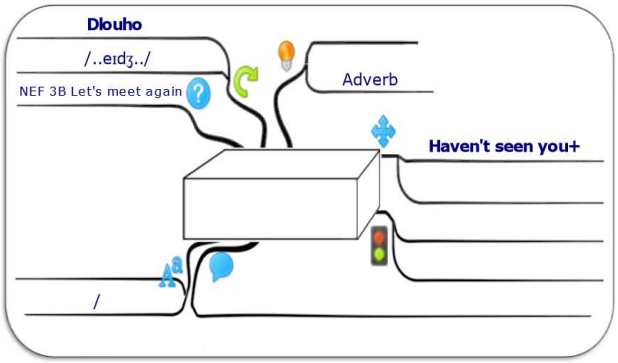

Programme
(əˈreɪndʒmənt)
NEF 3B Let's meet again
Noun
Arrangement
ARRANGEMENT
/
=plan

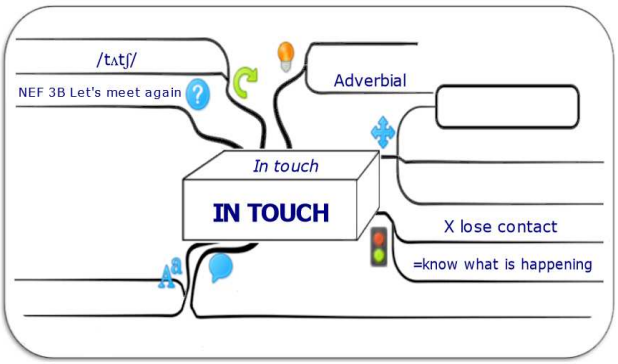

Oba
/boʊθ/
NEF 3B Let's meet again
Pronoun
+of us
+brothers

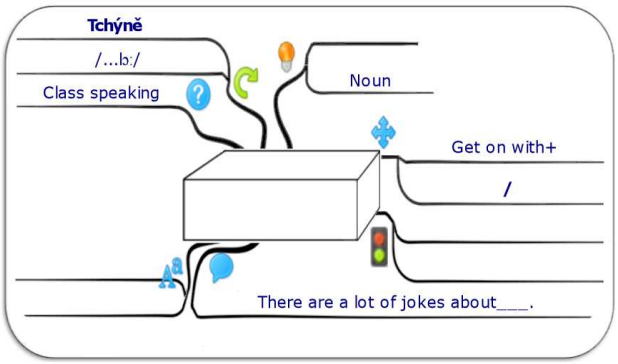

NEF 3B Let's meet again
Verb phrase
/
=look forward
I ___ _____ to see the new movie with George Clooney.

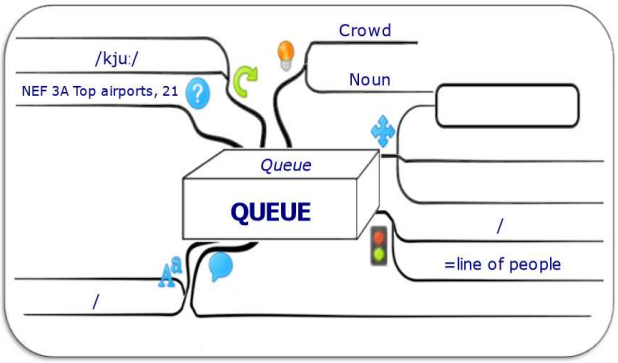

Travelling
/dɪˈleɪ/
NEF 3A Top airports, 21
Verb
delay
DELAY
X on time
= be late

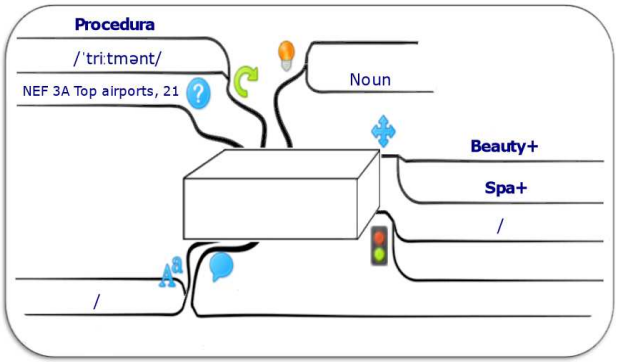

Spolubydlící
/ˈflætˌmeɪt/
NEF 3B Grammar Bank
Noun
Have+
Untidy+
/
/


Dlouho
/..eɪdʒ../
NEF 3B Let's meet again
Adverb
Haven't seen you+
/


/tʌtʃ/
NEF 3B Let's meet again
Adverbial
In touch
IN TOUCH
X lose contact
=know what is happening

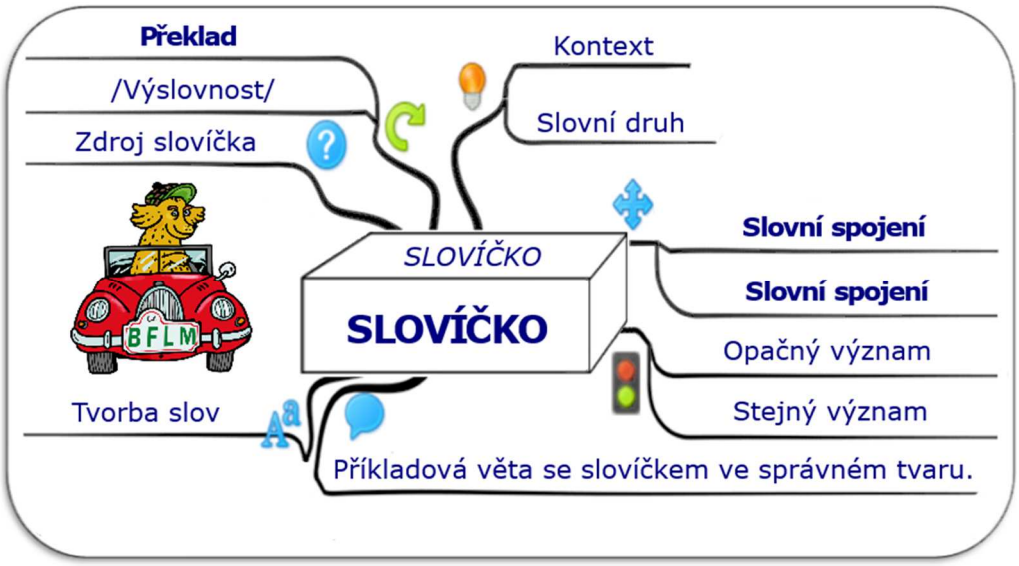

Tchýně
/...ɒ:/
Class speaking
Noun
Get on with+
/
There are a lot of jokes about___.

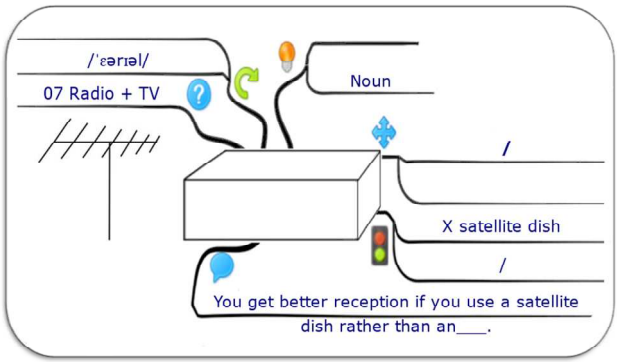

Crowd
/kju:/
NEF 3A Top airports, 21
Noun
Queue
QUEUE
/
=line of people
/

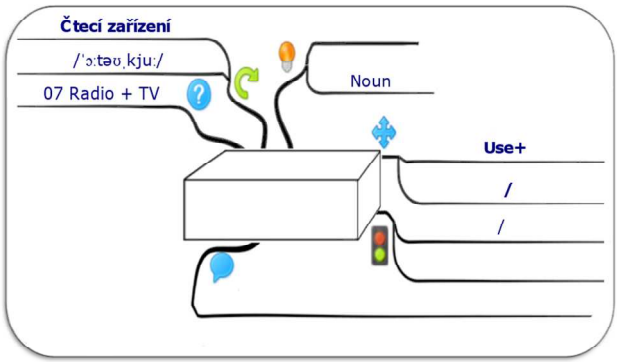

Procedura
/ˈtri:tmənt/
NEF 3A Top airports, 21
Noun
Beauty+
Spa+
/
/

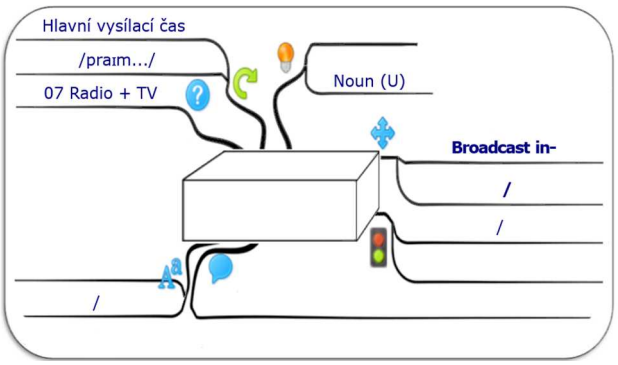
Handout for college students in a general and media English course: 1) a table with the words, 2) an example how to complete a card, 3) a handout with mind map cards

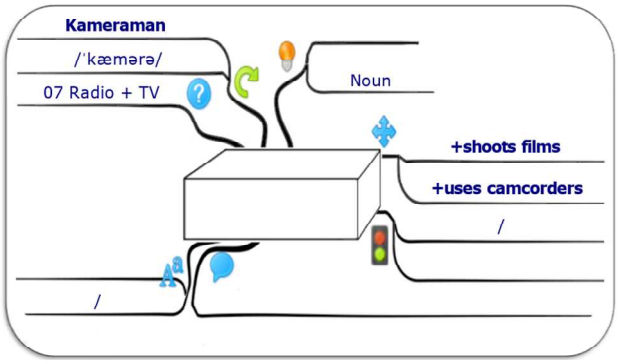
Nové slovíčko/Překlad		Slovní spojení	Opačný/Stejný význam	Příkladová věta
Aerial	Prime time	Camera+	group of people	___is a short song that is easy to remember and is used in advertising on radio or TV.
Autocue	Znělka	Catchy+	audio file to take away	
Camera operator	Anténa	Commercial+	member of camera crew	___displays the words that people speaking in public have to say.
Crew	Přehled	Film+	teleprompter peak time	
Rating	Ke stažení	News+	Classification	The film was given a 15 ___by British censors.
Presenter		TV+	anchor person brief report	
Tvorba slov (jiný slovní druh, odvozené slovo)		**Kontext**		___is the evening hours, when the largest television audience is available.
camcorder=kamera a prime time show (adj) to jingle (v) to rate-hodnotit		News 19-22.00 Signal Team Download Statistics Profession Life broadcasting TV /Radio programme		News is also reported online through___. ___is a short news report on the radio or television. ___uses camcorder to shoot films, reports etc. ___is a person who introduces the different sections of Radio or TV programme.

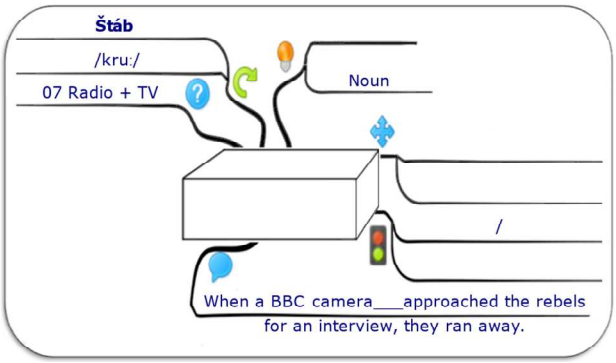


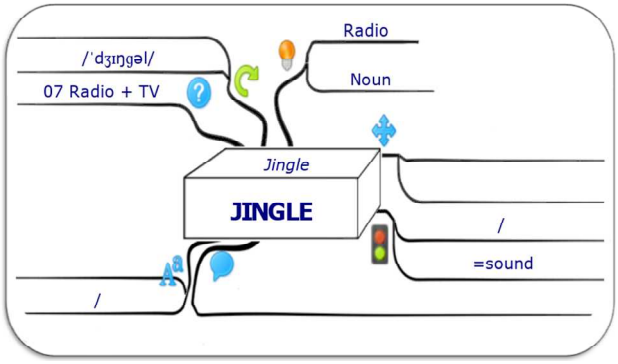

/ˈɛərɪəl/
07 Radio + TV
Noun
/
X satellite dish
/
You get better reception if you use a satellite dish rather than an___.

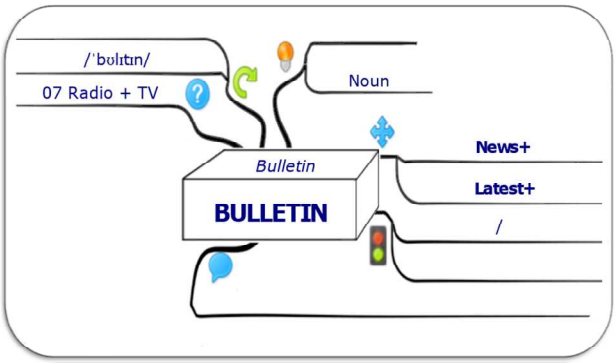

Čtecí zařízení
/ˈɔːtəʊˌkjuː/
07 Radio + TV
Noun
Use+
/
/

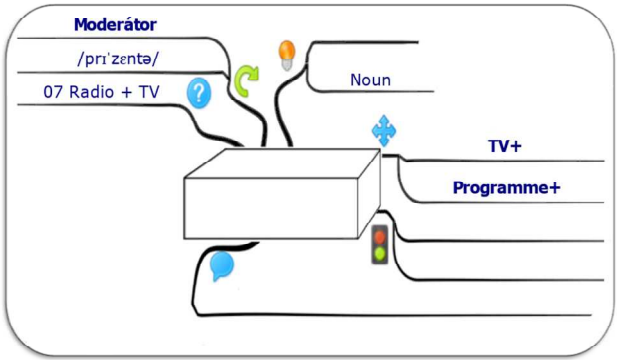

Hlavní vysílací čas
/praɪm.../
07 Radio + TV
Noun (U)
Broadcast in-
/
/
/

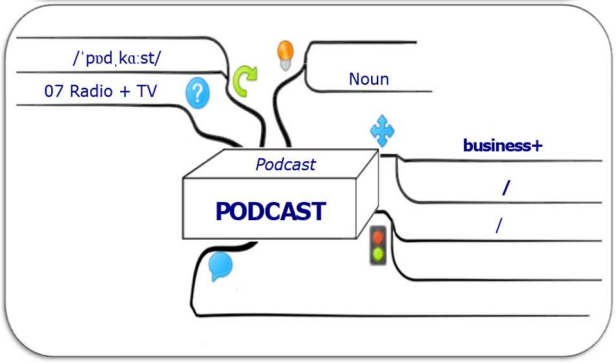

Kameraman
/ˈkæmərə/
07 Radio + TV
Noun
+shoots films
+uses camcorders
/
/

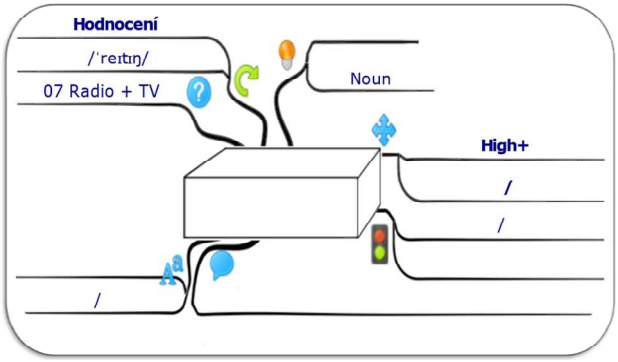

Štáb
/kruː/
07 Radio + TV
Noun
/
When a BBC camera___approached the rebels for an interview, they ran away.


Radio
/ˈdʒɪŋgəl/
07 Radio + TV
Noun
Jingle
JINGLE
/
=sound
/


/ˈbʊlɪtɪn/
07 Radio + TV
Noun
Bulletin
BULLETIN
News+
Latest+
/

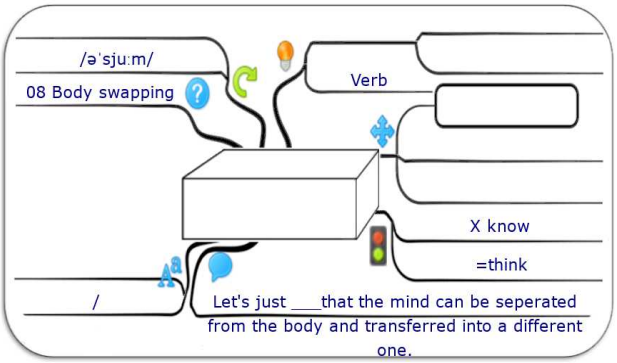

Moderátor
/prɪˈzɛntə/
07 Radio + TV
Noun
TV+
Programme+

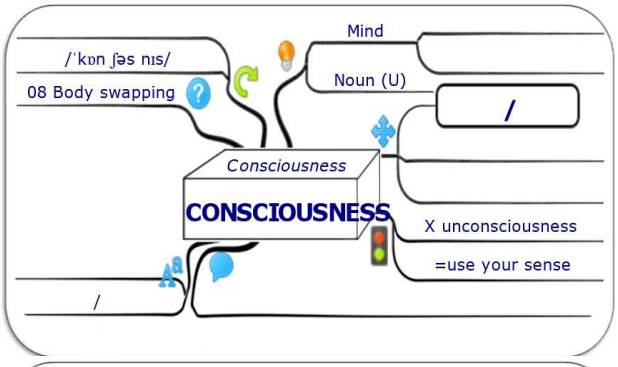

/ˈpɒdˌkɑːst/
07 Radio + TV
Noun
Podcast
PODCAST
business+
/
/

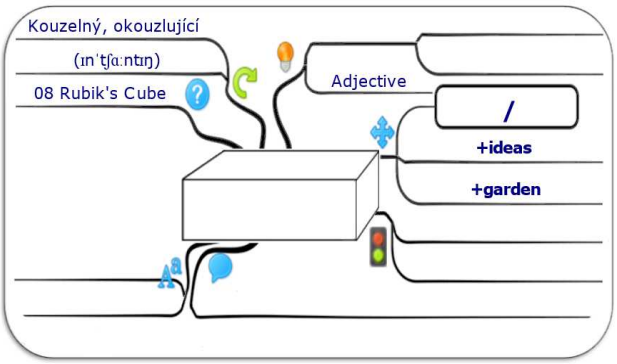

Hodnocení
/ˈreɪtɪŋ/
07 Radio + TV
Noun
High+
/
/

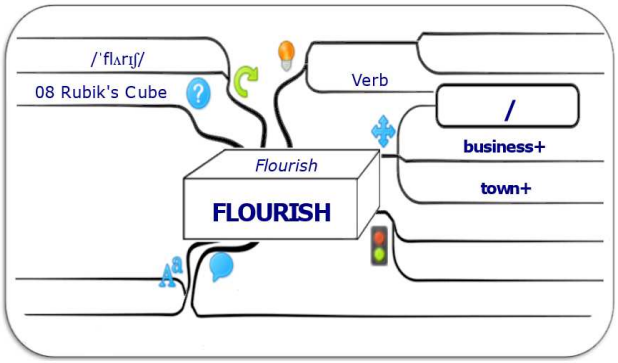
Handout for college students in a mind map course: 1) a table with the words, 2) a handout with mind map cards

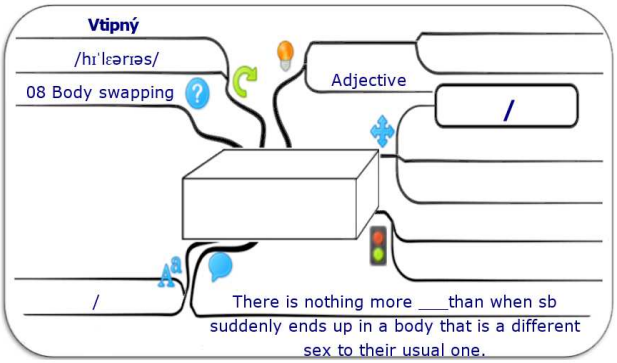
Nové slovíčko	**Slovní spojení/Předložka**		**Příkladová věta**
Assume	+places	+house	___, the press exaggerated the story.
Consciousness	Absolutely+	+imply	
Enchanting	It is generally - ed	+joke	Don't be ___! You can't pay £50 for a T-shirt!
Hilarious	Let us+	+lead to...	
Ingenious	Lose+	Regain+	Few businesses are ___ in the present economic climate.
Intriguing	that..	sth FOR sth	
Swap	Look+	+situation	I found the story rather ___.
Překlad	**Kontext, Hodnocení, Asociace**		
Nevyhnutelně	Development	News	Rubik`s cube is one of the cleverest and ___ ___inventions.
Předpokládat	Evaluation	Opinions	
Směšný	Give + Receive	positive	She's very ___ when it comes to finding excuses.
Vyměnit	metaphor	Sentence beginning	
Vzkvétat	negative		**Podobný/opačný význam**
Tvorba slov			creative, clever X boring
intriguingly (advrb)	enchantingly (advrb)		extremely funny X uninteresting
ingenuity (n)	conscious of (adj)		to develop quickly X decline
Inevitable (adj)	assumed (adj)	ridiculously (advrb)	very interesting, unusual X reasonable
hilariously (advrb)	a (house) swap (n)	flourishing (adj)	pleasant, attractive X unimaginative

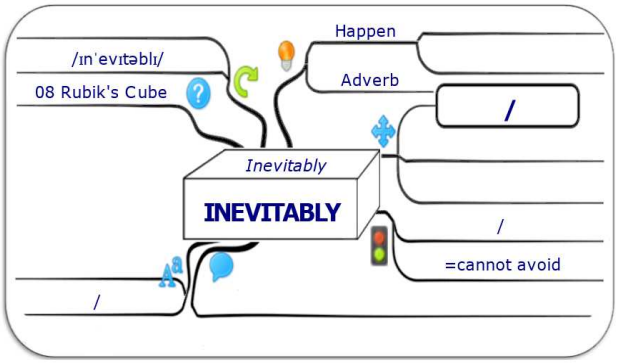

/əˈsjuːm/
08 Body swapping
Verb
X know
=think
/
Let's just ___that the mind can be seperated from the body and transferred into a different one.

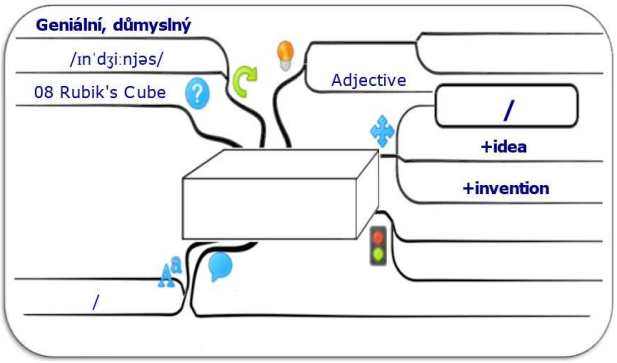

/ˈkɒn ʃəs nɪs/
08 Body swapping
Mind
Noun (U)
/
Consciousness
CONSCIOUSNESS
X unconsciousness
=use your sense
/

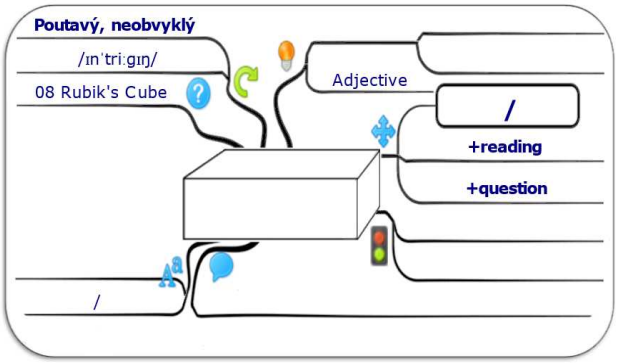

Kouzelný, okouzlující
(ɪnˈtʃɑːntɪŋ)
08 Rubik's Cube
Adjective
/
+ideas
+garden

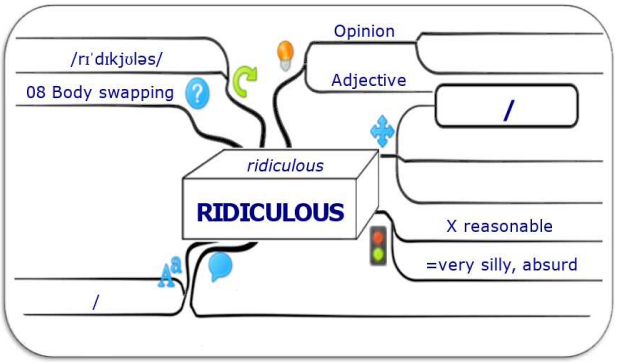

/ˈflʌrɪʃ/
08 Rubik's Cube
Verb
/
business+
town+
Flourish
FLOURISH

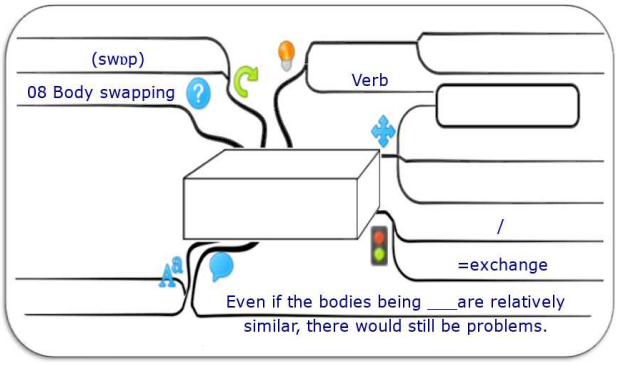

Vtipný
/hɪˈlɛərɪəs/
08 Body swapping
Adjective
/
/
There is nothing more ___than when sb suddenly ends up in a body that is a different sex to their usual one.


/ɪnˈevɪtəblɪ/
08 Rubik's Cube
Happen
Adverb
/
Inevitably
INEVITABLY
/
=cannot avoid
/

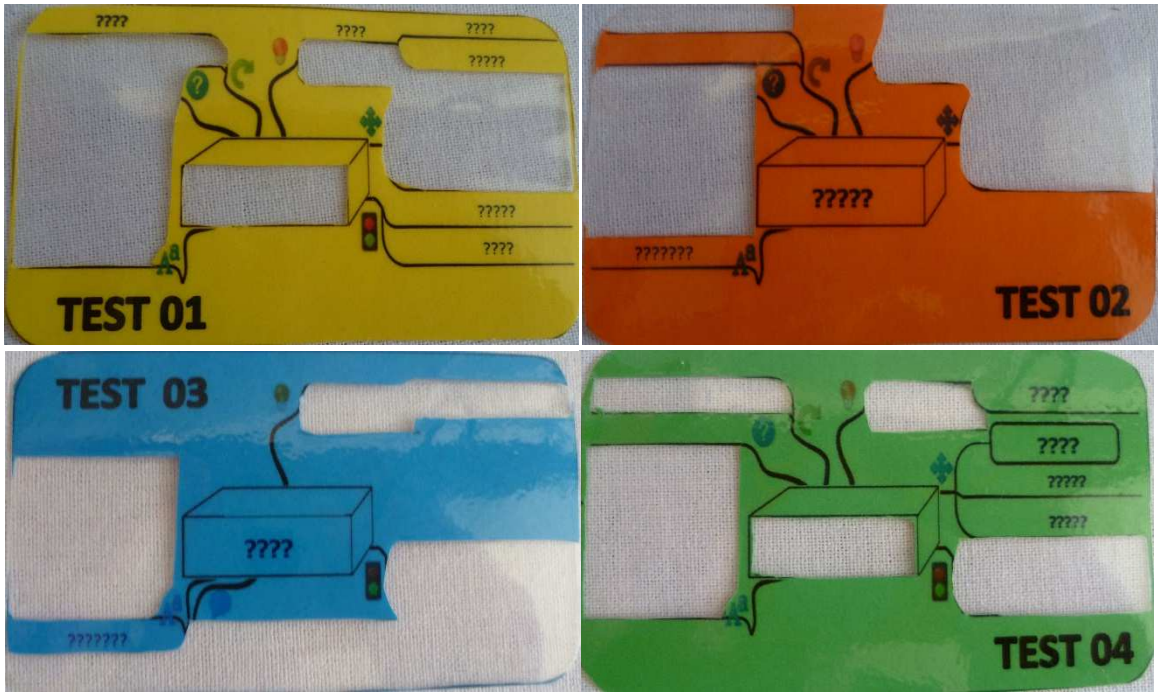

Geniální, důmyslný
/ɪnˈdʒiːnjəs/
08 Rubik's Cube
Adjective
/
+idea
+invention
/

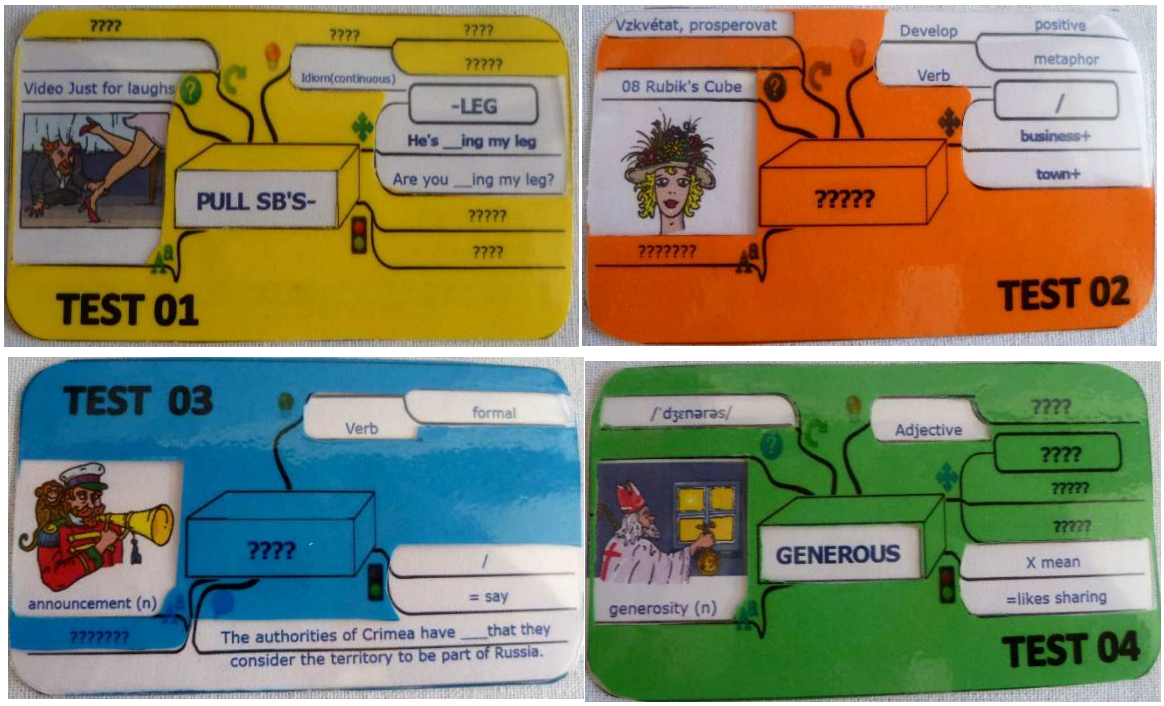

Poutavý, neobvyklý
/ɪnˈtriːgɪŋ/
08 Rubik's Cube
Adjective
/
+reading
+question
/


/rɪˈdɪkjʊləs/
08 Body swapping
Opinion
Adjective
/
ridiculous
RIDICULOUS
X reasonable
=very silly, absurd
/

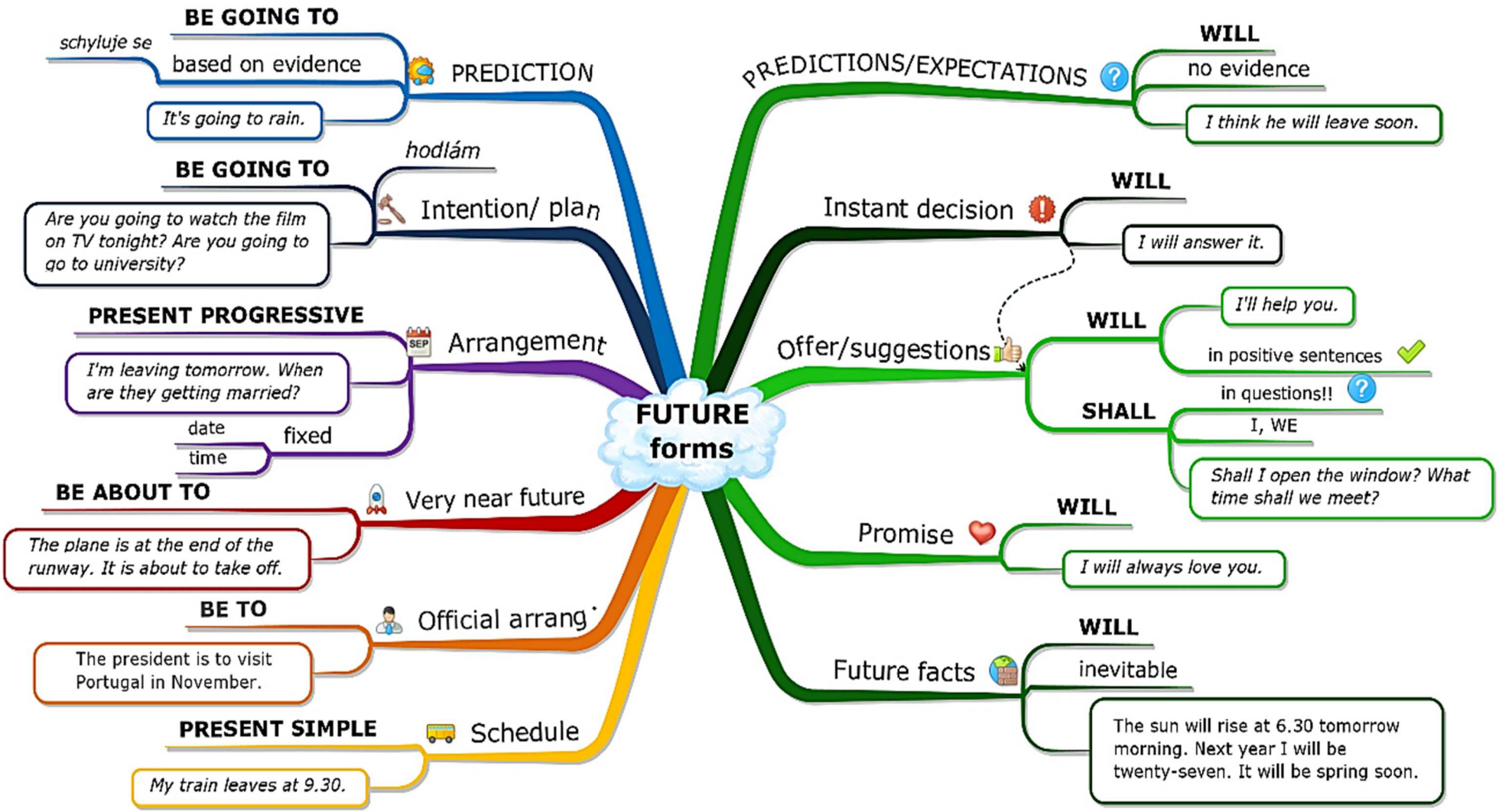

(swɒp)
08 Body swapping
Verb
/
=exchange
Even if the bodies being ___are relatively similar, there would still be problems.

APPENDIX III – TESTING CARDS





APPENDIX IV – MIND MAP ACTIVITIES

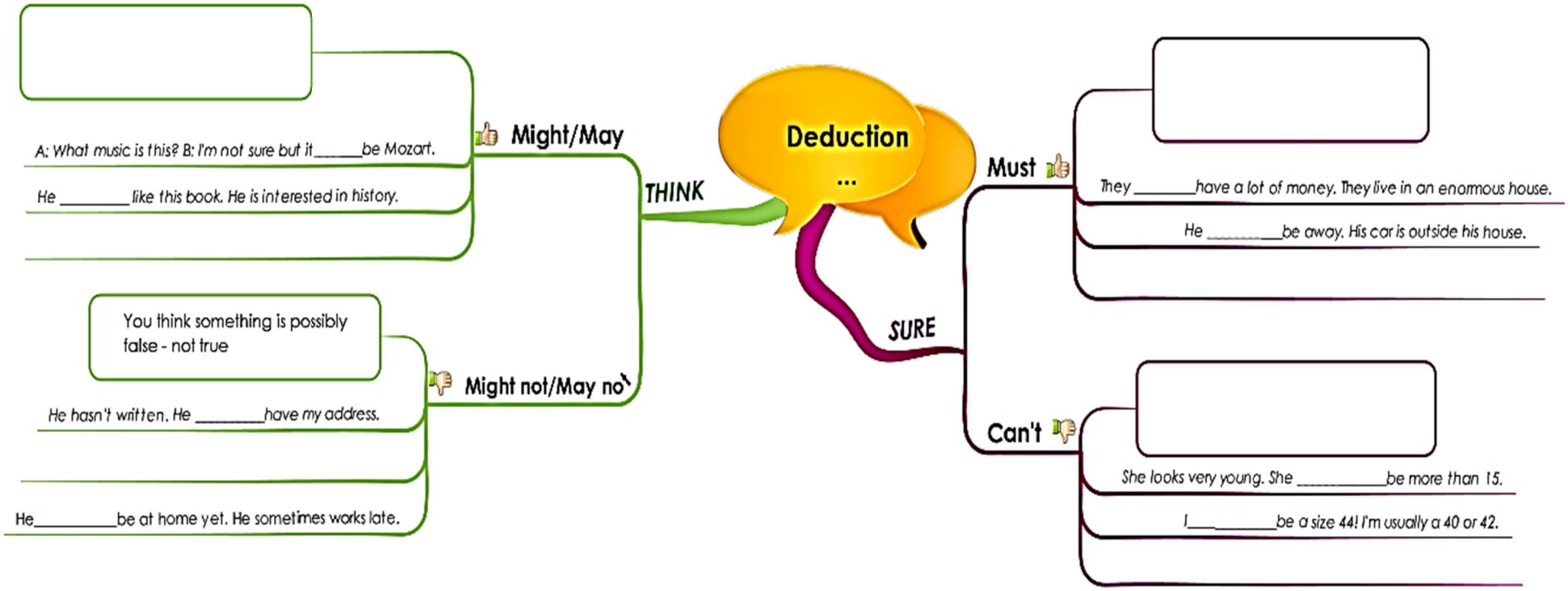

FUTURE forms
BE GOING TO
schyluje se
based on evidence
PREDICTION
It's going to rain.
hodlám
BE GOING TO
Intention/ plan
Are you going to watch the film on TV tonight? Are you going to go to university?
PRESENT PROGRESSIVE
Arrangement
I'm leaving tomorrow. When are they getting married?
date
time
fixed
BE ABOUT TO
Very near future
The plane is at the end of the runway. It is about to take off.
BE TO
Official arrang
The president is to visit Portugal in November.
PRESENT SIMPLE
Schedule
My train leaves at 9.30.
PREDICTIONS/EXPECTATIONS
WILL
no evidence
I think he will leave soon.
Instant decision
WILL
I will answer it.
Offer/suggestions
WILL
I'll help you.
in positive sentences
in questions!!
SHALL
I, WE
Shall I open the window? What time shall we meet?
Promise
WILL
I will always love you.
Future facts
WILL
inevitable
The sun will rise at 6.30 tomorrow morning. Next year I will be twenty-seven. It will be spring soon.

1] complete the boxes with the following descriptions:

You think something is possibly true

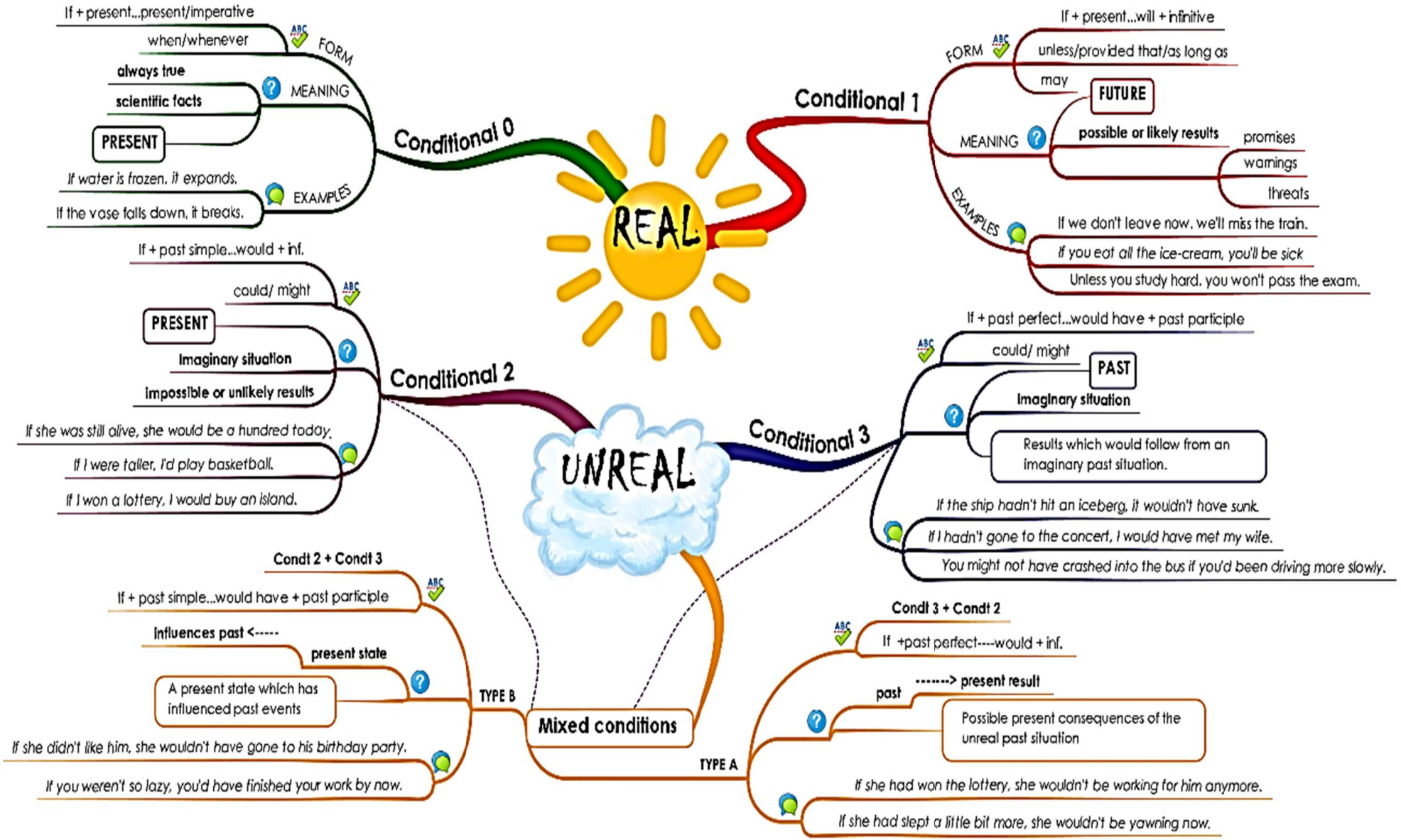
You're sure that something is true

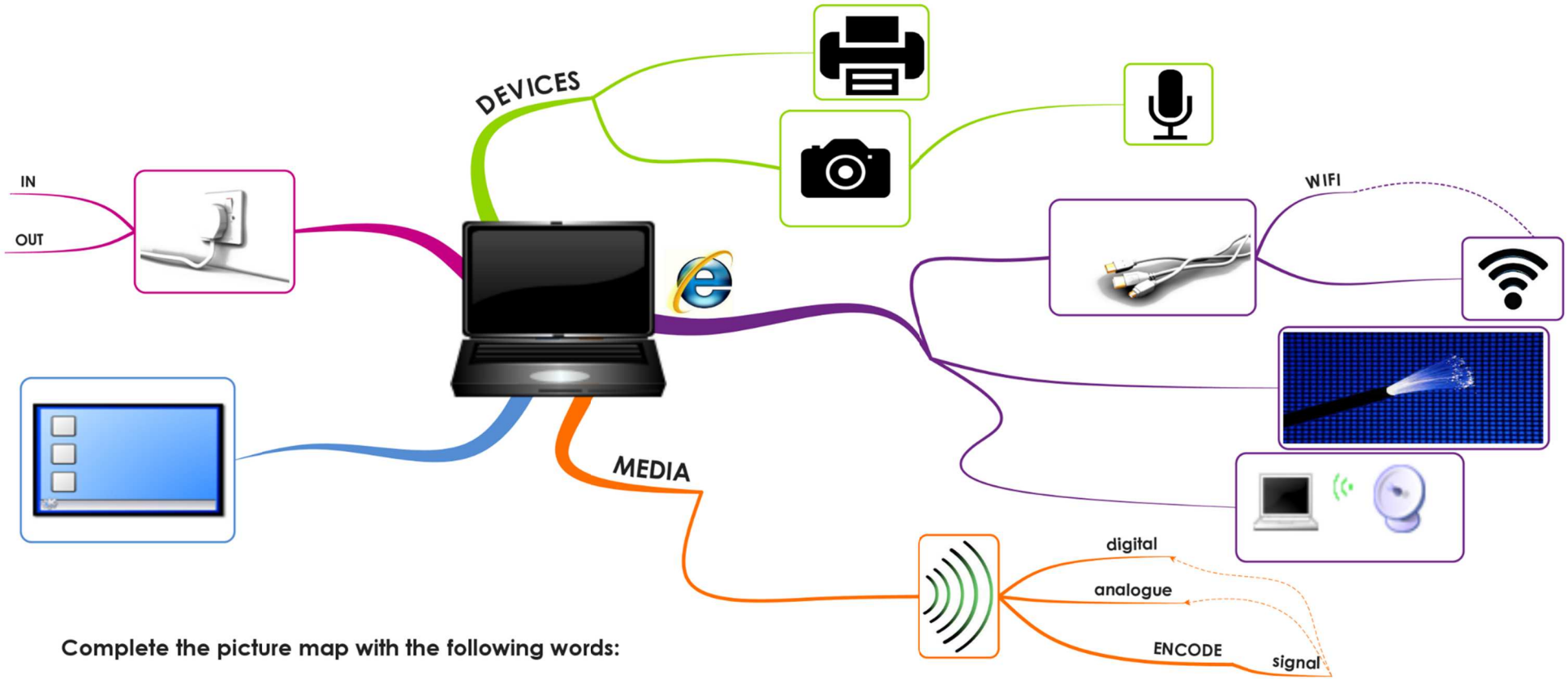
You're sure that something is impossible, not true



2] put the example sentences to the right place in the mind map:

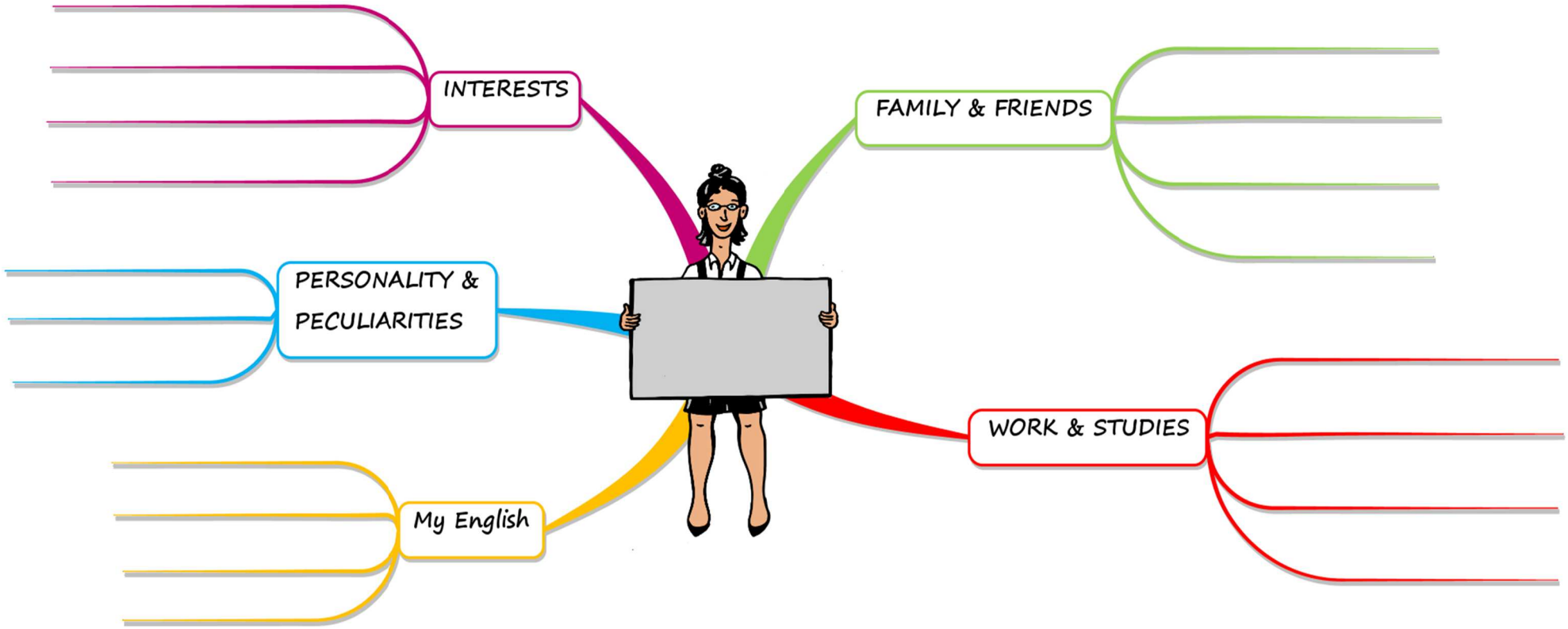
She___like that skirt. It's not her style.
It___be true! I saw it on the news.
He_____be ill. I saw him at the gym.
He__be in bed already. He gets up very early.


REAL
UNREAL
Conditional 0
If + present...present/imperative
when/whenever
FORM
always true
scientific facts
MEANING
PRESENT
If water is frozen, it expands.
If the vase falls down, it breaks.
EXAMPLES
Conditional 1
If + present...will + infinitive
FORM
unless/provided that/as long as
may
FUTURE
MEANING
possible or likely results
promises
warnings
threats
EXAMPLES
If we don't leave now, we'll miss the train.
If you eat all the ice-cream, you'll be sick
Unless you study hard, you won't pass the exam.
Conditional 2
If + past simple...would + inf.
could/ might
PRESENT
Imaginary situation
impossible or unlikely results
If she was still alive, she would be a hundred today.
If I were taller, I'd play basketball.
If I won a lottery, I would buy an island.
Conditional 3
If + past perfect...would have + past participle
could/ might
PAST
Imaginary situation
Results which would follow from an imaginary past situation.
If the ship hadn't hit an iceberg, it wouldn't have sunk.
If I hadn't gone to the concert, I would have met my wife.
You might not have crashed into the bus if you'd been driving more slowly.
Mixed conditions
TYPE B
Condt 2 + Condt 3
If + past simple...would have + past participle
Influences past <-----
present state
A present state which has influenced past events
If she didn't like him, she wouldn't have gone to his birthday party.
If you weren't so lazy, you'd have finished your work by now.
TYPE A
Condt 3 + Condt 2
If +past perfect----would + inf.
past
-------> present result
Possible present consequences of the unreal past situation
If she had won the lottery, she wouldn't be working for him anymore.
If she had slept a little bit more, she wouldn't be yawning now.



Complete the picture map with the following words:

TRANSMISSION – DESKTOP – FIBRE – LAPTOP – CAMERA – WIRELESS – PLUG – CONNECT – WIRES – RECORD – PRINTER - INTERNET


INTERESTS
FAMILY & FRIENDS
PERSONALITY &
PECULIARITIES
My English
WORK & STUDIES

APPENDIX V – QUESTIONNAIRE (MMB GROUPS)

1. **Vyplňování kartiček a učení se z nich** (vyberte **jednu** odpověď):
    a. mě baví, je to něco jiného než klasická cvičení v učebnicích
    b. nevadí, je to jako každý jiný úkol
    c. nevadí, ale zabírá moc času
    d. nebaví, protože zabírá moc času a nevidím žádný efekt
    e. vlastní odpověď_____
2. **Aktivity a hry, které jsme dělali se slovíčky v hodině** (můžete vybrat **více** odpovědí):
    a. mě pomáhaly použít naučená slovíčka v kontextu
    b. byly zábavné
    c. procvičovaly také mluvení, a to se mi líbilo
    d. byly ztrátou času
    e. byly nudné
    f. nepomohly v procvičení slovíček jako třeba klasické zkoušení, či testy na překlad

Prosím o komentář k těmto otázkám:

3. **Technika Mind map box mě naučila tyto dovednosti, které pravděpodobně dále využiji** (můžete vybrat **více** odpovědí):
    a. pracování s různými druhy slovníků a zdrojů
    b. učení se slovíčkům v kontextu a s čím se pojí
    c. rozumět výslovnostním znakům
    d. rozumět termínům, které se mi budou hodit (např. collocation, adjective, synonymy…)
    e. používat mnemotechnickou pomůcku při učení
    f. používat asociace
    g. nic nového, všechno jsem už dělal/a a znal/a
    h. nic, co bych v budoucnu využil/a
    i. vaše odpověď_____
4. **Terminologie v kartičkách** (můžete vybrat **více** odpovědí):
    a. mi pomáhá v porozumění jazyku
    b. byla srozumitelná a snadno jsem si ji osvojil/a
    c. je pro mě známá
    d. mi komplikuje učení
    e. mi je úplně na nic
5. **Techniku Mind map box** (vyberte **jednu** odpověď):
    a. budu nadále používat na nová slovíčka

b. budu nadále používat na těžce zapamatovatelná slovíčka
c. využiji, ale přizpůsobím ji svým potřebám (změním design, upravím některé větve..)
d. využil/a bych ji, jen kdyby byla v elektronické podobě či jako aplikace na mobil
e. využiju některé větve (prvky MMB): _____
f. nevyužiji vůbec, vrátím se ke klasickým anglicko-českým překladům a seznamům

Prosím o komentář k těmto otázkám:

6. **Slovíčka, která jsme se v tomhle semestru učili metodou MMB** (můžete vybrat **více** odpovědí):
    a. si lépe pamatuji a myslím, že si je budu pamatovat déle než ta, která se učím jinak
    b. se mi dobře vybavují, když je vidím anglicky
    c. vím, jak použít ve větě, protože si pamatuji slovní spojení a gramatiku slovíčka z kartičky
    d. se mi díky této technice snadno napojily na slovíčka, která už znám
    e. nevidím rozdíl v zapamatování slovíček touto technikou a dalšími technikami, které používám
    f. se mi pamatují hůře než z tradičních česko-anglických slovníčků
7. **Označil/a byste tuto metodu jako efektivní/neefektivní proč** (můžete vybrat **více** odpovědí):
    a. efektivní, díky ní jsem se naučil/a **více** slovíček než obvykle
    b. efektivní, díky ní jsem se naučil/a slovíčka více **do hloubky**, tj. umím je použít a pamatuji si je
    c. efektivní, protože - _____
    d. je stejně efektivní jako metody, které používám
    e. neefektivní, protože čas, který strávím vyplňováním kartiček, bych lépe využil/a na naučení se více slovíček jen z češtiny do angličtiny a naopak
    f. neefektivní, protože -_____

Prosím o komentář k těmto otázkám:

Napište, prosím, svými slovy jak se vám s technikou MMB celkově pracovalo, její výhody a nevýhody, popřípadě doporučení: