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APPLICATION OF MIND MAPS TO TEACHING AND LEARNING LINGUISTICS SUBJECTS (A CASE STUDY WITH THE SUBJECT INTRODUCTION TO GENERAL LINGUISTICS)

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Abstract: This article systematically analyzes the issues of Mind Maps in order to propose the best application in teaching and learning. In addition, through the experimental application of *Introduction to General Linguistics,* we have found that Mind Maps are a useful tool, actively supporting both teachers and learners in improving the effectiveness of university teaching at both basic and intensive levels. Through the survey of learners' evaluation of the impact of MMs, the article also affirms that MMs help learners be more interested in learning and studying linguistics in general and *Introduction to General Linguistics* in particular, these subjects have a large knowledge content, are abstract and very difficult for students to study, take and do intensive research.

Key words: Mind map; teaching linguistics; empirical application; field surveys; useful tool*; Introduction to General Linguistics.*

1. Introduction

The mind map, dubbed as the "universal tool for the brain", is an innovative note-taking method that is currently used by more than hundreds of millions of people worldwide and has been delivering real, the most effective results, is in the field of education and business. *Introduction to General Linguistics* is a course applied to many students of the social sciences. This is a prerequisite module that has important and interesting content. However, the response of most students after the courses is that the subject is too difficult with too much content and only about 20% of students get A grades (above 8.5), nearly 50% of students get results of group of scores C or below

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(below 7). For a long time, many teachers have been confused in how to implement their lectures. Of course, many people also encounter difficulties because much of the knowledge content is only deployed in a few periods. Many students also responded that reading materials at home was not effective.

To improve the quality of teaching, we have applied various methods. Finally, we have come to recognize that the advantages of MMs can help us overcome this situation. This article aims to provide a systematic view of the mind maps whereby emphasizes the rules of setting and experimenting the effectiveness of mind map application in teaching and learning not only *Introduction to General Linguistics* but also other linguistics subjects at universities.

2. Content

2.1. Why an application of Mind Maps to teaching and learning linguistics subjects?

2.1.1. The relationship between language and thinking

Thinking is a psychological process, indirectly reflecting the objective reality. On the basis of defining the essential attributes of things, phenomena and search,

new discoveries are made qualitatively and independently.

Language is a tool for thinking, thinking is a direct reality of language. These two areas are a dialectic unity related to the promotion of mutual development. The process of studying linguistics subjects of students is the process of approaching the theory system to understand the laws of structures, the rules of its operation and on that basis, forms the skills and techniques of language. Therefore, it is extremely necessary to for us to look for a way to connect the process of teaching and learning the linguistic theory with developing the capacity of thinking.

The scientific hypothesis that we set out when carrying out this study is to apply the effectiveness of MMs into the design of thinking diagrams in learning linguistic theory, thereby building the habit of systematic thinking in tangible communication (through the design of an MM) or intangible (expected, planned in mind) which helps improve the efficiency of using the language in specific situations for learners. In the next section, we will explain more about the characteristics of the Linguistics subjects that we apply in teaching and learning.

2.1.2. Subject properties Introduction to General Linguistics (suitable for applying MMs in teaching and learning)

Introduction to General Linguistics is a major in linguistics that provides an overview of the world's languages. The course consists of 5 main groups of issues: (1) Overview of language and linguistics; (2) Phonetics; (3) Lexis; (4) Grammar; (5) Language classification. After completing the course, learners gain general knowledge about linguistics such as the social and signal nature of language, the function of language and language as system-structure. At the same time, learners gain an understanding of the branches of linguistics such as Phonetics, Vocabulary and Grammar.

As stated in the course goal, Linguistics is a language science, including phonetics, morphology, syntax, and semantics. This course introduces structure, development, change, etc. of a particular language and its relationship to other languages. Linguistics is a study that not only has a great deal of micro-contents linked into a system of mutual interaction but also the object of language study that has relationships with many other sciences. This requires learners to always identify each element in relation to other factors. The images below will partly prove these relationships:
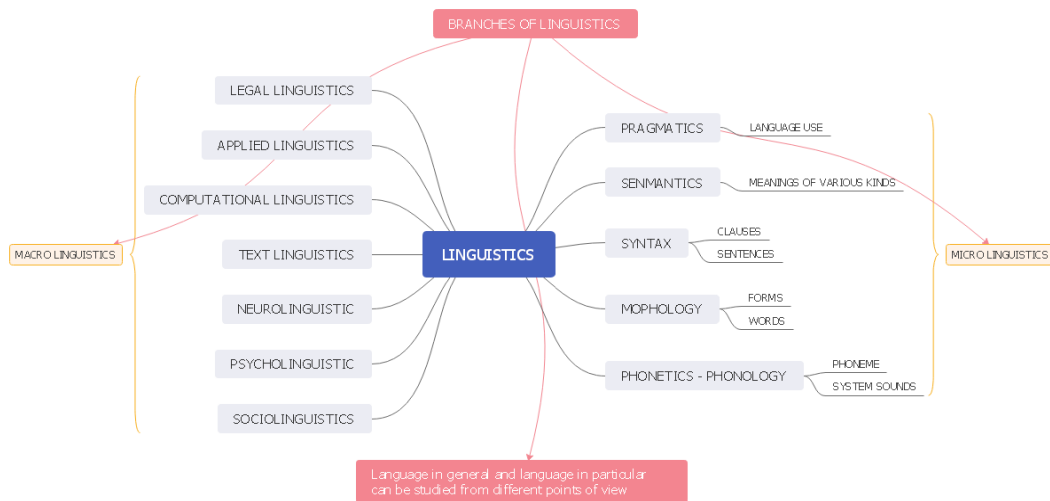
Picture 1. Branches of Linguistics

One of the characteristics of linguistics that makes us think that it is advisable to apply the MM method in

teaching and learning is the systematic property of language. Language is a system because it consists of

elements and relationships among elements. Elements of a language system are units of language. In the linguistic system, the relationships and relationships among elements will give each element its own characteristics and qualities. F. De Saussure called them "values". "[…] Each linguistic term derives its value from its opposition to all the other terms" [1; p125-126]. The value of an element will be lost by separating the element from its relationships, separating the element from the system.

The principle of value is true for all language units, linguistic phenomena. In the language, there are the following levels: phonemes, phonemes, words, sentences... Sentences consist of words, words include phonemes, phonemes include phonemes. In contrast, phonemes are in morphemes, morphemes are in words, words are in sentences, ... These factors are governed by 3 main relations: syntagmatic relation, association relation and rank relation. However, the value of each unit will vary according to the context.

Ex: We have an unit "a". So what is the value of "a" depends on the relationship between "a" and the units in the system:

- a is a sound in the sentence "We shall hear more about it" because "a" is related to the remaining sound in / ə'baʊt /

- a is a word in the sentence "He has a house" because "a" is related to the words "he", "has", "house"

In fact, entities in the language system are always valuable. Besides, in each different system, the entity may have different values. This requires learners to put any one content element in relation to the other elements to cover the content of the subject. This is a challenge for first-year and second-year students. In the course of teaching, we have applied various deployment methods such as positive presentations, group discussions, tablecloth tips, the method of working with the flour,... but all of these have shown systematic problems and inefficiency. Therefore, we think that the systematicness and alignment of MM will overcome these problems. This also means that the teacher and the learner must use MMs to link the content according to the nature of the language to achieve teaching effectiveness.

2.1.3. Subjects of research application

Introduction to General Linguistics is designed for students who are first-year students of the first semester of the training program for Bachelor of Arts in Literature, Bachelor of Arts, Bachelor of Journalism and second-year students in the Bachelor program of foreign languages in English, Japanese, Korean, Thai, French, Chinese and Russian languages.

The class duration for this module is 30 periods, the course description and the subject learning standard are applied at the same rate of approximately 90%.

Class time is assessed to be quite small compared to the amount of knowledge and requirements for the learning outcomes. This causes certain difficulties for teachers and learners. So we have to look for a method that not only takes advantage of class time but is also effective in developing lessons (for teachers) and learning lessons (for learners).

In addition, another pressure on teaching and learning this subject is that students will take the general exam questions (the same module). This MM method makes it easy for us to unify common knowledge across different part classes according to the course description.

The experimental results of this article have been applied to the above two groups of subjects. Overall effectiveness and subgroups will be assessed later in this article.

2.2. Form of mind maps

According to Tony Buzan, who has spent 30 years researching this issue, Mindmap (a tool for organizing the mind, a means of recording, is a method of transmitting information from the outside to the brain and vice versa. This is a form of note that uses colors, images, keywords to expand and deepen ideas. A mind map (MM) can be considered a graphic technique with a combination of words, pictures, lines, colors compatible with the structure and function of the brain which helps people unlock the endless potential of the brain.[3]

Similar to the structure of the brain, in the middle of the map is a central idea or image. This central idea or image is developed by branches that represent the main ideas and are all connected to the central idea. The main branches are further divided into sub-branches to study the topic at a deeper level. These small branches are further subdivided into many smaller ones, to study

the problem at a deeper level. Thanks to the interconnection of branches, ideas also have connections based on their own connections, which makes it possible for MM to cover ideas on a broad range of ideas whose common sense cannot be done.

2.3. Applying the map of thinking in teaching *Introduction to General Linguistics*

2.3.1. Tools for creating mind maps

Currently, there are two ways to create a MM: drawing by hand or application. If drawing by hand, users only need a paper, a box of crayons and their imagination. On the other hand, if users want to create a mind map by using a computer, they can use one of the free trial software versions on the internet application store such as iMindMap, Bzan's iMindMap, Mindjet MindManager Professional, Inspiration, Visual Mind software, Free Mind, etc.

These software versions have many different designs to help users easily deploy their ideas quickly. In addition, users can fully design their own MMs in Microsoft Word through individual operations, the central image can be easily searched on the internet to illustrate ideas and content.

2.3.2. Rules for drawing mind maps

To use MMs effectively, in the process of creating and using MMs, it is necessary to follow the rules: emphasis, cohesion and coherence. [2]

2.3.2.1. Rules of emphasis

Emphasis should be noted to to increase memory and boost creativity. For optimal emphasis in MMs, we can start with a color image in the center, each image uses at least three colors and images are used everywhere in the MM. Using images will draw attention to the eyes and brain, activate numerous links and make memorizing easier. If you are forced to use words instead of images as the center of focus in a MM, turn it into an image using attractive sizes, color and form.

Resize images, print appropriately to indicate the relative importance among components in the same hierarchy.

2.3.2.2. Rules for linking

Links aim to increase memory and stimulate creativity, so it is also important. To achieve this need to pay attention to the use of colors and symbols:

Colors help improve memory and creativity most effectively. So we should use colors everywhere in MMs. Using colors to make symbols or distinguish areas in the MMs will increase the ability to remember information.

Symbols are indispensable rules in the rules about linking. When using symbols, the links among parts on the same page in MMs will easily be found regardless of whether they are near or far apart.

2.3.2.3. Rules for coherence

To ensure coherence, you can use lowercase letters or can use a combination of lowercase and uppercase letters to indicate the relative importance of words in MMs.

Print must be on branch roads and branch lines must be linked together. Each branch road has only one keyword. Using keywords for each branching line will increase the alignment of the keywords. Each word can have up to thousands of links. This makes note-taking easier and more flexible.

2.3.3. MM application in teaching

2.3.3.1. Prepare learning materials

A mind map provide a brief overview of a topic, making even the most complex problems understandable and interesting. So, mind maps are an ideal teaching tool, helping us distribute handouts in the classroom because the thinking map will contain brief information, colors, images and layout. Intriguing visuals will appeal to the students immediately.

As stated above, *Introduction to General Linguistics* consists of 5 main groups of issues: (1) Overview of language and linguistics; (2) Phonetics; (3) Lexis; (4) Grammar; (5) Language classification. These five issues are presented by us in 5 branches of MMs. In the first lesson, after introducing the curriculum and subject objectives. We have used the overview diagram of chapters (Picture 2) to introduce the content of the subject. Through the content branches on MM, learners can initially identify the main content and note about the connection of the knowledge sections of this module.
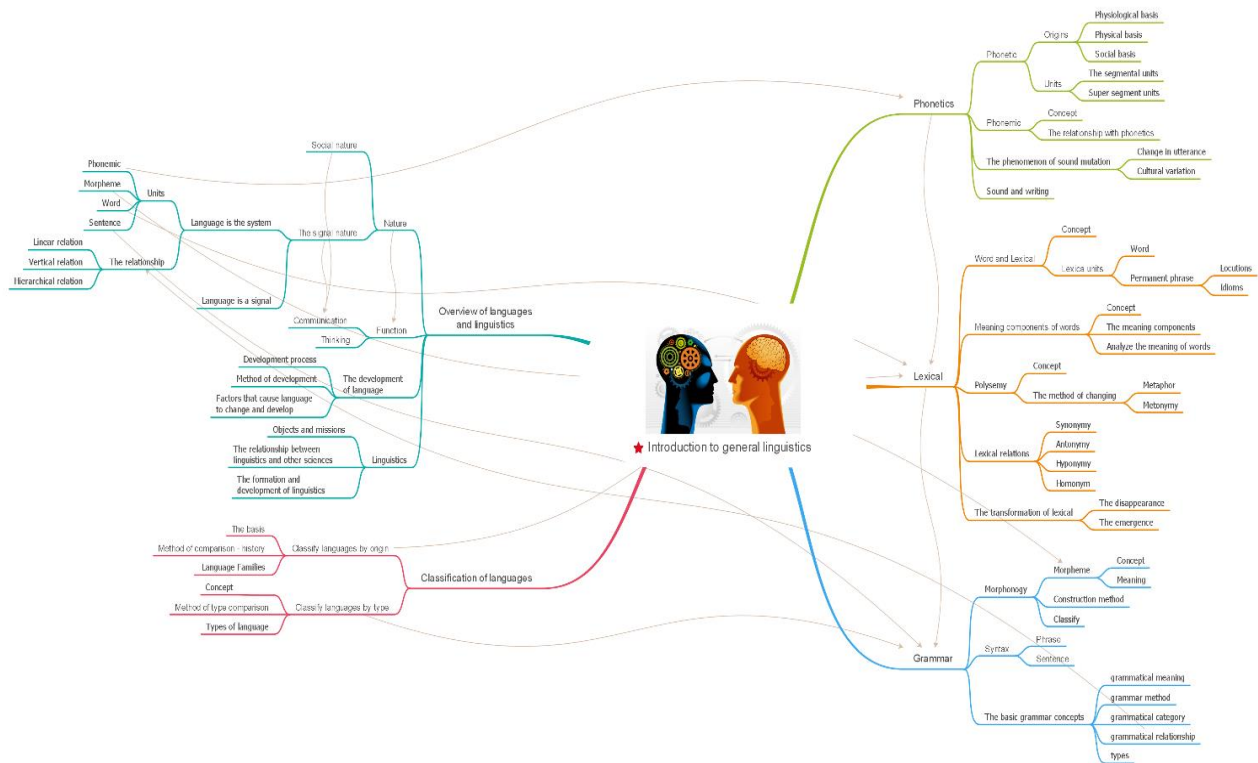
***Picture 2.** Learning materials*

Having an overview before starting the lesson is always an effective stepping stone so that learners can grasp common issues quickly, then have the opportunity to delve into the advanced knowledge.

2.3.3.2. Lecture presentation

Mind maps are an ideal tool for teaching and presenting concepts in the classroom. Mind mapping helps teachers focus on what needs to be exchanged for students, provides an overview of the topic without redundant information. Teaching effectiveness will be increased because the learners can track the content in a coherent, systematic way.

Another an interesting thing is that, in the process of teaching, teachers can immediately add to their lesson thinking maps good ideas, breakthroughs that suddenly come from teachers' thinking or from students'contribution. Teachers do this by adding keywords to the corresponding branch or creating a new branch. This is much easier and faster than using other forms of presentation such as powerpoint or prezi, slideshare.
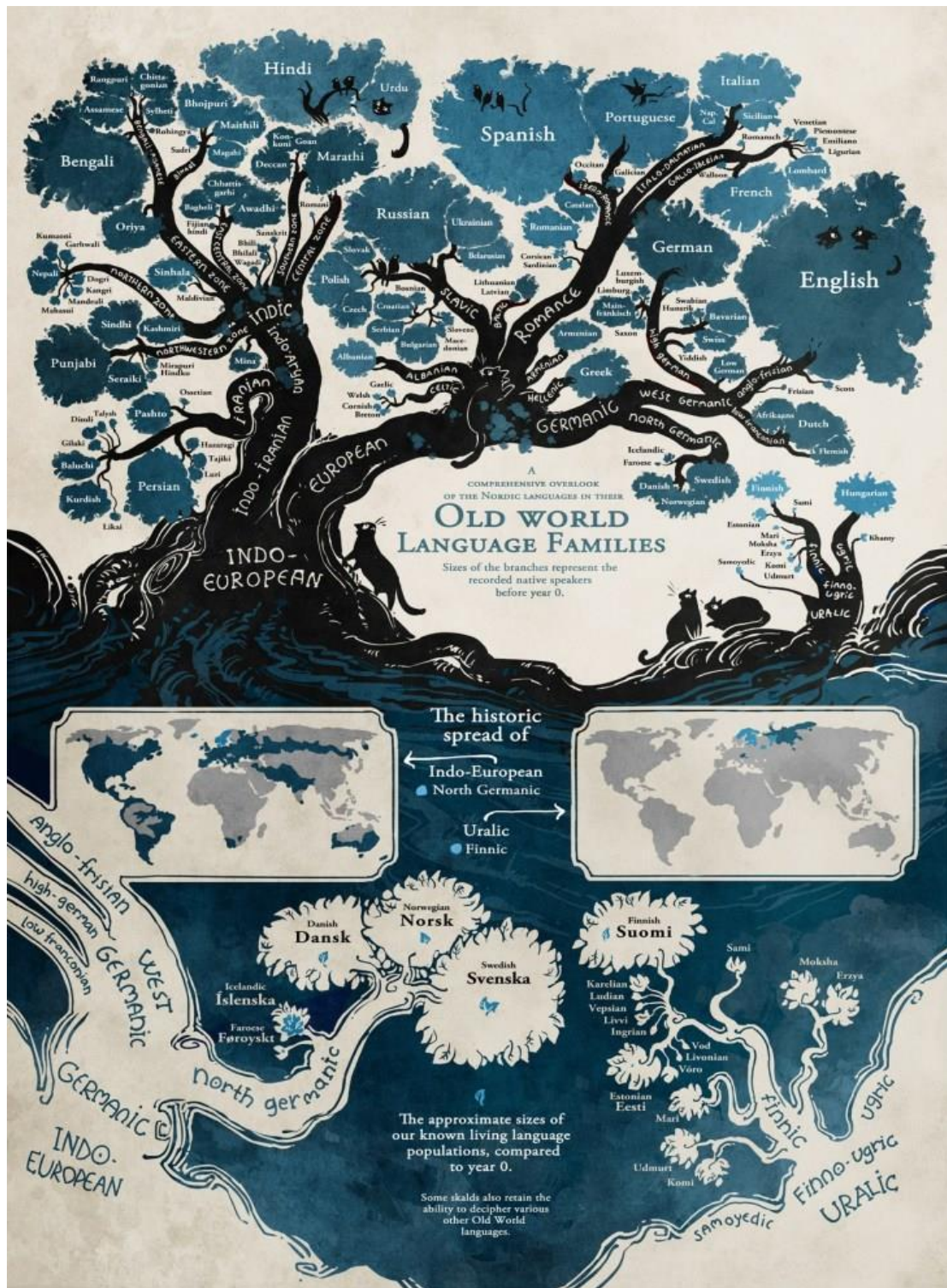
One of the content that we use MMs to illustrate very effectively is the classification of languages. According to statistics, the world has about 6,550 languages, so the listing is very difficult. We used MMs to present different language families according to historical comparison method (content 1 of chapter 5).

2.3.3.3. Encourage independent discussion and thinking

Practical teaching shows that interaction in the classroom and listening to students are important factors to help students think independently. MM is an ideal tool to support class discussions because the nature of mind maps encourages students to focus on the linkS among the topics as well as to spread their ideas and opinions.

2.3.3.4. Student assessment

Instead of testing learners' theoretical knowledge, in this module, teachers can ask students to present content topics with a mind map. Learners can also proactively suggest topics for themselves or their groups.

Picture 3. *Language family tree*

(Minna Sundberg, Refer to http://thelanguagenerds.com/feast-your-eyes-on-this-magnificent-linguistic-family-tree/)
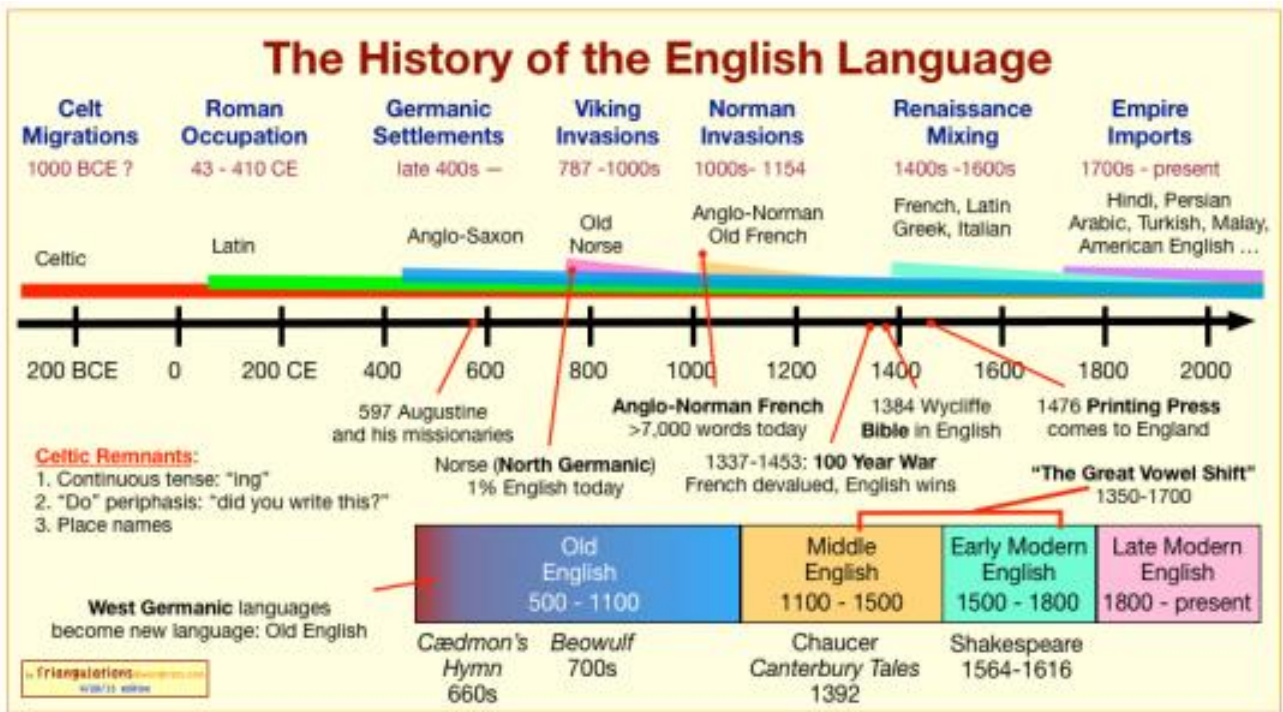
Picture 4. *The development of the English language*

(Refer to https://triangulations.wordpress.com/2014/09/30/the-history-of-the-english-language-a-diagram/)

MM is a tool that can help us assess student admissions before and after a lecture on a particular topic. Thereby, the teacher can assess the level of students' understanding. The MM, in addition to the test and the system of learned knowledge, is also a means to help the teachers realize the ability to synthesize materials, personal views and creative ideas of each student through the implementation of mentoring threads. Therefore the product will not only be a "return" but also an assessment of the ability to analyze, synthesize and creative ability of each learner.

The topics that we often assign students to do to evaluate component scores such as: The relationship between language and speech, Characteristics of the Vietnamese language type, Characteristics of the English language type, Relationship between Language and Thinking, Language Development, Relationship between phrase types, etc. In addition, this form of testing also limits the passivity of learners. When marking students'assignments, teachers will rarely find cases of copying from each other's answers or from the syllabus available.

2.3.4. Mind mapping applications in learning

From a learner's perspective, mind mapping is also a useful tool to help students improve their ability to remember, synthesize systems and achieve better results in learning.

2.3.4.1. Taking notes

First, MM is an extremely effective information-recording tool. With the immense amount of knowledge content and study pressure at universities, it is easy to feel overwhelmed because the number of lessons to take is increasing and it is difficult to remember them. Mind map proposes how to record information using KEYWORDS, then link knowledge and ideas visually. All information shown on one page will give you an overview of the subject.

2.3.4.2. Forming ideas for a large assignment or student research paper

Use MMs to plan essays, develop ideas quickly and variously. Spreading structure of MMs allows this idea to be born: students just write down, arrange main ideas. The special thing is that with MMs, our brain will focus
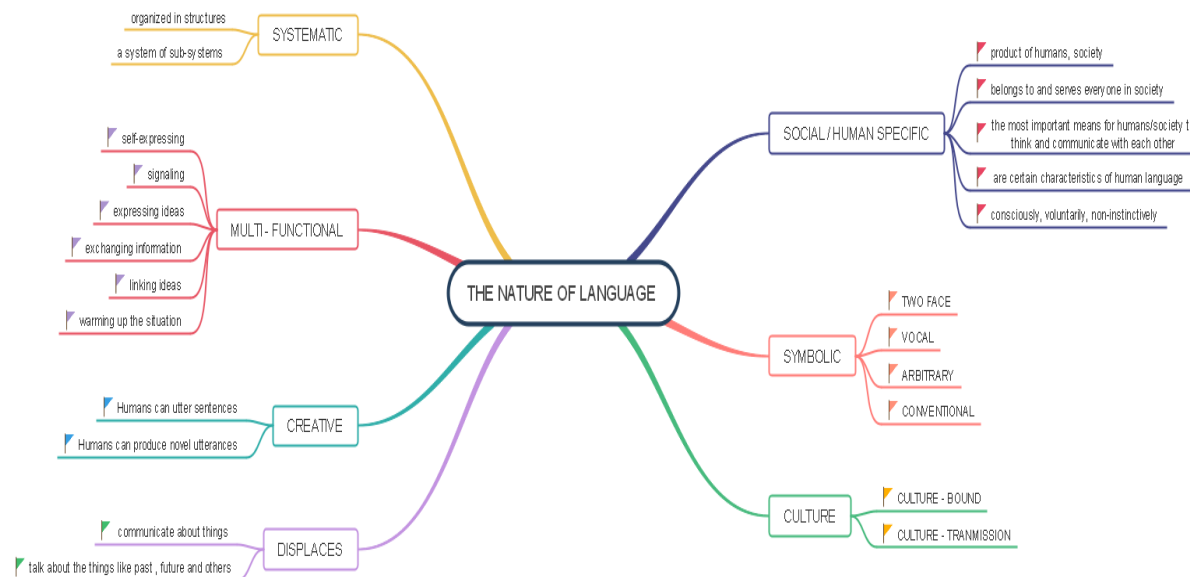
Picture 5. *Student's choice of topic*

completely on the topic of writing without being scattered. As a result, students do not stop at understanding and remembering knowledge but also have opportunities to develop lessons, form new ideas on the basis of comparing issues visually and vividly. These ideas can immediately be realized into diagrams of thinking to verify its feasibility. This helps students become more interested in doing scientific research or developing graduation theses.

2.3.4.3. Reviewing for exams

To finish the modules, students often "consume" a great deal of knowledge and homework. The solution to this is that the instructor instructs students to create mind maps for each subject at the beginning of the year, adding keys and important ideas.

For this section, learners can create a mind map for each chapter or use additional content branches to the master diagram that the teacher has provided from the beginning of the module (Pic 2). Set aside about 5 minutes a day to review and update the knowledge learned each day. Information from the branches in the mind map will link together. Eventually the knowledge will be memorized proactively. Knowledge becomes a chain of systems links, no longer a pressure on the learner.

2.3.4.4. Doing Presentations

Presenting, speaking, or presenting a problem in front of many people is a duty that is so familiar for each person not only in study but also in later work. When choosing MM as a presentation solution, you do not have to spend time reading each boring side. Instead, using MM to record keywords and images. This activates our expressive and memory skills. Presentation will become more natural and we will have more time to communicate with our audience.

2.4. Effective application of MMs in teaching *Introduction to General Linguistics*

Usually, students have a lot of difficulties learning linguistics in general and *Introduction To General Linguistics* in particular. Of course, this comes from a variety of reasons. One of the reasons is that the amount of knowledge is so enormous, a great deal of contents is synthetic and abstract. Knowledge is interlinked, if learners do not know how the system works, they will feel confused, overwhelmed and unable to grasp the lesson. In addition, reading many documents with different writing styles and perspectives also makes it difficult for learners. If learners do not understand a piece of content, consequently it will be hard for them to understand the remaining content.

Therefore, we have researched many ways to deploy lectures and review guides for learners, in which, the method of applying MMs in teaching, learning and initially testing and evaluating has brought about many positive results.

Reality has proved that the MM is a useful tool in teaching and learning at all levels of ideas clearly, creatively and effectively. Learning through diagrams, summarizing information of a lesson or a book, article, re-learning the system of knowledge will enhance the ability to remember and come up with new ideas to help improve learning efficiency to a great extent. From these practical bases, we believe that the MM is fully capable of applying to subject teaching and implementing classroom teaching.

The application makes lessons vivid, attractive, enabling learners to easily acquire knowledge. Mind maps should be prepared before class, during class and after class; doing so both inspires learning and is useful for the discovery and comprehension of knowledge.

Because the mind map allows users to relate and create according to their ability and ability to mobilize knowledge, it also facilitates us to use thinking maps to teach not only rational theory but also train and perfect the general capacity for higher learners.

In order to attest to the content presented above, we have implemented the application of MMs in teaching and learning, and we have also conducted a preliminary survey through the investigation of the effectiveness of the form of use MMs in teaching. The survey was conducted among 200 students of the University of Science & Education and the University of Foreign Languages - the University of Danang actually studying **Introduction to General Linguistics**. The evaluation criteria for this survey were based on the Likert scale [2] as follows.

Criteria	Degree evaluation					
	Disagreement		Concur		Completely agree	
	Amount	%	Amount	%	Amount	%
MMs help you follow and master the lesson of teachers more	10	5	67	33.5	123	61.5
MMs help you take notes more quickly and systematically	7	3.5	156	78	37	18.5
MMs help you review the exam more effectively	20	10	151	75.5	29	14.5
MMs help you make better presentations	26	13	98	49	76	38
MMs help to develop your communication skills	6	3	96	48	98	49

Thus, through the survey results it can be seen that our above statements about MMs are true. Most learners agree with the practical effect that MMs bring in the learning process as well as testing, assessing and developing linguistic competence through the use of MM as a tool to support presentations. In addition, you can also see the flexibility and initiative of students in presentation activities with MM support when on the screen there are only keywords but not long texts that make them dependent on the texts. Do not voluntarily stimulate thinking to produce words. The initiative in creating words has helped them to shape, train and improve their communication skills.

3. Conclusion

In fact, the effects of MMs for many different areas of life have been mentioned by many authors; this is not too new but not really familiar and it is necessary to promote their inherent effectiveness in education. This article systematically analyzes the issues of MMs, thereby suggesting the most optimal implementation. At the same time, through empirical application in teaching linguistics and field surveys, we have confirmed that the

MM is a useful tool that effectively supports both teachers and learners in improving high effectiveness of teaching and learning on both basic and intensive levels at university.

Applying this form in teaching linguistics modules helps to ensure the systematization, generalization, coherence and at the same time overcome the abstractness and ambiguity of the subjects and disciplines, thereby helping learners become more interested in learning and studying linguistics.

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ỨNG DỤNG MINDMAP TRONG DẠY VÀ HỌC CÁC MÔN NGÔN NGỮ HỌC (TRƯỜNG HỢP MÔN DẪN LUẬN NGÔN NGỮ HỌC)

Tóm tắt: Bài viết này phân tích một cách có hệ thống các vấn đề của Mindmap từ đó đề xuất ứng dụng tốt nhất trong dạy và học. Ngoài ra, thông qua ứng dụng thử nghiệm trong học phần Dẫn luận ngôn ngữ học, chúng tôi đã thấy rằng sơ đồ tư duy là một công cụ hữu ích, hỗ trợ tích cực cho cả giáo viên và người học trong việc cải thiện hiệu quả của việc giảng dạy đại học ở cả cấp độ cơ bản và chuyên sâu. Chúng tôi cũng đã tiến hành khảo sát đánh giá của người học về hiệu quả của việc sử dụng sơ đồ tư duy, qua đó, bài báo khẳng định rằng MM giúp người học hứng thú hơn đến việc học và nghiên cứu các môn Ngôn ngữ học nói chung và Dẫn luận ngôn ngữ học nói riêng, những môn học vốn dĩ có nội dung kiến thức lớn, trừu tượng và rất khó cho sinh viên học tập, thực hành và nghiên cứu chuyên sâu.

Từ khóa: sơ đồ tư duy; ngôn ngữ học; Dẫn luận ngôn ngữ học; khảo sát; đánh giá; hứng thú.