

METHODOLOGICAL REQUIREMENTS FOR TEACHING COMPUTER LINGUISTICS THROUGH INTELLECTUAL MAPPING

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Abstract

It is known that the 21st century will be the century of rapid development of computer technologies, advanced pedagogy and information technologies (internet), high thinking, science and technology. By the beginning of the 21st century, "Electronic education", "Electronic management", "Open education", "Distance education", "Information education", "Innovative education", "Innovative pedagogical technology" concepts are getting embedded in our life day by day. In the words of President Sh.M. Mirziyoyev, "In the current age of information, communication, and computer technologies, when the Internet is getting deeper and wider into all aspects of our lives day by day, the struggle for people's consciousness and thinking is of crucial importance. in the current situation, there is no need to talk about how urgent and priority these issues are becoming for our society."

Introduction

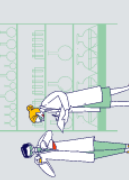
Currently, a number of new problems are emerging in the field of engineering linguistics, computational linguistics, mathematical linguistics, and "electronic translator", computer linguistics. In fact, the modern computer has enormous possibilities, from playing chess to making medical diagnoses, managing businesses, "reading" the mysterious letters of ancient peoples, reciting their contents, writing poems, playing tunes. , annotating large books, drawing project histories, etc., in all hundreds of work activities, of course, modern computer technology is a very close assistant in terms of both manpower and time.

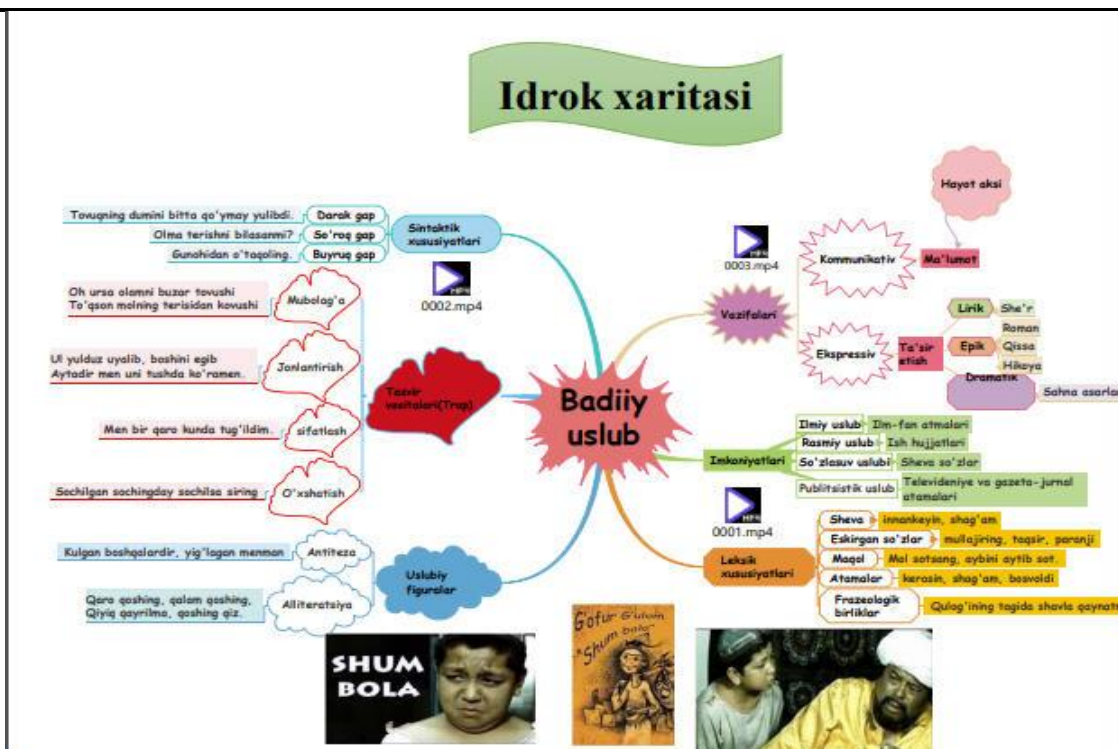
Therefore, in modern times, it is appropriate to use advanced pedagogical technologies in teaching the Uzbek language. I think that the use of these pedagogical technologies as a tool or technology depends on the skills of the teacher. The intellectual map that I want to talk about is also a part of this technology.

Mind mapping can be used as both a tool and a technology. In order to create a cognitive map, the teacher must master computer technologies very well. We see this in the example of the map above.

When the students are shown these pictures, the students analyze the works and find out which writer's pen they belong to. The convenience of this tool allows students to quickly perceive the work or the picture on the cover of the book. As a result of perception, it is possible to compare and analyze other works by using one of the maps. Now we return to the main point of this article.

Is it possible to pass linguistics sections with the help of a cognitive map? A question may arise. Yes, of course, through this tool, you can pass such sections as Phonetics, Lexicology, Phraseology, Morphology, and Syntax with the help of such a map.





For example, in the center of the map, a noun belonging to the morphological department is very useful in explaining the word group. For example, a noun phrase is written in the center of the map. And who exactly is around the center? What? All pictures with the answer to the question will be posted. And students immediately perceive and respond to the pictures. I think it is appropriate to start the lesson in this way. This insight can also be used to review past topics while transitioning to a new topic with a map. Perceptual mapping is aimed at forming the skills and abilities of students to imagine and organize thoughts, distinguish secondary ideas or concepts that help to explain the main ideas or main concepts of the topic being studied. Tasks in the textbooks include expressive reading, reading in roles, memorizing the text, narrating the content of the text, and narrating the content of the text in abbreviated form. They contribute to the improvement of students' oral speech skills. There are also tasks aimed directly at improving written speech. In the 5th grade textbook, theoretical concepts are presented in an elementary way. The beginning of learning the native language based on its uniqueness allows to create a certain ground for the formation of a mature reader. In working with the 5th grade textbook, the first steps are taken for students to understand, feel, and understand the essence, magic, freshness of the artistic text, and on the basis of these, the elegance of Uzbek words. But it should not be forgotten that each text requires a unique approach. The texts intended to be studied in the programs and textbooks are selected according to their artistic value, educational value, and suitability to the age, mental capabilities, and levels of intellectual development of the students¹.

1. Po'latov A., Muhamedova S. Kompyuter lingvistikasi (o'quv qo'llanma).- Toshkent, 2007, 2008, 2009.

Perceptual mapping Demonstrations, decision-making, planning one's time, memorizing large amounts of information, brainstorming, self-analysis, developing complex projects, independent study, serves as an excellent tool for development and solving similar tasks. Since the 30s of the 20th century, the science of linguistics has been engaged in improving the process of translation with the help of EHM. In recent years, in connection with the creation of automatic EHM, the possibilities of mechanization of the process of scientific and artistic translation have expanded. Machine translation of a text from one language to another requires the following:²

1. Creating a system of rules that allows for mechanical translation of text with specially selected words. This is writing rules and words in "machine language", that is, developing a program that implements those rules. The rules of translation are necessary only for two languages, and in order to translate official and scientific texts of the same general direction, and sometimes artistic texts, the following linguistic training should be carried out:

- a) creating a dictionary of basics in both languages;
- b) creating a dictionary of turns (wraps), stable syntactic devices;
- d) drawing up translation tables for first assistants and then assistants;
- e) development of rules for distinguishing homonyms from each other;
- f) developing a table of affixes in both languages;
- g) creating a system of rules that analyzes and synthesizes grammatical rules in both languages;
- h) development of a system of rules synthesizing existing analyzed rules, etc.

Such information is entered into the machine's memory, after which the process of machine translation begins. This process includes the following:

- a) the searcher for the desired word from the dictionary is inserted into the working part of the machine's memory with a symbol indicating its type;
 - b) development of the methods of matching the defined rotations (wrapping);
 - d) development of methods of distinguishing and translating identified homonyms;
 - e) to analyze, to compile a list of words to be translated within each word group based on a certain consistency with the help of analyzing rules;
 - f) synthesizing based on the obtained results, i.e. creating Russian sentences with the help of synthesizing rules, entering English and Uzbek sentence creation programs into the machine memory, etc.
- When the translation process is carried out, the initial work begins with word search in the dictionary, that is, the EHM takes words from the text to be translated one by one and searches for each of them in the dictionary of bases. Then it compares them, looks for the base that fits the word with the maximum number of letters and translates it. Analyzing rules are grouped by word categories in EHM. Analysis in any language begins with the verb, because the verb is the key to the meaning of any sentence among words. Therefore, in many languages, the verb has both analytical and synthetic properties. This dual, complex feature is typical of Uzbek verbs:

Analytical feature Synthetic property

Kulib yubordi	kuldi, kulimsiradi
Kulib qo'ydi	jilmaydi

² Z.Xolmonova. Kompyuter lingvistikasi. Toshkent - 2020 "Asian Book House

Yig'latib qo'ydi	yig'latdi
Topib keldi	topdi

A dictionary is a set of words arranged in alphabetical order and consists of an explanation or translation of a word into another language. Dictionaries have different functions. A morphological (linguistic) dictionary provides an explanation of the meaning and usage of a word and its grammatical category. Grammatical category (Gr.Kategoria-thinking, defining) is all grammatical meanings of one type: the meaning of a word combination in the category of agreement, the meaning of a combination of separate tense forms in the category of tenses, etc. Grammatical category belongs to grammatical content, that is, part of grammatical content.

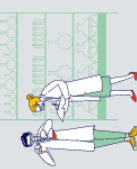
In particular, the whole lexical-grammatical level (class) of the word consists of a general semantic unit and morphological-syntactic signs, -verb category and adverbial category. Based on the morphological dictionary I.A. Melchuk's theory of "Meaning-Text" models lies. This theory provides a means of listing all the possible meanings of a word in a language and then providing a lexical representation for each meaning. Such an approach can explain to a willing language learner that the meaning of "strong dark" is expressed in the form of "tim dark", and the meaning of "strong applause" is expressed in the form of "glorious applause". In the theory of formal languages, such a structure is also called a syntactic tree, an output tree, or an internal representation of a phrase.

After successfully building the functional tree of the phrase, it is moral elements can be distinguished: logical object and subject, logical predicate, direct and indirect complements and cases can be determined. The problem of parsing is implemented in different ways in the following software products:

- Ergo Linguistic Technologies Parser;
- Functional Dependency Grammar;
- Link Parser,
- Star4Win (STARLING)³.

Recently, many scientific research groups have been working on the issue of syntactic analysis. It can be said that the problem of automatic separation of nominal groups (noun, adjective and number) for inflectional and synthetic languages has been solved within the limits of syntactic analysis, but the problem of full syntactic analysis of the sentence has not been 100% solved within the limits of natural languages. The purpose of semantic analysis is to determine the informativeness of textual information and extract the most important information from the processed text. Automatic semantic analysis of the text requires solving the problem of determining the content of the text and evaluating it. Such a problem requires an expert apparatus for assessing the quality of information, and it, in turn, requires a semantic analysis of very complex and large-scale texts about a suitable rubric (field), that is, having deep expert knowledge about a suitable field. is enough. Therefore, semantic analysis is difficult for

³ Абдурахмонова Н. Инглизча матнларни узбек тилига таржима қилиш дастурининг лингвистик таъминоти. Фило. фан... (PhD) дисс. - Тошкент, 2018



formalism (it is a difficult problem to formalize). Today, computer lexicography is one of the fastest growing branches of the computer industry - lexicography of scientific knowledge is one of the main modern factors of its realization and dissemination.

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