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**THE COMMUNICATIVE AND COGNITIVE ASPECT OF READING
TEXTS WITH REGIONAL GEOGRAPHIC MATERIAL AS A MEANS OF
TEACHING INTERCULTURAL COMMUNICATION**

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ABSTRACT

In practice, teaching a foreign language is based on the relationship between languages, on comparing language norms and structural features of the statement, the focus is on the prevention of interference or the possibility of using skill transfer, therefore very often the main efforts of teachers and students are aimed at working out only the outside of the statement, on compliance with the correctness of its design to the detriment of the content, semantic content and communicative value. In addition, in many existing school textbooks, most of the teaching materials (texts and oral topics) are associated with the description of the surrounding domestic reality by means of a foreign language, especially at the initial stage of training. This leads to the fact that the interaction in the student's consciousness of two language systems is perceived by him as the interaction of two unequal codes, of which one (mother tongue) is basic, primary, and the other (foreign language) is secondary.

KEYWORDS: *textbooks, language, interaction, description, communicative.*

INTRODUCTION

Language, being the repository of the culture of the whole society, is at the same time the property of the individual person who speaks it, and as such it is individual. "Personal consciousness is the product of a person's" socialization ", that is, assimilation of public experience stored in the language. In relation to the individual, the language in its cumulative function turns out to be a real" teacher ", because it transfers to the child who is mastering the language the stored the language of information accumulated over a long series of generations.

The process of mastering the mother tongue is at the same time the development of consciousness, thinking, inextricably linked with this language. [1, p.246]

Literature review, Methodology

Together with the experience of the relationship of the individual with his social environment, the formation and development of his linguistic consciousness takes place. Mastering the language, a person comprehends the surrounding objective world. "Constantly in contact with other people, as well as with the surrounding objective (including the... Iconic) world, people conceptualize and reproduce in textual activity not only for themselves, but also for others as their ... place in this world , and his knowledge (idea) about the relationship of the objects of this world to each other "[2,p.117].

Among the social qualities of a person, mastery of the meanings of words in which the social experience of generations is anchored occupies an important place. In the process of socialization, assigning new social roles, a person constantly replenishes his personal vocabulary, assimilates new ones and corrects the meanings of verbal signs already known to him before. In other words, in the course of communicative-cognitive activity, a person constantly expands and deepens his knowledge and ideas about the surrounding reality, and this comprehension of the world occurs simultaneously in the process of comprehension of the native language. Learning speech, in the process of material-objective activity, "we are in linguistic communication with the world around us, and our words serve to cognize it ..." [3,p.91].

The well-known Uzbek linguist and philosopher A.A. Potebnya, who developed the theory of the nearest and further meaning of the word [4,p.20], noted that people's knowledge of the world is unequal, and this affects the content that they put into words. People understand each other in the process of communication because in the content of words there is something common, popular. This equal, identical in the content of the word Potebnya called it the closest meaning. It is this type of meaning, in his opinion, that makes language a means of communication.

Native speakers, creating and interpreting texts (complex semantic-semantic integrity), proceed from the general socio-cultural meaning of language units. By programming the content of his message, the sender of the message deliberately postulates the general validity of the text he creates, just like the recipient, interpreting the perceived message, focuses on generally accepted values that exist in the sphere of his linguistic consciousness. "A decisive factor in the effectiveness of symbolic communication is a special kind of training, consisting both in knowledge of the general socio-cultural knowledge of simple signs (ie, means, tools of communicative and sign activity), and in the ability and preparedness for the generation of adequate goals for communicative and cognitive activity and interpretations of complex semantic-semantic integrity (complex characters) - texts ... "[5,p.121]

The content of personal linguistic consciousness can be described through its thesaurus and presented in the form of a filter through which incoming semantic information, expressed in symbolic form, is passed.

The term "thesaurus", first introduced into Uzbek linguistics in 1940 by L.V. Shcherba [6,p.154], is interpreted by him as a special principle for the compilation and organization of dictionaries. In linguo-psychology, a thesaurus is defined as an "open and mobile system of meanings stored in the individual's memory and organized according to the principle: from general to particular within a certain sphere of use. [7.p 123]

The native speaker's thesaurus is formed by his communicative environment, influenced by the characteristics of the socio-cultural context in which the individual communicates with other people, in other words, under the influence of the national culture to which he belongs. The thesaurus of any person is individual, because depends on class and professional affiliation, on age, gender and level of education, and at the same time, the thesaurus has something universally valid for all speakers of a given language: a certain set of meanings of linguistic elements and norms for constructing linguistic utterances.

The upbringing of a child, his comprehension of the objective world occurs under the influence of national culture, therefore the general that is in the thesaurus of each native speaker is determined precisely by the influence of the national culture, in the framework of which the child is placed from birth.

However, even in mastering a foreign language, the process of comprehending objective reality "is only categorized differently, cast into other socially conscious national forms." [8.p,4] The difference in living conditions, cultural and historical traditions modifies the means of expression of mental categories.

Starting to learn a second language, any person has an already established system of concepts, ideas, connections formed by the national culture and presented in the forms of their native language. Learning a foreign language cannot repeat the process of learning a native language, i.e. simultaneous! assimilation of linguistic signs and comprehension of the world of realities behind them. Inevitably, new language signs are equivalents of objects, phenomena, relations already indicated by the means of the mother tongue.

The connections between the mother tongue and the foreign language are artificial, since they exist only in the mind of the individual who is studying the second language, taking into account the features of these connections is of undeniable importance for the methodology, but they should not displace from the field of view of the methodologists the naturally existing connections between the second language and reality. [9.p,5-6]

In practice, teaching a foreign language is based on the relationship between languages, on comparing language norms and structural features of the statement, the focus is on the prevention of interference or the possibility of using skill transfer, therefore very often the main efforts of teachers and students are aimed at working out only the outside of the statement, on compliance with the correctness of its design to the detriment of the content, semantic content and communicative value. In addition, in many existing school textbooks, most of the teaching materials (texts and oral topics) are associated with the description of the surrounding domestic reality by means of a foreign language, especially at the initial stage of training. This leads to the fact that the interaction in the student's consciousness of two language systems is perceived by him as the interaction of two unequal codes, of which one (mother tongue) is basic, primary, and the other (foreign language) is secondary.

Learning a foreign language in isolation from the national culture, without filling it with content related to the life, traditions, history of the people of the country or countries of the language being studied, inevitably leads to mastery of the second language as a new code superimposed on speech activity in the native language. "Based on the native language, receiving the second language sign as a translation equivalent of the native language sign, the student naturally transfers semantic-structural relations of the native language onto it" (i.e. the whole system of

meanings and concepts (including information related to the lexical background) existing in his linguistic consciousness and related to his national culture. It is this circumstance that complicates, and sometimes makes impossible, mutual understanding of people who speak, it would seem, in one language, but belonging to different cultures.

The assimilation of national culture occurs not only with the socialization of the child. The process of assimilation by a person who has grown in one culture of the elements of another culture is called acculturation. A person who owns two cultures in sociology is called a person at the turn of cultures. The issue of acculturation is directly related to the methodology of teaching foreign languages: according to E.M. Vereshchagin and V.G. Kostomarov, "the only and maximum goal of teaching culture in connection with language is to create a personality at the boundary of cultures" [10.p,26] which is the basis for intercultural communication - an adequate understanding of two participants in a communicative act belonging to different national cultures.

Currently, the need for students to get acquainted with the country of the language being studied is recognized by supporters of various methods both in our country and abroad. You can cite the proponent of comparative methods to L. Shcherba on the need to consider national culture when teaching a foreign language: "... our concepts are functions of culture, and this last one is a historical category and is related to the state of society and its activities." [11, P.67]

Advocate of indirect methods R. Lado believes that the study of a foreign language is closely connected with the introduction to the culture of its people, because language and culture are inseparable. You can understand another people only by mastering its system of concepts, and this, in his opinion, is possible only in the language of this people. "Penetration into the culture of a people, knowledge of its system of concepts have not only educational, but also purely practical significance." [12,p.54]

Information about the country of the language being studied, represented by texts and illustrations, photographs and maps, is traditionally used in the teaching of the most common European languages. An example is the numerous textbooks of English as a foreign language, published in the UK and other European countries, as well as in the United States, which pay a lot of attention to showing the country and lifestyle, the customs of the British / Americans. [13; 14; 15; 16; 17; 18;]

Defining the objectives of the English language course, the authors of the Blueprint textbook [13] emphasize that in the changing world of endangered political, economic and cultural barriers, the needs of students studying the language are expanding. "... today, students expect from the English language course not only the study of certain vocabulary and language acquisition. They need to expand their knowledge of other countries, both belonging to the English-speaking world and beyond. Awareness of how people live and behave in other parts of the world expands intellectual horizons and promotes mutual understanding and cooperation between countries." [13,p. 5]

In our country, a wide range of urgent problems related to the teaching of a foreign language with the simultaneous study of national culture is most consistently solved in linguistic studies - one of the sections of the methodology of teaching Uzbek as a foreign language. The methodological principles that form the basis of linguistic and regional studies are formulated in the work of E. M. Vereshchagin and V. G. Kostomarov "Language and Culture":

- Understanding of the social nature of language as an objective possibility of introducing a foreigner to a new reality for him;
- Understanding of the process of learning and teaching a foreign language as a process of acculturation of a foreigner;
- The formation of students' positive attitude towards the people - the native speaker;
- extraction of regional geographic information from natural forms of language and from educational texts;
- The implementation in the educational process of the philological method of secondary knowledge of reality, i.e. the use of fiction as a carrier of national cultural information.

The separation of linguistic and regional studies into an independent section of the teaching methodology was of great importance, because laid the foundation for at least two important directions: firstly, the identification of various means of language as a source of regional geographic information, their systematization and classification; secondly, it is a search for methodological techniques and ways to include these carriers of national-cultural semantics in the educational process.

As already mentioned, the tradition of including country-specific texts in textbooks of Uzbek, English, French as a foreign language is not new, but only with the advent of linguistic and regional studies did the development and further development of the methodology of working on language tools that carry country-specific information begin. Currently, the linguistic and territorial aspect is being developed not only in relation to the Uzbek language, but also in other languages, for example, in English, German, and French.

The relevance of the directions developed in linguistic and regional studies is not in doubt. At the same time, it should be said that not all the provisions and principles of linguistic and regional studies can be transferred to the practice of teaching foreign languages at school. This is due, first of all, to the difference in the conditions for teaching Uzbek as a foreign language and European languages (in particular, English) in our country. This difference lies in the fact that foreigners study the Uzbek language in the country of the language being studied, in the conditions of the natural language environment and in the presence and environment of the national culture, which makes mastering the Uzbek language as a means of communication an urgent vital necessity. Their familiarization with the national culture takes place through participation in real communication situations, authentic print, auditory and audiovisual media: print, radio, TV, cinema and theater; through objects of material and spiritual culture.

Teaching European languages as a school subject takes place in completely different conditions: teaching a foreign language is limited by the time allotted for classroom instruction; it occurs in an artificially created language environment in the classroom, in contrived, conditional communication situations; on limited language material and topics; surrounded by native national culture; without a real need for communication in a foreign language.

In the absence of a natural language environment and the limitation of situations of accessing the studied foreign language by the classroom, a functional differentiation of the native and foreign languages arises, when the native language acts as a means of communication, and a foreign language as an object of study. This differentiation is even more obvious when a foreign language is mainly used to describe the reality that is familiar to schoolchildren, i.e. the means of

a foreign language are superimposed on objective reality, already indicated by the means of the native language of students.

In addition, information related to the native country is presented in a rather primitive form due to the limited language capabilities of students. Thus, there is a violation of the principle of genuine communicativeness, and this is especially true for reading instruction, since when reading the texts offered in parallel English textbooks (Starkov, Dickson), students receive mainly linguistic information, since these texts have a minimum of meaningful and communicative value.

That is why the observance of the principle of combining teaching a foreign language and simultaneous familiarization with the national culture is very important in the context of school education. Mastering a foreign language should be a key for students to learn about the country, the culture of native speakers from the first steps of learning this language. It is the fact that a foreign language can be a source of new knowledge, a way to familiarize oneself with a new, unfamiliar world, can raise the status of the language being studied, fill the subject “foreign language” with meaningful content for students.

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**A STUDY OF ALGORITHM BASED ON LINGUISTIC MODELS IN
MACHINE TRANSLATION BETWEEN RUSSIAN AND UZBEK**

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ABSTRACT

The article is devoted to the analysis of simple sentences' structure of Russian and Uzbek languages. We propose an algorithm that solves crucial problem for machine translation of these unrelated languages, and the linguistic database that gives the possibility to implement the process of machine translation.

KEYWORDS: *Database, Machine Translation, Tokenization, Programming And Linguistic Database, Algorithm.*

INTRODUCTION

Computational linguistics is one of the complicated fields which crossroads of linguistics and computational technologies. Because it links directly with natural language processing, indeed it also depends on several factors that are psychological, cognitive, and cultural and so on. Nevertheless, translation is not only technical process but also creative activity that based on including both material and mental capability of human being. Therefore, for machine translation it is important to identify what kind of texts would be objects in the automatic process. We clarify the text in terms of genres like official or scientific texts that are more formal than others are. However, a lot of break through in the field involving or a land written form of all genres texts since many attempts have been implemented over the world. Regarding progress, today as we mention some approaches of machine translation like neuromachine translation, statistical, phrasal-based etc. Owing to globalization and interactive communication between nations inInternet, translation tools have a pivotal role to ease and make the atmosphere that is necessary and so fast with quality to take daily information and transform them consumer as soon as possible. It is not even in social networking, but exchange academic background at any time at different parts of the world gives a great chance to analyze and criticize them wherever its needed. Therefore, in machine translation the Uzbek language is important as it one of Turkiclanguage.

Our article is focus how to build up algorithm for machine translation from Russian into Uzbek and viceversa.

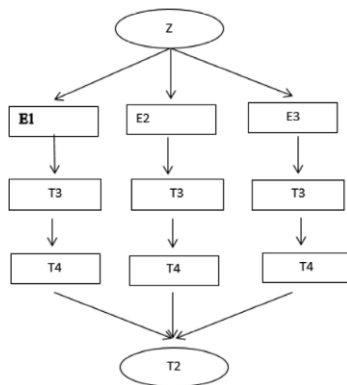
Firstly, it is applied morphological analysis in the first stage: tokenization (take apart word form) -> lemmatization (the analysis of morphemes)->stemming (identify the roots of the words). Thereafter syntactic models of the text compared and checked eachother.

Obviously,database is well structured systematically and by structure to keep data that are used in urgent time accurately and properly which are asked somehow. It is should be input symbols for environment of machine translation.

Data Name	Function
R_i	The database of phrase and terms of the scientific spheres.
Q1	The database of all of the words root in the language.
K1	The database of all derivational words
V2	Clause elements
V3	The database of parts of speech

The environment translation services for scientific text. It is very important to address Grammar of the languages so that to identify the structure of the sentence and parts of speeches in the text. It could do this work through two directions: Russian-Uzbek, Uzbek-Russian.

Firstly, dividing into several parts of speech of input text (Z) and each words are taken the other term database; they are replaced in terms of grammar. We display the functional chart of translation algorithm:



The following symbols input in the entry part of language in order to model of natural language:

T3i1-translation into other language and the massive including the function in the sentence, $1 \leq i \leq m$;

T4j1- translation into other language, $1 \leq j \leq m1$;

T2-translated text; E4-subject; G2 -predicate; E5- attribute;

E6-object; E7- modifier.

There are two appropriate models of sentence in both of languages.

a) the different mathematical models of types of indicative mood in

Uzbek:

I.

1. $\langle E4 \rangle \downarrow \oplus \langle E5 \rangle \downarrow \oplus \langle E6 \rangle \downarrow \oplus \langle E7 \rangle \oplus \langle G2 \rangle$.
2. $\downarrow \langle E5 \rangle \oplus \langle E4 \rangle \downarrow \oplus \langle E6 \rangle \downarrow \oplus \langle E7 \rangle \oplus \langle G2 \rangle$.
3. $\downarrow \langle E5 \rangle \downarrow \oplus \langle E5 \rangle \oplus \langle E4 \rangle \downarrow \oplus \langle E6 \rangle \downarrow \oplus \langle E7 \rangle \oplus \langle G2 \rangle$.
4. $\langle E4 \rangle \downarrow \oplus \langle E5 \rangle \downarrow \oplus \langle E6 \rangle \oplus \langle G2 \rangle$.
5. $\langle E4 \rangle \oplus \langle G2 \rangle$.
6. $\langle E4 \rangle \downarrow \oplus \langle E7 \rangle \oplus \langle G2 \rangle$.
7. $\langle E4 \rangle \downarrow \oplus \langle E6 \rangle \oplus \langle G2 \rangle$.

Thus we apply a bit change of mathematical models which presented at [1,3,4] types of component of sentence. Hence, some exact parts of speech could be appropriate clause elements in some cases that identified as models of the text. Afterwards it is taken from other translation in the second language and it is replaced in order by normal principles. In next stage algorithm takes function in order to the most optimal and meaningful translation. Above mentioned the forms Uzbek sentences are formed as Russian mathematical models:

1. $\langle E4 \rangle \downarrow \oplus \langle E5 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E6 \rangle \downarrow \oplus \langle E7 \rangle$.
2. $\downarrow \langle E5 \rangle \oplus \langle E4 \rangle \downarrow \oplus \langle E7 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E6 \rangle$.
3. $\downarrow \langle E5 \rangle \downarrow \oplus \langle E5 \rangle \oplus \langle E4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E6 \rangle$.
4. $\langle E4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E6 \rangle \downarrow \oplus \langle E5 \rangle$.
5. $\langle E4 \rangle \oplus \langle G2 \rangle$.
6. $\langle E4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E7 \rangle$.
7. $\langle E4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E6 \rangle$.

b) Let's take the mathematic models of simple interrogative sentences of Uzbek language as an example:

1. $\langle M4 \rangle \downarrow \oplus \langle E5 \rangle \downarrow \oplus \langle E5 \rangle \downarrow \oplus \langle E6 \rangle \oplus \langle G2 \rangle$
2. $\langle M4 \rangle \downarrow \oplus \langle E6 \rangle \downarrow \oplus \langle E5 \rangle \oplus \langle G2 \rangle$
3. $\downarrow \langle E6 \rangle \oplus \langle M4 \rangle \oplus \langle G2 \rangle$
4. $\langle M4 \rangle \downarrow \oplus \langle E5 \rangle \downarrow \oplus \langle E6 \rangle \oplus \langle G2 \rangle$

These interrogative sentences suit in Russian such models as following examples:

1. $\langle M4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E7 \rangle \downarrow \oplus \langle E5 \rangle \downarrow \oplus \langle E6 \rangle$
2. $\langle M4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E6 \rangle$
3. $\langle M4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E5 \rangle \downarrow \oplus \langle E6 \rangle$
4. $\langle M4 \rangle \oplus \langle G2 \rangle \downarrow \oplus \langle E6 \rangle \downarrow \oplus \langle E7 \rangle$

Using above mentioned database structure of sentences and terms, translation algorithm is given like this:

$Q1_{uz} \Rightarrow$ SELECT * FROM `Q1_uz` »-all stems in Uzbek;

$K1_{uz} \Rightarrow$ SELECT * FROM `K1_uz` »-all word forms in Uzbek;

$Q1_{ru} \Rightarrow$ SELECT * FROM `Q1_ru` »- all stems in Russian;

$K1_{ru} \Rightarrow$ SELECT * FROM `K1_ru`; »- all word forms in Russian;

E_i – sentence taken from text Z , $1 \leq i \leq n$; $L1_j$ – words taken from E_i , $1 \leq j \leq n1$;

After doing algorithm [2], the following “search” algorithm divides

into Z sentences, and after that it breaks apart words or word combinations, then each word formations is searched in the database of stem list, if there is not need words turning another one

type of database. After finding words, taken translation form the target language. As we take one more example for Uzbek-Russian direction the 1st translation algorithm like this:

1. Search the words in L1j from Q1_uz. If find go 2nd step, otherwise 4th step;
2. Take the stem from Q1_uz in terms of Russian order (ID);
3. Take translation of stream of Q1_ru and go through the 7th step;
4. Search each word in L1j from K1_uz;
5. Take the order (ID) word formation in K1_ru form K1_uz;
6. Take translation of word formation from K1_ru;
7. Identify the function in the sentence and replace in the massive T3i1;
8. Pass filled massive of T3i1 to function UzbekRussian (T3i1);
9. Replace the results of function UzbekRussian (T3i1) to T2;

Here UzbekRussian(T3i1) [2] function which is written translation algorithm for Uzbek-Russian direction. UzbekRussian(T3i1) function is written as following. So we used some signs to write function:

1. ET3k1 –Uzbek and Russian the structures that are suited each other $1 \leq k1 \leq m2$;
2. Load the functions of words which are input T3i1 to E8k massive;
3. Find appropriateness structure sentence to E8k form ET3k1;
4. Take found the fords as clause elements from ET3k1 and load to T2;

This function is such a form in programming language (in Java):

```
private String UzbRus(String suz) throws
ObjectNotFoundException {int rusId=0; String rusSuz =""; int gapBulagiId=0;
U z a k S u z l a r u s = u z a k S u z U z b e k D a o . getUzakUzbekByWord(suz);
if(us.getUzakSuzlar().equals(suz)){ rusId=us.getUzakRussianId();
List<UzakRussian>ueList=uzakSuzRussianDao. getuzakSuzlarListByRId(rusId);
for (UzakRussian ue : ueList) { rusSuz=ue.getUzakRussian();
}}else{ YasamaSuzlar ys=yasamaSuzUzbekDao. getYasamaUzbekBySuz(suz);
if(suz.equals(ys.getYasamaSuzlar())){
rusId=ys.getYasamaRussianId();
YasamaRussian ye=(YasamaRussian)
yasamaSuzRussianDao.getYasamaRussianListByRId(rusId);
rusSuz=ye.getYasamaRussian();
}else{ rusSuz=suz;}}return rusSuz;}
```

The algorithm 2 is for Russian-Uzbek direction like this:

1. Search each word in L1j from Q1_rus. If it is found, go to the 2nd step, otherwise to the 4th ;
2. Take the order (ID)stem in Russian from Q1_rus;
3. Take translation stem from Q1_uz and go to the 7th step;
4. Search each word in L1j from K1_rus;
5. Take the order (ID) in word formation in K1_uz from K1_rus;
6. Take translation derivative word from K1_uz;
7. Identify the function of the word in the sentence and replace in the massive of T3i1;
8. Pass filled massive T3i1 to function RussianUzbek (T3i1); Replace the results of function RussianUzbek (T3i1) to T2;

Here RussianUzbek (T3i1) is the function written in [2] based on Russian-Uzbek translation direction algorithm. RussianUzbek (T3i1) function is as following, accordingly used some signs to write function:

1. ET4k1 – Uzbek and Russian the structures that are suited each other $1 \leq k1 \leq m2$;
2. Load the function in the sentence of the word input T3i1 massive to E8k;
3. Find proper the structure sentence to E8k from ET4k1;
4. Take clause elements of the words found in ET4k1 and load to T2;

These tags represented in the following process:

```
private String RusUzb(String      suz)  throws
ObjectNotFoundException {
int uzakId=0; String uzbSuz=""; int gapBulagiId=0;
UzakRussian ue=uzakSuzRussianDao. getUzakRussianByword(suz);
if(ue.getUzakRussian().equals(suz)){ uzakId=ue.getUzakSuzlarId();
List<UzakSuzlar> usList=uzakSuzUzbekDao. getuzakSuzlarListByRId(uzakId)
for (UzakSuzlar us : usList) { uzbSuz=us.getUzakSuzlar();}}else{
YasamaRussian ye=yasamaSuzRussianDao. getYasamaRussianByWord(suz)
if(suz.equals(ye.getYasamaRussian())){ uzakId=ye.getYasamaSuzlarId();
YasamaSuzlar yu=(YasamaSuzlar)yasamaSuzUzbekDao.getYasamaSuzlarListByRId(uzakId);
uzbSuz=yu.getYasamaSuzlar();}else { uzbSuz=suz;}}
return uzbSuz;
}
```

In conclusion we may say that although our investigation on machine translation system seems a bit a simple, there are very pivotal issues should be done in terms of linguistic models.

According to this rule based translation is important for non familiar and relative languages like Russian and Uzbek. In the future, our research will be directed multilingual machine translation system for the Uzbek language.

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