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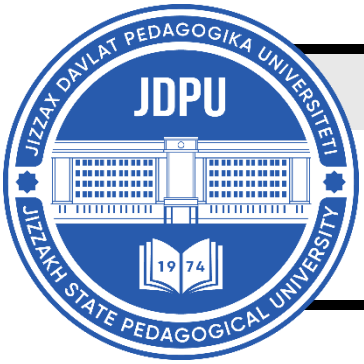

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CULTURAL AND NATIONAL ASPECTS OF COMPUTER TERMINOLOGY

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ABOUT ARTICLE

Key words: social communication; computer terminology; internet slang; lexical sub-language; Uzbek culture and association with English.

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Abstract: The following work attempts to determine whether students' proficiency in English and its culture influenced their intuitive understanding of computer concepts, that is, whether there was a conversion, similar to SLA, of languages the student knows to visual languages, that is. Knowledge of computer concepts, which is regarded as the transition from Language to Computer Science (LCS). A survey, designed to test students' visual understanding of central concepts in computer science is presented. The test should be used by students who have little knowledge of computers, so the understanding they show on the test is due to their understanding of words based on their language training. The presence of term words in the text is noticeably reduced, while the role of multicomponent terminology is significantly increased. The predominance of the role of multicomponent terminology in modern terminologies is explained by the fact that there is a need to nominate complex compound concepts, clarify professional objects and concepts. Hence, their essence is known and new aspects of the studied phenomena are discovered. Moreover, multicomponent terminology not only names and differentiates the emerging concepts, but also systematizes the paradigmatic relations between them, reflecting the system connections of units of a particular terminological system.

INTRODUCTION

The great poet Alisher Navoi, the founder of literary Uzbek, wrote about the importance of the language for the state's historical and cultural development. In his works, the outstanding writer sang love for the Motherland: creating samples of high lyrics, the ancestor demonstrated all the elegance, richness and flexibility of the language. That is why it is especially significant that as part of the implementation of the Development Strategy of New Uzbekistan for 2022–2026, a new university will open in the country — the International Institute, named after the great master of the word. The institution is called upon to ensure the wide popularization of our national traditions, culture and language in foreign countries and to strengthen humanitarian ties [1].

The term computer is often based on words with related root meanings in English and is rooted in the Western tradition. Therefore, students from other cultures and students who are not native English speakers will not be supported by language and culture to understand computer concepts. In this work, the authors examine the correlation between language, cultural context, and computer learning. A comparative study is being prepared to examine this relationship. The study will compare the visual understanding of computer concepts among groups of Saudi students with different levels of English and different levels of maturity. A test designed to reveal differences in perception of computing concepts may be due to these fundamental differences. This study will serve as a starting point for further work on how to improve computer science education for students whose native language is not English.

The semantic adaption of various computer terminologies is investigated in depth using a free-associative experiment. The study's importance originates from the active development of English and Uzbek language terminological systems, as well as the prospects for computer terminology development. Computers, mobile phones, and Internet technologies are used in a wide range of human activities; the flow of documents on paper and electronic media is increasing; new types of technical devices (smartphones, communicators, netbooks, and so on) and modes of communication (portals, blogs, chats, forums, and so on) are emerging; and new types of technical devices (smartphones, communicators, netbooks, and so on) are emerging. Each new advancement in information technology necessitates a revision of the computer terminological system, as well as the introduction of new terminological units and the transformation of current terminological units [2].

With the help of a free-associative experiment, the semantic adaptation of some computer terms is studied in detail. The relevance of the study is due to the active development of the terminological systems of the English, Uzbek language and, accordingly, the prospects for the development of computer terminology. Computer equipment, mobile and Internet technologies are used in various fields of human activity, the flow of documents on paper and electronic media is increasing, and new types of technical devices (smartphones, communicators, netbooks, etc.) and types of communication

(portals, blogs, chats, forums, etc.). Each new modification of information technology is accompanied by an update of the computer terminological system, the creation of new and the transformation of existing terminological units. Thanks to the processes of interlingual and intercultural interaction, lexical units from various world languages penetrate into the Uzbek language, the largest percentage of which are scientific and technical Anglicisms, in particular computer terms. Computer terminology is becoming an object of active linguistic study, which is confirmed by modern dissertation research on computer terminology in English. In particular, IT workers themselves in their circles communicate in a new language, which is gradually penetrating the masses, because, we are all present in this system because virtually everyone uses computer media. With such a course of events, attention would be drawn to the culture of communication between people who are losing stability. The events of recent years have unwittingly forced us to move away from each other and work remotely. Now, we communicate with each other, for the most part, through a computer and other devices. However, we should never have feelings for a communication culture. The presence of term words in the text is noticeably reduced, while the role of multicomponent terminology is significantly increased. The predominance of the role of multicomponent terminology in modern terminologies is explained by the fact that there is a need to nominate complex compound concepts to clarify professional objects and concepts as their essence is known and new aspects of the studied phenomena are discovered. “Multicomponent terminology not only names and differentiates the emerging concepts but also systematizes the paradigmatic relations between them, reflecting the system connections of units of a particular terminological system”.

MATERIALS AND METHODS

In Uzbekistan, most computer science students enter university for the first time entirely in English. They studied computer science in high school and were familiar with some basic computer terms, but these studies were done in Uzbek, not English. To prepare students for this transition, in their first year, they are offered two intensive General English courses and one specialized course for their own field of study. In this work, we investigate whether there is a link between English proficiency and the corresponding culture and intuitive understanding of computer terms and concepts. If there is such a connection, a deeper understanding of its nature can form the basis for designing English courses specifically tailored to advance computer learning.

In the next section, we will discuss the context of this ongoing work. Part III provides an overview of the research and introduces computer terms that appear while dealing with computers.

In his book Culture and Organization: software of the mind: international cooperation and its importance for survival [3], Hofstede describes culture as being “the collective programming of the mind which distinguishes the members of one group or category of people from another”, that it is a collective phenomenon shared among people living in the same social environment. Pavlenko [4]

states that individuals acquire and assess concepts through language and that such language-based concepts are social, i.e. they require that members of a particular speech community agree in order to achieve an amount of shared understanding in communication around an activity. People sharing the same culture and language also have a shared understanding of language-based concepts. “The words and expressions associated by NCS [Native Chinese Speakers] convey Chinese culture, and those associated by NES [Native English Speakers] convey English culture” [5].

When we discuss understanding a particular word, it also includes becoming familiar with aspects of culture and lifestyle that impact the subtle meanings of words and how they are used. English is the first language in many different countries with cultural differences. In this work, when referring to the culture corresponding to English, we focus on the commonalities of these cultures as seen by a foreign IT learner, for example, an Uzbek learner. The term computer is often derived from English. Terms and concepts are English words for more or less similar or related phenomena, e.g. handshakes, protocols and piggybacks. As a distinction, in this work, the word is used to refer to everyday usage, while the term is used to refer to the computer usage of a word. Most course materials are written in English and often use the reader's familiarity with the respective culture in examples to help readers visually understand when learning new concepts.

RESULTS AND DISCUSSION

In [6], the authors investigate whether the origin of technical terms influences the mental representation of the terms in students. They find that students find technical terms in everyday language more easily defined, more familiar and more accessible than terms originating in foreign languages. For a student who is not native to English, all terms are foreign; hence, it is reasonable to assume that learning computer science terms will require more work than for students who are native English speakers. In the field of second language acquisition (SLA), language transfer is a concept used to describe that when a new language is learned, there is an influence from previously known languages [7]. This influence can be either positive, i.e. it makes learning new vocabulary easier, or negative. Susan Gass explains transfer and its significance in learning vocabulary by giving a historical overview of how the view of transfer has changed over the years. She starts by citing Lado‘s book from 1957 [7]: ... individuals tend to transfer the forms and meaning and the distribution of forms and meanings of their native language and culture to the foreign language and culture—both productively when attempting to speak and to act in the culture, and receptively when attempting to grasp and understand the language and the culture as practiced by natives. She explains that a more modern view is that of Ard and Homburg, where they propose that transfer should be viewed more as a facilitator of learning than as a direct imposition of native language forms and meaning. In this work, we sought to determine whether students' proficiency in English and its culture influenced their intuitive understanding of computer concepts, that is, whether there was a conversion, similar to SLA,

of languages the student knows to visual languages. Knowledge of computer concepts, which we will call the transition from Language to Computer Science (LCS). We present a survey designed to test students' visual understanding of central concepts in computer science. The test should be used by students who have little knowledge of computers, so the understanding they show on the test is due to their understanding of words based on their language training. The survey builds on the same ideas as where language transfer is investigated by having students take a quiz to test their understanding of computer slang they did not know before. In this case, we can conclude that language transfer is taking place and that the extent of transfer is influenced by student age, number of languages known, years of schooling, and intelligence (IQ). We designed the test to detect whether English knowledge translates into a positive transfer of Uzbek students' ability to derive meaning from terms and unfamiliar computer concepts or not. Specifically, tests the ability to deduce meaning and dual-purpose usage of terms in both everyday English and computer science. One of the results of the research, also reported in (8), is that maturation, both in terms of age and the scope of previous studies, has an impact on language transfer. Therefore, it is reasonable to assume that maturity is also a factor in L-CS delivery. The test will be used to study the occurrence of L-CS transfers and the impact of maturity on transfers. Groups of Uzbek students of two different levels of maturity and two different levels of English, all with little computer knowledge, will be compared.

In modern terminology, a distinction is made between professionalism and professional jargon. Unlike professionalism, the evaluative component prevails over the informational one in jargon. However, the criteria for classifying designated occupational units is still controversial. In this case, the identification of the component of images and assessment is associated with the feelings of a particular subject. Some jargon is common and can sometimes be confused with “normative” terms. Perhaps that is why there are special dictionaries of such vocabulary that are most often found on the Internet. Difficulties in distinguishing between terms, professionalism and jargon are evident in the field of networking. A separate category is formed by assimilated units, i.e., lexemes formed on the basis of morphologically assimilated verbs foreign or assimilated words. Scale to scale; units such as “shrink or enlarge”, “scale”, and “scale” refer to such units. These units are neither figurative, emotionally expressive, nor evaluative; therefore, they should be considered as terms. However, we call these lexemes professionalisms because their use is limited. In addition to the lexical-semantic variation, there is a more functional stylistic variation, which is associated with the presence of similar denotative lexical units designated in terms of belonging to different styles. This type of variation is closely related to the phenomenon of functional and methodological migration of vocabulary, including the transfer of linguistic units from one terminological field to another, and the variants themselves are used in different social dialects and/or literary languages. A social dialect (sheva) or sociolect is a set of linguistic features characteristic of a social group. This is a group of people

interested in networking. Examples of sociolects are slang. Argon, unlike slang, is a somewhat mysterious language, it was created so that the speech of this social group would not be understood by others. Jargon and slang are words that are close to each other in meaning. “The term slang is typical of Western linguistic traditions. Jargons can be professional or social, and sometimes reflect both of these traits together” [8]. Functional and stylistic variations of “simple speech — slang”, or “general — simple speech — slang”, “special — slang”; “Special talk” and so on as shown in the comparisons. The vagueness of newly emerging term systems in language is characterized by the inability of many people to control the creation of terms. This is due to the widespread informatization and the transition of many users from the recipient of information to the category of the transmitter. The jargon of professional language, the lack of stability in the form and meaning of terms, and the blurring of boundaries between terms and professionalism are the results of this process. This situation is also typical for the Uzbek language. The evaluative function of computer jargon seems to be predominant. The nominative function of computer jargon is due to the fact that the development of the terminological sphere of computer technology, especially in the field of telecommunications, lags behind the development of the industry itself, and jargon takes over the nominative function of terminology. In English computer jargon, the following main thematic groups are distinguished:

1. A person related to the world of computers. A person who has a preference for anything in the computer world.

2. Working with a computer. Computer failure.

3. Components of a computer.

4. Name of software products, commands, and files. Computer games.

5. Internet.

The first group of words can only be indicated by a detailed sentence since it covers the names of computer specialists in many areas, as well as users. This group is a branched system, which includes:

a) humorous secondary nominations, parallel to the terms names of professions: system jock, sys-frog, softy — mahoratli kompyuter dasturchisi.

b) nominations that have no analogues in terminology and give a more detailed typology of persons associated with computers: doco, netter, tourist — kompyuter bilan aloqador shahslar (terminologiyada analogi yo‘q so‘zlar).

c) evaluative jargon such as flamer, pain in the net, script kiddie, read-only user, weasel, twink — chaynik, (the last three examples express the typological feature of “incompetence”). They are opposed by a subgroup of jargon, expressing the highest assessment of skill in working with a computer: guru, wizard — kompyuter ustasi, superprogrammer. The names of adherents of any

operating system UNIX Weenie, computer games Muddie, and Quake stand out in a separate subgroup.

CONCLUSION

The test consists of two parts. In the first part, students provide general information about the term. They also rate their level of computer knowledge and provide comparative information on any prior computer training. This helps to exclude students with special prior knowledge of computer science. In this section, students also provide information about their English level. The second part of the test assesses students' understanding of English terms, both in everyday usage and in their use of computer terms. Since students are not required to know how to use a calculator, they are asked to use their intuitive understanding of the word to deduce the meaning of the computer.

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