



## Influence of English language on Serbian language in the context of computer terminology

Nenad Marković<sup>1</sup> and Jelena Rajović<sup>1</sup>

<sup>1</sup> Polytechnic School of Professional studies Urosevac with temporary seat in Leposavić, Leposavić, Serbia  
e-mail [nen.mark74@yahoo.com](mailto:nen.mark74@yahoo.com)

**Abstract:** *Due to its topicality and frequent novelties, computer terminology is very interesting and dynamic field. Since the majority of technological innovations come from English speaking countries, domination of English terms is evident in computer terminology. The paper represents the results of research conducted at Polytechnic school of professional studies Urosevac with temporary seat in Leposavić in order to determine to what extent the students are familiar with computer terms, how and in what form they use them compared to the source terms in English language, in relation to the fact that majority of students have sufficient background knowledge both of English language and computers. Thus, the aim of this paper is to determine whether the knowledge of English language, as a foreign language, is in correlation to the knowledge of computer terminology.*

**Keywords:** *computers; English language; terminology, students*

### 1. INTRODUCTION

In addition to the knowledge of English language, computer literacy is another prerequisite without which the fulfillment of any profession today cannot be imagined. Information revolution in the 20<sup>th</sup> century, which is still in progress, has made computers to become an irreplaceable part of our lives, both on professional and personal level. Much has been said about the importance and the role of computers today. However, IT profession is in somewhat different position than other scientific and professional fields.

The expansion of experts in the field of information technology imposes the expansion of computer users who use it for communication within the scope of different vocations and professions, or use it for personal needs or other purposes. It is, therefore, understandable that computer technology, except for communication in the IT professional circles, has domesticated among users who necessitate it for basic operation and communication through the computer [1].

Based on the aforementioned, the question rises to which extent the terms from the area of computer terminology in general can be considered the narrowly specialized terms [1], [2], [3], [4], since they are not used only by the narrow groups, but become a part of daily lexical repertoire of an average speaker, with which children come into contact in a very early age [5].

The development of science and technology has conditioned the emergence of new words and terms to designate the inventions and developments. As the majority of innovations originated in the English speaking countries, therefore the majority of the terms in the field of computers have English names. This trend is also present in our country, provided by the fact that this topic is actual for past 30 years, namely from the first definition of JUS standards in 1985 in the field of Information Technologies.

Computer terminology enhancements and changes almost daily, and, therefore, computers have an increasing impact on our everyday lives- the computer terminology is increasingly becoming a part of the general public vocabulary. Computer terminology is a leading field within which the impact of English language is a really significant [6], [7], [8].

However, Information technology gives rise to numerous international exchanges of both an intellectual and a material nature. These exchanges often become difficult, either because of the great variety of terms used in various fields or languages to express the same concept, or because of the absence or imprecision of the definitions of useful concepts. To avoid misunderstandings and to facilitate such exchanges, it is essential to clarify the concepts, to select terms to be used in various languages or in various countries to express the same concept, and to establish definitions providing satisfactory equivalents for the various terms in different languages [9].

How much the knowledge of computer technology is significant and, we can freely say, necessary today, is confirmed by the fact that an increasing number of children comes into contact with the computer technology [10] from early age, whether by playing games on computer, social networks or researching for the sake of learning.

In the paper we tried to determine how the students of Polytechnic School of Vocational Studies Urosevac with temporary seat in Leposavic (VTSSS Urosevac in Leposavic) are familiar with the terms of computer technology, and to which extent and in what way they use it, given that the English language and computer technology almost all of them have been learning since the first grade of Primary school.

## **2. DISTRIBUTION OF SUBJECTS ENGLISH LANGUAGE AND COMPUTERS IN THE EDUCATIONAL SYSTEM OF THE REPUBLIC OF SERBIA**

Since the school year 2003/2004, English language is being learned in Serbia from the first grade of primary school. According to the Institute for Advancement of Education of the Republic of Serbia [11], in the first cycle of the elementary education (from the first to the fourth grade) English language is distributed with two classes per week, that is, 72 classes per year. Along with the English language, according to same resource [11], there is another subject "Od igracke do racunara" (From toys to computers) (1 class per week, 36 per year), as an elective course. In the second cycle of the elementary education (from the fifth to the eight grade) along with the English language is the subject "Tehnicko i informaticko obrazovanje" (Technical and Information education) (1 class per week, 36 per year).

There are opposite opinions on whether the number of classes of English language and number of classes of computer science is sufficient to master basic issues these subjects are dealing with respectively. Markovic V. et al (2014) argued that primary school pupils acquire more vocabulary using the web electronic books with computer games based on

reasoning than what they have learned through traditional methods (paper-delivered tests, kinds of words or questions with multiple choice answers) [12]. This topic is certainly worthy of attention, and we will deal with it in one of the future papers.

In secondary vocational and grammar schools in the Republic of Serbia, obligatory subjects according to curriculum [11] are English language and Computer science (1 class per week, 37 per year). After 12 years of parallel learning of English and computers, somehow implies that the students have mastered the basics of aforementioned subjects and that they acquired sufficient language and computer literacy for some elementary communication-both language and computer.

### **3. DISTRIBUTION OF SUBJECTS ENGLISH LANGUAGE AND COMPUTERS AND PROGRAMMING IN VTSSS UROSEVAC IN LEPOSAVIC**

Following the current trends in teaching and education and with the aim of obtaining qualified personnel, VTSSS Urosevac in Leposavic strives to offer their students the highest quality education. Thus, at this school a lot of attention is given to English language and computer teaching. As our students educate for professional occupations, their language and computer literacy is of great importance, given the growing developing trends in the world in the field of science and technology.

Students at VTSSS Urosevac in Leposavic as a obligatory subjects have English language I (2+2) and English language II (2+2), which are taught at the first year of study, in the first and second semester, at all study programs; and Computers and programming (3+3) that is also taught at all study programs. All three subjects are obligatory.

### **4. RESEARCH METHOD**

A questionnaire survey was conducted at VTSSS Urosevac in Leposavic. The questionnaire was composed by combining the existing questionnaires which dealt with the similar subject [1], [5] [13], [14], [15] and is complemented with a few questions we found relevant for our research and which were not included in previous questionnaires.

Research was conducted on the total sample of 102 respondents- students of all three years of basic professional career studies, from all study programs and their modules. Students of specialist professional studies of VTSSS Urosevac in Leposavic are not included in the research.

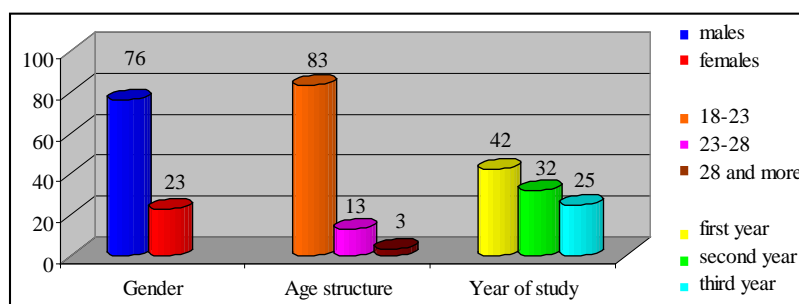
Questionnaire is composed of two parts. The first part covers the student's general information like gender, age, secondary school completed, year of study, study program. The second part is composed of questions that specifically relate to the use of language and computer by the student. Then the respondents were asked to choose from the offered corpus one of the given terms in relation to their original meaning in the English language. This part of the questionnaire examines the frequency of use of the following 18 computer terms: *Computer, Monitor, Printer, Font, File, Download, Format, Print, Save, Forward, Reset, Paste, Cut, Copy, Folder, Update, Insert, Delete*. The corpus was selected due to the fact that given terms students usually encounter, and in accordance with Serbian standard SRPS ISO/IEC 2382 [9]. However, due to the technical limitations of the scope of the paper the number of items was reduced to 18.

Although most of the Serbian language information technology dictionaries are of

descriptive nature, here we used entries given in the online computer dictionary Mikro knjiga [16].

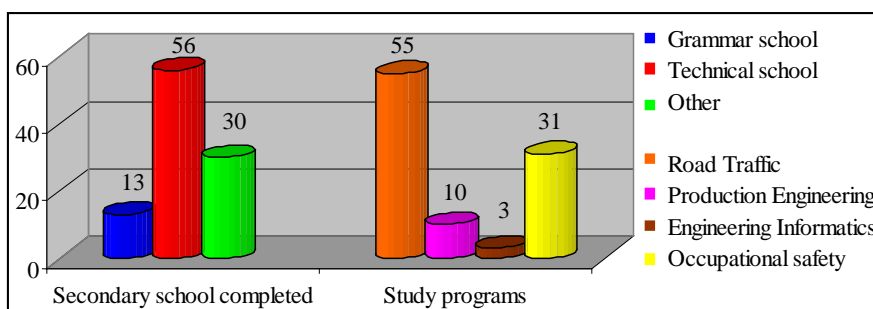
## 5. RESULTS AND DISCUSSION

The survey included 102 respondents- students of VTSSS Urosevac in Leposavic. Three questionnaires were incomplete. From the total number of respondents, 76 (76,77%) were males and 23 (23,33%) females aged between 18 to 28 years and above. 42 (42,42%) respondents were from the first year of study, 32 (32,32%) from the second year of study and 25 (25,5%) respondents from the third year of study. Overall analysis of above parameters is shown on the Figure 1.



**Figure 1.** Gender, age structure, and year of study of respondents

Regarding the completion of secondary school, 13 (13,3%) respondents stated they had completed grammar school, 56 (56,57%) technical school and 30 (30,30%) stated “other”, that is, agricultural, economic and medical secondary school. Respondents from all study programs and modules from the basic professional studies (except specialist professional studies) participated in survey as follows: Road Traffic 55 (55,56%) respondents, Production Engineering 10 (10,10%), Engineering Informatics 3 (3,03%) and Occupational Safety 31 (31,31%) respondents; Figure 2.



**Figure 2.** Secondary school completed and study programs of respondents

When asked “Have you attended any English language course?” of the total number of respondents, only 5 (5,05%) gave an affirmative answer. Based on this data, we have concluded that the English language course does not affect the goal of this paper due to a small percentage of respondents who attended a course.

From the total number of respondents, 41 (41,41%) respondents use computer less than an

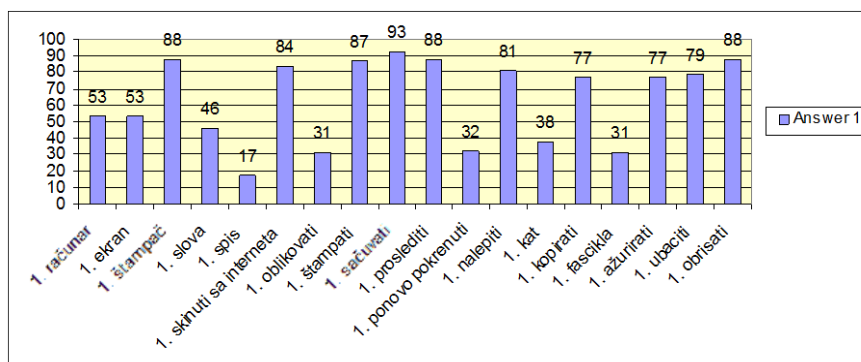
hour per day, 35 (35,35%) respondents use computers up to three hours per day, while 23 (23,23%) respondents use computer more than three hours per day. The time spent at the computer is not relevant to the knowledge of computer related terms.

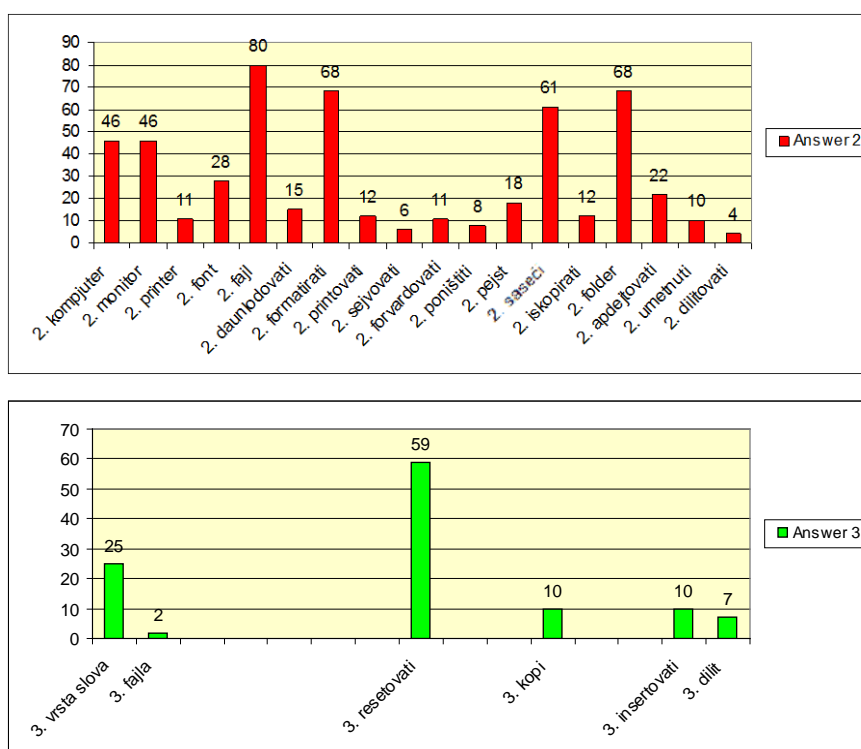
When asked “To what extent the knowledge of English language helps you while using the computer?”, 7 (7,07%) respondents stated that it does not help, 44 (44,44%) respondents stated that it partially helps, and 48 (48,48%) respondents stated that it helps a lot. Although the obtained results suggest that the knowledge of English language facilitates the use of computers to majority of respondents (48,48%), based on the results of the analysis of the 18 items listed below, we can conclude that respondents in most cases opt for the term in Serbian language.

The list of 18 items is composed as follows: on the left side of the list are given computer terms in English language and right side of the list offers terms in Serbian language. Serbian translated equivalents and anglicisms are offered:

- |             |   |
|-------------|---|
| 1. Computer | <i>računar/kompjuter</i>                    |
| 2. Monitor  | <i>ekran/monitor</i>                        |
| 3. Printer  | <i>štampač/printer</i>                      |
| 4. Font     | <i>slova/font/vrsta slova</i>               |
| 5. File     | <i>spis/fajl/fajla</i>                      |
| 6. Download | <i>skinuti sa interneta/daunlodovati</i>    |
| 7. Format   | <i>oblikovati/formatirati</i>               |
| 8. Print    | <i>štampati/printovati</i>                  |
| 9. Save     | <i>sačuvati/sejvovati</i>                   |
| 10. Forward | <i>proslediti/forvardovati</i>              |
| 11. Reset   | <i>ponovo pokrenuti/poništit/resetovati</i> |
| 12. Paste   | <i>nalepiti/pejst</i>                       |
| 13. Cut     | <i>kat/saseći</i>                           |
| 14. Copy    | <i>kopirati/iskopirati/kopi</i>             |
| 15. Folder  | <i>fascikla/folder</i>                      |
| 16. Update  | <i>ažurirati/apdejtovati</i>                |
| 17. Insert  | <i>ubaciti/umetnuti/insertovati</i>         |
| 18. Delete  | <i>obrisati/dilitovati/dilit</i>            |

Figure 3 shows the results of the frequency of use of computer terms in regard to English term.





**Figure 3.** The results of the frequency of use of the terms offered in regard to the terms in English

Based on the presented results we can conclude that respondents give priority to domestic terms compared to anglicisms. Anglicisms are used more only in 4 of 18 cases.

## 6. CONCLUSIONS

English language and Computer technology are certainly going side by side supported by the fact that majority of computer terms originated from English language.

The rapid development of science and technology itself imposes the development and upgrading of specific skills and abilities. This certainly includes good computer skills and knowledge of English language.

Given the fact that majority of respondents have background knowledge of English language and Computer technology, based on years of learning in primary and secondary school, our goal was to determine how much the respondents are able to apply previously acquired knowledge in mentioned fields, that is, to determine which term respondents prefer: the one in English language or the one in Serbian language.

In this paper we have specifically dealt with the issue of use of computer technology related vocabulary by the students of VTSSS Urosevac in Leposavic. Corpus was narrowed to the terms which are considered elementary and which are taught at an early age. Therefore, our research has been focused only to this target group.

Results of the questionnaire showed that respondents have good command of the English language and that they are familiar with computer terminology, since they were able to identify all 18 items. This goes in favor to the fact that respondents' primary profession is not English language, but that they can apply English language skills in their profession while using the computer.

The results indicate a good outcome, given that the respondents- future professional engineers are expected to contribute to the development of science and technology.

Good knowledge of English language and computer literacy are certainly one of the prerequisites for achieving good results in their future career.

### ACKNOWLEDGEMENTS

The Authors would like to thank students of VTSSS Urosevac in Leposavic for their understanding and assistance in this study.

### LITERATURE

- [1] Jurko, N. (2005). *Integracija engleskog računalnog nazivlja u talijanskom i hrvatskom jeziku*. Jezik u društvenoj interakciji-Zbornik radova, 227-236.
- [2] Khautyc, I. (2010). *The pragmatics of anglicisms in modern Russian discourse*. From International to Local English and back again. Frankfurt: Peter Lang, 197-208.
- [3] Mihaljević, M. (1998). *Terminološki priručnik*. Zagreb: Hrvatska sveučilišna naklada, 7.
- [4] Lib, W. (2010). *Technical language as an indicator to technical culture*. Informatologia 43.1, 54-57.
- [5] Skifić, S., Mustapić, E. (2012). *Anglizmi i hrvatsko računalno nazivlje kroz prizmu jezičnog konflikta i jezične ideologije*, Jezikoslovlje, 809-839.
- [6] Filipović, R. (1996). *English as a word donor to other languages of Europe*. The English Language in Europe. Exeter: Intellect, 37-46.
- [7] Hoffmann, C. (2000). *The spread of English and the growth of multilingualism with English in Europe*. English in Europe: The Acquisition of a Third Language. Clevedon-New York-North York-Artarmon: Multilingual Matters, 1-21.
- [8] Nikolić-Hoyt, A. (2005). *Englesko-hrvatski jezično-kulturni dodiri*, Jezik u društvenoj interakciji. Zbornik radova sa savetovanja održanog 16 i 17 maja u Opatiji. Zagreb-Rijeka: HDPL, 353-359.
- [9] SRPSKI STANDARD SRPS ISO/IEC 2382-1 Mart 2007. Identičan sa ISO/IEC 2382-1:1993 Informatična tehnologija-Rečnik-Deo 1: Osnovni termini, <http://pod2.stat.gov.rs/ObjavljenePublikacije/Baza/ISO%20IEC%202382-1.pdf>, preuzeto 18.03.2016.
- [10] Rathbun, A.H., West, J. (2003). *Young Children's Access to Computers in the Home and at School in 1999 and 2000*. Washington DC: U.S. Department of Education-National Center for Education Statistics.
- [11] Zavod za unapređenje obrazovanja i vaspitanja Republike Srbije (preuzeto marta 2016). [www.zuov.gov.rs](http://www.zuov.gov.rs)
- [12] Marković, V., Aleksić, V., Popić, Ž.M. (2014). *Učenje vokabulara engleskog jezika pomoću obrazovnih računarskih igara*. Tehnika i informatika u obrazovanju. 5. Konferencija sa međunarodnim učešćem. FTN Čačak. Zbornik radova, 414-418.

- 
- [13] Ivanović, I. (2010). *Anglicism in the Montenegrin Language within Computer Context*. Journal of Linguistic Studies. Romania, 17-22.
- [14] Maksimović, J. (2011). *Computer Jargon in Slovenian and Serbian Language*. The Journal of Linguistic and Intercultural Education-JoLIE. Romania, 77-88.
- [15] Mihaljević, M. (2006). *Hrvatsko i englesko računalno nazivlje*. Jezik-časopis za kulturu hrvatskoga književnog jezika, HFD Zagreb, 41-50.
- [16] <http://www.mikroknjiga.rs/pub/rmk/>