

Verbal anglicisms with suffix endings *-ova-*, *-a-*, and *-ira-* in the Bosnian language – the frequency of use and the knowledge of their meaning

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Abstract

Languages do not operate in isolation; rather, they evolve in continuous contact with other languages. This contact and resultant lexical borrowing can lead to minor or substantial changes in the vocabulary of the recipient language. This quantitative study aims to analyze how borrowing from the English language affects the formation of new verbs in the Bosnian language (verbal Anglicisms) and which suffixes in the Bosnian language (between *-ova-*, *-a-*, *-ira-*) are most often used to form new verbs. Additionally, the aim is to explore the frequency of use and the level of knowledge of the meaning of verbal Anglicisms. The study was conducted on 345 participants, i.e. both male and female high school students from Bosnia Herzegovina. The results indicate that verbal Anglicisms with the suffix *-a-* are the most often used group of verbal Anglicisms and that this preference is a result of the nature and origin of those Anglicisms (mostly IT-related) and is not related to the linguistic nature of the Bosnian language. Furthermore, it was shown that knowledge of the original form of verbal Anglicisms affects the level of their use, and that level of use of these Anglicisms is influenced by the EL GPA and medium of instruction of the respondents, while gender, grade level, and experience of traveling to English-speaking countries are not significant factors in the extent of usage of these Anglicisms. Further investigation is proposed to broaden the scope of the present research in different settings and among various study groups.

Keywords: Anglicisms; borrowing; language; high school students; verb.

1. Introduction

English has unequivocally assumed the role of a global lingua franca in the last century. Certain scholars interpret its prevailing dominance as an assertion of cultural and linguistic supremacy (e.g., Canagarajah, 1999; Phillipson, 1992), whereas others emphasize the manifold advantages stemming from the adoption of a shared global language (e.g., Crystal, 2003; Davies, 1996; Seidlhofer, 2011). Regardless of the differing perceptions, English has profoundly impacted all these different domains of life, with other languages exhibiting this impact through different linguistic phenomena. One of the most notable ones is manifested through the English language borrowing, where languages across the globe have adopted English loanwords, i.e., Anglicisms, within different lexical domains and professional jargons.

This linguistic phenomenon has been extensively researched around the globe in different languages (e.g., Balteiro & Campos, 2012; Bombi, 2017; Gonzalez, 1999; Gottlieb, 2005; Imamura, 2018; Kostiuk, 2018; Kravchenko & Boiko, 2013; Moss, 1992; Onysko, 2007; Parlog, 2004; Spahiu & Nuredini, 2023; Walczak, 1983; Zurita, 2005 etc). Additionally, there is also a significant pool of research on the topic in the Bosnian, Serbian and Croatian language (e.g., Ajšić, 2014; Blažević & Vaić, 2015; Delić & Dedović-Atilla, 2021, 2022; Filipović, 2021; Francuski, 2012; Ilić, 2017; Prčić, 2012; Perišić & Miljković, 2023; Rakinic, 2016; Silaški, 2009, etc.).

A range of approaches have been employed in the study of Anglicisms. For example, in our region specifically, there are many authors (e.g. Filipović, 1986, as cited in Mišić Ilić, 2017; Šijerkić & Milak, 2018; Kavgić, 2017) who studied types of adaptation of Anglicisms into recipient languages and who proposed certain levels of that adaptation (phonological, morphological) and its characteristics. On the other hand, some authors (e.g., Ćirić-Duvnjak, 2013; Šehović, 2009; Prantl, 2018; Ćoralčić & Šehić, 2014) have attempted to investigate the attitudes towards Anglicisms, as they, together with other loanwords, may be used unwillingly or unknowingly. Moreover, investigations of Anglicisms have been approached by language comparisons, word formation, word order, and so on. Thus, Petrov (2015) compared Anglicisms in Serbian and Czech, while some authors examined either nominal (e.g. Sulić, 2019) or verbal (e.g. Kišić, 2016; Šehović, 2019) Anglicisms, including their number, case, and suffix changes.

However, no study has delved into an exploration of verbal anglicisms by examining and comparing the use of several verbal suffixes in the Bosnian language within the context of the frequency of their usage among Bosnian-Herzegovinian high schoolers and across several demographic variables. Therefore, the present paper aims to analyze 27 examples of verbal Anglicisms with the suffix endings *-ovati*, *-ati*, and *-irati*. The analysis pertains to

the relationship between the meanings of these Anglicisms and the meanings of their original form, as well as the areas in which they are mostly taken from.

2. Literature review

As we stated earlier, the investigation on Anglicisms might pertain to different lexical categories; however, the research has showed that the most common Anglicisms are verbal and nominal ones. Thus, a large pool of research is focused on grammatical analyses of the nominal and verbal Anglicisms, since borrowed words can change not only their original meaning but also their grammatical forms. In other words, a borrowed noun can be reshaped into a verb or adjective and vice versa. Thus, numerous foreign research papers (e.g., Czech-Rogoyska & Krawiec, 2018; Higuera Amigo, 2019;), as well as regional ones (e.g., Šehović, 2009; Šijerkić & Milak, 2018; Tomić, 2018), have focused on this scope in their research.

Research shows that Anglicisms in the form of nouns are more common than Anglicisms in the form of verbs (Sočanac, 2009). One of the reasons for such a situation is that, as Gerwens (2017) points out, new concepts, products, or general popular words, mainly nouns, are usually imported alongside their English terms. In line with this, Czech-Rogoyska and Krawiec (2018) conclude that “all-new processes, devices, and technologies usually enter other languages as nominal structures and names for new things, rather than verbs or adjectives” (p. 56).

However, the analysis of verbal Anglicisms is also peculiar. According to Kišić (2016), verbal Anglicisms are widely used in journalistic texts or their titles. Informative headlines convey content, so verbs, verb forms, verb tenses, question words, and ways of conveying news about content in sentence characters (how and where to check - *čekirati*, where to book - *bukirati*) play a major role.

Verbs are always adapted to the grammatical system of the recipient language (Galstyan, 2012). However, the morphological adaptation of English verbs in the Bosnian language is much more complex than the adaptation of nouns. The formation of verbal Anglicisms in the Bosnian language reveals a notable distinction in morphological structure. Unlike English, where the verb form does not differentiate from the noun due to the absence of an infinitive ending, Bosnian verbs have an obligatory infinitive suffix. The foreign lexeme serves only as a basis, while the receiving language is the one that provides forms and suffixes: this is because verbs in English do not have an infinitive suffix that would serve as a distinguishing feature concerning other types of words, primarily nouns (Filipović, 1990).

In the Bosnian language, there are several infinitive formants for verb formation, such as *-ovati* (*daunloudovati*), *-irati* (*parafrazirati*), *-isati* (*interojuisati*), *-ati* (*lajkati*) and *-nuti* (*kliknuti*) (Kadić, 2014). As can be noted, the suffixes are added to the previously phonologically adapted form of the English lexeme (verb or noun). A prefix *pro-* and one of the mentioned suffixes are sometimes used together with an English base, such as *pro-gugl-a-ti*. Tomić (2018) brings a detailed analysis of the verbs contained in the dictionary *Rečnik novijih anglicizama* and concludes that the suffix *-ova* is the most represented within the verbs contained and that the majority of the analyzed verb-like Anglicisms tend to reduce their original English meaning. Similarly, Šehović (2009) writes that in the Bosnian language, and certainly in Serbian, the suffix *-ova* is very common in the formation of verb neologisms, especially in the field of information technologies (such as *apdejtovati*, *daunoudovati*, *diskonektovati*).

The origin of verbs from noun bases and the suffixes that make up these verbs have been treated extensively in the book *Bosanski jezik između lingvo-cida i lingvosuicida* (Kadić, 2014). There, the above-mentioned suffix *-ova* is also explained. *Ova* is a Proto-Slavic verb affix that is added as a formant in the morphological process of affixation to the root morpheme with grammatical information: the verb base of the denominative verb, and lexical information: to be, to become, to behave, to do what the word is added to (Kadić, 2014, p. 376). According to the same morphological model and the same affixation procedure, numerous verbs in the Bosnian language were formed (*ljetovati*, *bolovati*, *ratovati*), as well as verbs from loanwords from other languages (*rimovati*, (Greek), *ašikovati*, *vezirovati*, *hajrovati* (Turkish), *daunloudovati*, *drilovati*, (English), *lumpovati*, *rajzovati*, *hajcovati* (German), *šefovati*, *marševati*, *šifrovati* (French).

Furthermore, Kadić (2014) adds that as a counterpart to this Slavic formant (*-ova*), two other formants with the same function and the same meaning, but of different origin, function in parallel with it in the Bosnian language: *-isa* from Greek and *-ira* from Latin. These formants, like the previously mentioned *-ova*, entered the Bosnian language through ancient Greek or Turkish words, such as *kidisati*, *karakterisati*, *sevdisati*, *begenisati*, etc., and through Latin and German, such as *komunicirati* (p. 378). So, in some rules of the Bosnian language (Jahić et al., 2000) they are treated together as suffixes: *-ova*, *-isa*, *-ira*.

In conclusion, despite the small representation of verbal Anglicisms in the research in various languages and the emphasis on the nominal, the former in the Bosnian language is as important as the latter. This is primarily because, through the phonological and morphological adaptation (transphonemization and transmorphemization) of English words, new words are formed in the Bosnian language and, in that process, new verbs are cre-

ated as well as new nouns. Therefore, to contribute to the under researched pool of research on the topic of verbal anglicism in the Bosnian language, the present study focuses on the analysis of representation and significance of verbal Anglicisms in the Bosnian language.

3. Methodology

3.1. *Research questions and hypotheses*

Building upon existing research on Anglicisms, this study delves into a largely unexplored territory: the unique forms and translations of Anglicisms employed by young people. Through this investigation, we seek to answer the following questions:

RQ1 Does the knowledge of the original form of verbal Anglicisms significantly influence frequency of their usage?

RQ2 Is there any statistically significant difference in the frequency of usage of verbal Anglicisms between the participants' GPA, class levels, the medium of instruction in the participants' schools, and their experience of traveling to foreign countries?

Based on the proposed research questions, the following hypotheses will be tested:

H1 There is a statistically significant effect of the knowledge of the original form of verbal Anglicisms on their frequency of usage.

H2a There is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the GPA of participants.

H2b There is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the class level of participants.

H2c There is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the medium of instruction in the participants' schools.

H2d There is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the participants' experience of traveling to foreign countries.

H2e There is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the participants' experience of attending additional EL course.

3.2. Participants

Data for this research was collected from a group of high school students. The reason for such sampling is a hypothetical prediction that young people are generally more exposed to technology usage, sports events; they read, listen and speak more in English and are, in general, more exposed to Anglicisms. Surveyed in both public and private Bosnian high schools in cities of Sarajevo, Bihać, Visoko, Tuzla, Kiseljak, Žepče, Fojnica, Maglaj, and Tešanj, a total number of 345 students participated in the study. The surveyed participants were slightly more female (197 or 57.1%) than male (148 or 42.9%) in number. In terms of their class levels, 78 (22.6%) of them were first-grade, 104 (30.1%) second-grade, 93 (27%) third grade, and 70 (20.3%) were fourth-grade students. Moreover, 169 of the participants (49%), had the highest mark (excellent = 5) in the English language, 83 (24.1%) scored a bit lower (very good = 4), 61 (17.7%) had a GPA of 3 (good), and 30 of them (8.7%) were with the lowest GPA (sufficient = 2). For two-thirds of them (N=270, 78.3%), the language of instruction in their schools is Bosnian and for one-third (N=75, 21.7%) it is English. Furthermore, only one-third of them (104, 30.1%) attended some additional, extracurricular, English language course. Considering the experience of traveling to Anglophone countries, a small proportion of them, only 16% (55), indicated that they traveled to English-speaking countries.

A detailed description of the participants is presented in Table 1.

Table 1: Descriptive analysis of participants

		N	Percentage
Gender	Male	148	42.9
	Female	197	57.1
Class Level	First	78	22.6
	Second	104	30.1
	Third	93	27.0
	Fourth	70	20.3
ELL GPA	2	30	8.7
	3	61	17.7
	4	83	24.1
	5	169	49.0
Travelling to English-speaking countries	Yes	55	15.9
	No	290	84.1

Attended additional English language courses	Yes	104	30.1
	No	241	69.9
Language of instruction	English	75	21.7
	Bosnian	270	78.3
Total		345	100

3.3. Data collection method and instrument

Data for this research is collected using a questionnaire developed by the authors. To understand and facilitate the collection of accurate data, the questionnaire was translated into the Bosnian language and as such distributed to the students. The questionnaire consisted of five parts (the demographic information about the participants (gender, class level, ELL GPA, school they attend, the medium of instruction of their school); the level of the participants' exposure to the English language; the participants' attitudes towards the English language; a list of the 27 verbal Anglicisms that are made up with three Bosnian suffixes (*-a(ti)*, *-ova(ti)*, *-ira(ti)*) for which they were asked to indicate how often they use them (on a three-point Likert scale with an option range of "never", "sometimes", or "always") and to write their correct original English version), and a written explanation was given before each part.

Building upon existing questionnaires (Lackova et al., 2019; Palavestra, 2011), we iteratively developed the research instrument. We consulted key studies and their findings in the literature review (Mesaroš, 2015; Prantl, 2018; Vasić et al., 2001) to refine the content and ensure its relevance. Ultimately, the instrument drew upon diverse research sources, with a selection of 27 Anglicisms adapted from Vasić et al.'s (2001) *Dictionary of Novel Anglicisms*, with each of the three suffixes represented by nine verbal Anglicisms. The Rigorous reliability and validity testing were conducted before the final questionnaire was administered.

3.4. Data analysis technique

The collected data from the questionnaire were analyzed using Statistical Package for Social Sciences (SPSS, v. 26). To quantify the characteristics of the data, descriptive statistics were used. Having set all the data for the statistical analyses, frequencies and means were computed. Furthermore, inferential statistics was used as well with an independent samples t-test, a one-

way ANOVA, and MANOVA tests used to show the differences between the study groups in the analyses of the main part of the study.

4. Results

4.1. Initial analysis

To understand the usage patterns of different types of verbal Anglicisms among Bosnian high school students, the initial analysis focused on identifying the most prevalent category. The normality test results showed that all skewness and kurtosis values were within the tolerable range (from -2 to +2), which designated that there were no deviations from normal distribution of all the measured variables (Hair et al., 2010). Descriptive statistics were run to check the mean score for the three types (*-ova-*, *-a-*, and *-ira-*) of the verbal Anglicisms. Since the participants' answers ranged between 1 = never, 2 = sometimes, and 3 = always, the mean score closer to 1 indicates that they use verbal Anglicisms less frequently, while the mean score closer to 3 indicates a more frequent use. According to obtained results, the verbal Anglicisms with suffix ending *-ati* ($M = 2.12$, $SD = .49$) were reported as the most frequently used, followed by two other types of verbal Anglicisms with the same mean scores ($M = 1.99$, $SD = .46$). Given that the same response scale was used as in the previous question, the results indicate that all three types of verbal Anglicisms are used occasionally and not daily. A representation of descriptive analyses of the verbal Anglicisms is given in Table 2 below.

Table 2: Frequency of usage of verbal Anglicisms

Suffix ending	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
<i>-a-</i>	2.12	.49	-.24	-.18
<i>-ova-</i>	1.99	.45	-.06	-.25
<i>-ira-</i>	1.99	.46	-.19	-.51
Overall	2.03	.44	-.22	-.21

Furthermore, a descriptive analysis with a mean and standard deviation of the usage of all the verbal Anglicisms was obtained. Thus, as presented in Table 3 below, the most frequently used verbal Anglicism from the type *-a* is *printati* ($M = 2.28$, $SD = .69$), while the least frequently used was *surfati* ($M = 1.94$, $SD = .69$). Moreover, regarding the type *-ira*, the most frequently used one was *trenirati* ($M = 2.36$, $SD = .70$) and the least frequently used was *interpretirati* ($M = 1.76$, $SD = .70$). Finally, the most frequently

used verbal Anglicisms from the type *-ova-* were *editovati* and *apdejtovati* with the same mean scores ($M = 2.29$, $SD = .65$), while the lowest frequently used verbal Anglicism from this type was *atačovati* ($M = 1.56$, $SD = .65$).

Table 3: Frequency of usage of all verbal Anglicisms

	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>
	<i>-ira</i>			<i>-ova</i>	
Džogirati	1.81	.70	Daunloudovati	2.23	.71
Ruinirati	1.40	.59	Ulogovati	2.14	.72
Trenirati	2.36	.70	Digitalizovati	1.58	.67
Šarmirati	2.02	.73	Editovati	2.29	.68
Reciklirati	2.20	.72	Hakovati	2.23	.71
Dresirati	2.01	.74	Atačovati	1.56	.65
Skenirati	2.22	.70	Produkovati	1.66	.68
Educirati	1.98	.67	Apdejtovati	2.29	.65
Interpretirati	1.76	.70	Čipovati	1.89	.73
Dizajirati	2.16	.71			
	<i>-a-</i>				
	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>
Driblati	2.00	.75	Miksati	2.10	.69
Bildati	1.97	.72	Printati	2.29	.69
Surfati	1.94	.69	Skrolati	2.23	.70
Guglati	2.27	.69	Startati	2.14	.66

Subsequently, the initial analysis and a descriptive report of knowledge of the original form of verbal Anglicisms are obtained. Given that the knowledge of the original form of these Anglicisms will be considered as a group variable in the continuation of this part of the results, the descriptive results of each must be separately presented.

Thus, according to the number of correctly written answers, the verbal Anglicism *dresirati* (to train) had the largest number of correctly written answers ($N = 344$, $\% = 86.9$), followed by the Anglicism *digitalizovati* (to digitalize) ($N = 263$, $\% = 74.1$), while the verbal Anglicism *daunloudovati* (to download) ($N = 71$, $\% = 20$) and *hakovati* (to hack) ($N = 90$, $\% = 25.4$) were found with the smallest number of correct answers (Table 4).

Table 4: Descriptive analysis of knowledge of the original form of all verbal Anglicisms

Anglicisms	Correct		Incorrect	
	N	%	N	%
<i>-ira-</i>				
Džogirati	181	51.0	173	48.7
Ruinirati	191	53.8	163	45.9
Trenirati	187	52.7	167	47.0
Šarmirati	169	47.6	185	52.1
Reciklirati	177	49.9	177	49.9
Dresirati	344	86.9	10	2.8
Skenirati	166	46.8	188	53.0
Educirati	164	46.2	190	53.5
Interpretirati	253	71.3	101	28.5
Dizajnirati	189	53.2	165	46.5
<i>-ova-</i>				
Daunloudovati	71	20.0	283	79.7
Ulogovati	123	34.6	231	65.1
Digitalizovati	263	74.1	91	25.6
Editovati	166	46.8	188	53.0
Hakovati	90	25.4	264	74.4
Atačovati	201	56.6	153	43.1
Produkovati	240	67.6	114	32.1
Apdejtovati	112	31.5	242	68.2
Čipovati	158	44.5	193	54.4
<i>-a-</i>				
Driblati	221	62.3	133	37.5
Bildati	188	53.0	166	46.8
Surfati	189	53.2	164	46.2
Guglati	148	41.7	206	58.0
Miksati	158	44.5	196	55.2
Printati	135	38.0	219	61.7
Skrolati	150	42.3	204	57.5
Startati	138	38.9	216	60.8

4.2. Effect of the knowledge of the original form of the verbal Anglicisms on the frequency of their usage

In this section, the effect of the knowledge of verbal Anglicisms on the frequency of their usage is examined. As stated earlier, the participants' knowledge of the original form of verbal Anglicisms was examined through the writing of their correct forms. Afterwards, the grouped variable showing

the overall level of knowledge of this form of Anglicisms was taken into the analysis of the possible influence on the level of use of verbal Anglicisms. Thus, through our RQ1 we were set to explore whether the knowledge of the original form of verbal Anglicisms significantly influences the frequency of their usage. To check this assumption, our first hypothesis assumes that there will be a statistically significant effect of the knowledge of the original form of verbal Anglicisms on their frequency of usage. A simple linear regression was used to check this assumption.

The results of the regression (Table 5) suggested that the knowledge of the original form of verbal Anglicisms explained 11% of the variance, $R^2 = .11$, $F(1, 352) = 45.112$, $p < .05$ (.000). Knowledge of the original form of verbal Anglicisms significantly predicts the participants' level of usage of verbal Anglicisms, $\beta = -.00$, $t = -6.71$, $p < .05$ (.000).

Table 5: Linear regression of the effect of knowledge of the original form of verbal Anglicisms on their usage

Variable	B	β	t	Sig.	F	R^2
(Constant)	2.56		55.503	.000		
Knowledge of the original form of verbal Anglicisms	-.003	-.337	-6.717	.000	45.112	.114

4.3. Frequency of usage of verbal Anglicisms through the participants' characteristics

After investigating the participants' knowledge of the original form of verbal Anglicisms and the effect of that knowledge on the frequency of their usage, this part of the results section explores the analyses of the frequency of usage of verbal Anglicisms through certain characteristics of the participants, as was the case with the analysis of the nominal Anglicisms. The second research question intended to check if there is a statistically significant difference in the frequency of usage of verbal Anglicisms between GPA, class levels, the medium of instruction in the participants' schools, their experience of traveling to foreign countries, and their experience of attending additional English language course. Six separate hypotheses were set to address the six independent variables.

The second hypothesis intended to examine whether the usage of these Anglicisms significantly differs between the participants' different EL GPA scores. The hypothesis assumed that the participants' EL GPA is a statistically significant factor in the frequency in which they use verbal Anglicisms. A One-way ANOVA was run to check the assumption. The results of a One-way ANOVA (table 7 below) revealed statistically signifi-

cant differences in the usage of verbal Anglicisms between the groups based on the participants' English language GPA score (GPA 2 ($M = 1.84, SD = .46$), GPA 3 ($M = 1.89, SD = .40$), GPA 4 ($M = 1.99, SD = .43$), and GPA 5 ($M = 2.13, SD = .42$)) at the $p < .05$, [$F(4, 349) = 6.18, p = .000, \eta^2 = 1.13$].

Tukey's HSD Test for multiple comparisons found that the mean value of the participants' EL GPA was significantly different between the group EL GPA 2 and the group EL GPA 5 ($p = .00, 95\% \text{ C.I.} = [-.53, -.07]$) and between the group EL GPA 3 and the group EL GPA 5 ($p = .00, 95\% \text{ C.I.} = [-.42, -.07]$), while the mean scores between other groups were not statistically significant. Taken together, these results suggest that the level of English proficiency, presented through the grade achieved in their high school English courses statistically influences the usage of verbal Anglicisms.

Table 7: One-way ANOVA of the frequency of usage of verbal Anglicisms based on EL GPA differences

ELL GPA	<i>M</i>	<i>N</i>	<i>SD</i>	<i>Sig.</i>	<i>F</i>	η^2
2	1.84	31	.46	.000	6.18	1.13
3	1.89	62	.40			
4	1.99	86	.43			
5	2.13	172	.42			

Moreover, the third hypothesis intended to examine whether the usage of verbal Anglicisms significantly differs between the participants of different class levels. The hypothesis assumed that there is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the participants' class level. A One-way ANOVA was run to check the assumption. The results of a One-way ANOVA (table 8 below) revealed statistically insignificant differences in the usage of verbal Anglicisms between the groups based on the participants' class level (class 1 ($M = 1.98, SD = .43$), class 2 ($M = 1.99, SD = .44$), class 3 ($M = 2.02, SD = .44$), and class 4 ($M = 2.14, SD = .43$)) at the $p < .05$, [$F(3, 341) = 2.22, p = .085, \eta^2 = .42$]. The participants from all four grades reported almost identical mean scores which indicates that the high school grade level does not have a significant effect on the frequency of usage of verbal Anglicisms.

Table 8: One-way ANOVA of the frequency of usage of verbal Anglicisms based on class level differences

Class level	<i>M</i>	<i>N</i>	<i>SD</i>	<i>Sig.</i>	<i>F</i>	η^2
1	1.98	78	.43	.085	2.22	.42
2	1.99	104	.44			
3	2.02	93	.44			
4	2.14	70	.43			

Furthermore, the fourth hypothesis intended to examine if there is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the medium of instruction in the participants' schools. Given that two options (Bosnian or English language) were offered as types of the medium of instruction, an independent samples t-test was run to check this assumption. The results of an independent samples t-test revealed a significant difference in the usage of verbal Anglicisms between the groups based on the medium of instruction in the participants' school at the $p < .05$, $t(343) = -1.99$, $p = .04$. The medium of instruction affects the degree of use of verbal Anglicisms because students whose medium of instruction in school is English ($M=2.25$, $SD=.37$) use these Anglicisms more frequently than students whose medium of instruction in school is Bosnian ($M=2.10$, $SD=.40$) (Table 9).

Table 9: Independent samples t-test of the frequency of usage of verbal Anglicisms based on the medium of instruction

Medium of instruction in schools	<i>M</i>	<i>N</i>	<i>SD</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>
Bosnian	2.10	270	.40	.040	-1.99	343
English	2.25	75	.37			

Additionally, the fifth hypothesis predicted that the usage of verbal Anglicisms will differ based on the participants' experience of traveling to foreign countries where the English language is an official language. The hypothesis assumed that there would be a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the participants' experience of traveling to foreign countries. An independent samples t-test was also run to check this assumption. The results of an independent samples t-test revealed an insignificant difference in the usage of these Anglicisms between the groups based on their experience of traveling to foreign countries where English is an official language at $p < .05$, $t(343) = -1.35$, $p = .17$. Students who traveled to the countries where English is an official language ($M=1.67$, $SD=.50$) use verbal Anglicisms insignificantly less than students who did not have that experience ($M=1.87$, $SD=.34$), so this factor does not affect the degree of use of Anglicism (Table 10).

Table 10: Independent samples t-test of the frequency of usage of verbal Anglicisms based on traveling to foreign English-speaking countries

Traveling to foreign English-speaking countries	<i>M</i>	<i>N</i>	<i>SD</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>

Yes	1.67	55	.50	.179	-1.36	343
No	1.87	290	.34			

Finally, the sixth hypothesis examined the difference in the frequency of usage of verbal Anglicisms based on the participants' experience of attending additional instructional courses of the English language, predicting that there is a statistically significant difference in the frequency of the usage of verbal Anglicisms between the groups based on the participants' experience of attending additional EL courses. The results of an independent samples t-test revealed insignificant difference in the usage of Anglicisms between the groups based on the experience of attending additional English language course at the $p < .05$, $t(345) = -1.87$, $p = .06$. Although the significant value of a t-test was close to $p = 0.05$, it is still concluded that students who have an experience of attending additional English language course ($M = 1.44$, $SD = .52$) use these Anglicisms insignificantly less than students who did not have that experience ($M = 1.77$, $SD = .43$) (Table 11).

Table 11: Independent samples t-test of the frequency of usage of verbal Anglicisms based on the experience of attending additional EL course

Attending additional EL course	<i>M</i>	<i>N</i>	<i>SD</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>
Yes	1.44	105	.52	.069	-1.87	345
No	1.77	249	.43			

5. Discussion

The analysis of verbal Anglicisms started with a descriptive analysis of the types of Anglicisms most frequently used by Bosnian high school students. As explained previously, verbal Anglicisms in the Bosnian language are formed by adding Bosnian suffixes to the infinitive form, itself most frequently adapted to the Bosnian language such as *apdejt* (update) + suffix *-ova* (+verbal ending *-ti*) which makes *apdejtovati*.

The initial analysis aimed to determine which of the three types of verbal Anglicisms students use the most. The results revealed that Bosnian high school students use verbal Anglicisms with the suffix *-a-*, slightly more than the two other types. Unlike the other two forms of verbal Anglicisms that the respondents appear to use equally, this type appears to be used more often and leans towards the "I always use" degree rather than "sometimes" which would indicate occasional use. In addition, it should be emphasized that, surprisingly, this form of verbal Anglicisms is not the form the re-

spondents know best, though the assumption was that the most often used form would also be the best known.

In the scarce literature addressing this topic, it is difficult to conclude what influences the choice of a particular suffix type being used more than others. We can conclude, however, that these results are not in line with the findings found on the topic in the languages of Bosnia & Herzegovina and the region. According to Tomić (2018), the suffix *-ova-* predominates in the verbal Anglicisms in the dictionary used for this research. Similarly, Šehović (2009) states that this type of verbal Anglicisms is prevalent in the formation of verbal neologisms in the Bosnian language, especially in information technologies (such as *apdejtovati*, *daunloudovati*, *diskonektovati*).

The reasons for the frequent use of this type of verbal Anglicisms might be attributed to their general everyday use. Verbs such as *to mix*, *to (search) on google*, *to print*, and *to start* are in such an everyday use that it is quite justified and understandable that they have been reported as most commonly used by the youth. In addition, the Anglicisms *skrolati* (to scroll) and *surfati* (to surf on the Internet), which are Internet-related terms, are also notable in this context. Thus, due to their frequent presence in everyday life, it is understandable why young people reported using them frequently. On the other hand, as the other two types of verbal Anglicisms are used slightly less frequently, and the number of Anglicisms in each type not being as large, these results do not indicate a higher preference for Anglicisms with the suffix *-a-*. However, there is a moderate and slight difference between them.

Regarding the further analysis of verbal Anglicisms, the first research question examined the effect of the knowledge of the original form of verbal Anglicisms on their usage. As already explained, the knowledge of the translation of this form of Anglicisms was not investigated, as translation generally requires longer explanations of what each Anglicism refers to. Contrary to nominal Anglicisms, which are mostly words that have a translation and meaning, verbal Anglicisms are actions that require an explanation (for example: *daunloudovati* – *to download some content from the Internet*, etc.). The hypothesis assuming that the participants' usage of these Anglicisms will be significantly influenced by the knowledge of their original forms was confirmed, as the regression test showed a significant effect the knowledge had on the eventual usage of these Anglicisms. The use of these Anglicisms is discussed in the next part.

The individual analysis of the knowledge of these Anglicisms' original English written form shows that the respondents were most familiar with Anglicisms with the suffix *-ira-*, with almost 50% of these Anglicisms being correctly written. Among them, the most accurately written Anglicisms were *dresirati*, *interpretirati*, and *trenirati*. As for other Anglicisms with many cor-

rectly written answers, the Anglicisms *digitalizovati* (to digitalize), *produkovati* (to produce), and *atačovati* (to attach) are prominent. These Anglicisms are written correctly in over 50% of cases. What may make these results meaningful is perhaps not so much the type of verb suffix from which they originated but the domain or type of word to which they belong. As in the case of Anglicisms reported as the most used (Anglicisms with the suffix *-a-*), most of these Anglicisms are related to the Internet domain; students probably know them best, as it has already been emphasized that young people are most exposed and most familiar with a language of technology which is primarily English. In addition, the results are certainly in line with the already mentioned findings that Anglicisms with the suffix *-ova-* are the most common Anglicisms in the Bosnian and Serbian languages (Šehović, 2009; Tomić, 2018).

As for the use of these Anglicisms, it is noticeable that the degree of their use is not extensive. The results showed that they are used little or not at all, which indicates an interesting connection with the level of their knowledge. On the other hand, the data on very little knowledge of the original form of the Anglicisms *daunloudovati* (to download) and *apdejtovati* (to update) are surprising. Although these Anglicisms are also technology-related and are used often, they are written correctly in their original form in only 20% of cases. Therefore, this is a case when Anglicisms whose original form is poorly known are frequently used.

The question of the knowledge of the original form of the verbal Anglicisms was also analyzed concerning the participants' grade level, and English language GPA. The second research question checked if a statistically significant difference in the usage of verbal Anglicisms exists between the EL GPA, and class level differences of the participants, as well as between their experiences of traveling to English-speaking countries, attending additional EL courses, and the medium of instruction in their schools. For each of these categories, a separate hypothesis was set. The results indicated the following: hypothesis 2a is confirmed as it showed a significant difference between EL GPA scores in the usage of these Anglicisms; hypothesis 2b is rejected as it showed an insignificant class level difference in the usage of these Anglicisms; the hypothesis 2c is confirmed as a medium of instruction in the participants' schools showed a significant difference in the usage of these Anglicisms; the hypothesis 2d is rejected as the participants' experience of traveling to English-speaking countries was shown as an insignificant factor in the usage of these Anglicisms; and the last 2e hypothesis is also rejected as it was reported that attending additional EL courses is an insignificant factor in the usage of these Anglicisms.

Considering the participants' class level differences, even though the difference is insignificant, it was shown that the most frequent usage was

shown among students of the fourth (the oldest) grade and then among students of younger grades. While the students of the younger grades showed an average/partial usage of these Anglicisms, only the fourth graders showed a more significant usage.

Furthermore, a statistically significant difference in the usage of verbal Anglicisms was shown between different average grades in English. For example, students with the highest average grade in English showed the highest frequency of usage of these Anglicisms, followed by students with a lower average grade.

In the case of the medium of instruction in schools, students who are taught in English use verbal Anglicisms more than their colleagues who are taught in Bosnian. Finally, traveling to English-speaking countries and an additional course in English is not a factor in the difference in the use of verbal Anglicisms.

In the end, to accentuate the core points in regards to the analysis of the verbal Anglicisms, the findings lead to the following conclusions: there is a specific difference in the use and knowledge of the original English written form of the verbal Anglicisms, but they are mainly moderately used and are not well known; their knowledge and use are conditioned by factors such as success in English on the one hand while, on the other hand, it is not conditioned by gender and age, and the smaller number of the verbal Anglicisms concerning nominal in the Bosnian language is following the same findings in other languages that tackled this topic.

5. Conclusion

Regarding the use of three forms of these Anglicisms (three forms concerning the three suffix endings), it was shown that the respondents mostly use them equally with a slightly higher degree of use of Anglicisms with the ending *-a-*. However, the conclusion is that the use of this type of Anglicism is not influenced by the type of suffix ending but by the type of Anglicism, i.e., how prevalent a certain Anglicism is in everyday use among young people. It was concluded that Anglicisms with the ending *-a-* are mainly from the IT (*google*, *surf*, *scroll*) domain and that young people use them the most; additionally, the frequent use is not a result of its constituent suffix. On the other hand, the results showed that the verbal Anglicisms with the ending *-ova-* are best known to the participants in the original English form and meaning, which is not in line with the previously mentioned *-a-* that they use the most.

As for the differences between respondents in usage of these Anglicisms, it seems that it differs between average grades but not between classes.

Thus, it can be concluded that the degree of knowledge of the English language and the more extended period in its learning may lead to these verbal Anglicisms being used more. Additionally, it can be concluded that these Anglicisms are much less represented in everyday speech and thus in the dictionaries of Anglicisms than the nominal Anglicisms are. Therefore, it is only natural that their use and knowledge is lower compared to the nominal Anglicisms.

Finally, since the respondents showed that they know the original English written form much better than the adapted form and only use the adapted form in some cases, we concluded that the respondents prefer the original English written form. Therefore, it seems reasonable to suggest that the Bosnian language speakers should use and know foreign words in their original English written form. In this way, the Bosnian language is preserved from an overabundance of non-adapted anglicisms that are often semantically redundant; and it is also easier to recognize loanwords. On the other hand, if adapted words were preferred, it would mean that these words are used as an integral part of Bosnian vocabulary (as in the case of the word *stil* - style), and, over time, these words would be included in the Bosnian language (and become its integral part), which most often already contains their native equivalents. Furthermore, preferring the original English might help students expand and enhance their English vocabulary and writing, by a conscious use of English and not Bosnian when using adapted words. However, as this research did not include an outright inquiry and analysis of the preferred style, we believe that future research could expand on our findings and address this undertheorized line of inquiry more broadly, bringing more definite conclusions.

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