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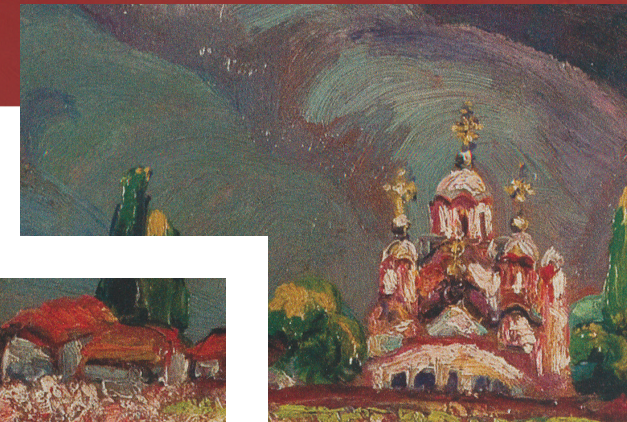- Sanja T. Đoković, Tamara R. Kovačević, Sanja B. Ostojić Zeljković

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## ФИЛОЗОФСКОГ ФАКУЛТЕТА
## УНИВЕРЗИТЕТА У ПРИШТИНИ

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# LEXICAL BLENDS IN SERBIAN:
# AN ANALYSIS OF MORPHOSEMANTIC TRANSPARENCY

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# LEXICAL BLENDS IN SERBIAN: AN ANALYSIS OF MORPHOSEMANTIC TRANSPARENCY

*Abstract.* The present paper investigates the two data sets of Serbian lexical blends by applying a typology of the four blending techniques (i.e. complete blending, contour blending, semi-complete blending, and fragment blending) scaled according to the relative morphosemantic transparency of the resulting blends, as proposed by Ronneberger-Sibold (2006, pp. 168–169) for German blends, with the aim of determining whether the users of contemporary Serbian are able to consciously and deliberately use the different degrees of morphosemantic transparency of blends for achieving various communicative purposes, namely humorous-satirical purposes and purposes of brand naming. Additionally, the paper aims to compare and contrast these results with the results obtained by Ronneberger-Sibold (2006) for 612 German satirical blends and brand names, thereby examining differences and similarities between the two typologically different languages. The data collection for the qualitative and quantitative analyses consists of 202 humorous-satirical blends and 102 brand names created by humorists, satirists, journalists, branding or marketing agencies, manufacturers, etc. The examples of blends are partly taken from a number of existing studies into Serbian blends and partly collected from a wide variety of sources including literary works, (political) satirical shows, journalistic media, official websites of companies and other manufacturers, etc., as well as by field research methods. The results of the analyses show that the creators of the Serbian humorous-satirical blends and brand names are actually well aware of the varying degrees of morphosemantic transparency of blends produced by the four blending techniques and are perfectly able to utilize these techniques for fulfilling various communicative functions. In addition, it has been shown that the users of the Serbian blends tend to prefer the same blending techniques as the users of the German blends (Ronneberger-Sibold, 2006, p. 175) for the creation of humorous-satirical blends and brand names, respectively, though not in the same proportions.

## Introduction

Lexical blends (and English lexical blends in particular) are probably one of the most popular and fascinating topics of contemporary (lexical) word-formation in many languages of the world, Serbian being no exception (Bugarski, 2019, pp. 21–22, 25), especially because such unconventional or odd-looking combinations of two or, sporadically, more words, at least one of which is shortened or overlaps with the other, or both, do not form an inherent part of our (Serbian) cultural and linguistic heritage (Bugarski, 2019, p. 22) (e.g. *zimoća* ← *zim*a 'winter' and hladn*oća* 'cold', *škozorište* ← *ško*la 'school' and p*ozorište* 'theatre', *Gramatolomija* ← *gramat*ika 'grammar' and vr*atolomija* 'stunt' (Bugarski, 2019, pp. 108, 111)).[2] Blending is still considered a relatively new process of forming words in Serbian (Bugarski, 2019, pp. 17, 25; Клајн, 2002, p. 91; Лалић-Крстин & Халупка-Решетар, 2007, p. 26), not yet completely integrated into its word-formation system, though examples of authentic Serbian blends date back to the 1990s (Halupka-Rešetar & Lalić-Krstin, 2009, p. 115).[3] In spite of this, Prćić (2018, p. 86) claims that blends are indeed the most original and humorous lexical formations in present-day Serbian. Similarly, Bugarski (2019, p. 25) considers blends to be the products of the most dynamic of all word-formation processes in contemporary Serbian.

There are a number of possible reasons why blends represent a particularly important source of interest and intrigue to linguists, morphologists in particular. One of these reasons may be blends' formal unconventionality or

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[2] The examples of blends, as well as the blended elements, are given in italics. Overlapping of elements, be it at the phonological or graphical level, or both, is indicated by underlining. All blends are given in Latin script, regardless of their original system of writing.

[3] Blending is firmly believed to have appeared in Serbian under the dominant influence of English (Halupka-Rešetar & Lalić-Krstin, 2009, p. 115), where it was presumably popularized by L. Carroll in his famous nonsense poem Jabberwocky (e.g., Balteiro, 2013, p. 3; Mattiello, 2013, p. 111). For more detailed discussions of Serbian blends, see, for instance, Bugarski (2019), Halupka-Rešetar & Lalić-Krstin (2009), Лалић-Крстин & Халупка-Решетар (2007), or Томић (2019).

creativity, which has produced numerous formal patterns and led some authors (e.g. Cannon, 1986, p. 748) to conclude that "the numerous patterns that they [blends] exhibit are too diverse to be generated within the traditional framework of generative rules". Despite linguists' growing fascination with blends, they "are still a descriptive problem" (Bauer, 2012, p. 21). Brdar-Szabó and Brdar (2008, p. 171) maintain that lexical blending is still one of "the most poorly understood" processes of word-formation. That is, blends are still rather difficult to adequately define and, consequently, to separate and distinguish from other word-formation processes (Bauer, 1983, p. 236) (see, for instance, Beliaeva (2019a), for an attempt at "delimiting the [fuzzy] boundaries of blends as a type of word-formation").[4]

Therefore, the aim of the present paper is to contribute to better understanding some aspects of blends, in particular the morphosemantic transparency of contemporary Serbian blends. Specifically, the paper aims to both qualitatively and quantitatively analyze the different degrees of the relative morphosemantic transparency of the two data sets of Serbian blends, namely humorous-satirical blends and brand names. A qualitative analysis is performed by applying Ronneberger-Sibold's (2006) typology of German blends created by the four blending techniques (i.e. complete blending, contour blending, semi-complete blending, and fragment blending) scaled according to the relative morphosemantic transparency of their products (see Section 5 for more detail about these techniques). A basis for comparing the humorous-satirical blends with brand names created by blending is provided by their different requirements regarding the morphosemantic transparency of complex words (Ronneberger-Sibold, 2006, pp. 166, 175). To be specific, whereas satirical blends can produce "the desired satirical effect only if they are understood", that is, if they are morphosemantically transparent enough, brand names need not be transparent to be able to "fulfil its primary purpose of [naming or] identifying its referent" (Ronneberger-Sibold, 2006, p. 166). It must be remarked, however, that satirical blends should not be fully transparent, "for this would not allow for the surprising and slightly mystifying effect, which is important for linguistic humor [in general] and for satirical texts in particular" (Ronneberger-Sibold, 2006, p. 166). By contrast, "semitransparent structures are generally preferred in proper names" (Ronneberger-Sibold, 2006, p. 166), to which brand names bear a strong resemblance to (Baldi & Dawar, 2000, p. 966).[5] By means of a

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[4] Though the term *blend* has been variously used, it may be broadly defined as "a combination of two or more forms, at least one of which has been shortened in the process of combination. The shortening may be by simple [deletion] of some part of a form, or it may result from overlapping of sounds (or letters)" (Algeo, 1977, p. 48). Similarly, Beliaeva (2019b, p. 1) provides yet another, rather loose definition of blending, but adds that "[t]he visual and audial amalgamation in blends is reflected on the semantic level".

[5] According to Baldi and Dawar (2000, p. 966), brand names constitute a subcategory of commercial names, which are strongly linked to the history of advertising (Sjöblom, 2016, p. 455).

quantitative analysis of the two data sets (i.e., by analyzing the percentage distribution of the four techniques), I aim to compare and contrast the results obtained for the Serbian blends with those of Ronneberger-Sibold (2006, p. 175) for the German satirical blends and brand names. Finally, the analyses of the blends to be performed here seem to be all the more necessary because of the fact that many blends are ephemeral and do not become stable part of the vocabulary, as well as because, to the best of my knowledge, the aspect of the morphosemantic transparency of Serbian blends has not been discussed yet.

The remainder of the paper is divided into 6 sections. Section 2 briefly discusses blending as an extra-grammatical phenomenon as well as the definition of blending adopted for the purpose of this paper. Brief discussions of the two communicative contexts where blends are identified as particularly abundant, that is, brand naming and humorous-satirical (con)texts, are given in Sections 3 and 4, respectively. Section 5 is devoted to describing the data collection and methodology. The focus of Section 6 is the analysis as well as discussion of the two data sets of Serbian blends. The concluding section summarizes the results of the present investigation. It also discusses some implications for future (cross-linguistic) research into blends.

## Theoretical Framework: Blending as an Extra-Grammatical Phenomenon

Blends (especially English blends) have been investigated within a variety of theoretical frameworks, including, but not limited to, Prosodic Morphology (e.g. Arndt-Lappe & Plag, 2013; Plag, 2003), Optimality Theory (e.g. Bat-El & Cohen, 2012; Tomaszewicz, 2012), Natural Morphology and Extra-grammatical Morphology (e.g. Dressler, 2000; 2005; Mattiello, 2013; Ronneberger-Sibold, 2006; 2010). Despite the (primarily phonological) regularities of blends that have been identified within the frameworks of Prosodic Morphology and Optimality Theory, respectively, that is, notwithstanding the evidence provided thereby for the grammaticality of blends or their being "phonologically part of the core grammar" (i.e., "grammatical morphology" or regular word-formation) (e.g. Plag, 2003, pp. 116, 121, 123–126), it has generally been agreed that blends differ from regular word-formation and are therefore considered peripheral or marginal to morphological grammar (e.g. Dressler, 2000; Mattiello, 2013; Ronneberger-Sibold, 2006; 2010), mostly because of some of their "formal features such as [submorphemic elements], overlapping constituents, which are impossible in normal formations, and lack of transparency" (Ronneberger-Sibold, 2006, pp. 159–160).[6] However, there are some "recurring [(formal)]

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[6] Submorphemic elements that constitute blends are traditionally termed *splinters* (see, e.g., Adams, 1973, pp. 142, 147).

patterns" blends actually follow, which though not identical to word-formation rules (WFRs) (as used by generative morphologists) are at least comparable to those rules and "hence part of normal grammatical competence" (Ronneberger-Sibold, 2006, p. 159). One such approach to blends is offered by Mattiello (2013) within the theoretical framework of Extra-grammatical Morphology (or extra-grammatical word-formation (Ronneberger-Sibold, 2010, p. 210)), which will be adopted here as "a functional description and explanation of [the] blending [phenomenon]" (Ronneberger-Sibold, 2006, p. 160) in Serbian.

The term *extra-grammatical morphology* was first introduced by Dressler and Merlini Barbaresi (1994, pp. 36–41, as reported in Mattiello (2013, p. 1)) to refer to "a set of heterogeneous formations (of an analogical or *rule-like* (author's emphasis) nature) which do not belong to morphological grammar, in that the processes through which they are obtained are not clearly identifiable and their input does not allow a prediction of a regular output. […] examples of extra-grammatical morphological phenomena include: blends, acronyms, initialisms, clippings, hypocoristics, reduplicatives, back-formations, and expletive infixes". Furthermore, "[t]hese extragrammatical operations […] are governed by their own extragrammatical competence, which is based on, but different from, the grammatical competence governing regular inflection and word-formation" (Ronneberger-Sibold, 2006, pp. 160, 177). In Ronneberger-Sibold's (2006, p. 161) opinion, "[t]he most important output characteristics aimed at by choosing to blend words instead of compounding them are certain sound shapes and a reduced transparency", which is determined by the specific blending technique (see Section 5 below), as well as communicative functions or purposes they are intended to serve (see Sections 3 and 4 below, or Ronneberger-Sibold (2010, pp. 203, 206–208). Accordingly, for the purpose of this paper, I will adopt Ronneberger-Sibold's (2006, p. 157) definition of blending as a "deliberate creation of a new word out of two […] existing ones in a way which differs from the rules […] of regular compounding", extragrammatical derivation, as well as from other extra-grammatical morphological phenomena (Ronneberger-Sibold, 2006, pp. 162–164; 2010, pp. 203–205), notably acronyms and (complex) clippings, which blends are frequently compared to (see, e.g., Bauer, 2003, p. 124; Gries, 2004, p. 215; Plag, 2003, p. 13).

## Blends and Brand Naming

Though there is practically no domain where at least some type of blend has not been created, most authors who discuss blending agree that the contexts of brand naming or marketing, as well as that of advertising abound with blends (e.g. Adams, 2001, p. 140; Beliaeva, 2019a, pp. 2–3; 2019b, p. 18; Bryant, 1974, pp. 163–164; Bugarski, 2019, pp. 75–76; Crystal, 1995, p. 130; Fandrych, 2008, pp.

113, 115; Halupka-Rešetar & Lalić-Krstin, 2009, p. 115; Hamans, 2009, pp. 13, 22; Lalić-Krstin, 2010, pp. 5, 18; Lehrer, 2007, pp. 115, 128, 130, 132; López Rúa, 2010, p. 53; Mattiello, 2019, pp. 7, 18–19, 24; Ronneberger-Sibold, 2010, pp. 201, 206; Лалић-Крстин & Халупка-Решетар, 2007, p. 28; Томић & Даниловић Јеремић, 2020, p. 299; Томић, 2019, p. 65).[7] Considering this general agreement, the question naturally arises as to which properties make blends particularly suitable for use in brand naming. Before we briefly discuss some of these properties, it seems appropriate to say a few words about brand names, as they represent an enormously important part of brand's positioning or marketing (e.g. Panić, 2004; Sjöblom, 2016, p. 455). Furthermore, according to Piller (2001, p. 189), "[i]n capitalist consumer society, it is not products [or services] that are sold but names".

The term *brand names*, which frequently "overlaps with company names, product names, and trademarks" (Sjöblom, 2016, p. 454) is understood here more broadly. That is, it is used to refer to "a product [or service] or a group of products [or services] […] as well as to a company […] [or a manufacturer]" (Sjöblom, 2016, p. 454) by means of which it is individualized or distinguished from other similar companies, products, or services (Panić, 2004, p. 285). Introducing a new company, product, or service into the market requires a catchy or otherwise memorable name, which is why the process of brand naming "inevitably depends on the mechanisms of language […]" (Panić, 2004, p. 285). Furthermore, according to Panić (2004, pp. 285–286), "[t]he linguistic approach to brand name creation is both scientific and creative – it makes use of well-established morphological, phonological and semantic principles, combining them in a creative way. Thus, a brand name formed according to such principles should be characterized by a creative and imaginative structure that produces a pleasant psycho-acoustic effect and a meaning rich in layers of associativeness that should contribute to the product's recognition value". Finally, "[a]ll aspects of brand naming are governed by two general [but at the same time essential] principles – language economy and language creativity" (Panić, 2004, p. 286).

Regarding the properties that may be said to make blends particularly suitable for brand naming, it is first important to remember that blends are frequently described as being "queerious" (Kelly, 1998, p. 588), "clever, trendy, eye-and-ear-catching words" (Lehrer, 2003, p. 369), cool, "cute and amusing" (Lehrer, 2007, pp. 115–116), and creative (Beliaeva, 2019a, p. 2; Fandrych, 2008, p. 111). Such qualities make blends highly desirable candidates for names of new products, services as well as companies, especially because those who create brand names intend to draw the attention of the target audience to the company, product or service and persuade potential consumers to try and, eventually, buy

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[7] Despite the fact that advertising or marketing contexts abound with blends, studies or papers that exclusively or, at least, to a greater degree discuss this topic are rather lacking (but see, for instance, Danilović Jeremić & Josijević (2019) or Томић (2020)).

it, or at least remember its name (Lehrer, 2007, pp. 128–129). One other quality of blends which seems to perfectly suit the above-mentioned principles of brand name creation is their brevity (Thornton, 1993, pp. 148, 150). This could be well illustrated by comparing the brand names *Wheatables*™ and *Craisins*™ with their longer and rather ineffective alternatives *Wheat Crackers* and *Dried Cranberries*, respectively, which "would not produce much interest or curiosity" (Lehrer, 2003, p. 380), or, by considering the possible descriptions of the Serbian brand names *Akvadajz* 'a brand of juice (or sauce) made from tomatoes which have been grown in an innovative food production system referred to as Aquaponics' ← *Akva*ponija 'Aquaponics' and par*a*dajz 'tomato' (Томић & Даниловић Јеремић, 2020) and *Medoriki* 'sesame coated caramel peanuts' ← *med* 'honey' -*o*- kiki*riki* 'peanuts' (Bugarski, 2019).

## Blending and Humorous-Satirical (Con)Texts

In addition to being abundantly used for commercial name giving, as well as other marketing or advertising purposes, blending has been recognized as a particularly popular technique for creating new words which function as expressions of humour or wit.[8] In other words, most authors who discuss blending agree that blends are frequently coined for humorous-satirical purposes or comic effects (e.g. Adams, 1973, p. 149; Balteiro, 2013, p. 19; Benczes, 2019, pp. 114–121; Hamans, 2009, p. 22; Lalić-Krstin, 2014, pp. 357–360; Mattiello, 2013, pp. 213, 215, 237; Prćić, 2018, p. 86; Ronneberger-Sibold, 2010, p. 201).[9] Accordingly, blends are also frequently described as witty, playful, and ludic (e.g. Beliaeva, 2019a, p. 2; 2019b, p. 18; Fandrych, 2008, p. 115; Kelly, 1998, p. 586; Lalić-Krstin & Silaški, 2019, pp. 223, 227; Lehrer, 2003, p. 370; Renner, 2015, passim).

For instance, Renner (2015, p. 119) claims that blends, "because of their very formation process, […] are instances of wordplay", by which he understands "*an intentional and formally ingenious* way of associating the semantics of two or more words in a *new* morphological object" (author's emphasis). In fact, "blending can be claimed to be the most complex form of wordplay in word-formation" "because

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[8] According to Blake (2007, p. 54), "[w]hen we think of humour, we think of something *new*, something *fresh* at least" (my emphasis). It is therefore not at all surprising that people make considerable use of an innovative word-formation process such as blending when communicating humor. Wit is understood here to mean "power of giving a sudden intellectual pleasure by unexpected combining or contrasting of previously unconnected ideas or [verbal] expressions" (Alexander, 1997, p. 9).

[9] Mattiello (2013, p. 237), for instance, observes that "[m]ost of [extra-grammatical phenomena] exploit the similarity between the source words to obtain humorous effects, as in [the blend] sexretary, playing on the phonemic/graphemic resemblance between sex and sec". The humorous or ludic exploitation of phonological similarity in blends is reiterated and further elaborated by Benczes (2019, pp. 114–121).

of the wide variety of attested patterns" (Renner, 2015, p. 121). Furthermore, according to Renner (2015, p. 124), there are a few factors that "can be claimed to increase the wordplayfulness of a blend" such as "formal complexity, structural transgression, graphic play on words, semantic play on words, and functional ludicity", of which the last one is of special interest to this research. Specifically, Renner (2015, p. 129) states that "[p]layfulness is backgrounded when the act of word-formation [in this case blending] primarily has a naming and an information condensation function", that is, "blends which have retained minimal material from their source words […] are closer to the naming end of the [continuum], i.e. [they] are less playful, than complete blends […], which contain their source words in full". On the other hand, "playfulness is foregrounded when [blending] primarily fulfills a ludic function", that is, when the coiner of the blend is, for example, "motivated by the possibility of maximizing overlapping" (Renner, 2015, pp. 129–130). At the extreme ludic end of the continuum are blends which Renner (2015, p. 130) appropriately terms "semasiological blends" because they "have been coined on purely formal grounds, a humorous definition being forged only subsequently to the formation of the blend". For instance, a considerable number of the Serbian humorous-satirical blends created by the authors of a satirical dictionary *Paranojeva barka: rečnik marginalizama* (PBRM, 2017) are excellent examples of such creations (see the next section). Similarly to Renner, Beliaeva (2019a, p. 2) states that blending, as a word formation process, can be motivated by factors that increase the predictability of the ouput, that is, those that increase its punning nature and playful character, or both.

Mention must additionally be made of the actual satirical (con)texts where blends are created as a means of communication to which humor and wit, as well as an object of attack, are essential (Frye, 1944, p. 76; for more detail about the nature of satire, see Milner Davis & Foyle, 2017, pp. 8–10).[10] To be specific, by *satire* I understand a verbal expression used as part of a literary work or journalistic media (e.g. print, satirical TV shows, the Internet, etc.) where language users creatively manipulate linguistic features "– such as a word, […], a part of a word, a group of sounds, a series of letters" (Crystal, 2001, p. 1), with the intention of satirizing, criticizing, or making fun of human actions, vices and follies, weaknesses, stupidities, etc., at the same time trying to make the target audience at least aware of some of the burning issues related to society, politics, sex, religion, etc.[11] Though these topics are no laughing matter, blends triggered by various socio-political, religious, sexual, and other similar situations may fulfill multiple functions such as creating laughter or providing (short-term) comic relief (see, e.g., Lalić-Krstin & Silaški, 2019, pp. 230–231, for a further discussion of such and similar functions of ludic neologisms). Finally, the particular

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[10] The term *text* is used here to refer to written as well as spoken material.

[11] The term *literary* is understood in its broadest sense.

suitability of some of the blending techniques for producing humorous-satirical effects is maybe best summarized by Ronneberger-Sibold (2006, p. 178), who writes that "humoristic language must be neither entirely transparent, […], nor entirely opaque", for the former would reduce amazement aimed at by a joke, and the latter "would make enlightenment impossible".

## Data Collection and Methodology

The two data sets of Serbian blends include 304 one-word blends collected from a variety of printed as well as electronic and online sources. The first data set contains 202 blends which are best characterized as having humorous-satirical tendency. A considerable number of these blends are sourced from a satirical dictionary *Paranojeva barka: rečnik marginalizama* (PBRM, 2017), where each blend is accompanied by a definition which served as the basis for the reconstruction of its source words. Other literary sources of humorous-satirical blends include two books which are notable for their wry humor and biting satire, namely *Nacionalni park Srbija* (NPS, 1999) and *Nacionalni park Srbija 2*: *Polusmak polusveta* (NPS2, 2007). Both these literary works provide a critical perspective on the social and political ferment in Serbia within the last decade of the XX century and after the October 5 Revolution, respectively. Finally, one such literary blend, which appears as part of the book title – *Slobotomija* ← *Slobo* 'the term of endearment for the former President of Yugoslavia *Slobodan* Milošević' and *lobotomija* 'lobotomy', is taken from Bugarski (2019).

Additional examples of humorous-satirical blends are collected from various types of journalistic media such as the online editions of daily newspapers and magazines (mostly their regular columns) (the *Danas*, *NIN*, *Vreme*, *ETNA*, *Nedeljnik*, *Peščanik*, the *Blic*, the *Informer*, the *Kurir*, the *Novosti*, the *Politika*) or satirical TV shows (*PLjiŽ* (2018–2021)).[12] A number of journalistic blends are taken from Bugarski (2019). It must, however, be emphasized that the original journalistic source of each of these blends was established by searching for a specific blend on *Google*. Double quotation marks were used around the blend. Each source was carefully checked for the context in which the blend appears, especially because the interpretation of most such blends is "possible only in the context in which they appear, as they require knowledge of the extra-linguistic world [(and its socio-political reality)]" (Konieczna, 2012, p. 70).

The second data set of blends contains 102 (un)registered brand names of various semantic fields including, for the most part, brand names of food and drink, but also cosmetics brands, health care brands, paint brands, pharmacy

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[12] The *PLjiŽ* blends were actually collected from the show's Facebook page where the written forms of most blends are provided as part of a specific episode. The episodes were consulted when the etymology of the blend was ambiguous.

brands, etc. Most of these blends are taken from the papers or studies investigating Serbian blends (Bugarski, 2019; Лалић-Крстин & Халупка-Решетар, 2007; Томић & Даниловић Јеремић, 2020; Томић, 2019). Other examples of brand names created by blending are collected by visiting the official websites of a number of companies (e.g. *Galenika*, *MAXIMA*˚, *Slatkoteka*˚, etc.) or manufacturers (e.g. the platform *Mali proizvođači Srbije*, etc.) (see Sources), as well as by field research, which included visits to shops, restaurants, etc.

Both these data sets are first analyzed with regard to the source words of the blends as well as the blending technique used for their creation. The four blending techniques proposed by Ronneberger-Sibold (2006, pp. 168–169) for German will be briefly discussed here with reference to the examples of Serbian blends collected for the purpose of this paper. To be more specific, the blends of each data set are first qualitatively analyzed, that is, their constituents, as well as possible overlaps, are identified. Following this, Ronneberger-Sibold's (2006) transparency-based typology of the four blending techniques is applied to the two sets of Serbian blends, with the aim of grouping the blends created by the same blending technique (ranging from most to least transparent) and performing the quantitative analysis of the data. Finally, the two data sets are compared and contrasted with each other, as well as to the results obtained by Ronneberger-Sibold (2006, p. 175) for the German satirical blends and brand names.

In the most transparent type – *complete blends*, as the term itself suggests, the constituents of a blend are fully contained in the blend. The products of this blending technique can further be divided into *telescope blends* and *inclusive blends*, as a result of their different degrees of morphosemantic transparency. Namely, the former subtype denotes formations where the end of the first constituent (be it a letter and/or phoneme, a string of letters and/or phonemes, or a whole syllable) overlaps with the beginning of the second constituent, whereas the latter subtype denotes formations where "one constituent includes the other[(s)] as part of its sound" sequence. In Renner's (2015, p. 127) words, the inclusive blend "is homophonous with one of the source words". The presence of the included word in inclusive blends is perceivable in writing only, which is why they are sometimes termed *(ortho)graphic blends* (e.g. Beliaeva, 2019b, p. 10; Fandrych, 2008, pp. 111, 113; Konieczna, 2012, p. 63, who, for instance, observes that graphic blends in Polish quite frequently contain an abbreviation or an acronym denoting political parties as one of their constituents, as well as the fact that they are frequently used by newspapers as a means of fighting the political opposition or for expressing strong disapproval; Lehrer, 2007, p. 120).[13] With regard to Konieczna's (2012, p.

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[13] Note that orthography, which includes a range of graphic means such as font styles, sizes, colors, symbols, or bicapitalization (Crystal, 2006, p. 93), is frequently employed as a means of achieving higher morphosemantic transparency (Ronneberger-Sibold, 2006, p. 178).

63) observation, it is interesting to remark that the Serbian examples of inclusive blends of the first data set also make frequent use of acronyms or initialisms denoting political parties or politicians, sports associations, and other organizations (e.g. *DOS* 'the Democratic Opposition of Serbia', *EU* 'the European Union', *SPO* 'The Serbian Renewal Movement', *OKS* 'The Olympic Committee of Serbia', *KUP* 'the national football cup of Serbia', etc.).

The relative character of (morphosemantic) transparency is further evidenced by the fact that not all telescope blends are equally transparent. Specifically, telescope blends are more transparent if the resulting overlap corresponds to some existing morpheme than if it is simply a submorphemic element (Ronneberger-Sibold, 2006, p. 167). By contrast, the degree of opacity of telescope blends is higher if the overlap is only phonological, but not graphical and vice versa, though it must be remarked that "the degree of 'enlightenment' [is thereby] higher" (Ronneberger-Sibold, 2006, p. 167; cf. Mattiello, 2013, p. 24). Here are some examples of the humorous-satirical blends created by telescope blending and inclusive blending (the two subtypes are separated by semicolon): *bagnostik* ← *bag* 'a transphonemized English lexeme *bug*, meaning an error in a computer program or system' and *agnostik* 'agnostic' (PBRM, 2017), *skorupcija* ← *skorup* 'a creamy dairy product, similar to clotted cream' and *korupcija* 'corruption' (PBRM, 2017), *Dodikonostas* ← *Dodik* '(Milorad) Dodik, a Serbian politician' and *ikonostas* 'an iconostasis' (PLjiŽ), *Koronateisti* ← *korona* 'short for coronavirus' and *ateisti* 'atheists' (PLjiŽ); *GIM-nastika* ← *GIM* 'a company name (arms and armament industry)' and *gimnastika* 'gymnastics' (NIN), *NaKUPci* ← *nakupci* 'middlemen' and *KUP* 'the national football cup of Serbia' (the *Danas*), *EUforija* ← *EU* 'the European Union' and *euforija* 'euphoria' (NPS2, 2007).[14]

Brand names created by telescope blending include, for example, *SRBERRY* 'a brand of berry fruit juice sweetened with honey, with no additives or artificial sweeteners' ← *SRB* 'a clipped form of Serbia' and *berry* 'a non-transphonemized English lexeme' (https://maliproizvodjaci.rs/) or *Mjautoritet* 'a brand of cat furniture' ← *mjau* 'the characteristic crying sound of a cat (imitative)' and *autoritet* 'authority' (Bugarski, 2019).[15] Examples of brand names created by inclusive blending are *Muskarada* 'luxury, handmade plant oil soap, with strong oriental, musky scent' (https://www.allnut.rs/) ← *musk* 'a non-transphonemized English lexeme' and *maskarada* 'masquerade, a party where people wear masks' (here, the segments overlap phonologically only, thereby producing a higher degree of opaqueness) or *Kiflizza* 'a type of BigPizza®'s pizza edged with small bread

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[14] Though the example *Koronateisti* is quite close to compounds, the overlapping of the vowel "a" and the fact that overlapping constituents "are impossible in regular compounds" (Mattiello, 2013, p. 57) led me to consider it an instance of blending.

[15] The font effects, as well as the font colors employed by the creators of the brand *SRBERRY* are well worth mentioning because its constituents are printed in capital letters and in two different colors.

rolls' ← *kiflica* 'a small bread roll' and p*izza* (Томић, 2019) (in Serbian, the underlined part of the second source word is pronounced (though wrongly) the same way as the underlined part of the first one).

The next type of blends is termed *contour blends* because "the word which is primary for analysis", that is, the matrix word, functions as a *contour* of the blend as a whole (Ronneberger-Sibold, 2006, p. 170). Though the matrix word is not normally fully contained in the blend, it can be reconstructed by means of a number of phonological properties such as the number of syllables, the position of the main stress, or the remaining part of the rhyme (Ronneberger-Sibold, 2006, p. 170).[16] The inserted word, on the other hand, is typically contained in the blend in full. With regard to the stress of these blends, it should be noted that the Serbian blends collected for the purpose of this paper are additionally analyzed for the position of their stress because the sources do not provide stressed examples of blends. For the analysis of the stress position of the Serbian blends, I adopted the method of prediction rules formulated by Renner and Lalić-Krstin (2011), that is, the stress pattern homology rule and the last stressed nucleus rule. Two Serbian dictionaries were consulted for the stress of the source words of the blends (Вујанић & al., 2011; http://www.srpskijezik.com/). Similarly to complete blends, contour blends can be subdivided into those where one source word is inserted into the pretonic part with(out) overlap and those where the inserted word is inserted into the posttonic part with overlap (normally not changing the stressed vowel of the matrix word), with the latter being less transparent than the former (Ronneberger-Sibold, 2006, pp. 168–169, 171).[17] According to Ronneberger-Sibold (2006, pp. 172, 176), overlaps in contour blends (especially in its second subtype) tend to facilitate the reconstruction of the source words. The importance of overlapping as regards blends has been emphasized by other authors as well (see, e.g., Халупка-Решетар & Лалић-Крстин, 2012, p. 107). Here is a small selection of humorous-satirical contour blends: *ambisioznost* ← *ambis* 'abyss' and *ambi*cioznost 'ambition' (PBRM, 2017), *ćoratorijum* ← *ćorat*ati 'walk in the dark, as if blind' and m*oratorijum* 'moratorium' (PBRM, 2017), *jazmimoilaženje* ← *jaz* 'gap' and r*azmimoilaženje* 'disagreement' (PBRM, 2017), *kleptomantija* ← *kleptomanija* 'kleptomania' and *mantija* 'cassock' (PBRM, 2017), *Miškolovka* ← *Miško*vić 'the last name of a Serbian businessman Miroslav Mišković' and *mišo*lovka 'a mousetrap' (Bugarski, 2019), *Balkanalije* ← *Balkan* 'the Balkans' and *ba*hanalije 'bacchanalia' (the *Danas*).

Examples of brand names created by contour blending include, for example, *Bancipan* 'a brand of chocolate bar with marzipan produced by the company *Banat*' ← *Ban*at 'the chocolate company which was based in Vršac

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[16] Similarly, Beliaeva (2019b, p. 13) regards "the preservation of the prosodic contour" as "an important factor contributing to recognition of the source words in the blend".

[17] Here, we refer to both these subtypes as *contour blends*.

(Banat, Serbia)' and mar*cipan* 'marzipan' (Лалић-Крстин & Халупка-Решетар, 2007), *Breskosaurus* 'a neXt° brand of fruit juice with a picture of a dinosaur carved out of a peach' ← *bresk*va 'peach' and din*osaurus* 'dinosaur' (Томић, 2019) and *Limunana* 'a neXt° brand of fruit juice' ← *limuna*d*a* 'lemonade' and *nana* 'mint' (Томић, 2019).[18]

In the other, less transparent, half of Ronneberger-Sibold's (2006, pp. 168–169) scale of the four blending techniques, one first finds *semi-complete blends* which, similarly to the previous type, contain one shortened source word and one unshortened source word, though there are no identifying phonological prompts for the shortened source word. That is, it is the unshortened word which may determine the rhythmical shape of a semi-complete blend. This implies that factors such as the length of the shortened source word are more important for semi-complete blends than for contour blends. One other factor that may positively influence the morphosemantic transparency of semi-complete blends is, of course, overlapping. Here are some examples of brand names created by semi-complete blending: *Cmokice* ← *cmok* 'a loud kiss' and k*okice* 'popcorn' (Томић & Даниловић Јеремић, 2020), *Higlo*° ← *H*orgoš 'a village located in the municipality of Kanjiža, Serbia' and *iglo* 'igloo' (Bugarski, 2019), *MAXIMAL*° ← *MAXIMA*° 'a brand of paints and facades' and *mal*ter 'mortar' (https://www.maximapaints.com/sr/). Humorous-satirical blends created by semi-complete blending include examples such as *Dinstagram* ← *dinsta*nje 'stewing' and *Instagram* (PBRM, 2017) or *Nasamarićanin* ← *nasamari*ti 'to fool (someone)' and *Samarićanin* 'Samaritan' (PBRM, 2017).

Finally, the least transparent type of blends is produced by the technique of *fragment blending*. *Fragment blends*, as is suggested by the term itself, contain neither of the two constituents in full.[19] According to Ronneberger-Sibold (2006, pp. 169, 175), products of fragment blending are frequently "opaque new root[s]" with suggestive sound shapes, as evidenced by some Serbian brand names (e.g. *Griski*° or *Filbi*). Lehrer (1996, p. 363; 2007, p. 132) similarly observes that there are examples of words (of which many are brand names) "whose blend etymologies have become unnecessary for most speakers" such as *Bisquick*™ ← *bisc*uit and *quick*. Consider, for instance, the following two Serbian brands created by fragment blending which date back to the 1980s – *Griski*° 'grissini filled with

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[18] Though the analysis of *Limunana* as consisting of the source words *limun* and *nana* seems plausible (in which case it would be a telescope blend), the fact that it denotes 'mint lemonade' led the author to interpret it as a blend of *limunada* and *nana*. Furthermore, the drink advertisement says "Novi NeXt JOY, više od limunade!" (Eng. "New NeXt JOY, more than lemonade!") (NeXtsokovi, see Sources). Note that Bugarski (2019, pp. 37, 193) also analyzes *Limunana* as a blend of *limunada* and *nana*.

[19] Regarding those less transparent types of blends, Cacchiani (2016, p. 307) observes a significant correlation between the reduced transparency of blends and an increase in their playfulness.

peanuts' ← *gris*ini 'grissini' and *ki*kiriki (or, kikiri*ki*) 'peanuts' (Томић, 2019) or *Filbi* 'cocoa cream-filled biscuit' ← *fil*ovani 'filled' and *bis*kvit 'biscuit' (Томић, 2019), both of which are now almost unrecognizable as blends. Fragment blends, like semi-complete blends, "can be *relatively* (my emphasis) transparent only if long and distinctive strings of the blended words are retained" (Ronneberger-Sibold, 2010, p. 213). Here is a small selection of examples of brand names created by fragment blending: *Galesil'* ← *Gale*nika 'a pharmaceutical company' and *sil*ikonski 'silicone', *Borogal'* ← *bor*na (kiselina) 'bor(ac)ic acid' -o- *Gale*nika (https://www.galenika.rs/sr/), *MAXIFAS°* ← *MAXIMA°* and *fas*ad(n)a 'façade', *MAXIKRIL°* ← *MAXIMA°* and a*kril*ni 'acrylic' (https://www.maximapaints.com/sr/), *Chocomelo* 'chocolate-coated marshmallow treats produced by the brand TAKO' ← *choco*late and manč*melo*u 'Munchmallow' (https://tako.rs/sr), *Nutelofna* 'a kind of Slatkoteka''s nutella-filled donut' ← *nutel*a 'nutella' and kr*ofna* 'a donut' (https://slatkoteka.rs/). Examples of satirical blends created by fragment blending are *Diplomislav* ← *diplom*a 'a diploma' and T*omislav* 'the name of the ex-president of Serbia Tomislav Nikolić' (Bugarski, 2019) or *Hipnovizija* ← *hipno*tisati 'hypnotize' and tele*vizija* 'television' (NPS2, 2007).

## Data Analysis and Discussion

Detailed qualitative and quantitative analyses of the two data sets of Serbian blends show, firstly, that there is a clear preference for the different degrees of morphosemantic transparency of the humorous-satirical blends, on the one hand, and brand names, on the other (see Figure 1 below). Specifically, the products of the four blending techniques are distributed as follows within the data set of humorous-satirical blends: contour blends, as the second most transparent type, dominate this data set with 111 examples (54.95%); complete blends, as the most transparent type, represent the next most frequent group with 61 examples (30.19%), that is, with 46 telescope blends and 15 inclusive blends; the less transparent types such as semi-complete blends and fragment blends account for as much as 12.87% and 1.98% of the whole data set, respectively. The distribution of the four types of blends within the second data set clearly indicates that the language users prefer more opaque techniques such as semi-complete blending or fragment blending for the creation of brand names, as these two types of blends make up 58.82% of all examples. Namely, there are 37 (36.27%) and 23 fragment blends (22.54%) attested within the data set of brand names. This preference becomes more obvious if these results are compared with the number of brand names created by the most transparent technique – complete blending, which provides as few as 11 examples (10.78%) (3 telescope blends and 8 inclusive blends). Somewhat surprisingly, though, there are as many as 31 brand names (30.39%) created by contour blending within this second data set.

Interestingly enough, the percentage of the German brand names created by the same technique is only slightly higher (31.80%) (Ronneberger-Sibold, 2006, p. 175). With regard to the distribution of the contour blends in the two corpora of German blends, it is further interesting to observe that the brand names created by contour blending (31.80%) slightly outnumber those satirical blends created by the same technique (30.60%) (Ronneberger-Sibold, 2006, p. 175).

Secondly, an interesting observation between the two data sets of Serbian blends concerns the use of (dis)continuous overlapping (see Figure 2 below). To be specific, overlaps are identified with 187 humorous-satirical blends (92.57%), whereas the overlapping brand names make up 49.01% of the second data set (50 examples). This further implies that the creators of (especially humorous-satirical) blends tend to select the source words which show a closer phonological and/or graphical similarity to each other where they are to be fused or blended. The shared segment therefore represents phonological or graphical overlap, or both. Correspondingly, the creators of (especially humorous-satirical) blends tend to shorten one or both source words where they show some phonological and/or graphical resemblance to each other. These results demonstrate that similarity (be it phonological or graphical, or both) between the (parts of) source words is one of the major motivating factors behind conscious and deliberate blending, particularly behind those blending techniques which produce more transparent types of blends. It is further interesting to observe that overlaps within the data set of brand names are generally kept to a minimum, that is, the segment the (parts of) source words share is typically one or two letter(s) and/or phoneme(s) (e.g. *Akvadajz* ← *Akva*ponija 'a food production system' and par*adajz* 'tomato' (Томић & Даниловић Јеремић, 2020), *Čokolend* ← *čokol*adni 'chocolate' and *lend* 'a transphonemized English lexeme *land*', *Malinada* ← *malina* 'raspberry' and limu*nada* 'lemonade', *Medođija°* ← *med* 'honey' and n*edođija* 'neverland' (all three examples are taken from Томић, 2019), *Joaza* ← *jo*gurt 'yogurt' and *oaza* 'oasis' (Лалић-Крстин & Халупка-Решетар, 2007)). On the other hand, within the data set of humorous-satirical blends, overlaps are generally much greater, that is, the shared segments are typically entire syllables or existing (bound or free) morphemes (e.g. *estradalac* ← *estrada* 'show business' and *stradalac* 'sufferer' (PBRM, 2017), *DijaSPOra* ← *dijas̲p̲o̲r̲a* 'diaspora' and *SPO* 'The Serbian Renewal Movement' (the *Danas*), *Kosmoarnaut* ← *kosmo̲n̲a̲u̲t* 'cosmonaut' and *Arn̲a̲u̲t* 'Albanian' (PBRM, 2017)), which adds to the higher transparency of the blend, further facilitating the recognizability of its source words, as well as to the (more) successful interpretation of the blend as a whole. Additionally, all this seems to suggest that (the amount of) overlapping is not only one of those formal factors which are of great importance for producing more transparent blends, but also that the language users are well aware of its importance when adjusting the morphosemantic transparency of the output to fulfill the desired communicative function.

Though the constituents of brand-name blends, for the most part, overlap both phonologically and graphically (43 examples) (e.g. *Cmokice ← cmok* and k*okice* (Томић, 2019), *Čokolend ← čokol*adni 'chocolate' and *lend* 'a transpho-nemized English lexeme *land*' (Томић, 2019), *Kerametal ← keram*ika 'ceramics' and *metal* 'metal' (Лалић-Крстин & Халупка-Решетар, 2007), *Krementina ← krem* 'cream' and *klementina* 'clementine' (Лалић-Крстин & Халупка-Решетар, 2007), *Kokiriki ← kokice* 'popcorn' and *kikiriki* 'peanut' (Bugarski, 2019)), there are 6 blends which exhibit a phonological overlap only, as one of the constituents is typically a non-adapted foreign word (e.g. *BakLOVEica ← baklavica* 'a small baklava' and *LOVE* (https://maliproizvodjaci.rs/), *Beerokrate ← beer* and *birokrate* 'bureaucrats' (Томић, 2019)) and one blend which exhibits a graphical overlap only (*Apetit* 'a brand of buscuits' ← *apetit* 'appetite' and *petit* 'as in *Petit Beurre*, a kind of shortbread' (Томић & Даниловић Јеремић, 2020)). With regard to these phonological overlaps, it is worth remembering that the degree of opacity is higher if overlap is only phonological, but not graphical, or vice versa (Ronneberger-Sibold, 2006, p. 167). The fact that (non-)adapted foreign lexemes (mostly Anglicisms) are used for the creation of brand names, but not for the creation of humorous-satirical blends (which predominantly exploit native-word stock) may be partly explained by the above-mentioned requirement for brand names to be, *inter alia*, ear-catching creations, that is, to be striking or pleasing to the ear, or to sound (more) exotic (e.g. *Silvergal˚* 'a silver filling or dental amalgam' ← *silver* and *Gale*nika (Томић, 2019) or *Zoopa* 'a brand of soup with animal-shaped pasta' ← *zoo* and s*upa* 'soup' (Bugarski, 2019)). Finally, it should be noted that the humorous-satirical blends typically overlap both phonologically and graphically and are therefore much more transparent.

Thirdly, if the obtained results are further contrasted with those obtained by Ronneberger-Sibold (2006, p. 175) for German blends, it is interesting to remark that the German satirical blends are most frequently created by complete blending (66.30%), whereas the quantitative analysis of the Serbian humorous-satirical blends show that contour blending is the much preferred technique (54.95%), though the language users' preference for these more transparent types of blends is quite obvious within both Serbian (85.14%) and German (96.90%) data sets of humorous-satirical blends. The (relatively) high percentage of the Serbian blends created by contour blending in general and humorous-satirical blends in particular may be, at least in part, accounted for by what Ronneberger-Sibold (2012, p. 128) refers to as "the universal ability" of language users to reconstruct the constituents of complex words such as blends by their rhythmical contour, the position of the main stress, or their syllable structure. A further comparison of the results obtained for the two languages shows that, whereas there are no German satirical blends created by fragment blending (Ronneberger-Sibold, 2006, p. 175), fragment blends make up 1.98% of the data set of the Serbian humorous-satirical creations. Regarding

the humorous-satirical blends created by the other less transparent technique, that is, semi-complete blending, it is interesting to observe that they are nearly five times more common in Serbian (12.87%) than in the German corpus of satirical creations (2.60%) (Ronneberger-Sibold, 2006, p. 175). On the other hand, a comparison between the German brand names and Serbian brand names created by the least transparent blending technique seems to suggest more similarity between the two languages, as fragment blends account for 25% of the German corpus of brand names and 22.54% of the data set of Serbian brand names.

Figure 1. Percentage distribution of the four blending techniques in the two data sets
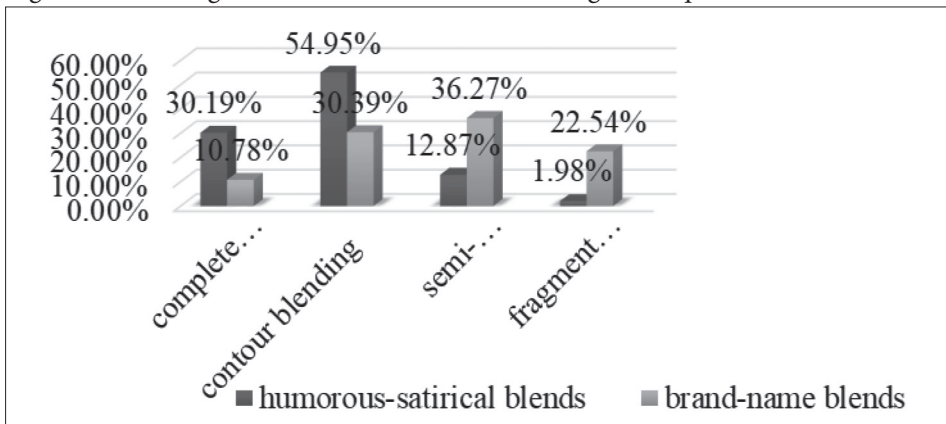


Figure 2. Percentage distribution of overlaps in the two data sets
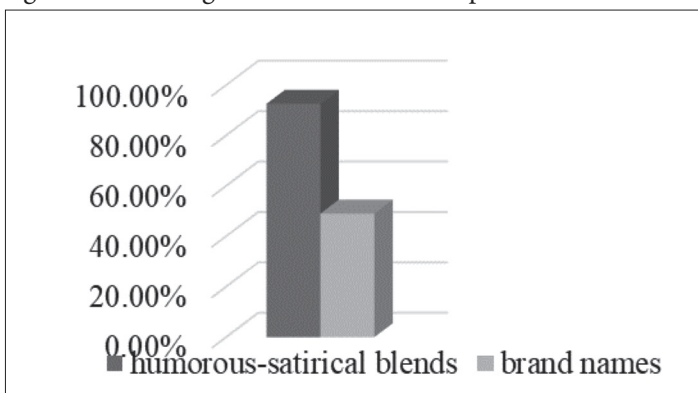
## Conclusion

In this paper, the author has made an attempt to investigate whether the creators of contemporary Serbian blends, namely humorous-satirical blends and brand names, have an intuition about the different degrees of the relative morphosemantic transparency which are produced by consciously and deliberately using the four blending techniques, that is, complete blending, contour blending, semi-complete blending, and fragment blending (Ronneberger-Sibold, 2006, pp. 168–169), as well as if they have the ability to employ these techniques to achieve the desired communicative purposes or effects. Additionally, it has been attempted to contrast the obtained results with those of Ronneberger-Sibold (2006) for German satirical blends and brand names. The qualitative and quantitative analyses of 202 humorous-satirical blends and 102 brand names show that the creators of contemporary Serbian blends are indeed well aware of the varying degrees of morphosemantic transparency the four blending techniques produce and are able to knowingly utilize these mechanisms to perform a variety of communicative functions (e.g. holding people or their actions up to ridicule, expressing social, political and religious criticism or protest, amusing, capturing attention of the target audience or potential consumers, distinguishing themselves from others, etc.) or to demonstrate their own lexical ingenuity. To be more specific, the results obtained for the two data sets of Serbian blends clearly show that the users of humor and satire tend to prefer complete blending and contour blending, as morphosemantically more transparent techniques, to those more opaque ones such as semi-complete blending or fragment blending, whereas the creators of brand names have a preference for the two less transparent techniques. Such preferences may be due to different requirements of these two sets of blends in terms of transparency (Ronneberger-Sibold, 2006, p. 166). Namely, while it is preferable for humorous and satirical blends to be relatively morphosemantically transparent so as to be intelligible and produce the surprising effect, lower degrees of transparency are preferred in brand names, as transparent structures are neither legally nor psychologically acceptable in brand naming (Ronneberger-Sibold, 2006, p. 166). Additionally, it has been shown that contemporary Serbian speakers use the same blending techniques as German speakers for creating humorous-satirical blends and brand names, respectively, though not in the same proportions.

By means of this small-scale analysis of Serbian humorous-satirical blends and brand names, as well as by the small-scale comparison with their German counterparts, the author hopes to further stimulate similar (cross-linguistic) research approaches to lexical blends, especially because the application of Ronneberger-Sibold's (2006) typology proved particularly useful for better understanding the wider sociolinguistic context of blends' creation and usage. Last but not least, the blends collected and analyzed for the purpose of this

paper are all fairly recent coinages and their number is by no means trivial, which implies that they represent an important part or indicator of an ongoing change in contemporary Serbian and that they definitely deserve a far more systematic investigation in the future. It is therefore hoped that this paper will make at least a small contribution to keeping alive the idea of lexical blending as worth researching not only in Serbian, but also in other languages.

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## Лексичке сливенице у српском језику: анализа морфосемантичке прозирности

### Резиме

У раду испитујемо морфосемантичку прозирност двеју група лексичких сливеница у савременом српском језику (тј. хумористично-сатиричних сливеница и сливеница у називима брендова) примењујући типологију четири технике лексичког сливања – потпуног, контурног, полупотпуног и фрагментног сливања – којима се добијају различити нивои морфосемантичке прозирности сливеница, а коју је у раду на тему немачких сатиричних сливеница и сливеница у називима брендова предложила ауторка Ронебергер-Сиболд (2006, стр. 168–169). Циљ рада јесте да се испита да ли су језички корисници или, прецизније речено, језички ствараоци као што су хумористи, сатиричари, новинари, маркетиншке агенције, мали и велики произвођачи и сл. свесни различитих нивоа морфосемантичке прозирности сливеница које је могуће произвести горенаведеним техникама сливања, односно да ли су способни да их употребе у остваривању различитих комуникативних намера. Резултати квалитативне и квантитативне анализе даље се упоређују са резултатима до којих је дошла Ронебергер-Сиболд (2006) у немачком језику на корпусу од 612 сливеница, у намери да се испитају сличности и разлике у употреби четири технике сливања у двама типолошки различитим језицима. Истраживачку грађу чине 202 хумористично-сатиричне сливенице и 102 сливенице у називима најразноврснијих брендова, прикупљене једним делом из постојеће литературе на тему сливеница у савременом српском језику, а другим делом из извора као што су књижевна дела, (новински) медији, хумористично-сатиричне емисије, званични веб-сајтови произвођача и сл., односно кроз теренско истраживање. Резултати анализе показују да творци српских сливеница не само да поседују свест о различитим нивоима морфосемантичке прозирности које је могуће произвести применом четири технике сливања већ и да их зналачки користе у намери да изврдну подсмеху различите људе и догађаје, да освесте заблуде и (по)грешке у мишљењу и делању, да забаве, да скрену пажњу потенцијалних потрошача на себе, своје производе и(ли) услуге, итд. Анализа је показала да у хумористично-сатиричним сливеницама доминира употреба техника као што су потпуно и контурно сливање којима

се остварује већа прозирност форме и семантике, односно да су у називима брендова доминантне технике полупотпуно и фрагментно сливање којима се остварује мања морфосемантичка прозирност сливенице. Поређење овде добијених резултата са онима до којих је дошла Ронебергер-Сиболд (2006) у немачком језику показало је да језички ствараоци у савременом српском језику преферирају употребу истих техника сливања у стварању двеју група сливеница као и ствараоци немачких сливеница, премда не у истом обиму.

*Кључне речи*: лексичке сливенице; ванграматичка морфологија; морфосемантичка прозирност; српски језик.

# STUDENTS' DISINHIBITION IN ONLINE COMMUNICATION AND THE IMPLICATIONS FOR FOREIGN LANGUAGE PEDAGOGY

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# STUDENTS' DISINHIBITION IN ONLINE COMMUNICATION AND THE IMPLICATIONS FOR FOREIGN LANGUAGE PEDAGOGY

*Abstract*. Research in computer-mediated communication has pointed to online disinhibition effect, i.e., a tendency to interact with less restraint when online than in face-to-face contacts. The current study explores the presence and level of disinhibition in online communication among university students and sets it in the context of synchronous online foreign language learning. To this end, 284 university students who took a course in English as part of their study programs participated in the research. A quantitative approach employing a survey design was adopted and the results were analyzed by means of descriptive and inferential statistical tests in SPSS 25. The findings show that the overall level of online disinhibition is rather low among the participants—the students self-report they feel inhibited when using the internet and communicating online. It also shows that male students tend to be more disinhibited in online communication than females. Two factors, the ability to immerse themselves in online learning surroundings and the use of headphones while attending lessons online are found to produce higher disinhibition levels. The findings imply that the affective domain deserves special attention in creating and conducting online language courses and that the digital environment requires a specific student-centered approach that is yet to be explored and defined.

## Introduction

The COVID-19 pandemic has significantly changed the way in which we teach and learn, mostly by replacing common classrooms with virtual educational environments. Both teachers and students were expected to react quickly in early 2020 and adapt to these new conditions. The new circumstances have brought about substantial changes in class communication, as most of the teacher-student and student-student interaction has remained without direct eye-contact. However, can we expect communication in an online environment to be the same as in the case of physical presence? Given that classroom interaction is perceived as an important characteristic of successful teaching and learning, this question seems rather important and deserves to be given special attention by educators and researchers.

So far, research in computer-mediated communication has shown that people tend to interact with less restraint when online than in face-to-face contacts (Joinson, 2007 in Rose, 2014, p. 255). In other words, people may think, act, and feel differently online in comparison with similar situations when they meet face-to-face. Suler (2004) referred to this phenomenon as 'online disinhibition effect'. The effect can be positive when, for example, people who have difficulties in face-to-face communication due to their shyness overcome this problem and open up online as they feel less exposed and thus more comfortable in this environment. On the other hand, the effect can also be negative, as individuals in these conditions may be tempted to break social rules and norms and interact in an inappropriate way. Considering the current prevalence of online learning and teaching, particularly in the area of higher education, the presence and role of disinhibition in online class interactions is certainly worth exploring. This view is additionally supported by the lack of research illuminating the role of disinhibition in online education (Rose, 2014). The current study therefore explores the presence and level of disinhibition in online communication among our university students and sets it in the context of foreign language (L2) learning, as communication and interaction, although important for all areas of study, are of the highest priority for L2 education since it aims at the development

of students' communicative competence. The pedagogical implications of the study are discussed in light of the obtained results.

## Theoretical Framework

Disinhibition is defined as "any behavior that is characterized by an apparent reduction in concerns for self-presentation and judgement of others" (Joinson, 1998, p. 44). The concept implies that behavior on the internet may differ from similar behavior in face-to-face situations in real life, since the digital environment creates distinct interpersonal contexts in which concerns for self-presentation and judgement of others can be reduced. Namely, certain features of the digital environment, such as anonymity and invisibility, create contexts where personal identity can be concealed and the social rules, responsibilities, and hierarchies of offline contexts are often absent (Radić-Bojanić, 2007; Stuart & Scott, 2021). Suler (2004) recognizes six factors that cause online disinhibition: (dissociative) anonymity; invisibility; asynchronicity; solipsistic introjection (the sense that online interactions are internal and not with others and this option is safer); dissociative imagination (due to which the perception of ourselves and others is different from the one in face-to-face interactions); and the minimization of status and authority (the sense that all individuals are presented equally in an online setting). According to this author (2004), online disinhibition operates in two different ways and these are referred to as 'benign' and 'toxic' disinhibition. Benign disinhibition relates to the positive effects of disinhibition, for example, expressing generosity, kindness, and support. Toxic disinhibition, on the contrary, produces socially unacceptable reactions and behaviours, such as rude language, anger, or threat. In some cases, these negative, undesirable effects can take the form of harmful, aggressive reactions causing what today is known as cyber-hate (Wachs & Wright, 2019). One of the main reasons for this expression of aggression is seen in the visual, emotional, and physical distance of aggressors from their victims, which in turn limits their ability to empathize with others (Lapidot-Lefler & Barak, 2012). Positive online disinhibition effects have been associated with anonymity that positively correlates with online self-disclosure, resulting in higher levels of social well-being (Ko & Kuo, 2009). The positive effects of greater self-disclosure have been observed both in shy individuals (Saunders & Chester, 2008), as well as in those who are socially stigmatized (McKenna, 2008). However, as Suler (2004) concludes, the distinction between toxic and benign disinhibition can be ambiguous in some cases. If self-disclosure, for example, becomes too intense or is expressed in an inappropriate way so that others feel embarrassed, then originally benign disinhibition may turn into a toxic one.

As for the educational context, empirical evidence so far has pointed to both toxic and benign effects of online disinhibition. Thus, Shepherd and

Edelmann (2005) report that the online environment is a useful channel for social engagement for students who experience social anxiety. On the other hand, Prata et al. (2009 in Rose, 2014, p. 255) have found that interpersonal conflicts play a prominent role in collaborative learning environments. Based on their research with college students, Lapidot-Lefler and Barak (2012) conclude that the lack of eye-contact plays a much greater role than anonymity in creating toxic online disinhibition. In her study with college students, Rose (2014) found that both students and their instructors reported on instances of benign and toxic disinhibition, the former manifested in shy students participating more freely in online lessons, and the latter recognized mostly in angry and abusive emails and posts. Technology itself, as Cunningham (2011) observes, can be stressful, thus producing toxic disinhibition effects. However, as the author concludes, this seems to become less of a problem as the number of students unfamiliar with the use of modern technology is decreasing. Finally, focusing on the context of L2 learning and teaching, Cunningham (2011) concludes that the lack of excessive inhibition has been shown to have positive effects on L2 production. Indeed, inhibition has been recognized as a psychological barrier between language learners and others, which seriously affects learners' communication and becomes a stumbling block in the process of L2 acquisition (Wang & Wu, 2020). Along with other individual variables of affective nature, such as motivation, anxiety, etc., inhibition is important for successful L2 learning. When this learning occurs in an online environment, however, the feeling of reduced responsibility (i.e., lower inhibition levels) may lead to increased willingness to take risks and risk-taking is considered an important prerequisite for successful language learning. Good language learners, as documented in L2 literature (Brown, 2001; Skehan, 1989) are those who are ready to take risks, i.e., ready to experiment with language and to make mistakes in order to learn and communicate. This therefore implies that disinhibition may be seen as an advantageous factor to L2 learning. However, to the best of our knowledge, this conclusion lacks empirical evidence as the literature on the role of online disinhibition in L2 teaching and learning is scarce.

Taking into account everything said above, the current paper focuses on the presence of online disinhibition in university students, as mature and responsible learners, and the implications this may have on L2 teaching and learning, particularly in synchronous modes. It is our intention to attract the attention of teachers and educators to this rather important and seemingly neglected factor in digital educational practices. The research questions we address in the study are the following:

RQ1: What is the level of online disinhibition among university students?

RQ2: Which contextual factors (being alone in the room during classes, audio equipment used, use of camera, field of study) and individual factors

(gender, ability to tune out surroundings, English language proficiency) are related to higher disinhibition levels?

RQ3: Is there an interaction effect of the investigated contextual and individual factors on the level of the students' online disinhibition?

## Method

Since this study is exploratory in nature, attempting to identify situational and factors of individual differences related to the students' level of online disinhibition, a quantitative approach employing a survey design was adopted. The major advantage of this approach is that, in a cross-sectional survey, we are able to investigate a higher number of potential predictors and describe the attitudes of a large sample of respondents in order to generalize our findings to the entire population of students who are taking a course in English as a foreign language as part of their study programs.

*Participants.* A random sample of 284 students from the University of Novi Sad took part in this research, all of them taking a course in English as part of their respective programs. Of the initial cohort, 116 (40.8%) were male and 168 (59.2%) were female. The students' mean age was 20.37 (SD = 2.08), ranging from 19 to 29. Table 1 shows the cross tabulation of the number of students from each faculty and gender distribution.

Table 1. Participants

| | Gender | | Total |
|---|---|---|---|
| | M | F | |
| Faculty of Philosophy | 19 | 78 | 97 |
| Faculty of Sciences | 27 | 28 | 55 |
| Faculty of Education | 7 | 8 | 15 |
| Faculty of Technical Sciences | 23 | 14 | 37 |
| Faculty of Economics | 40 | 40 | 80 |
| Total | 116 | 168 | 284 |

*Instrument.* The instrument used in this research was the Serbian translation of the Measure of Online Disinhibition – MOD (Stuart & Scott, 2021). The questionnaire was selected as it assesses "self-perceptions of psychological and behavioral change in the online as compared to the offline environment" (Stuart & Scott, 2021, p. 9). In its English form, the questionnaire consists of a single factor solution across twelve items (e.g., "I am more assertive online than I am offline" and "I find communicating with others easier on the internet than in person") which ask the participants to rate on a 5-point Likert scale to what extent each item is representative of them. Lower scores (1-2) indicate

inhibited online behavior, whereas higher scores (3-5) indicate disinhibited behavior. The Serbian translation of the items by the authors of this paper was checked for validity and reliability. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis with a satisfactory KMO = .929, whereas Bartlett's test of sphericity was statistically significant ($p < .0001$), indicating that the correlation structure is adequate for factor analysis. The results of a confirmatory factor analysis revealed that three items did not have an acceptable factor loading (< .04) and were therefore excluded from further analysis. The model with nine items proved a good fit for the data ($\chi^2 (36) = 17333.728$, $p < .0001$), accounting for 74.48% of the variance. A test of scale reliability returned a highly satisfactory Cronbach's alpha of .931.

In addition to gauging the respondents' level of disinhibition, the questionnaire also collected data on seven predictor variables, including contextual factors (being alone in the room during classes, audio equipment used, use of camera, field of study) and individual factors (gender, ability to tune out one's surroundings, English Language proficiency).

*Procedure*. We first approached English teachers working at the faculties of the University of Novi Sad who, during the school year 2020/2021, taught English online in a synchronous mode. We then asked the teachers to share the link to the Google Forms questionnaire with the students, either by sending it through mailing lists or by posting it on their courses' online bulletin boards. The data collection lasted for two weeks, during which students volunteered to fill out the questionnaire. An initial inspection revealed that a total of three respondents did not complete the entire questionnaire and their responses were removed from the data pool. Complete questionnaires were analyzed by means of descriptive and inferential statistical tests in SPSS 25.

## Results

The focus of the first research question was to determine the level of online disinhibition among university L2 learners. Overall, the results reveal that the participants report a tendency towards more inhibited online behavior (mean = 2.18, SD = 1.01), with the lowest mean recorded with the item "I am more competitive online than I am offline" (mean = 1.62, SD = 0.98) indicating a highly inhibited behavior and the highest mean with the item "I am more confident online than I am offline" (mean = 2.72, SD = 1.28) indicating a slightly inhibited behavior (Table 2).

Table 2. The level of online disinhibition among participants

|  | Mean | SD | Skewness | Skewness Error | Kurtosis | Kurtosis Error |
|---|---|---|---|---|---|---|
| Disinhibition Total | 2.18 | 1.01 | .896 | .145 | .176 | .289 |
| I am more confident online than I am offline. | 2.72 | 1.28 | .255 | .145 | -.891 | .289 |
| I am more able to discuss controversial issues online than I am in person. | 2.34 | 1.30 | .668 | .145 | -.613 | .289 |
| I am more expressive online than I am offline. | 2.37 | 1.33 | .614 | .145 | -.801 | .289 |
| My behaviours online are less restricted than in person. | 2.44 | 1.34 | .572 | .145 | -.874 | .290 |
| I am more outgoing online than I am offline. | 2.12 | 1.33 | .969 | .145 | -.314 | .289 |
| I am more assertive online than I am offline. | 2.25 | 1.24 | .721 | .146 | -.387 | .290 |
| I say things on the internet that I would not say in person. | 1.90 | 1.22 | 1.216 | .145 | .387 | .290 |
| I make friends more easily online than I do offline. | 1.81 | 1.20 | 1.398 | .145 | .847 | .290 |
| I am more competitive online than I am offline. | 1.62 | 0.98 | 1.614 | .145 | 1.955 | .289 |

In order to answer the second research question, we conducted a series of separate tests checking the relationship between each of the seven independent variables and the students' reported level of online disinhibition. Of the total number of independent variables tested the following four were not found to be statistically significantly related to online disinhibition: the contextual factors of being alone in the room during online classes ($t = .734$, $p = .463$); using the camera during online classes ($t = 1.470$, $p = .143$); the students' field of study ($F = 1.620$, $p = .169$); and the individual factor of EL proficiency ($r = -.010$, $p = .868$).

Statistically significant results were found for a total of three independent variables. Namely, the results of an independent samples t-test indicate that gender is significantly tied to reported online disinhibition ($t = 2.197$, $p = .029$), with male students reporting higher levels of disinhibition compared to female students (mean difference = .267). The second factor that yielded statistically significant results is the contextual factor of the audio equipment students use to take part in online classes. The results of a one-way ANOVA indicate that there is a difference in the level of online disinhibition between the students who use headphones, the students who use speakers, and the students who use both in

order to participate in online classes (F = 5.292, p = .006). The third factor that returned statistically significant results concerns the students' ability to easily tune out their physical surroundings and immerse themselves in the online experience. Namely, the results of an independent samples t-test showed that the students who find it difficult to tune out their surroundings during online classes are statistically more inhibited than those who can easily tune out their surroundings (t = 2.101, t = .036, mean difference = .251).

The third research question probed into the issue of interaction effects between the investigated independent variables on the students' reported level of online disinhibition. In order to answer the question, we conducted a univariate, factorial ANOVA, including in the analysis those independent variables that in previous analyses proved to be significantly tied to online disinhibition. The results are shown in Table 3.

Table 3. Main and interaction effects on disinhibition

| Source | df | F | p | $\eta_p^2$ |
|---|---|---|---|---|
| Corrected Model | 11 | 1.915 | .038 | .073 |
| Intercept | 1 | 1206.822 | .000 | .819 |
| Audio Equipment | 2 | 4.472 | .012 | .032 |
| Tune Out Surroundings | 1 | 4.300 | .020 | .012 |
| Gender | 1 | 4.064 | .045 | .015 |
| Audio Equipment * Tune Out Surroundings | 2 | 4.904 | .016 | .017 |
| Audio Equipment * Gender | 2 | .435 | .648 | .003 |
| Tune Out Surroundings * Gender | 1 | .009 | .925 | .000 |
| Audio Equipment * Tune Out Surroundings * Gender | 2 | .192 | .826 | .001 |
| Error | 267 | | | |
| Total | 281 | | | |
| Corrected Total | 280 | | | |
| $R^2$ = .073 (Adjusted $R^2$ = .035) | | | | |

Significant main effects were discovered for gender (F = 4.064, p = .045, $\eta_p^2$ = .015, with female students being more inhibited than male students), for audio equipment students use in order to take part in online classes (F = 4.472, p = .012, $\eta_p^2$ = .032, with the students who use both headphones and speakers being more inhibited) and for the difficulty of achieving immersion in online classes (F = 4.300, p = .020, $\eta_p^2$ = .012, with those who find it easy to tune out their surroundings being less inhibited). The effect sizes, indicated above as partial eta squared, are medium for the variable of audio equipment, and large for the variables of gender and the ability to tune out one's surroundings. Additionally, the only interaction effect that was found to be statistically significant was between the audio equipment and the ability to tune out one's surroundings (F = 4.904, p = .016, $\eta_p^2$ = .017), as shown in Graph 1.

Graph 1. Interaction between audio equipment and immersion
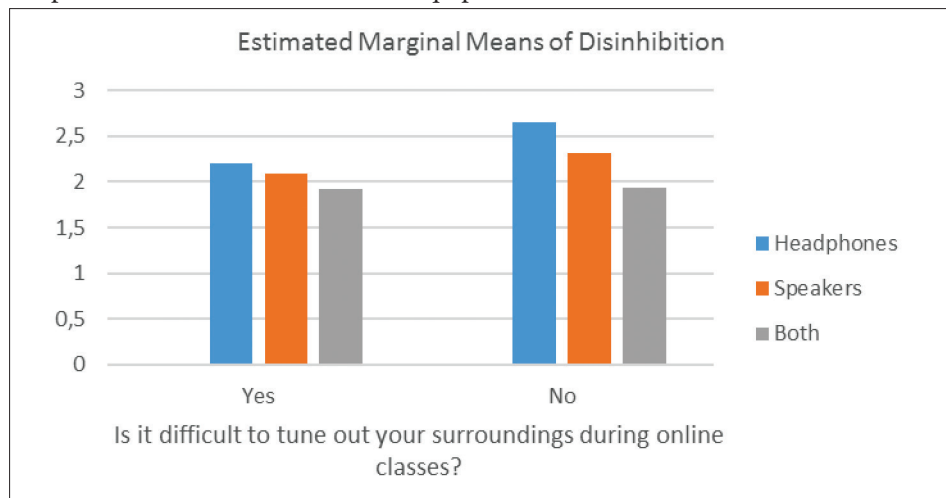


Among those who reported they did not find it difficult to tune out their surroundings the highest level of disinhibited behaviour was found with headphone users, while the highest inhibited behaviour was found with students who use both headphones and speakers. There is no difference in disinhibition among the students who reported they found it overall difficult to tune out their surroundings during online classes. The effect size of the interaction reported above as partial eta squared is considered large.

## Discussion

The aim of the research reported in this paper was threefold. Our first goal was to determine the level of online disinhibition among students who took part in synchronous, online EFL classes as part of the requirements of their study program. Following this, we aimed to identify the contextual and individual factors which could be connected with the reported levels of disinhibition, and to determine if there is an interaction effect of the factors on the students' level of disinhibition. The overall level of online disinhibition is rather low among the participants—the students self-report they feel inhibited when using the internet and communicating online. In examining the responses to individual statements in the questionnaire higher levels of inhibited behavior are particularly evident in the students' ratings of lower competitiveness felt online compared to offline, of their lower ability to make friends online compared to offline, and in their overall unwillingness to say things online they normally would not say in person. On the other hand, there is a medium tendency for

students to report feeling more confident in online environments compared to real-world environments. All these results, particularly the low levels of competitiveness and confidence while being online point to the effect of affective factors on disinhibited online communication.

Gender is found to be a significant factor in the level of online disinhibition. Similar results have already been reported in the literature, particularly when it comes to various risky online activities where differences were found between male and female learners. For instance, the results reveal that male internet users are more likely to take part in risky online behavior (Mesch, 2009; Notten & Nikken, 2014), more often disclosing personal information online, thus exhibiting lower levels of inhibition (Fogel & Nehmad, 2009; Sasson & Mesch, 2014). Girls, on the other hand, are more likely to report that their online behavior resulted in unwanted situations (Baumgartner, 2013 in Notten & Nikken, 2014, p. 971) and that they were bullied online in various ways (Lenhart et al., 2011), which may raise their level of inhibition. However, the factor of gender does not interact with other factors—a student is not more or less likely to be disinhibited depending on whether they use headphones or are alone in the room during online classes depending on whether they are male or female.

Furthermore, "[s]tudents who are not obliged to use a webcam will generally prefer not to" (Cunningham, 2011, p. 31). This is in line with the results of our research, which found that of the entire sample of respondents only 23 participants (8.09%) turn on their camera during online classes. This situation is directly related to the notions of invisibility and anonymity, some of the factors that Suler (2004) identifies as crucial for feeling disinhibited online. In our study, however, this is not the case. Online students are usually required to register as users of educational platforms and thus their attendance, i.e., presence in class cannot be taken as invisible or anonymous, as their names or initials are displayed, making it less likely for students to feel disinhibited. This is a possible interpretation of the results. However, given the significantly low number of the students who use a camera, it is also possible that the results are influenced by this disbalance between the subsamples and that a more proportionate distribution would yield different results.

The ability to immerse oneself in the online environment with ease is also connected with higher levels of disinhibition. The factor of immersion was also found to significantly interact with the type of audio equipment the students use, with the highest disinhibited immersive experience achieved with the use of headphones only. In other words, the students who are disinhibited achieve best immersion by using headphones. This finding, however, is not to imply that exclusive use of headphones should be encouraged in online learning as a factor that would contribute to less inhibited class participation, since this variable had no impact on students who are already inhibited. We believe that the factor of immersion is directly related to the concept of dissociative imagination introduced

by Suler (2004), according to which disinhibited internet users feel that online interactions take place in an unreal online world. The sense of immersing oneself fully into the online environment implies a greater level of detachment from external reality (Aardema et al., 2010) and greater willingness to take active participation in virtual events (Bowman, 2010; 2015). While detachment from reality is treated as a pathological condition if it reaches its extreme form, minor dissociative experiences are considered normal (Bowman, 2018) and may even facilitate online interactions. On the other hand, the results of this research also point to a high number of participants who have difficulty achieving immersion and who are highly inhibited in online communication. Considering the factor of dissociative imagination, for these students the online world never becomes a new reality in itself as they remain firmly grounded in their physical reality and to the rules of behavior, norms, and expectations established there. For more inhibited internet users, attachment to the real world may even provide them with a way of coping with the potential anxiety that participation in online communication may induce, or as Cunningham (2011, p. 35) claims, "they have the security of being in familiar surroundings and can maintain a measure of protection from the total self-revelation required by physical presence, especially if they restrict the modes of their participation to exclude video."

What pedagogical implications can be drawn from the findings of this research? The prevalence of inhibited behavior of the participants in online communication should be interpreted as a signal for language instructors and educators that students need to be given additional support and encouragement if they are to speak up in their online lessons. The affective domain is certainly an area that deserves special attention in online language pedagogy. This further implies that digital educational environments require additional caution and even more attention to individual learner differences than traditional, face-to-face classrooms. This being the case, it may prove useful to conduct a needs analysis survey into students' attitudes and preferences regarding online communication prior to their language course for the purpose of creating a more stimulating environment for class participation. It would indicate what kind of activities and which modes of communication would prompt students to express their thoughts and ideas without restraints, especially at the beginning of their online course, when they are facing a new environment. Dosing the amount of input they are expected to produce also seems a good strategy for overcoming inhibited behavior. Using of a variety of interesting and fun activities as ice breakers might also prove effective and help students immerse more easily into the environment. Finally, as research into affective strategy development has given positive results regarding communication in a traditional, face-to-face classroom (Radić-Bojanić, 2014; Radić-Bojanić & Topalov, 2021; Topalov & Radić-Bojanić, 2014), this kind of an approach could also be beneficial for the digital environment. The development and regular application

of various affective strategies may prove useful in helping students deal with increased concern for self-presentation in an online classroom, as they have been reported to be useful in face-to-face classrooms. For instance, focusing on speaking anxiety in traditional classrooms, Woodrow (2006) offers a number of coping methods including perseverance (not giving up when speaking), improving language (planning and preparing ahead), positive thinking (positive self-talk), compensation strategies (smiling and volunteering comments) and relaxation techniques.

A systematic way of addressing students' emotional and personal attributes while functioning in an online learning environment could help them open up more easily and thus communicate more effectively. This, however, needs to be supported empirically in future research. Finally, regarding the situational context, advising students to use headphones in their online language lessons may prove efficient in helping them immerse more in the learning environment and thus overcome inhibition and preferably, feel more comfortable and ready to communicate.

The results and their interpretations are, ultimately, also subject to the main limitation of this study, which lies in the fact that this was a cross-sectional study relying on participants' ability to self-reflect. The relationship between the levels of online disinhibition and the individual and contextual factors that were considered in this exploratory study cannot, therefore, indicate the sequence of relationships, regardless of the nature of the statistical tests used to analyze the data.

## Conclusion

The findings of the current research suggest that at this moment university lecturers and language instructors at the University of Novi Sad cannot count very much on any disinhibition effect in their students' interaction in online courses as the research participants have massively expressed inhibited behavior even in informal communication which is part of their regular daily activities on the internet. This could be perceived as a signal that their inhibition may be even higher in a formal digital environment, i.e., when they attend lectures online. The assumption definitely deserves further empirical testing as there are studies claiming that disinhibition may go hand-in-hand with inhibition (Rose, 2014) so further research in this area is needed. For the time being, the current study reveals that male students tend to be more disinhibited communicators in online setting than girls. It also stresses the role of two factors that affect how (dis)inhibited students are: the use of headphones while attending lessons online; and the other one, of a more personal nature, the ability to immerse themselves in online learning surroundings. All this implies that the

digital environment requires a specific student-centered approach that is yet to be fully explored and defined. Although the results presented appear somewhat inconclusive, the purpose of this contribution is to shed light and attract the attention of researchers to this under-researched phenomenon in digital language learning and its effect on students' communication. Its role is also perceived in pointing to the complexity of teacher-student and student-student interaction in digital environment, which definitely has its regularities and specificities. If these are not understood and handled properly, interaction with students may not be achieved and our online lessons are likely to transform into old, outdated frontal instruction classes.

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## Дезинхибиција у онлајн комуникацији студената и импликације у настави страног језика

### Резиме

Истраживања у вези са комуникацијом путем рачунара указала су на ефекат дезинхибиције, тј. на тенденцију ка интеракцији са мање уздржаности у онлајн окружењу него у контактима лицем у лице. Овај рад испитује присуство и ниво дезинхибиције у онлајн комуникацији студената и то поставља у контекст синхроне онлајн наставе страних језика. С тим циљем, путем анкете испитано је 284 студента који су похађали курс енглеског језика у оквиру својих студијских програма. Резултати анкете анализирани су помоћу дескриптивних и инференцијалних статистичких тестова у СПСС 25. Добијени резултати показују да је укупан ниво онлајн дезинхибиције прилично низак међу учесницима – студенти наводе да се осећају инхибирано при коришћењу интернета и онлајн комуникације. Резултати, такође, показују да су студенти мање инхибирани у онлајн комуникацији него студенткиње. Два фактора – способност да се уживе у окружење током онлајн наставе и коришћење слушалица током тих часова – доводе до већих нивоа дезинхибиције. Са аспекта педагошких импликација, истраживање показује да афективни домен заслужује посебну пажњу у креирању и извођењу онлајн курсева језика и да дигитално окружење као такво захтева један посебан наставни приступ усмерен ка индивидуалним потребама студената који тек треба да се детаљније истражи и дефинише.

Кључне речи: дезинхибиција; онлајн комуникација; онлајн учење страног језика.

# TELECOLLABORATION AS AN ELF ENVIRONMENT IN THE GLOBAL AGE

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# TELECOLLABORATION AS AN ELF ENVIRONMENT IN THE GLOBAL AGE

*Abstract.* The focus of this paper is telecollaboration as a remote-learning environment and a way of transcending the distance between two or more groups of learners from different cultures/nations, who use English as a lingua franca (ELF), via computer-mediated-communication (CMC). It is regarded in the light of the qualitative content analysis of numerous theoretical and empirical research, according to which: 1) basic notions concerning ELF and its pedagogical implications, including the issues of culture and identity, are provided; 2) then, telecollaboration in foreign language learning is introduced through a theoretical framework and its general principles; 3) mainstream features of the such virtual educational environment are considered from the global aspect; 4) moreover, the way telecollaboration could be applied for practising the use of ELF is presented, and, finally, 5) its benefits for becoming a competent ELF user are emphasized, as well as possible limitations and suggestions for further researches. Accordingly, the main point of this brief overview is twofold: 1) to promote the possibilities of telecollaboration as a contemporary educational way of virtual information exchange within the ELF paradigm and English language teaching (ELT) field in general, and, 2) to arouse the interest of other researchers in keeping the pace with the similar future educational trends.

## *Introduction*

Nowadays the world has become a global community where there are no longer barriers or obstacles to transcend the physical distance among different nations. Numerous theoreticians and practitioners have been interested in finding ways of establishing transnational contact within the framework of various fields. Thus, education and particularly teaching and learning the English language has been through a number of modified models and approaches that have been adjusted to the current social changes, job market requirements, international communication and collaboration. Due to the fact that 21st-century citizens find computers, mobile phones and the Internet indispensable, for most of them, information communication technologies (ICT) are an inseparable segment of their everyday life. Consequently, computer-mediated communication (CMC) via a plethora of online networks, platforms and virtual environments is also a part of their personal and professional needs. It makes users digitally literate citizens of the world who are enabled to mutually internationalize and participate in all remote social activities.

Apart from the internet, ICT and CMC, as essential tools for online information exchange in general, English language competence is also necessary for successful meaningful communication all over the globe. In other words, it is omnipresent in every sphere of life and needed for mutual understanding, virtual information exchange and making contact with foreigners. They may belong to the Inner Circle (native speakers of English), Outer Circle (speakers of English as a second language), or to the Expanding Circle (speakers who speak English as a foreign language) according to their use of English (Kachru, 1988). However, the non-native speakers outnumber the native English speakers. Considering some estimates, there are approximately 80% of non-native speakers of English all over the world, which makes English a global lingua franca (Seidlhofer, 2001; Simpson et al., 2013). Thus, this language has spread across educational contexts and become a part of almost all school curricula worldwide.

Bearing in mind all previously mentioned facts, alongside the contemporary concepts of education and language learning and teaching in the 21st century, educationalists have recently designed a model (Furstenberg et al., 2001; O'Rourke, 2005; O'Dowd, 2011; Guarda, 2013; Helm, 2015; Godwin-Jones, 2019) that would meet these requirements. They started implementing telecollaboration as a way of transcending geographical boundaries in education. Some of the reasons were establishing contact among different nations and cultures and developing intercultural awareness (Baker, 2012). It also provided authentic activities for communication among non-native speakers of English. Lastly, it enabled overcoming physical distance and becoming a part of the virtual world exchange community, where it is easier to nurture feelings of proximity and mutual support (Guarda, 2013).

For these reasons, the subject of this paper is a thorough examination of telecollaboration and its possibilities for ELF use in the global age. Qualitative content analysis is conducted on the basis of numerous theoretical and empirical research concerning the topic, in the following way: 1) texts from various articles are considered; 2) important issues that are significant for the research questions are introduced and analysed; 3) key concepts of the paper are determined and their relationships are explored, and, finally, 4) conclusions are made and certain interpretations are provided. Correspondingly, this study represents a brief overview of integrating the already mentioned key issues, where the following goals were achieved: 1) the basic notions concerning ELF and its pedagogical implications, including culture and identity, were provided; 2) theoretical framework and general principles of telecollaboration were introduced; 3) mainstream features of this remote-language learning environment were considered from the global point of view; 4) afterwards, the way telecollaboration could be applied in ELF communication was presented, and 5) finally, within the concluding remarks, benefits for becoming a competent ELF user in the virtual global environment as well as certain limitations of this approach and suggestions for further researches were offered.

## *English as a Lingua Franca – General Characteristics*

The global spread of English initiated with the migrations to North America, expanding the Inner Circle (Kachru, 1988) and the colonization of Asia and Africa, resulted in the development of a number of English as a second language, or Outer Circle contexts (Jenkins, 2015; Kachru, 1988). The expansion of British colonial power and the economic power of the United States in the second part of the 20th century resulted in the increased use and importance of English worldwide. English's global importance led to a larger number of English learners and the augmentation of the Expanding Circle (Crystal, 2003;

Kachru, 1988). Nowadays, the majority of English speakers are non-native and most of the communication in English is realized between non-native speakers (Jenkins, 2015), resulting in the emergence of a phenomenon labelled English as a lingua franca, the first global lingua franca in the history (Seidlhofer, 2001).

ELF generally refers to the communication between non-native speakers of English with all other speakers of English, including native speakers (Jenkins, 2006). In ELF contexts native speakers need to adjust to their non-native inter-locutors, implying that the native-speaker norm is not a yardstick against which ELF proficiency is measured, unlike in EFL (English as a Foreign Language) par-adigm (Jenkins, 2006). Indeed, ELF views errors as those deviations which cause communication breakdown, and not all the deviations from the native-speaker norm, as in EFL. Jenkins & al. (2011) argue that non-native Englishes are re-garded as different within ELF, not deficient, as in the EFL framework. While EFL is grounded in the L1 interference and fossilization theory, ELF is based on the theories of contact language and culture (Jenkins et al., 2011). Another difference between ELF and EFL lies in their perceptions of code-switching, which refers to the non-native speaker using linguistic resources from their L1 (the first language) while speaking English. Although it is regarded as a deficiency in EFL, in ELF it symbolizes the speaker's use of their multilingual resources and their national culture and identity. Finally, while EFL belongs to the Modern Languages paradigm, ELF is a part of the Global Englishes one.

Defining ELF has been a source of debate since its emergence. It is char-acterized by fluidity and variability, but its systematicity cannot be neglected either. Since it cannot fit into the traditional categories of language variety or community of speech, the researchers tend to regard it as a community of prac-tice (Jenkins et al., 2011; Jenkins, 2012). The delineation of ELF is closely linked to its possible codification. Despite Seidlhofer (2001) considering possible ELF codification, Jenkins (2006; 2012) rightly argues that ELF is a particular means of communication in English. The inherent fluidity and variability of ELF render it difficult to codify, although, as Seidlhofer (2001) advocates, it would be an ultimate aim. To that end, language features that have become regularized in ELF contexts have been described (see below). However, with the diversity of ELF in mind, it has been rightly referred to as accounting for 'the ever-changing negotiated spaces of current language use' (Pennycook, 2009, p. 195, cited in Jenkins et al., 2011) or as emerging in each particular context (Canagarajah, 2007, cited in Jenkins et al., 2011). Thus, the camp against ELF codification due to its inherent characteristic seems to provide more convincing arguments than the one in favour of ELF standardization.

Despite its variability, it can hardly be labelled as a case of 'anything goes', as the ELF critics have characterized it (Jenkins, 2009). The regularities on phonological and lexicogrammar levels are mirrored in the establishment of lingua franca core (LFC) in the field of pronunciation as well as VOICE (the

Vienna–Oxford International Corpus of English) and ELFA (English as a Lingua Franca in Academic Settings), the corpora of ELF communication (Jenkins, 2009; Jenkins et al., 2011). LFC contains the phonological features that are found to be crucial for intelligibility and which, along with accommodation skills enhance effective communication (Jenkins et al., 2011). VOICE and ELFA corpora identify the intelligible lexicogrammar forms across diverse ELF contexts, from the speakers of various L1 (Seidlhofer, 2001). In the field of pragmatics, the research centres around enabling mutual understanding and avoiding miscommunication, highlighting the value of accommodation strategies (Jenkins et al., 2011). These developments in the description of ELF are far from definitive and researchers have recently paid more attention to the functional value of the ELF linguistic features and the way they contribute to the effectiveness of ELF communication (Jenkins et al., 2011). The research in this field is hence valuable for providing insight into linguistic and cultural aspects of this phenomenon.

## ELF and the Issues of Culture and Identity

Non-adherence to Anglophone culture has been a characteristic of both ELF and EFL contexts in recent years. Indeed, there has been a shift away from the target culture in English language teaching, toward the international, global, as well as learners' local cultures, especially within the English as an International Language paradigm. Such a move can easily be noticed in the use of ELT materials worldwide (Shin et al., 2011). However, ELF culture not only departs from the target culture, but is also fluid and dynamic in nature (Baker, 2011). The concept of culture in ELF is so intricate that it certainly transcends the national-level culture. Therefore, there are various unarguable perceptions of culture in ELF. Pennycook (2003) demonstrates the local appropriation of global phenomena and points to the concept of transcultural flow (Pennycook, 2007; cited in Baker, 2011). Baker (2011) argues and evidences the construction of hybrid cultures, not pertaining to either local or global cultures, similar to Kramsch's third place (1993, cited in Baker, 2009). Certain cultural references are not tied to one culture or country, emerging in a particular instance of communication. Due to some global references, ELF interlocutors may feel as belonging to a certain culture, e.g., video game players or anime fans. Thus, the speakers of ELF need to attain not only intercultural competence (Byram, 1997), but also intercultural awareness (Baker, 2012), being conscious of the dynamic nature of culture in an ELF environment.

The issue of identity in ELF is closely related to the cultural aspect. ELF users' identities are characterized as those of multilingual speakers who can successfully communicate using more than one language (Baker, 2009). Besides their first language (L1) and their target language identity, the ELF speakers might also share

a common identity, focused on the same task, i.e., attempting to communicate in a foreign language. Another form of expressing their identity is by exploiting plurilingual resources in ELF communication in code-switching (Jenkins et al., 2011). Therefore, as in the issue of culture, different identities emerge depending on the particular instance of ELF communication. A number of traditional perceptions of concepts such as culture and identity seem to be questioned in ELF settings, another reason why English learners should be aware of it.

## *ELF – Pedagogical Implications*

The manner of ELF implementation in the second language classroom has been widely discussed by researchers. Jenkins (2012) and Dewey (2012) advocate giving a choice to learners regarding the paradigm of English, EFL or ELF, whichever learners wish to be taught, based on their needs. However, this might not be always feasible, especially in contexts when learners are not aware of their future needs. Also, the factors of language policy and high-stakes exams adhering to the native-speaker model need to be considered. Nevertheless, there is a general consensus regarding the need for exposure to ELF interactions in the classroom. As Jenkins (2012) advocates, learners should be introduced to the sociolinguistic reality regarding the spread of English and prepared for the use of the global lingua franca.

ELF research is highly relevant to English teaching in the field of pragmatics, especially in terms of accommodation strategies, which enable learners to avoid potential misunderstandings in communication (Jenkins et al., 2011). These strategies encompass repetition, clarification, self-repair and paraphrasing. EFL users tend to exploit all their linguistic resources to display solidarity with their interlocutors, including the use of code-switching. Such strategies are valuable to all English learners, regardless of the context. Since exposing learners to authentic communication is one of the well-known targets of communicative language teaching (Richards & Rodgers, 2001), it seems that ELF communication is likely to be one of the goals in ELT. In the global and more precisely digital era, the opportunities for engaging in such communication are vast. One of such possibilities for participating in ELF interaction is through telecollaboration projects, as discussed in the following paragraphs.

## *Telecollaboration in Foreign Language Learning – Overview*

An umbrella term under which telecollaboration belongs is the virtual exchange (VE) (O'Dowd & O'Rourke, 2019). It does not refer only to the virtual dialogue but it is regarded as an instrument of intercultural correspondence among

culturally diverse groups from different geographical regions who are unable to engage in physical mobility (O'Dowd & O'Rourke, 2019). This is a type of space where learning foreign languages takes place through a collaboration of learners whose native languages are different.

Telecollaboration is also referred to as an online intercultural exchange (OIE) or a particular form of networked language learning developed in the 1990s, when text-based and video-based communication became more advanced than earlier (Chun, 2011). Years ago, telecollaboration was conducted through written and asynchronous communication such as email or discussion forums. Nowadays, it is conducted through both synchronous and asynchronous communication and oral, written, and media-sharing communication among learners (Guth & Helm, 2010; Lamy & Hampel, 2007). An asynchronous environment alongside the synchronous application is necessary because posting information and products by means of a blog enhances the self-publishing of project work. Moreover, it also encourages ownership and responsibility on the part of the participants, who are more likely to be more thoughtful (in content and structure) if they know they are writing for a real audience (Jones, 2003, p. 13). While collaborating, groups of learners not only use video-conferencing platforms (e.g., Skype, Zoom) for making audio-visual contact with each other, but they also use chat rooms, social media, or online platforms (e.g., wiki-blogs) for written communication. In such a way, the purpose of telecollaboration is not only to participate in authentic oral communication and improve speaking and listening skills. Written communication is just as important, thus writing skills are developed too. In order to complete certain tasks, groups of learners upload and find some articles, pictures, etc. according to which they analyse and compare available data, improving their reading skills too.

With this in mind, it can be said that telecollaboration in language learning contexts is an internet-based intercultural exchange between groups of learners of different cultural/national backgrounds (O'Dowd, 2007), with the aim of developing language skills. Apart from this, the development of intercultural communicative competence (ICC) (Byram, 1997) is another outcome of telecollaboration because it aims to transform language learners into intercultural speakers who possess linguistic skills and intercultural awareness (Baker, 2012; Guth & Helm, 2012). With such abilities, learners become efficient interactive users of the foreign language who can collaborate with people from other cultures/nations. Consequently, they become global citizens who learn how to overcome differences, accept each other's perspectives, and work on joint tasks in order to conduct meaningful communication. The possibility of the exchange of experiences from various parts of the world indicates the significance of the global aspect of telecollaboration, further discussed in the following lines.

## Global Perspective of Telecollaboration in Foreign Language Learning

In the age of advanced information communication technologies and virtual networks-based society, geographical boundaries are no longer an obstacle to any kind of communication. Considering education in general, physical distance should not prohibit instructors and learners from gaining the global collaboration skills needed to be successful in their courses, workplaces, and communities (Ikeda, 2020).

Learning the English language is regarded as quite significant for this modern age as, without it, most instances of global communication cannot be realized. Accordingly, it requires as many real-life opportunities for remote language practice as possible since authentic exposure to the language they learn is necessary for improving contextual use. Therefore, in such cases, telecollaboration through synchronous and asynchronous communication is undeniably a significant opportunity to use VE to foster global conversations on universal issues and to disseminate simulated experiences (Di Gennaro & Villarroel Ojeda, 2021). The outcomes of telecollaboration are team products of learners from different parts of the world. They use knowledge, skills and beliefs to analyse some global problems and understand world cultures and customs, thus developing critical thinking. Taking this into account, Gaudelli (2003, p. 11) defined global education as a curriculum that seeks to prepare learners to live in a progressively interconnected world where the study of human values, institutions, and behaviours is contextually examined through a pedagogical style that promotes critical engagement of complex, diverse information toward a socially meaningful action. This is the main point of modern education that is realized through interaction with others, broadening perspectives from local to global ones, and creating active citizens who are used to interconnectedness and constant change.

Since telecollaboration is based on the common issues for both groups of participants, they need to exchange information, identify the problem, and sometimes even conduct research and find a solution. Hicks (2003, p. 4) supports this educational concept of the 21st century, emphasizing that it must explore not only the nature of a problem but also possible solutions, and provide learners with the tools to effect change. He concluded that not doing so would be an educational crime since the result is to disempower learners rather than empower them to take part in responsible action for change (Hicks, 2003, p. 4). For instance, since 2019, citizens all over the world have been participants and witnesses of global challenges such as the COVID-19 pandemic. These circumstances changed the way teaching and learning were carried out so both teachers and learners were forced to adapt themselves to some virtual information exchange surrounding and develop some new skills. Telecollaboration was

frequently used and its effects were explored by many researchers during the COVID-19 lockdown (Huertas-Abril, 2020; Di Gennaro & Villarroel Ojeda, 2021; Ennis et al., 2021; Toscu, 2021; Casañ Pitarch et al., 2022). One of them is Huertas-Abril (2020), who considered telecollaboration in emergency remote language learning and teaching. She emphasized the development of numerous competences and skills, as well as motivating and engaging learners in learning the language through computer-assisted language learning (CALL) as its benefits. Moreover, she highlighted that the teachers should be professionally trained for such a learning model and that it should become an integral part of everyday curricula. Another research pointed out the use of a project-based approach through telecollaborative learning during the COVID-19 pandemic (Casañ Pitarch et al., 2022). The results showed increased communicative competence (see also Toscu, 2021) in international online environments, the development of intercultural and digital skills (see also Di Gennaro & Villarroel Ojeda, 2021) and positive effects of telecollaborative project work on foreign language learning. Besides these global outcomes of telecollaboration that were explored, there is also a study by Ennis et al. (2021), where the authors explored the possibilities for giving and receiving peer feedback and meta-awareness of how language is used in the real world, in their case how English as a lingua franca is used, and intercultural communicative competence in general.

With this global view of education and language learning in mind, it is obvious that teaching and learning need to be flexible and regularly adjusted to all social reforms. Thus, appropriate approaches, methods and curricula should make learners critically enabled citizens who: 1) are ready to connect and collaborate with others, 2) appreciate themselves but different values as well, and 3) are able to consider certain issues in simulated situations they might experience one day in real-life circumstances.

## *Telecollaboration in Foreign Language Learning: Theoretical Framework and General Principles*

After defining and determining the role of telecollaboration for language learning within the global concept, it will also be considered in regard to the: 1) communicative approach; 2) experiential learning; 3) interactionist approach; 4) task-based language learning; 5) project-based learning; 6) intercultural learning; 7) learner autonomy; 8) 21$^{st}$-century skills (such as critical thinking, creativity, collaboration, communication, information literacy, media literacy, technology literacy, leadership, initiative, productivity, social skills (Stauffer, 2022)); and 9) ELF communication.

Firstly, telecollaboration focuses on using the language in authentic communicative situations, gaining experience through learning by doing, negotiating

meaning and form with a meaningful partner (Block, 2003). Learners are required to deal with certain global issues (e.g., climate change, gender equality, hunger, economic inequality, etc.) with their partners from a different country while using the language they learn. Thus, learners' goal is to establish and maintain effective communication (Richards & Rodgers, 2001). This is possible by means of finding adequate resources in that language, analysing them, considering them, discussing with partners, presenting the task solution in that language, etc. While performing all these activities and communicating with each other, they are actually practising the language skills and systems, improving fluency as well as accuracy, in line with the tenets of the communicative approach (Richards & Rodgers, 2001).

This is a contextual language use in meaningful and purposeful situations and tasks where learners gain experience in virtual communicative activities with non-native speakers of that language. Due to this experiential learning and participation in such activities, learners collaborate and establish mutual interaction. In such interaction, they often need to negotiate for meaning so the interactionist practice is also included, based on comprehensible input and output (Chun, 2016).

Learners share their information, analyse and compare them so that they could design and present the product (e.g., a video, a newly co-constructed webpage, leaflets, posters, etc.) based on their common decisions. These actions are not possible without setting the task that needs to be completed, indicating that the methodological approach adopted in telecollaboration is task-based language learning (Long, 2016; Mueller-Hartmann, 2007).

The whole process is organized around a collection of sequenced tasks, which are actually possible real-life problems that learners consider using the language they learn. In other words, completing a series of tasks in order to obtain the final product is also typical of a project-based learning approach. Thus, the telecollaboration process could be regarded as a project itself (Guth & Helm, 2012), because it is focused on group work, tasks, information exchange, analysis, solving the problem, critical thinking and presenting the conclusions in the form of a product.

Considering the fact that it is most frequently conducted between two groups of learners of different nations/cultures, intercultural communicative competence and intercultural awareness are developed too (Baker, 2012; Belz, 2002; Byram, 1997; Helm, 2009). Namely, it promotes intercultural learning, avoiding differences and enhancing tolerance. They are considered to be extremely important educational concepts of the 21st century, promoting the view of the world as a global community of numerous nations and cultures.

Furthermore, telecollaboration is only organized and arranged by teachers, while the language learning process is conducted by learners themselves because they are the main participants of the virtual information exchange. In such

circumstances, learner autonomy is nourished (Benson, 2006) since learners become responsible for their own decisions, activities, and most importantly, for their own learning.

It needs to be noted that telecollaboration facilitates the development of the 21st-century skills that learners need in a highly globalised and technology driven world (Gutiérrez, 2020). Namely, it is based on collaboration and communication between groups of learners from different countries. They are faced with some global issues that need solving, so different kinds of information resources are considered, analysed and compared. As a result of these activities, critical thinking is developed and a sequence of tasks is completed, so final solutions are presented in certain forms of products based on learners' creativity. All these activities are not possible without ICT and CMC, thus developing technology, media and digital literacy as well. Learners are responsible for their roles in teams, some of them are team leaders who take the initiative for completing certain steps of the tasks. Telecollaboration itself implies establishing social relations among learners so the last of the 21st-century skills, social ones, are also promoted.

Another framework through which telecollaboration needs to be examined is the way it promotes using English as a lingua franca since it reflects the real use of English in today's world. Through telecollaboration learners participate in such authentic ELF communication through a series of different tasks, as discussed above. Thus, learners are able to experience the fluidity of ELF communication in which each new type of task entails new challenges to the effectiveness of communication. It might occur that certain types of language exchange or certain topics require different accommodation strategies, especially if the topics belong to the learners' L1 culture. On the other hand, different topics might be quite easy to discuss if they are globally well-known. Thus, these exchanges raise learners' intercultural competence since they are likely to become conscious of the multifaceted concept of culture in ELF. Despite coming from different L1 cultures, learners might feel that in one instance they share the same culture as their interlocutor if the cultural reference is a global one. Thus, learners should be prepared to focus on the emergent cultural resources instead of dwelling on generalizations and stereotypes (Baker, 2012).

Telecollaboration has been theoretically considered here only from several previously discussed frameworks, the number of which is not definite. We tried to briefly delineate some studies that focus on these already known educational concepts and trends, aiming to point at its appropriateness and necessity for the language learning of the 21st-century generations. The next chapter provides insight into the procedure of telecollaboration in foreign language learning with a practical example where learners used English as a lingua franca.

## An Example of Telecollaboration
## in Using English as a Lingua Franca

It has already been stated that task-based language learning represents one of the main methodological approaches of telecollaboration in language learning due to the fact that this process is conducted through task completion. According to O'Dowd and Ware (2009), there are three main categories of tasks commonly used in telecollaboration, as follows: 1) information exchange; 2) comparison and analysis; and 3) collaboration and product creation. Each of these categories consists of: 1) pre-task activities; 2) task activities; and 3) post-task activities. To illustrate learners' roles and actions in these tasks, one specific example will be presented. It refers to the telecollaboration between learners from Italy and Germany who used English as a lingua franca. This study was conducted by Guth and Helm (2012, pp. 44–47). Some of the main characteristics concerning the preparation and realization of this telecollaboration project are presented here.

Firstly, two educational institutions, one from Germany and the other one from Italy, agreed to arrange to learn and practise the use of ELF within the virtual environment. Weekly discussions (i.e., synchronous communication) between their groups of learners were organized in dyads or small groups using Skype over a period of six weeks. A wiki was used as a platform to carry out an asynchronous discussion, organize project groupings, set out timetables and tasks, publish learner productions, and post recordings of Skype sessions. After agreeing on the plan, three stages of telecollaboration were conducted.

The first stage, information exchange, was organized for familiarizing learners with one another and with the online environment that will serve as the virtual space for communication. In this case, learners interviewed each other using Skype, but before that they created their personal wiki page where they introduced themselves, read each other's introductions and later became friends on the social networks. They also prepared questions for interviewing via Skype. Finally, they shared their initial impressions in the classroom and then reflected on their language learning during this first stage in their diaries on the wiki.

In the second stage, learners were involved in a series of analysis and comparison tasks for which they had to investigate online news, cultural artefacts, conduct surveys using questionnaires and thus gather the necessary data. The task was comparing media coverage of a current news event, at that moment a major global issue, a referendum in Switzerland about the building of minarets. After gathering data, learners had to summarize them, consider them critically, upload their findings to the wiki and prepare for the debate concerning this topic using Skype.

The last stage refers to the final task, the collaborative development of a digital collage of images that could represent what it means to be a global citizen

and an intercultural communicator, considering the previously mentioned topic. Firstly, they were involved in a series of readings on global citizenship and intercultural communication followed by questions for reflection. Secondly, they had to look for images they wanted to include in the collage and upload them to the wiki. Learners co-constructed the collage during the Skype session deciding which images to include in it, where to place them, etc. Lastly, they had to reflect on the collaborative process and how their group managed or did not manage to work together in their diaries.

It is important to highlight that this example of telecollaboration in the context of using English as a lingua franca differs from the context of using English as a foreign language in the following ways: 1) first of all, these learners are non-native speakers of English, which, among others, can be regarded as a characteristic of this ELF telecollaboration model, however we should bear in mind that ELF communication, beside non-native speakers, includes native speakers as well (Jenkins et al., 2011); 2) secondly, ELF speakers do not have native speakers as language models, whose language they have to imitate, which is typical for EFL environment (Jenkins, 2006); 3) thirdly, standard native speakers' pronunciation is not the final goal for ELF speakers, whereas it is one of the ultimate goals of EFL speakers (Jenkins, 2006), because as far as EFL learning is concerned, the foreign accent is not accepted; 4) furthermore, there is a wide variety of accents in ELF communication (in this example German and Italian speakers used English), thus speakers are required to show only clear pronunciation (Zoghbor, 2018); 5) code-switching is regarded as something bad for EFL users, while it is acceptable for ELF speakers (Seidlhofer, 2001); 6) since there is no immediate teacher's corrective feedback during ELF communication, fluency is more emphasized than accuracy (Zhiming, 2003), unlike the EFL context where learners would be collaborating with native speakers who are regarded to be the experts of English language, hence non-native speakers would feel anxious about making possible language mistakes (Guarda, 2013); 7) the issue that the ELF speakers consider within the above example is global (in this case, it was comparing media coverage of a current news event, the referendum in Switzerland about the building of minarets), whereas the issues within the EFL context would mainly refer to the target culture of the native speakers of English (e.g. British or American) (Smith, 2015), and 8) finally, the general focus of ELF telecollaborative communication is on intelligibility (Jenkins, 2006) and the ability to communicate the message in international contexts rather than on the native speakers' standard model (Jenkins et al., 2011; Zoghbor, 2018), and that was the case in the above example where ELF learners participated in the debate and made together their digital collage of images.

## Concluding Remarks

In conclusion, this paper has attempted to explore the concept of telecollaboration as an ELF environment through various aspects, pointing out the benefits of using telecollaboration and providing an example of its successful use.

It needs to be highlighted that telecollaboration entails learners engaging in real, authentic, intercultural communication in English. Since it is an interaction between non-native speakers, it can also be typified as an instance of ELF communication, which seems to prevail in the use of English nowadays. Thus, learners are required to act as multilingual speakers, accommodating to their interlocutors and attaining intercultural awareness. From a personal aspect, learners are able to gain insight into different cultures and aspects of life in the other country. Hence, they might even establish a personal relationship with foreign learners (Godwin-Jones, 2003). Since telecollaboration is an instance of CMC, learners can improve their digital literacy skills as well as to master working in virtual teams. Through this collaborative task-based work, participants in telecollaboration may perfect their social skills as well as their critical thinking skills. Finally, learners' motivation for English learning could be enhanced by participating in these interactions. On the organizational level, institutions can include these international partnerships in their educational programs and thus attract foreign learners (Di Gennaro & Villarroel Ojeda, 2021).

However, this concept is not without its limitations and potential challenges. Firstly, since it relies on the use of technology, technology-related anxiety can occur in cases where learners are not proficient in using the tools, which might have a demotivating effect on learners. Another reason for the lack of motivation might be the task itself or a much more competent interlocutor (Helm, 2015). In all these cases, thorough preparation and organization are required by the teachers in charge. Thus, the learners should be well versed in using the tools required for their tasks and paired with the learner of similar language proficiency. Another important issue is the level of competence needed to undertake such a project since the lower-level learners might struggle with the tasks and eventually abandon completing them. An affordance of telecollaboration, using both synchronous and asynchronous channels of communication also demand caution. It might happen that learners overuse written medium because it provides them with more time to reflect on their output, but does not lead to much learning. On the other hand, only communicating synchronously might impose cognitive demands on the speakers (Helm, 2015). Thus, it is crucial to monitor the type of communication used by the learners, enabling them to exploit all the affordances of CMC.

On the organizational level, adjusting different timetables, across different time zones even, might be a laborious task for teachers. Other time-consuming activities entail designing the tasks, structuring them and planning, which is

why Helm (2015) opens the possibility of using of pre-packaged telecollaboration projects. Another issue is the assessment of such collaborative tasks, whether and in which way learners are to be assessed (Helm, 2015). Besides the possibility of avoiding assessment, learners might be evaluated according to their final project or teachers might supervise parts of learners' exchanges in order to evaluate their performance. The challenge most frequently stated by the researchers is the difficulty in reaching deeper levels of interaction (Helm, 2015). The solution to this issue may lie in the thorough preparation of the pre-task activities and particularly the 'getting to know' stage. In addition, the nature of the tasks might foster deeper communication exchanges. Therefore, the teachers need to research the topics the learners are interested in, identifying the points in common.

As Helm (2015) rightly argues, a type of a ready-made project might be a good starting point for the practitioners new to the concept of telecollaboration. It might lead to the augmentation of contacts worldwide and more learners engaging in authentic ELF communication. The educational level of learners is another area worth investigating in the future. Since the projects studied so far mostly relate to higher education contexts, perhaps a secondary education level might also prove to be a fertile ground for telecollaboration programs. Needless to say, high school learners are mostly digital natives (Prensky, 2001) and such medium of communication is the one they are quite familiar with. Also, they often lack motivation for learning English and this real use of English, beyond the boundaries of the classroom, might have a motivating effect. Transcending boundaries, spatial or physical as well as cultural and connecting to various ELF speakers seems to be the valuable goal of telecollaboration and it is hoped that it will be the focus of both academic studies and language practice in the future.

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## Телеколаборација као ЕЛФ окружење у глобалном добу

### Резиме

Рад се бави телеколаборацијом као окружењем за учење на даљину и начином превазилажења физичке дистанце између две или више група ученика који припадају различитим културама или нацијама, а који користе енглески језик као *lingua franca* (ЕЛФ – *English as a lingua franca*), путем компјутерски посредоване комуникације. Последњих неколико година овај феномен постаје све популарнији, будући да живимо у глобалном друштву XXI века, где је свакодневица незамислива без информационо-комуникационих технологија и знања енглеског језика. Вежбањем примене енглеског као *lingua franca* помоћу телеколаборације не долази само до побољшања језичких вештина већ и до развијања интеркултуралне компетенције и интеркултуралне свести

ученика, као важних обележја савременог образовања. Процес усавршавања енглеског језика на овај начин заснован је на више приступа и врста учења, а у оквиру рада сагледан је у односу на: 1) комуникативни приступ; 2) интеракционистички приступ; 3) учењу заснованом на искуству; 4) учењу језика заснованом на задатку; 5) приступу заснованом на изради пројеката; 6) интеркултурално учење; 7) аутономију ученика; 8) вештине учења за XXI век; 9) ЕЛФ комуникацију.

На основу наведених чињеница, одлучено је да се за потребе рада спроведе квалитативна анализа садржаја бројних теоријских и емпиријских истраживања, на основу којих: 1) најпре се стиче увид у основне карактеристике енглеског језика као *lingua franca* и његове педагошке импликације, укључујући културу и идентитет; 2) потом су представљени теоријски оквир и општи принципи телеколаборације у оквиру учења страних језика; 3) размотрена су и основна обележја оваквог виртуелног окружења са глобалног аспекта; 4) приказан је начин на који се телеколаборација може применити за вежбање употребе енглеског језика као *lingua franca*; 5) издвојене су њене предности и недостаци, као и предлози за будућа истраживања. Сходно томе, главна сврха сажетог прегледа кључних појмова рада је двострука. Пре свега, да промовише могућности телеколаборације као савременог образовног начина виртуелне размене информација у оквиру парадигме енглеског језика као *lingua franca*, и наставе енглеског језика уопште, и да пробуди интересовање других истраживача за праћење актуелних образовних трендова.

*Кључне речи:* телеколаборација; енглески језик као *lingua franca*; интеркултурална компетенција; интеркултурална свест; учење језика; глобално доба.

# CULTURALLY COMPETENT COMMUNICATION IN HEALTH CARE: WHY IT MATTERS

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# CULTURALLY COMPETENT COMMUNICATION IN HEALTH CARE: WHY IT MATTERS[4]

*Abstract*. Establishing a more inclusive and culturally literate health care system is critical to supporting health care as a basic human right regardless of the legal status of patients. To do this, health care providers must be culturally equipped to respond to patients who come from different cultural spaces and have different worldviews, attitudes, and beliefs towards the social practice, including the concept and treatment of illness. Studies in the field of health care have shown that medical professionals need additional training in culturally competent communication, especially in ethnically heterogeneous surroundings, where potential barriers such as different languages, cultural norms, history between groups, ethnocentrism, etc., might pose obstacles to effective interaction between health care practitioners and patients. This paper offers some solutions to the possible communication gaps and suggests skills and strategies that might be taught to medical students and staff through mandatory or elective courses which would include: remaining silent with the patient; remaining non-judgmental; showing acceptance of what the patient is saying; giving recognition; offering oneself; giving the patient the opening; leading the discussion; making observations; encouraging communication; and paraphrasing. Adequate cultural competence can ensure that patients receive the care they need to live healthier lives irrespective of race, ethnicity, gender or sexual orientation.

*Introduction*

Cultural competence in health care means delivering effective, quality care to patients who have diverse beliefs, worldviews, values and attitudes towards illness. It requires health care systems that can personalize health care according to cultural and linguistic differences, but most of all it requires understanding the potential impact that cultural differences can have on health care delivery (Bouder & Martin, 2013, p. 6).

Thus, the main focus of culturally competent communication is on understanding cultures and accepting cultural differences rather than trying to determine which cultural norms are acceptable. Hence, the ultimate goal of any healthcare system is to deliver the highest quality of care to every patient, regardless of race, ethnicity, sexual orientation, cultural background, language proficiency, or legal status. To do this, effective culturally competent communication is imperative for the interaction between health care practitioners (HCP) and patients. According to McCorry and Mason (2020, p. 4), culturally competent communication in healthcare has three main purposes:

1. To accumulate health information about the patient;
2. To give comprehensible feedback about patient's health; and
3. To gauge the patient's behavior and, their beliefs about health and illness in order to improve the patient's compliance with treatment.

Communication between HCP and patients (and sometimes their family) occurs to improve and advance patient health, and it comprises five steps (Samovar et al., 2017, p. 350) (see Figure 1).

Figure 1. Communication process in health care
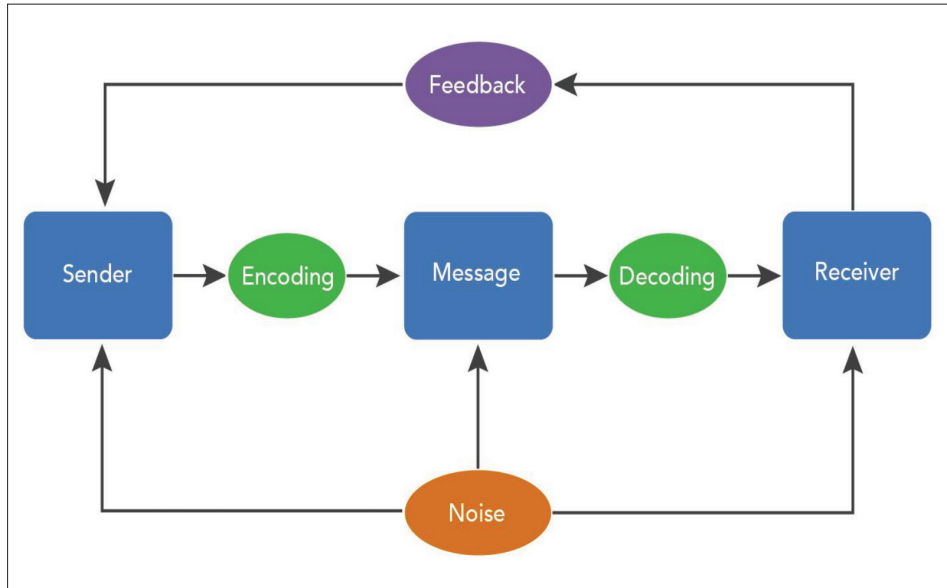


To illustrate this five-step process, let us picture a patient who is afraid of needles, comes from another culture, and does not speak the second language well with a registered nurse (RN) who is about to draw blood from the patient's arm. First, the RN must instruct the patient on how to sit down in the chair and place their arm on the armrest (Step 1 in the communication process: the sender has an idea how to communicate). The RN then instructs the patient with verbal codes (or words) on how the arm should be positioned on the armrest (Step 2 in the communication process: the sender encodes the idea in a message). Apart from verbal codes, the RN uses nonverbal codes (i.e., gestures) to demonstrate the proper placement of the patient's arm (Step 3 in the communication process: the message travels through a channel which can either be verbal or nonverbal). The patient listens to instructions despite anxiety (Step 4 in the communication process: the receiver decodes the message). The patient sits in the chair places their arm on the armrest and says: *Is this the way to do it?* (Step 5 in the communication process: the receiver understands the message and sends feedback to the sender of the initial message). It is important to note that during the communication process anything that disrupts effective communication can be considered noise such as physical limitations (for instance, patient's hearing impairment), cultural differences (verbal and nonverbal codes that are different across cultures), and language barriers (the patient does not speak the language well and cannot explain the medical problem). This might sound simple but getting a clear message across from the sender to the receiver

involves not only sophisticated communication skills, but also substantial cultural knowledge. Here, it is important to note that failure to understand and manage cultural differences in health care may have serious consequences on the whole treatment process and treatment outcomes. Hence, the purpose of cultural competence in health care is to raise awareness that cultural differences in communication exist which can lead to miscommunication and, consequently impede treatment outcomes.

## *The Three Basic Communication Concepts in Health Care*

To avoid misunderstanding in health care communication, there are three basic communication concepts that every HCP should bear in mind (McCorry & Mason, 2020; Bouder & Martin, 2013; Ofri, 2017):

1. Explanatory Model of Illness – This model gives the HCP knowledge of the beliefs the patient holds about illness, the cultural and social meaning they attach to an illness or a condition, expectations about care, their ability to understand the prescribed treatment, treatment goals, and treatment outcomes.

2. Negotiation – The initial aspect of HCP-patient negotiation is to understand each other in relation to the following: rapport, assessment, diagnosis, treatment, and cure. Generally, there are various reasons why HCPs and patients may have different ideas on how to restore a patient's health. The main factors are, by all means, cultural differences in the explanatory models of illness.

3. Culture – Culture is usually defined by sets of criteria, such as beliefs, values, worldviews, customs, language, behaviors, and other factors shared by a group of people. Cultures also create unique patterns of beliefs about health and illness, how they are perceived, to what they are attributed, how they are interpreted, and how and when health services are sought. Therefore, health care providers should not approach health care from a single cultural perspective or Western medical tradition; rather, they must learn to treat patients from other cultural backgrounds in a culturally competent manner (Bakić-Mirić et al., 2018, pp. 97–98). This means that if the HCPs understand culture-specific beliefs and values, particularly those related to health, life, and death, they can better understand and more appropriately influence patient decision-making processes. Let us take the following example as an illustration of sensitivity to cultural differences as well as the role that culture plays in health care. For instance, in Muslim culture or Orthodox Jewish culture women are not allowed to be touched by a man outside of their family. If a male doctor is aware of this, it will help them to examine and treat Muslim and/or Orthodox Jewish female patients in a culturally appropriate way. Also, it is a well-known fact that Muslims do not eat pork. As certain medicines, such as insulin, have pork ingredients in them a doctor can face legal issues if they prescribe them to a

strictly practicing Muslim. Nevertheless, if the doctor already has some idea of the Muslim culture, they can inform the patient about the ingredients before prescribing the medication (Attum et al., 2018, pp. 73–75).

Moreover, every HCP should be aware that effective communication is undeniably characterized by support, clarity, and empathy. If we add cultural differences to this, effective communication becomes even more important. Here are some useful tips for improving communication with patients who come from different cultures (Bakić-Mirić et al., 2018, pp. 99–100):

• The HCP should treat the patient in the same manner they would like to be treated: all patients want to be treated with respect, courtesy, and dignity.

• During the visit, the HCP should address the patient formally and then gauge the level of formality needed because some cultures are more formal than others.

• If the patient does not look the HCP directly in the eyes or does not ask questions about the treatment, the reason for this might be because such behavior is induced by patient's cultural norms because direct eye contact is considered disrespectful in some cultures.

• The HCP should not frown upon patient's beliefs about health, illness, prevention, and cure. Some cultures perceive these notions differently than the Western medical tradition and this should be respected.

• The HCP should always ask a patient about their preferred medical decisions. In some cultures, medical decisions are even made by immediate family members or the extended family. This is important because patient compliance largely relies on this.

• The HCP should never assume that patients are familiar with particular medical tests or procedures and should therefore always explain them to patients. For instance, a woman who has given birth multiple times does not know what routine vaginal examination looks like or a patient does not know that they need to cleanse their bowels before colonoscopy.

• During examination, the HCP should always speak slowly in declarative sentences and use plain language avoiding unnecessary medical terminology. They should face the patient, use appropriate nonverbal communication, and always make sure that the patient understands what they are supposed to do concerning treatment and therapy regimen.

Generally, successful communication between HCPs and patients is largely dependent on the effectiveness of patient–HCP interaction during the visit, the validity of the patient's expectations about care and treatment, and the ability of the doctor to fulfill them.

## Potential Barriers to Culturally Competent Communication in Health Care

As we have already seen, communication is a complex process. When different cultures are involved in the communication process, the number of potential problems increases exponentially. To avoid this, all health care professionals should be aware of the following five potential barriers to effective culturally competent communication:

1. Language – Often, two interlocutors do not speak a common language or they simply do not have enough knowledge of a language to effectively communicate. In particular, if the HCP speaks their native language and medical language and the patient has a limited or reasonable command of that language and medical language – miscommunication can easily occur. Just as mentioned before, it is advisable for the HCPs to communicate clearly and professionally using plain language (Samovar et al., 2017, p. 353).

2. Cultural norms – Cultural norms are shared, forbidden, and integrated belief systems and practices that characterize a cultural group. They foster reliable guides for daily living and contribute to the health and wellbeing of the group. For instance, religious (faith-based) restrictions largely affect cultures and in that sense health care (e.g., particularly in Muslim and Jewish culture as regards food restrictions, administration of certain medications, treatment of female patients etc.) (Attum et al., 2018, p. 55).

3. History between groups – Negative aspects of a shared history between two cultures can impede effective communication. Competition for resources, political disputes, territorial preferences, and the effects of past conflicts can create strong biases, stereotypes, and prejudices that effective communication is almost impossible despite the most honorable and cause-worthy intentions (Марковић Савић & Бакић Мирић, 2022, p. 194).

4. Ethnocentrism – In some cases, intercultural interaction can be influenced by an individual's ethnocentrism, or the belief that one's culture ('in-group') is superior to another's culture ('out-group'). Arguably, all humans are to some extent ethnocentric which can influence an individual's ability to successfully communicate across cultures. For instance, highly apprehensive migrant patients may feel "suspicious, defensive, and hostile" toward HCPs and their different social and cultural norms (Somanth et al., 2008, p. 1280).

5. Intercultural communication apprehension – This concept is defined as the fear or anxiety associated with communication with people from different cultural groups. Patients' fear to approach and communicate with HCPs, coupled with their own communication apprehension in a foreign language can negatively impact treatment and health outcome(s) (Samovar et al., 2017, p. 355).

6. Anxiety – Anxiety is partially due to communication obstacles such as a patient's limited knowledge of the language and differences in verbal and

nonverbal communication styles. For instance, migrant patients may experience feelings of impatience, frustration, and suspicion even while anticipating the medical encounter. In such cases, the HCP should first try to calm the patient and then proceed with the medical interview (McCorry & Mason, 2020, p. 170).

7. Nonverbal communication – This type of communication occurs when both the HCP and the patient observe each other's body language. Nonverbal communication is usually unintentional and it includes body language, movement, posture, gestures, personal space, paralanguage, facial expressions, eye contact, and touch. When culture is added to all this, communication problems can arise because the HCP cannot always be sure what certain nonverbal behaviors mean in different cultures. For instance, many nonverbal cues, particularly eye contact, are culturally specific and need to be interpreted accordingly and based on the sender's cultural background. Furthermore, gestures are also one of the most culture-specific forms of nonverbal communication as one gesture can have a different meaning in different cultures. This means that a gesture interpreted as positive in some cultures may be interpreted as negative in other cultures. Also, personal space in different cultures is perceived differently (Cole & Bird, 2014, p. 259). Generally, personal space provides security and control; people very often feel threatened or uncomfortable when that space is breached. In the health care setting patients are often required to abandon their personal space so that they could be properly examined and subsequently treated. As mentioned before, this may be considered culturally inappropriate and offensive in some cultures, especially for female patients.

Incidentally, only by recognizing that these barriers exist can culturally competent communication in health care take place. To do this, a culturally competent HCP should suspend the presuppositions and beliefs they have about other cultures and practice cultural humility[5] as an ongoing and continuous professional growth. Additionally, they should also learn to appreciate how cultural competence contributes to the practice of medicine and public health, and demonstrate willingness to explore cultural beliefs that influence patient's decisions about treatment and to collaborate and overcome cultural and linguistic challenges in the clinical encounter (Somanth et al., 2008, p. 1283; Dreachslin et al., 2013, p. 115). One way to do this is by introducing cultural competence courses in medical schools (as part of the core curriculum during the senior year) and/or hospitals (as professional development) with an aim to develop future health care providers as culturally competent speakers or mediators, who will be able to engage in different intercultural encounters in hospitals (from

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[5] Cultural humility is a process of self-reflection in which a person tries to understand personal and systemic biases and generalizations he or she might have about other cultures. Cultural humility involves humbly acknowledging oneself as a learner when it comes to understanding another person's experience, which stems from a different culture.

simple to more complex ones) and approach patients from different cultures with cultural awareness and sensitivity.

## Skills and Strategies for Effective Culturally Competent Communication in Health Care

By now it should be clear that every HCP needs to have effective interpersonal skills, which are crucial for successful interaction with both peers and patients. These skills include but are not limited to respect, empathy, assertiveness, tactfulness, and humility. These are indicators of the HCP's character and their ability to show compassion and caring for others. As far as culturally competent communication is concerned, there are certain skills and strategies every HCP can develop to optimize communication with patients. According to Coulehan and Block (2006, pp. 3–23), Cole and Bird (2014, pp. 61–93), and McCorry and Mason (2020, pp. 62–64) some of the more important are remaining silent with the patient, remaining non-judgmental, showing acceptance of what the patient is saying, giving recognition, offering oneself, giving the patient the opening, leading the discussion, making observations, encouraging communication, and paraphrasing.

1. Remaining silent with the patient – At times a patient will need to gather thoughts and formulate what they want to tell the HCP. This might take time due to a language barrier or cultural patterns of behavior. This is the time when the HCP will need the skill of remaining silent and not pressure the patient to respond with immediacy.

2. Remaining non-judgmental – During the visit, a patient may reveal that they have different beliefs (alternative medicine, herbal cures, folk remedies etc.) about illness. In such case, the HCP should not disapprove of those beliefs, rather they should be respectful, empathic and non-judgmental even if patient beliefs are not aligned with the Western medicine.

3. Showing acceptance of what the patient is saying – While a patient is narrating their medical history, explaining any issues relating to care and treatment, such as visits to shamans or folk healers, practicing acupuncture and/or taking herbal medicines or prayers the HCP should listen carefully and occasionally include small verbal cues such as, *Yes, I understand* or *Okay* even if they disagree with the patient's approach to treatment and cure. This should be accompanied by nonverbal cues such as body language, positive to neutral facial expressions and eye contact.

4. Giving recognition – The HCP should always give recognition, reinforce, and encourage the patient to take a positive attitude towards treatment and not berate or offend them if they are, for instance, taking folk medications instead of traditional ones.

5. Offering oneself – During the visit, every HCP should always show that the patient is their priority and that they are always available to them professionally by providing them not only time but also compassion and empathy.

6. Giving the patient the opening – The HCP should allow their patient to initiate discussion about their issues once in the office. This is best done by asking them open-ended questions such as *What is the reason for your visit?* or *What seems to be the problem?* or *How may I help you?*

7. Leading the discussion – A patient can stop the conversation with the HCP out of fear, anxiety, embarrassment or any other reason. In such instances, it is the HCP who should continue and lead the discussion with verbal cues such as *Please go on* or *Tell me what happened next?*

8. Making observations – While the patient is talking about their issues, the HCP should be observant without appearing judgmental for any reason. This means that if the patient is talking about their head trauma and the HCP notices that the patient's knee is bruised and swollen, the HCP should ask the patient about the knee and not ignore it because two injuries might be related.

9. Encouraging communication – The HCP should always encourage a detailed communication by asking the patient to be explicit and clear about what they are feeling so that the HCP can have a complete picture of the patient's condition and prescribe the right treatment.

10. Paraphrasing – This is the most important strategy in health care where the HCP paraphrases back to the patient what they had told the HCP and vice versa, especially after prescribing treatment, particularly if there is also a language barrier involved. This largely enhances understanding and also builds successful rapport between the HCP and the patient.

Skilled medical practitioners will be mindful of which of the above communication strategies or combination thereof would be best suited to any given bi-/multi-cultural communication setting with their patients. Gauging patient needs and cultural sensitivities are as important as providing the necessary treatment to aid their prognosis and recovery.


## Conclusion

Globalization, international mobility, and medical tourism have meant that the age of largely homogenous HCP-patient settings has long ended. In many health care settings, it is not only the HCP-patient interaction that is heterogenous, but many medical professionals themselves are also a part of multi-cultural teams which necessitate effective communication. This point is considerably more pertinent in the case of the HCP-patient relationship.

Culturally competent communication in health care can largely improve patient care, increase patient satisfaction, compliance with drug therapy plans,

and improve healthcare outcomes. Therefore, healthcare providers must be aware of the role culture plays in healthcare as failure to do so may have grave consequences on health outcomes. To avoid this, every HCP should bear in mind that patients who come from different cultures have different perceptions about health and illness, treatment, and cure. This means that in order to have successful treatment outcomes, every HCP should be aware of cultural differences, which is the most important factor in culturally competent communication. After all, effective communication between HCPs and patients from different cultures is a central clinical objective and one of the first steps towards building successful rapport. This is largely dependent upon the effectiveness of HCP–patient communication during the visit, patient's expectations about care and treatment and the ability of the doctor to fulfill them.

In conclusion, health care professionals of the 21st century should not only possess excellent clinical skills to provide adequate patient care but they should also possess excellent communication and cultural competence skills that are quintessential to ensuring positive health outcomes for all patients regardless of race, ethnicity, cultural background, language proficiency or legal status.

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## Због чега је важна културолошки компетентна комуникација у здравству?

### Резиме

Успостављање инклузивније и културолошки компетентније здравствене заштите од изузетног је значаја за здравство уопште јер је право на лечење основно људско право без обзира на легални статус неког лица. Како би се ово спровело, здравствени радници морају бити културолошки спремни за овакве изазове када лече пацијенте из различитих култура који имају другачије погледе на свет, веровања и ставове према болести. Студије у области здравствене заштите показале су да је медицинским радницима потребна додатна обука у културолошки компетентној комуникацији, посебно у етнички хетерогеном окружењу, где потенцијалне баријере као што су различити језици, културолошке норме, историја међу групама, етноцентризам, итд., могу представљати препреке за ефикасну интеракцију између здравствених радника и пацијената. Овај рад нуди нека решења за могуће недостатке у комуникацији и предлаже вештине и стратегије које би студенти медицине и медицинско особље могли научити кроз обавезне или изборне предмете или пак кроз додатну обуку у болницама. Обуке би укључивале: ћутање, неосуђивање пацијента, прихватање онога што пацијент говори, похвалу пацијента, доступност, давање пацијенту могућности да започне разговор, вођење дискусије, запажање, подстицање комуникације и парафразирање. Адекватна културолошка компетенција може осигурати да пацијенти добију негу која им је потребна за здравији живот, без обзира на расу, етничку припадност, пол или сексуалну оријентацију.

*Кључне речи*: културолошка компетенција; здравство; здравствени радници; пацијент.

# EDUCATION FOR EMPLOYABILITY IN THE HEALTH TOURISM INDUSTRY: A CONTRIBUTION OF ENGLISH LANGUAGE COURSES TO SOFT SKILLS DEVELOPMENT

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# EDUCATION FOR EMPLOYABILITY IN THE HEALTH TOURISM INDUSTRY: A CONTRIBUTION OF ENGLISH LANGUAGE COURSES TO SOFT SKILLS DEVELOPMENT

*Abstract*. Along with the growing demands on the tourism and hospitality market, soft skills have been increasingly stated as the main prerequisites for employability. Therefore, this study set out to investigate the health tourism students' perceptions of the soft skills they possess with an emphasis on the contribution of English language courses to their development. The data were collected employing the tailor-made questionnaire which addressed 12 soft skills deemed the most necessary for the inclusion in the (health) tourism labour market. Students perceived their soft skills to be at an average to a moderately high level of development. Likewise, an average to a moderately high level of the contribution of English language instruction was noted. These findings indicate that there is much room for improvement and can be informative for various stakeholders in the education process. On the one hand, the study has revealed that the language courses have a favourable impact on soft skills development, and on the other, it has produced a relatively good representation of the enhancements to be made in this regard.

## Introduction

The profound societal and industry changes the world has been experiencing in the past decades have greatly affected all aspects of life, which in turn has reflected in educational institutions. Their orientation has increasingly been shifting from providing academic or technical knowledge of the subject matter to equipping students to cope with the ever-increasing nature of the working environment in the global context. As a result, the competencies and skills which will not only boost the students' capacity of life-long learning but also allow them prompt employment have been brought into focus. Few educational practitioners would contradict the claim that the desired outcome of learning and teaching should be viewed in relation to employability, the term coined to denote an "individual's ability to gain and maintain an initial employment, and to obtain new employment, if required, within an industry" (Wakelin-Theron, 2014, p. 2)[3]. Although the emphasis placed on employability has been evident globally since the 1990s, much confusion is still related to the skills sought in new graduates.

## Employability and Soft Skills

The changed educational paradigm has led to the proliferation of terminology and an array of the definitions applied to the used terms. Most frequently, the distinction is made between hard skills and soft skills. Hard skills relate to the technical expertise and (academic) knowledge. These are the tangible skills, typically learnt at school and made practical use of at work (Arat, 2014, p. 46), which are easily observed and measured (UNESCO-IBE, 2013, p. 29). In contrast, soft skills seem more elusive. Broadly conceived, they are related to interpersonal qualities, i.e., people skills and personal attributes (Robles, 2012). In relevant literature, the term soft skills indicates "a set of intangible personal qualities, traits, attributes, habits, and attitudes that can be used in

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[3] For an extensive discussion, see Petrova (2015).

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many different types of jobs" (UNESCO-IBE, 2013, p. 53). Besides this, equally broad denominations are also frequently used to designate more or less the same competency area. In Europe, they are also referred to as social skills, transversal competencies, social competencies, generic competencies, key competencies, 21st-century skills, skills for social progress, or basic and life skills (see Cinque, 2016). Another synonymous term frequently featuring as well (Ogbeide, 2006; Petrova, 2015; Wakelin-Theron, 2014), employability skills, brings to the fore a close link between soft skills and employment. Regardless of the terminology inconsistencies and accompanying variations in taxonomies, the consensus is that soft skills are of crucial importance for entering the industry market, productive performance, and career success (see Robles, 2012), hence researchers from various fields point to the necessity of soft skills attainment during students' university time (Bartel, 2018; Schulz, 2008).

## *Education for Employability in the Health Tourism Study Programme in Serbia in regard to ESP*

In line with general trends and a current European educational paradigm, in particular, Serbian educational policy favours a competency-based approach. As regards tertiary level, two tendencies are evident: the focus on employability which would in turn contribute to the country's economy and higher prosperity, on the one hand, and the emergence of new educational programmes, on the other. The implementation of dual education testifies to the former, whereas the undergraduate study programme of Health Tourism is a clear example of the latter.

Due to a well-documented rise of the tourism and hospitality industry, this sector has become increasingly appealing, so that various study programmes, mostly oriented towards management in the field, have been launched in numerous educational institutions (see Petrova, 2015; Wilks & Hemsworth, 2012). Accordingly, faculties in Serbia have been introducing new programmes that will enable graduates to pursue careers in this industry. Since Serbia boasts abundant natural resources providing ample opportunity for the country to become a distinctive health tourism destination, this sub-sector of the tourism industry[4] has been recognised as a high-potential contributor to the entire economy of the country. In boosting its development and keeping pace with a rapid growth of health tourism worldwide, qualified well-educated professionals have a major role. For these reasons, the academic undergraduate programme of Health Tourism was established at the Faculty of Hotel Management and Tourism in Vrnjačka Banja in the academic year 2016/17. Striving to meet the

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[4] Health tourism is generally considered a sector comprising medical, wellness, and spa tourism (Mainil et al., 2018).

requirements set upon by a globalised volatile health tourism market and rapid anticipated changes in its development, the curriculum is organised around the combination of lectures, exercises, and hands-on experience with the primary aim to educate competent managers in the industry equipped with sufficient knowledge, both theoretical and practical. Because of the criticality of proficiency in English for the successful performance in the tourism industry (see Radovanović and Pešić, 2017), one-semester compulsory English courses are scheduled in all four years of the undergraduate programme. Given a clear focus on the particular field of study, the essential principles of English for Specific Purposes (ESP)[5] theory and practice underlie making decisions on the syllabi design and teaching methodology. In brief, the overall goal of English for Health Tourism (EHT) instruction is to furnish students with linguistic tools and skills to use English efficiently at future workplaces in health tourism destinations both in Serbia and abroad.

## Soft Skills for the Health Tourism Industry

To provide a structure for the study and design a research instrument, the relevant literature was surveyed to pinpoint the soft skills typically required for inclusion and success in the health tourism labour market at all employment levels. Since the research related to the skills for the sub-sector of our interest is practically non-existent, the study drew on the significant findings pertaining to general tourism and/or hospitality industry. This seemed justifiable for developing the theoretical basis to address the research questions since health tourism is a multifaceted niche with numerous miscellaneous job prospects. Namely, the graduates are prospective employees of the establishments and organisations belonging to the accommodation sector in health tourism destinations, the travel organisers' sector engaged in travelling for medical and/or spa and wellness purposes and the destination organisation sector.

Judging from the available studies, along with the literature reviews presented therein, the issue of relevant skills and competencies for efficient performance in the tourism and hospitality industry has been receiving increasing attention. With primary aims to specify the skills required by the industry and/or deal with the modes of their development, the researchers adopted various approaches, thereby resorting to different methodologies and the manners of clustering the skills. While earlier research largely focused on employers' perspective, mainly addressing the requirements for managerial positions, in recent decades the attention has been turned to the students' self-assessment of the

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[5] According to a widely-quoted definition, "ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning" (Hutchinson & Waters, 1987, p. 19).

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most relevant skills and competencies (Breen et al., 2004; Ogbeide, 2006). Due to the considerable divergences in scholars' main orientations, the main impression is that the literature provides neither an exclusive clear-cut picture nor an exhaustive and definite list of the most relevant skills for the industry. Notably, offered taxonomies vary widely in the number of examined and identified skills and sub-skills. In this regard, the research set within the field of social sciences favouring a general approach based on organisational theory seems to stand out for its comprehensiveness. Relying on the Competing Values Framework[6] as a tool for surveying key tourism and hospitality management competencies, Breen et al. (2004) identified 24 key competencies based on 117 statements describing a variety of skills associated with managerial work. Narrowing the scope to the hospitality industry only, the researchers have identified various skills considered important by the industry recruiters such as leadership, employee relations, and problem resolution (Wood, 2005), as well as communication skills and conflict management skills (Ogbeide, 2006). In a similar vein, it has been pointed out that students should have more problem-solving skills, learning skills, technology, data collection and analysis, languages, management and leadership skills so as to match the standards of the industry for the hospitality graduates' skills (Alhelalat, 2015).

The research focused on the tourism managers' perceptions of the skills and attributes that best equip tourism education graduates for employment (Wang et al., 2009) deserves a special mention since it was carried out among industry managers working in seven sectors[7] which largely correspond to the prospective workplaces of health tourism students when situated and/or related to health tourism destinations. According to the findings, the top three important attributes are oral communication, relationship management skills, and work ethics (Wang et al., 2009). Also, of interest are the outcomes of the Tourism Education Futures Initiative dealing with the ways of building the capacity for tourism students to lead the industry into the future, 2010–2030 (Sheldon et al., 2008). Drawing on what a group comprising 45 experienced tourism educators and industry experts regarded as being important for future students to master, the authors singled out five categories of skills: destination stewardship skills; political skills; ethical skills; enhanced human resource skills; and dynamic business skills (Sheldon et al., 2008).

Notwithstanding notable differences, soft skills, as defined above, come up repeatedly in these discussions. The summary of the competencies identified by various scholars as important for hospitality and tourism graduates

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[6] Originally it contained 250 competencies linked to 8 manager roles.

[7] Accommodation, transportation, travel agency and tour operator services, café and restaurant/food and beverage, conference and events, government and non-government organisation, and others.

offered by Nolan et al. (2010, pp. 435–436) testifies to their vital importance as it comprises: customer/guest relations; professionalism; employee relations; and leadership. Motivated by an evident lack of a comprehensive list of relevant soft skills, Weber, Finley, Crawford, and Rivera (2009) set out to identify those needed in entry-level hospitality management positions. Among the skills corresponding to those in the human, conceptual, leadership, and interpersonal categories, the authors have singled out the following: working effectively with employees and customers; setting a positive example; displaying honesty/commitment; and developing creative solutions to problems (Weber et al., 2009). The research among tourism employers occupying different positions in five countries (Lūka, 2015) has revealed that they highly evaluate foreign language skills, as well as team working, presentation skills, leadership, collaboration skills, and intercultural competencies.

The components frequently surfacing through literature survey informed the research instrument. Since it is not unlikely that the fresh graduates will be employed at managerial positions right after graduation, we devised a list of 12 soft skills, broadly falling into three categories, typically deemed the most relevant for employability in the (health) tourism industry, as presented in detail in the findings. It should be noted that our list deviates slightly from the above-mentioned models in respect of empathy. Although this personality trait does not feature in the surveyed literature, empathy is included in our survey because it is not only required in health-related occupations but it also benefits leadership/management execution (Holt & Marques, 2012).

## The Rationale and Aims of the Study

On account of the specifics of tourism, soft skills are of paramount importance in this 'people industry', as outlined below. However, prior studies point to the tourism and hospitality graduates' lack of relevant skills (Wakelin-Theron, 2014) and reveal the discrepancies between educational undergraduate study programmes content on offer and the industry's actual needs (Alhelalat, 2015; Nolan et al., 2010; Petrova, 2015; Wilks & Hemsworth, 2012; Wang et al., 2009), particularly in terms of ineffectiveness of soft skills development (Arat, 2014; Wakelin-Theron, 2014).[8]

In the light of the above, this preliminary study focuses on the development of soft skills for the health tourism industry. Building on the previous research undertaken under the broad remit of soft skills for the tourism industry, the aim of the study is twofold. Firstly, given the previous findings providing evidence

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[8] Similar observations have been made in relation to other fields as well. The complaint that university graduates frequently lack soft skills may, in fact, be taken as a commonplace (see Tevdovska, 2015, pp. 97–99).

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that self-assessment/evaluation methods are an effective tool for yielding valuable insights into the students' skills development (see Breen et al., 2004), the study aims to investigate students' self-evaluation of the soft skills required for employability in this industry. Secondly, it seeks to shed light on the intertwinement of EHT instruction and soft skills acquisition. Concerning skills development, the significance of ESP courses is typically seen in relation to the language skills development. As for English for Tourism Purposes, the instruction is based on the enhancement of all four language skills, both productive and receptive, yet, with a greater focus placed on those regarded as the most necessary ones, i.e., spoken skills (Radovanović & Pešić, 2017; Vuković Vojnović, 2013). The significance of English language skills for employability in various sub-sectors of the tourism and hospitality industry worldwide has been stressed (Kostić-Bobanović & Gržinić, 2011; Prachanant, 2012; Simion, 2012) to the extent that a good command of English may even be regarded as a hard skill in this context.[9] Stemming from the research stating the importance of soft skills in the context of the English language learning and providing arguments in favour of including soft skills in the classroom (Abbas, 2013; Bartel, 2018; Tevdovska, 2015), the study intends to discuss soft skills in relation to the EHT teaching and learning. Considering recent research informing us that ESP courses can be tailored towards intensive practising soft skills, thereby providing ample opportunities for their development (Hradilová, 2018; Lūka, 2015), the research aims to examine the students' perceptions regarding the contribution of EHT instruction in this respect.

More specifically, the research addresses the questions of to what extent the students, prospective health tourism employees, 1) rate themselves as already possessing the soft skills needed for the health tourism industry and 2) rate the EHT courses held at the Faculty as a contributor to their development. Apart from being justifiable on practical grounds as it may yield some practical implications, this research is justified on theoretical grounds. On the one hand, it could cover some research gaps related to the skills required for this sub-sector and add to the rare studies on soft skills for the tourism industry in Serbia. On the other, it may contribute to the research from the field of applied linguistics addressing soft skills.

## Participants

To investigate the perceptions of pre-identified 12 soft skills, in December 2018, a survey was carried out among the students of the first generation that enrolled in the Health Tourism study programme in Vrnjačka Banja, at the time, in the

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[9] As regards hard and soft skills demarcation, it should be kept in mind that a soft skill in one field might be considered a hard skill in some other(s) (Schulz, 2008).

third year of their studies. They were recruited to participate since the data obtained would not only allow for directing focus on the skills worth improving during the students' final year of study but also it could provide informative insights on how to better address these skills with younger students. Of the total of 24 students, 19 voluntarily took part in the survey, giving a response rate of 79.17%. All of them were 21 and had some previous working experience, including internship practice. The majority of respondents were female (66.67%).

## Instrument and Methods

The students' perceptions were examined quantitatively and qualitatively through survey research. The study employed the tailor-made questionnaire which had closed-ended questions and contained three parts. Following Part I, requesting the characteristics of the respondents, the two other parts, which comprised the same set of 32 randomly ordered statements describing skills and personal attributes, each linked to one of the soft skills, enquired into students' perceptions. Both applied a five-point Likert-type scale. Part II asked students to assess the extent to which, in their own opinion, they already possess the skills/personal attributes (5-high level, 4-moderately high level, 3-average level, 2-low level and 1-no level). In Part III, the students were to rate the extent to which, in their opinion, EHT courses at the Faculty contributed to the development of the particular skills (5-high level of contribution, 4-moderately high level of contribution, 3-average level of contribution, 2-low level of contribution and 1-no level of contribution).

The questionnaire was delivered via Google Forms and the link was shared with the students via email. The same tool was used for collecting responses in an online spreadsheet and for summarising the results. The average ratings for the investigated items were then combined and categorised according to the soft skills investigated. To facilitate the interpretation of the findings, the total average ratings for the skills and accompanying statements are grouped, based on a broad categorisation, and presented in three tables below.

## Findings

The results of the data analysis are presented within three groups: 1) findings concerning the development of cognitive skills, 2) findings concerning the development of interpersonal skills, and 3) findings concerning the development of workplace skills.

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## Cognitive Skills

Overall, the results indicate that the students perceived their soft skills to be at an average to a moderately high level of development as all average ratings were in the range between 3.49 and 4.00. Similarly, an average to a moderately high level of contribution of EHT instruction was noted, in the 3.40 to 4.12 range. Students viewed their cognitive skills (3.73) as slightly lagging behind the two other categories (3.78 each) (see Table 1).

Table 1. Cognitive skills

| Skill | Statement | Development level | | EHT contr. | |
|---|---|---|---|---|---|
| Decision making | 12. I am able to easily identify all relevant facts based on which I make a particular decision. | 3.64 | | 3.55 | |
| | 9. I am able to consider multiple alternatives before making decisions. | 3.64 | | 3.55 | |
| | 13. I am able to easily weigh the pros and cons before making a decision | 3.91 | | 3.91 | |
| | Σ | **3.73** | | **3.67** | |
| Critical thinking and problem-solving | 30. When a problem occurs, I am able to easily identify the key features of the problem and consider a broad range of factors. | 3.73 | | 3.91 | |
| | 32. When dealing with problems, I easily identify the potential options and immediately begin looking for possible solutions and try to solve it in its early stages. | 3.73 | | 4.18 | |
| | Σ | **3.73** | | **4.05** | |
| | Total | | **3.73** | | **3.86** |

## Interpersonal Skills

The findings on interpersonal skills, presented in Table 2, are quite revealing in several respects. Firstly, conflict management turns out to be the lowest-rated skill (3.55) not only in this set but in total. The same applies to the rating of EHT courses to its development. Secondly, contrary to our expectations, students do not see themselves as skilled communicators. As Table 2 shows, insufficient competence is perceived with non-verbal communication in particular (3.64), whereas EHT instruction is considered a valuable contributor (3.99) in this regard. The highest contribution to the skills development is recognised with verbal communication (4.12), which is followed by a perceived high impact on developing culture adaptability (4.09).

Table 2. Interpersonal skills

| Skill | Statement | Development level | | EHT contr. | |
|---|---|---|---|---|---|
| Teamwork | 2. I am able to adapt to the needs of the group/team and work to collective goals. | 4.09 | | 4.00 | |
| | 5. I am able to assist and support other team members, as well as take instructions from others. | 3.82 | | 4.00 | |
| | 25. I prefer learning through collaboration and teamwork to working alone. | 3.91 | | 3.73 | |
| | Σ | **3.94** | | **3.91** | |
| Conflict management | 27. In case of conflicts, I use my communication skills to find solutions and work things out. | 3.55 | | 3.91 | |
| | 3. I am able to anticipate and predict possible causes of conflicts, and I deal with them in advance. | 3.55 | | 3.45 | |
| | 10. I am able to deal with criticism constructively. | 3.36 | | 3.64 | |
| | Σ | **3.49** | | **3.40** | |
| Culture adaptability | 19. I am able to work in a culturally diverse work environment (with people of different nationalities, religions, colours). | 3.91 | | 4.09 | |
| | 8. I am able to consider cultural barriers when planning my communications. | 3.82 | | 4.18 | |
| | 17. I am able to understand and demonstrate cultural awareness in dealing with others. | 3.82 | | 4.00 | |
| | Σ | **3.85** | | **4.09** | |
| Empathy | 29. In dealing with others, I am able to project in another person and feel what they are feeling. | 4.00 | | 4.00 | |
| | 20. I am aware of other people's emotions and act accordingly. | 3.82 | | 3.45 | |
| | Σ | **3.91** | | **3.73** | |
| Verbal communication | 7. I am able to clearly communicate my needs, and I make sure that my message is heard and understood. | 3.73 | | 4.00 | |
| | 4. I am able to ask questions and actively listen to others. | 4.09 | | 4.27 | |
| | 28. In the case of written communication, I can use appropriate language and formats to make my message understood. | 3.64 | | 4.09 | |
| | Σ | **3.82** | | **4.12** | |
| Non-verbal communication | 26. I rely on body language, facial expressions and gestures to show friendliness and respect in interactions. | 3.45 | | 3.82 | |
| | 31 When communicating with others, I pay attention to non-verbal signals. | 3.82 | | 4.09 | |
| | Σ | **3.64** | | **3.99** | |
| | | Total | 3.78 | | 3.87 |

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## Workplace Skills

As regards workplace skills presented in Table 3, information skills stand out as considered the most developed of all investigated in the survey (4.00), although an average level of EHT instruction contribution is noted (3.68). Time management appears to be rather problematic (3.67), especially when it comes to managing workload.

Table 3. Workplace skills

| Skill | Statement | Development level | | EHT contr. | |
|---|---|---|---|---|---|
| Adaptability and flexibility | 22. I can easily and creatively adapt to changing circumstances. | 3.73 | | 4.00 | |
| | 16. I am able to quickly modify my priorities if requested by the situation. | 3.82 | | 3.64 | |
| | Σ | **3.78** | | **3.82** | |
| Time management | 15. I am able to manage my time effectively (meet deadlines, get on time). | 4.00 | | 3.64 | |
| | 1. I never lose time during the day because I want to complete all of my work in a timely manner. | 3.55 | | 3.91 | |
| | 24. As regards managing my workload, I know my priorities so I avoid all time-wasters. | 3.45 | | 4.00 | |
| | Σ | **3.67** | | **3.85** | |
| Presentation skills | 11. I am able to deliver good presentations. | 4.00 | | 3.55 | |
| | 23. I know how to choose visual aids to support my arguments in delivering presentations. | 3.45 | | 4.27 | |
| | Σ | **3.73** | | **3.91** | |
| Information skills | 6. I am able to combine relevant information obtained from multiple sources. | 4.09 | | 3.73 | |
| | 14. I am able to identify and use appropriate sources of information. | 3.73 | | 3.82 | |
| | 18. I am able to use electronic communications and data search applications to find necessary information. | 4.55 | | 3.82 | |
| | 21. I can apply the obtained information to new and broader contexts. | 3.64 | | 3.36 | |
| | Σ | **4.00** | | **3.68** | |
| | | Total | **3.78** | | **3.82** |

## *Discussion and Implications*

The above findings indicate that there is much room for improvement, which does not hold only for the lowest-rated skill (conflict management). Notably communication skills are in need of improvement. Not only are they of utmost importance in the tourism industry (Robles, 2012) since the employees are expected to create and maintain effective rapport and relationships with customers and co-workers, but also these are regarded essential life competencies, regardless of an individual's career level or status (Breen et al., 2004, p. 9).

In general, the research is informative for various stakeholders in the health tourism tertiary education. It is certainly of the greatest benefit to the students. Since "by knowing which soft skills are the most important, an individual can enhance their chances to be recruited" (Weber et al., 2009, p. 359), this research is valuable per se as it provided a positive stimulus for the students to give new consideration to labour market insertion. By being given an opportunity to evaluate and acknowledge their soft skills, the students could reinforce their awareness of the existence and importance of the skills necessary for employability. The findings, in particular, are useful as a valuable indicator of the soft skills they are lacking behind and which should be empowered and enhanced.

Leaving aside the doubt whether soft skills might be trained or should be considered innate (Cinque, 2016) and adopting a position that these can be acquired through education and training (Schulz, 2008), educators could explore innovative ways of promoting the skills that will facilitate students' absorption into the industry. As no soft skill was perceived to be at a high level, it is worth reconsidering the curricula, primarily in terms of selecting adequate ways to foster soft skills, such as implementing different teaching methods and learning methodologies proposed elsewhere (Arat, 2014; Cinque, 2016; Tevdovska, 2015). This applies to EHT instructors as well. As regards EHT contribution, the findings are, in fact, beneficial in two respects. On the one hand, they indicate that the language instruction has a favourable impact on developing soft skills since in the case of 7 soft skills the students' rating of the contribution out-tops the perceived development level of a particular skill, and on the other, they highlight the aspects in need of enhancement. Once being identified, these can be improved by adopting different practical procedures of soft skills inclusion in the language teaching and learning. The possible remedial measures should be considered in terms of their integration in the lessons plans, instructional materials, learning and teaching activities, and the assessment of the students' achievement (Abbas, 2013). Hence, the instructors may make use of some ideas on lesson plans (Bartel, 2018) and other possible ways of embedding soft skills in the classroom (Tevdovska, 2015), as suggested below. Also, the attention should be given to the relevant elements of pragmatics since useful parallels can be drawn between pragmatic competence and competence in soft skills (Bartel, 2018, p. 82).

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The perceived level of EHT contribution may be explained by the applied ESP curriculum and syllabus design resting on the communicative approach and embracing student-centeredness (Hutchinson & Waters, 1987). The curriculum addressing the relevant aspects revealed by the needs analysis and assessment is primarily aimed at systematically educating the students in the skills and knowledge needed not only at the course of study but more importantly in students' prospective careers (Radovanović & Mitrović, 2018; Radovanović & Pešić, 2017). The perception of EHT courses as beneficial to impart critical thinking and problem-solving skills (4.05) is aligned with the previous claim that an ESP classroom is a meaningful educational context for promoting critical thinking instruction (Tuzlukova & Usha-Prabhukanth, 2018). The major contribution viewed with culture adaptability gives further support to the observation that ESP instructors place heavy emphasis on cultural issues (Lūka, 2015).

Since EHT syllabus encompasses the functional skills, the students should master in order to establish effective communication in their prospective workplaces, the instruction by default has significant impacts on communication skills development. Yet, further efforts are needed especially those aimed at boosting non-verbal communication. Various activities in the form of role-plays, simulated dialogues and situations focused on communicative effectiveness in real-world interactions are already given a significant part in a syllabus. However, it appears that the students should be provided with more frequent opportunities to evaluate each other's performance and reflect on their achievements. Further, since the contribution on teamwork skills development could be enhanced, the methods stimulating collaboration, interactivity, and communication have to be promoted, as well as experiential learning through practical activities (Cinque, 2016; Hradilová, 2018). As the ability to understand and relate to others on an emotional level is also a soft skill that can determine the difference between success and failure (Weber et al., 2009, p. 359), empathy rating is promising. However, new ways of promoting this skill could be explored. The significant divergence between the perceived level of development and EHT instruction contribution noted with information skills (4.00 vs. 3.68) can be accounted for by the fact that the respondents belong to digital natives. However, as EHT should adapt to the changing needs of new generations, this gap may be catered for by giving more group project tasks and incorporating Computer-Assisted Language Learning.

*Final Remarks*

Along with the growing demands of the tourism and hospitality market, soft skills have been increasingly stated as the main prerequisites for employability. Therefore, we set out to investigate the health tourism students' perceived level of soft skills development with a special emphasis on the contribution of EHT

instruction to their development. The study has revealed that EHT instruction has the potential for being an important contributor to soft skills development. The findings have also produced a relatively good representation of the enhancements to be made in this regard.

Several important limitations need to be considered, though. Notably, the number of participants, together with the fact that pinpointing soft skills is by necessity context-dependent, delimits the applicability of the findings. Since this is only a preliminary study, more extensive research should be carried out to substantiate the findings. Besides this, more complex statistical analysis methods could be applied to provide additional insights. Nonetheless, having pointed to an under-investigated area of research, this study may serve as a basis for other studies in different ESP contexts and pave the way for some future research.

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Образовање за запошљивост у индустрији здравственог туризма: допринос наставе енглеског језика развоју меких вештина

Резиме

Упоредо са растућим захтевима на тржишту туризма и угоститељства, меке вештине се све чешће наводе као главни предуслови запошљивости. Стога овај рад има за циљ да испита перцепције студената здравственог туризма

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о меким вештинама које поседују, са нагласком на доприносу курсева енглеског језика њиховом развоју. Подаци су прикупљени применом упитника усмереног на испитивање 12 меких вештина које се наводе као најпотребније за укључивање на тржиште рада (здравственог) туризма. Према проценама студената, њихове меке вештине су на просечном до умерено високом нивоу развоја. Исто тако, уочен је просечан до умерено висок ниво доприноса наставе енглеског језика. Ови налази указују на то да постоји много простора за побољшање, те због свог информативног карактера могу бити од користи различитим актерима образовног процеса. С једне стране, испитивање је показало да курсеви језика имају благотворан утицај на развијање меких вештина, а с друге стране, омогућило је релативно добар приказ побољшања која у овом погледу ваља начинити.

*Кључне речи:* меке вештине; индустрија здравственог туризма; енглески језик за потребе здравственог туризма; запошљивост.

# OPPORTUNITIES AND CHALLENGES IN MASTERING POLYSEMOUS WORDS AND IDIOMS IN FOREIGN LANGUAGE LEARNING BASED ON ANALOGOUS PROCEDURES IN THE NATIVE LANGUAGE

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# OPPORTUNITIES AND CHALLENGES IN MASTERING POLYSEMOUS WORDS AND IDIOMS IN FOREIGN LANGUAGE LEARNING BASED ON ANALOGOUS PROCEDURES IN THE NATIVE LANGUAGE³

*Abstract*. The paper points out some of the potential problems in foreign language learning that may arise during the enrichment of one's vocabulary with polysemous words and idioms (phrasemes). The aim is to analyse when exactly their acquisition should start in second language learning, as well as to indicate some of the methodological possibilities that allow for its realisation. Their acquisition requires consistency and continuity in the presentation of these lexical layers, and understanding—interpretation of contextual meaning. It is necessary to start enriching student vocabulary with such lexical layers in a timely manner. This timeliness means that the acquisition of such vocabulary and lexical layers should begin at an early age, in the very first stages of second language learning, and some methodological procedures, such as didactically guided play, allow for its realisation. Different types of games (imagination and drama games: pantomime, role-play, and dramatization), which can also be used to for modelling games in foreign language learning, and enriching student vocabulary with polysemous words and idioms, as well as creating an authentic context that allows students to understand the concept of figurative meaning in real-life language use, are presented on the examples of the Serbian language as the native language.

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## Introduction

The acquisition and comprehension of polysemous words and idioms can pose a special problem in foreign language learning. "What is meant by polysemy is the capacity of a word or a phrase to have multiple related meanings", but this terms also covers the mechanisms for achieving polysemy, i.e. *platysemia*, metaphor, metonymy, and synecdoche (Драгићевић, 2010, p. 129). Darinka Gortan-Premk (2004) defines platysemy as "property of the primary (simple, non-derived) lexeme to name two very similar concepts in its nominal realization" (p. 60). In other linguistic mechanisms, the name is transferred from one concept to another: based on similarity (lexical metaphor); logical connection (lexical metonymy); or whole-to-part and part-to-whole relationship (lexical synecdoche) (Драгићевић, 2010). It should be pointed out that metaphor and metonymy are not only viewed as linguistic mechanisms, but also as cognitive structures, i.e., ways in which we experience the outside world (Lakoff & Johnson, 2003; Evans & Green, 2006; Радић Бојанић, 2011; Tehseem & Bilal Khan, 2015), meaning that they are not limited to language (Tehseem & Bilal Khan, 2015, p. 16), and that their functioning is shaped by cultural content present in the language. Understanding them is important in foreign language learning, because figurative meanings are an integral element of the vocabulary of native speakers (Lazar, 1996).

The importance of metaphorical competences is increasingly discussed in foreign language learning. "Roughly speaking, metaphorical competence includes the ability to detect the similarity between disparate domains and to use one domain to talk about, or to understand something about another domain" (Aleshtara & Dowlatabadi, 2014, p. 1897). Researchers believe that metaphorical competence and language proficiency correlate with each other significantly (Aleshtara & Dowlatabadi, 2014, p. 1902), that metaphorical competence contributes to all areas of communicative competence (grammatical, textual, illocutionary, sociolinguistic, and strategic competence) (Littlemore & Low, 2006b), as well as that its poor development "may impair learners' receptive and productive skills" (Doiz & Elizari, 2013, p. 52). Therefore, it is emphasized that metaphor is significant for foreign language learning in all stages of

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learning (Littlemore & Low, 2006b; Aleshtara & Dowlatabadi, 2014). Strategies that would lead to strengthening foreign language learners' awareness of the metaphor are being explored, which implies "(I) recognition of metaphor as a common ingredient of everyday language; (II) recognition of the metaphoric themes (conceptual metaphors of source domains) behind many figurative expressions; (III) recognition of the non-arbitrary nature of many figurative expressions; (IV) recognition of possible cross-cultural differences in metaphoric themes; and (V) recognition of cross-linguistic variety in the linguistic instantiations of those metaphoric themes" (Boers, 2004, p. 211), as well as that it contributes to vocabulary and memory enrichment (Boers, 2000; Gao, 2011).

The results of some research confirm that that application of activities that involve conceptual metaphors in teaching raises student awareness of metaphors (Kömür & Çimen, 2009). However, caution "regarding the use of the metaphor approach for the production of idiomatic language" is advised, because "there is no one-to-one correspondence between a particular conceptual metaphor and its linguistic instantiations" (Doiz & Elizari, 2013, p. 53), and moreover, "cross-linguistic and cross-cultural variation in metaphors can induce students to make incorrect transfers from their native language and produce grammatically and semantically inappropriate sentences" (Doiz & Elizari, 2013, p. 54). The importance of cross-cultural influences and connections, but in terms of positive transfer is indirectly pointed out by Jelena Kovač (2016) when she states that, regarding idioms from the Spanish language "which contain colors, it is possible to guess whether the expression involving a certain color carries a positive or a negative meaning by analogy with the native language (e.g. white is mostly positive, while black mostly negative), because colors create certain associations in our consciousness" (p. 120).

Given the fact that many idioms (but not all) are motivated by conceptual metaphors and metonymies, Sophia Skoufaki (2008) points out that "cognitive linguists have been exploring the effect that giving learners information about the motivation of L2 idioms can have on comprehension and retention", and have achieved encouraging results, "but the relative effectiveness of the various proposals has not yet been examined" (p. 101–102). The same author investigated ways to adopt the meaning of idioms grouped together under conceptual metaphors in foreign language learning, and discovered that students who previously received instructions on grouping figurative expressions according to metaphorical association were more successful, which gives "support to the claim for higher effectiveness of assisting guessing by supplying information about the motivation of L2 figurative expressions" (Skoufaki, 2008, p. 118).

The meaning of a word cannot be viewed in isolation, i.e., independent of other words, because they all belong to the linguistic structure of a language (De Saussure, 1959; Lyons, 1977). In addition, numerous words develop secondary meanings based on the beliefs and notions of the entire linguistic community,

in other words, on collective expressions (Драгићевић, 2010). Rajna Dragićević (2010) argues that these collective expressions can differ from one nation to another, because "collective expression is actually often based on non-existent properties", underlining that "learning a foreign language also means learning the collective expression itself, and through it, understanding the naive image of the world of an entire linguistic community" (p. 72). The thing that is especially important for understanding the image of the world is the meaning materialised in idioms and mastering idiomatic expressions is one of the most important components of successful language learning (Ковач, 2016; Wray, 2000).

Idioms are expressions established by usage, as well as complex structures the meaning of which is not deducible from those of the individual words. In other words, idioms have a figurative/metaphorical meaning, because the components of the idiom, "having lost the status of independent lexemes combined into a new unit, developing a completely new semantic content" (Штрбац, 2018, p. 9). Another unique property of idioms is the fact that they represent the manner in which real world is reflected in the phraseology of a language (Мршевић Радовић, 2008); they reveal the mechanisms of the conceptual system of the speaker and contain cultural information (Maslova, 2010) which is "preserved in the language as nationally and culturally specific" (Вуловић, 2015, p. 31). Another conclusion that can be derived from the above analysis is that to understand idioms, it is necessary to possess the knowledge of historical, literary, religious, and mythical content, which often represent a feature of the cultural tradition of the people who use that language as their mother tongue, i.e., it is necessary to familiarise students with the historical-cultural-etymological origins of the idiom (Boers et al., 2004a; 2004b). When they encounter such lexical layers of another language, students will be faced with a world that differs from their own, learn about culture (Boers, 2003), and acquire intercultural competence. It is important, because "plurilingual and intercultural education" represents "a response to the needs and requirements of quality education" (Beacco et al., 2016, p. 9) and cultural elements should be incorporated into foreign language education (Стојановић, 2016). In addition, Kovač (2016) points out that, regarding phraseological units, we must consider the fact that "their meaning cannot be deduced based on their component parts", concluding that "phraseological units represent one of the most challenging areas in foreign language learning" (p. 119). However, a number of phraseologisms also contain a "word that carries meaning", so Rajna Dragićević (2010) concludes that it is one of its secondary meanings which "plays a significant role in metaphorical images around which their semantics is built" (p. 25).

It should be noted that both polysemous words and idioms can occur quite frequently in the vernacular of native speakers of any language. Their abundance is evidenced by the fact that, if for example, we look up the meaning of the word *ruka* (hand) in the *Dictionary of the Serbian Language* (*Речник српскога језика,*

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2011), apart from the basic meaning "part of the upper limb in the human body", we will also find meanings, such as *handwriting, power, authority, influence, property; side, position with regard to something*, as well as over 90 fixed linguistic expressions in which this lexeme occurs as a component (p. 1152–1153). Given their number in the English language, Boers and Lindstromberg (2005) indicate that *The Oxford Dictionary of Idioms* contains about 5,000 entries, and that, should we ask students to master, for example, those belonging to the highest frequency bands, "it is plain that this would still place a heavy burden on memory" (p. 226). Moreover, if we take into account the fact that understanding idioms, as previously explained, often requires the knowledge of certain cultural data, it is clear that the acquisition of such lexical compounds cannot be left to students alone, nor simple rote learning. After all, "the assumption that students themselves can learn words without any help is another possible reason resulting in the ignorance of vocabulary instruction" (Zhu, 2020, p. 2).

The literature also addresses the problem of creating efficient ways for acquiring such layers in one's vocabulary, which also implies the use of advanced metaphors (Gao, 2010), because it is necessary for students to both understand and be able to use figurative meanings (Lazar, 1996). However, the issue of finding efficient ways for their acquisition is directly related to the issue of when this process should start.

## What Is the Best Time to Start Teaching Polysemous Words and Idioms?

The question of the best time to start teaching polysemous words and idioms also introduces the dilemma of whether their usage and comprehension automatically means an advanced knowledge of a foreign language. Although it may seem so at first glance, let's draw a parallel with first language acquisition where richness of vocabulary, and understanding of complex semantic relationships between words are an indicator of language development because "students with large vocabularies tend to be articulate and possess the confidence that is sometimes not exhibited by students who lack vocabulary and conceptual knowledge" (Bromley, 2007, p. 529).

It is believed that the ability to understand metaphors starts developing in early childhood (Soung, 2020). The results of some psycholinguistic research show that preschool children demonstrate "the ability to understand metaphor in language", although poorly, (Лазаревић и Стевановић, 2018, p. 49), and that they already possess the capacity to understand certain linguistic metaphors at the age of seven (Лазаревић и Стевановић, 2013, p. 211). Research that focused on toddlers shows "that even 2 ½ year-olds already represent and recognize multiple meanings for a single form", and "that children are capable of flexibly

inferring an additional potential meaning of a familiar word on the basis of the relationship between the new and familiar meanings" (Floyd et al., 2020, p. 2803). These researchers, therefore, advocate a "new perspective on word learning" in which polysemy will not be neglected: "Even very young learners are able to encode a network of related meanings" (Floyd et al., 2020, p. 2803). Moreover, the results of more recent research suggests that in children, "literal interpretation does not result from poor pragmatic abilities", but arises because "growing sensitivity to the sense conventions of their language environments impedes their pragmatic reasoning with non-literal uses" (Falkum, 2022, p. 105).

Understanding certain metaphorical transfers, primarily those in which the source domain involves concrete nouns, and the target domain abstract nouns, does not mean that a child has mastered their mother tongue at an advanced level, but shows that the acquisition of figurative meanings and polysemy occurs through a spontaneous lexical development, as well as that children learn meanings "gradually, adding more and more items to dictionary entries" (Кларк, 2008, p. 194). It is similar with comprehension of idioms which "begins in early childhood" and gradually improves throughout a person's life (Nippold & Taylor, 2002, p. 384). If we draw an analogy with foreign/second language learning, it would mean that simultaneously with the acquisition of the basic meaning of words, students should also be gradually introduced to secondary meanings of polysemous words, as well as to figurative meanings these words can achieve in context, because a person learns meanings at the same time as concepts. In addition, they should be gradually introduced to the meaning of idioms that occur frequently in the vernacular of the target language, especially with the meaning of those idioms whose overall meaning has been influenced by the secondary meaning of one of the component words, particularly in cases when they have already been introduced to the primary meaning of the said word.

However, understanding figurative meaning requires students to "link two different elements together, making a whole series of linguistic inferences, whereby process of decoding figurative meaning involves discovering hidden connections in the expression by way of inference" (Радић Бојанић, 2012, p. 268). It is a cognitive approach for understanding metaphor based on the link between its source and target domain (Boers & Littlemore, 2000; Gao, 2011; Littlemore, 2001; 2004; Littlemore & Low, 2006a; Радић Бојанић, 2011; 2012), and in that case, mastering polysemy represents an advanced level of language proficiency, where student age, i.e. the level of their cognitive and emotional maturity, and the lack of theoretical knowledge and/or experience needed to decipher more complex semantic relationships can be a limiting factor. In addition, polysemous words and idioms are acquired spontaneously in the mother tongue, because the child is continuously exposed to them in a communicative context. In second/foreign language learning, however, the lack of an authentic communicative context in which the semantic complexity of polysemous words

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and idioms is realised seemingly calls into question "incidental vocabulary acquisition" which refers "to vocabulary acquisition/learning without a direct aim of acquiring/learning new words" (Cennetkuşu et al., 2020, p. 2), i.e. "the vocabulary incorporated as the result of accomplishing another activity not aimed at vocabulary teaching/learning, specifically" (Agustín-Llach, 2015, p. 263). One of the models to overcome this problem is placing such lexical layers into a narrative of an edited or literary story, because stories always use authentic language, so the authors point out that storytelling enables conceptualisation of foreign language learning (Savić & Shin, 2013).

When it comes to phraseological units, there is also a methodological recommendation concerning mother tongue that idioms and other fixed linguistic expressions should not be studied out of context, and that "students need to be shown their function in real-life language use" (Стакић, 2020, p. 158). The general rule that should be followed when covering idioms, "to start from the child's experience in the use of idioms in everyday speech" (Николић, 2012, p. 61) is violated in second language learning, because children are lacking cultural experience on how an idiom is used in everyday speech. The lack of experience can be mitigated by the timely introduction of idioms in second language learning, making sure that they are taught in context, because context and consistency of exposure to such vocabulary and lexical compounds are necessary to expand the semantic range.

Radić-Bojanić (2011) points out that "the basic procedure in the teaching process is to raise student awareness of metaphor by drawing their attention to the fact that metaphors permeate language, i.e. that they are much more than a poetic mechanism" (p. 266). Hoang (2014) analyses various theoretical and research literature that deals with raising student awareness of metaphor and different ways in which it can be done, some of which include presenting vocabulary in metaphorical parts combined with the activation of student prior knowledge, comparing metaphors in the native and target language, instructing students on metaphoric awareness, etc., arguing that awareness-raising activities are more effective than rote learning activities. Raising awareness of metaphor as one of the mechanisms for achieving polysemy is significant, but it demands a certain level of cognitive maturity of students, and well-developed metaphoric awareness in their first, i.e., native language. This does not mean that metaphoric awareness does not develop in second language learning at an early age. Ana Maria Piquer Píriz (2008) points out that the early stages in language learning are important for establishing a solid foundation for future development, and that in that period, students need explanations of the prototypical meanings of basic lexical items/units, because that way they will acquire the necessary basis for figurative extension.

Based on the results of previous research which show that analogical reasoning develops very early, and that children recognize, and even reproduce

metaphorical and metonymic expressions much earlier than previously thought, i.e. as early as the age of two in fact (Floyd et al., 2020), we believe that the continuous acquisition of different meanings of polysemous words and gradual introduction of idiomatic phrases in the vocabulary should start as early as possible in foreign language learning, while one of the possibilities to achieve that goal is through play.

## *Play as a Context-Making Instrument for the Acquisition of Polysemous Vocabulary and Idioms*

Play as a context-making instrument for the realisation of meanings of polysemous words and some idioms, whose individual components can help children to understand phraseological meaning, is not a spontaneous activity, but a planned methodological procedure. This form of play in teaching must be didactically shaped so as to "guide students down the path of knowledge and development" (Јоцић, 2007, p. 50) and designed so as to help students to achieve results in second language learning spontaneously, "without feeling the pressure of complex forms" (Јанковић и Цветковић, 2013, p. 36). In addition to its positive cognitive effects, play in native language learning releases students from "various psychological barriers that occur in the form of psychological or social obstacles (shyness, hesitance, prejudice, etc.)" (Јањић, 2008, p. 148), which may hinder the student's use of the vocabulary of a foreign language, so play should be applied in foreign language learning as well. When planning for play, it should be taken into account that its content and rules must adapt to all participants and that activities should be designed so as to challenge each participant to the very limits of their ability (Kamenov, 2006, p. 60). To create a context necessary for the acquisition of polysemous words and idioms, it is necessary to create games that allow players to fully immerse themselves into an imaginary situation and creatively process impressions by applying elements of previous experience, which requires games to be modelled so as to match student abilities. In the field of lexicology, the positive effects of such games are reflected in the fact that they not only help "increase one's vocabulary, but also one's ability to adequately use both literal and figurative meanings of words" (Стакић, 2016, p. 129). Through play, students spontaneously repeat polysemous words and expressions, expanding their semantic range, so the best language experience predictor is cumulative exposure to the school language (De Cat, 2019). The literature provides an example of an imagination game of storytelling where a story is built from sentences, but in such a way that a given word must be used in each sentence (Стакић, 2016). In order to guide the players toward potential semantic realisations of the given word, it is important to undertake emotional and mental preparation, so semantic branching can be

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presented through illustrations where each image or drawing is a visualisation of a concept created through semantic branching. The same author shows an example of polysemous branching of the lexeme *glava* (head) and how to prepare illustrations that will represent: *glava (head)* meaning a specific person; *glava (head)* meaning a part of the human or animal body; *glava (head)* meaning a part of an object (nail head); *glava (head)* of cabbage, lettuce, etc.; *glava (chapter)* as part of a book (Стакић, 2016, p. 133). Although this game is designed for enriching the vocabulary of preschool children, the same model can be modified to design games aimed at enriching and expanding the vocabulary in foreign language learning. Using illustrations is particularly important at an early age, because speech comprehension needs to be visually supported (Јанковић и Цветковић, 2013, p. 37), and the illustrations mentioned above are aimed at analogy reasoning which help students to understand "the meanings of semantic extensions" (Piquer Píriz, 2008, p. 235).

In addition to imagination games, it is also possible to organise various drama games, such as pantomime, role-play, and dramatization games. The advantage of drama games lies primarily in the fact that for students, acting is "both a game, and a creative challenge" (Маринковић, 2000, p. 103). Such activities encourage student collaboration and motivate them (Soler, 2020, p. 136), because they provide "meaningful contexts along with opportunities for communicative language" (Shmidt, 2015, p. 19). They "achieve contextualised situations similar to real ones" (Пајић, 2019, p. 2008) which are necessary for the acquisition of a second language, so drama activities have a "positive effect on the teaching and learning of intercultural communication" (Huong & Thảo, 2020, p. 10). They encourage student activity and attention (Nowakowska & De Dios Villanueva Roa, 2021), unite emotions and cognition (Zyoud, 2010), as well as "adaptability, fluency, and communicative competence" (Belliveau & Kim, 2013, p. 7). They are suitable for teaching students of different ages and different vocabulary, because they represent a "tool that involves all of the students interactively all of the class period" (Zyoud, 2010, p. 1), facilitating "vocabulary acquisition effectively and accurately in various contexts" (Alshraideh & Alahmdi, 2020, p. 41).

Pantomime as a drama game is played with body language and without words, providing students with the same opportunity that drama in general provides, "to express themselves verbally and with body language and is concerned with the pretend world" (Baykal et al., 2019, p. 366). The organisation of pantomime is preceded by cognitive preparation in which students are introduced to the literal and figurative meaning of the word the semantic range of which is extended in idioms in which the said word occurs as a component. To illustrate this, we will mention a few common expressions in Serbian in which the word *ruka* (hand) appears as a component. The sentence: *You got your hands dirty* can literally mean that one has got dirt on their hands, but it can also figuratively mean that they got involved in a dishonest or dishonourable activity. In addition,

the expression *my palm itches*, apart from its literal meaning, can also signify that a person expects material gain, that they intend to do something, or even pummel someone. It is up to the student-mime to choose one of the meanings, design a situation/scene to illustrate the chosen meaning, and act it out, i.e., present it with body language, while the other students, participants in the game, guess what the meaning is. The student, i.e., player who correctly guesses the meaning first will be rewarded by becoming the next actor-mime. This game can have different variations, e.g., all students can be given the same task to design and act out a scene using the same, predefined idiom, and discuss the context presented during the game and how it could play out in the real world afterwards. The advantage of such games is that they encourage students to use gestures from an early age and observe them when elaborating the meaning of figurative language, just as Hoang (2014) confirmed in his research when he discovered that gestures can serve as a powerful learning strategy, because a sophisticated comprehension of metaphors can be triggered by a simple gesture. Moreover, this type of play helps students to recognise circumstances in which they can use patterns for particular combinations of words, which is in line with Barlow and Kemmer's (2000) findings that someone learning a language does not need to learn all the meanings of the words in the language, but rather usage patterns for particular combination of words, appropriate for particular circumstances (as cited in: Piquer Píriz, 2008, p. 221; Barlow & Kemmer, 2000).

The context is what determines the meaning of the word, and the basis for designing role-playing games. Student pairs have a task to design a context and act out a communicative situation featuring an idiom or word in one of its meanings. We will illustrate the above with an example from Serbian, *to hold out one's hand*. We can hold out our hand to someone to shake hands, but the same expression also means to help someone (e.g. I will hold out my hand to get you out of that situation.), or to offer friendship or reconciliation (e.g. I will hold out my hand to him to overcome that problem together.). By contrasting two different scenes where the word *hand* occurs in its literal and one of its figurative meanings, students enrich their vocabulary in a creative and engaging way, because they design a communicative context which must culturally match the meaning they want to present. In addition, designing conversations is similar to script writing, where writing scripts encourages "student creativity and impacts their sense of confidence, because they have the opportunity to use the language they had already learnt" (Aldavero, 2008, p. 41).

It is also possible to design dramatization games for students to act out situations which illustrate inadequate uses of words or idioms. In reality, such situations can cause comic or unpleasant misunderstandings in communication due to one's failure to understand contextual meaning. We will illustrate the above with an example from Serbian, *to wave one's hand,* which can mean to greet someone, or represent a verbalisation of dismissal of someone or rejection of something.

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Essentially, such drama games and activities in foreign language learning help students to communicate with each other correctly and fluently, to become aware of the link between language and context, and to familiarise themselves with the particularities of the sociocultural environment of the language they are learning (Martín, 2014), i.e., to improve their lexical and intercultural competences. However, despite these benefits, "the importance of 'drama' in language learning was largely ignored" (Ronke, 2005, p. 35), though the results of some research on the implementation of drama techniques in language learning (Spanish as a foreign language) show that, although teachers find drama techniques effective and motivating, they do not use them often in the classroom, "because they feel constrained by the reality of educational practice" (Martín, 2014, p. 267).

## *Conclusion*

There is a difference between vocabulary size (number of words a student knows) and vocabulary depth (how much the student knows about each word) (Schmitt, 2014), so finding the most effective approach to foreign language teaching and learning is the subject of intensive debate among researchers (Agustín-Llach, 2015), because language proficiency depends both on vocabulary size and vocabulary depth (Maskor et al., 2016; Staehr, 2008). Acquisition and comprehension of polysemous words and idioms is important, because a significant number of "theoreticians see learning vocabulary, in the expanded sense of words and phrases, as being the key to attaining a high level of proficiency" (Boers & Lindstromberg, 2008, p. 4). However, the acquisition of such lexical layers in the early stages of language learning has long been neglected, because "figurative language has been traditionally associated with an advanced stage of cognitive development not found in children" (Piquer Píriz, 2008, p. 222). The paper explains the position that the acquisition of polysemous words, figurative meanings, and idioms should be started at an early age, i.e., in the very first stages of foreign language learning in order to ensure timeliness and perhaps overcome the problem mentioned by Tocaimaza-Hatch (2020) that language learners struggle to gain access to the metaphorical structures that are part of the target language and culture (p. 625). In addition, timeliness would allow for continuity in learning. There is also an opinion in literature that one-off learning is not enough to transform metaphoric awareness into a long-term learning strategy for future processing of figurative language, i.e., that a more comprehensive programme is needed to achieve this (Beréndi et al., 2008, p. 87). Therefore, different types of didactic games (exemplified in Serbian as the native language) are presented (imagination and drama games such as pantomime, role-play, and dramatization), which can encourage practitioners to create games of their own and which can be used in early foreign language

learning to create an authentic context for the acquisition and comprehension of polysemous words and idioms. They make the input intelligible, "as learners must be able to extract the meaning of the message contained in the input" (Benati, 2020, p. 61). Their advantage lies in the fact that they do not require complex didactic material. In addition, researchers point out that teachers often encounter a lack of vocabulary exercises in the didactic material, for example, when it comes to idiomatic expressions in foreign language learning (Spanish as L2) at intermediate, advanced, and proficiency level (Ковач, 2016).

Vocabulary building and enrichment is a continuous, never-ending process, even when it comes to one's mother tongue. Language learning is a challenge, because students are characterised by individual differences (Erlina et al., 2019, p. 2143), while the teacher's task is to adapt their teaching methods to each of them. This means that teachers need to recognise and respect differences among students, but also to enable each student to develop to their full potential, in line with their abilities. Therefore, the literature cannot provide ready-made and permanent methodological solutions that are effective in all circumstances and for all students, which is why the proposed didactic games are not presented as fixed methodological models. They are flexible, because they allow the teacher to modify them, change their rules, or create rules of their own. In addition, the duration of the proposed games is flexible, so they can fit into the structure of different activities and different parts of a school period, while their flexibility and variations allow them to be applied in continuity, and yet to remain fresh and interesting to students.

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*Opportunities and Challenges in Mastering Polysemous Words and Idioms in Foreign Language Learning Based on Analogous Procedures in the Native Language*

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Могућности и изазови у овладавању полисемичном
лексиком и фразеологизмима у учењу страног језика на
основу аналогних поступака у матерњем језику

### Резиме

У раду се указује на неке од потенцијалних проблема у учењу страних језика који могу настати током богаћења лексичког фонда полисемичним речима и фразеологизмима. Циљ је размотрити питање периода када треба започети са њиховим усвајањем у учењу другог језика и указати на неке од методичких могућности које омогућавају да се то реализује. Њихово усвајање захтева константност и континуираност у излагању оваквим лексичким слојевима, а разумевање – тумачење значења у контексту. Потребно је и благовремено започети са богаћењем лексичког фонда ученика оваквим лексичким слојевима. Та благовременост значи да усвајање овакве лексике и лексичких слојева ваља започети на раном узрасту ученика, у почетним фазама учења другог језика, а неки методички поступци, попут дидактички вођене игре, омогућавају да се то реализује. На примеру српског као матерњег језика представљене су различите врсте игара (игре маште и драмске игре: игре пантомиме, игре улога и игре драматизације) које могу послужити и за моделовање игара за учење страног језика и применити се у раду на богаћењу речника полисемичним речима и фразеологизмима и стварању аутентичног контекста који омогућава да ученици схвате пренесено значење у реалној језичкој употреби.

*Кључне речи:* учење језика; богаћење речника; полисемичне речи; српски језик; фразеологизми; игре маште и игре драматизације.

# POLYSEMY-RELATED PROBLEMS
# IN ESP STUDENTS – A CASE STUDY

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# POLYSEMY-RELATED PROBLEMS
# IN ESP STUDENTS – A CASE STUDY

*Abstract*. Detected as a problem in foreign language learning, polysemy has been a subject of many various studies and from many various aspects. The problem of polysemy is particularly important in English for Specific Purposes, or in our case English for Police Purposes, since it very often gets unnoticed by learners. Having learnt one meaning in a General English course, learners are usually unaware that the same word can have a new meaning in technical texts. The aim of the case study is to examine to what extent the students can recognize the senses of polysemous words in different contexts and if the level the particular meaning is associated with (according to the CEFR) influences the percentage of correct/incorrect answers. We used a questionnaire and a self-designed vocabulary test to collect the data both about the participants and their practical knowledge of polysemy. The study was conducted with a group of I-year students of Forensic Engineering at the University of Criminal Investigation and Police Studies. The results obtained should help improve the course of English for Police Purposes.

*Introduction*

Anyone learning a foreign language is well aware of the fact that learning new words is important and that it can present quite a challenge. As soon as we learn a meaning of a word, we come across that same word in another context and realize that the meaning we know does not fit, or that it simply does not make sense in that context. The new meaning of the already "familiar" word can be looked up in a dictionary, where we find a number of meanings for one item, whereas the meanings can be either similar or quite different. This could be the description of the first encounter with polysemy. Polysemy has been recognized as a significant problem in vocabulary learning, regardless of whether we are learning General English (GE) or English for Specific Purposes (ESP). It seems to be evasive category, since the words may have one or two meanings in General English, and other or several other meanings in various disciplines which are not classified as General English. The case study presented in this paper attempts to identify to what extent the students learning English for Police Purposes can differentiate between different meanings of polysemous words given to them in different contexts, in other words, if they can find the appropriate meaning of a given polysemous word in a given contexts, and if the meaning of a polysemous word associated with a particular level according to the CEFR influences the percentage of correct/incorrect answers.

*Previous Research on Polysemy*

In order to illustrate previous research on polysemy, we shall first present what it means, what the problems with research of polysemy are and why it is important for English for Specific Purposes, or in our case English for Police Purposes.

*Polysemy – general characteristics.* The word polysemy comes from Greek words *poly*, which means "many", and *sema*, which means "a sign" (The American Heritage Dictionary of the English Language, 2000). It actually refers to

the capacity of a sign or a word to have multiple related meanings, or multiple meanings which overlap to some degree.

It has been discussed by philosophers (as early as Aristotle, for instance), in psycholinguistics, computational and theoretical linguistics, pragmatics, psychology, philosophy of language and cognitive linguistics (Vicente & Falcum, 2017). Liao and Chang (2012) say that polysemy in second language teaching and learning is rarely researched, although language teachers and applied linguists acknowledge the importance of polysemy and understand the influence polysemous words can exert on second language reading.

*Polysemy and homonymy – similarities and differences.* Almost half a century ago, Lyons (1968, p. 405) said that "the 'ideal' language would be one in which each form had only one meaning, and each meaning was associated with only one form". In practice, we know that such an ideal language does not exist, and that due to changes in the world around us the vocabulary in languages changes faster than ever, most often by the process that the existing words are given new extended meanings. Thus, we come to the situation that one form can have several related or unrelated meanings. In theory, when one form has several related meanings, we are talking about polysemy (for instance, **article**, **blank**, **code**, etc.), and when one form has several unrelated meanings, we are talking about homonymy (for instance, **arm**, **bank**, **bar**, **bill**, etc.). Polysemy and homonymy based on the criteria of relatedness of meanings is difficult to establish, so Laufer (1997, p. 152) suggests that homonymy and polysemy should be regarded as one problem in language learning. That the two concepts are very often discussed in literature together is also supported by Cruise (2000), who classifies them both into the category of linguistic ambiguity. It is, however, distinct from homonymy, which refers to the words that have the same spelling or pronunciation (homophony), but have different and unrelated meanings. Klepousniotou et al. also notice (2008, p. 1534), that some authors have found differences between polysemy and homonymy (Frazier & Rayner, 1990, as cited in Klepousniotou et al., 2008), and others have found similarities (Klein & Murphy, 2001, as cited in Klepousniotou et al., 2008), and that polysemy is far more frequent in language than is homonymy, as almost any word can become polysemous and have its core meaning extended[3] (Copestake & Briscoe, 1995; Jackendoff, 2002; Murphy, 2002; Pustejovsky, 1995, as cited in Klepousniotou et al., 2008, p. 1534).

Even though the need exists, it is sometimes difficult to discern between the two concepts. This is why the two most often mentioned criteria to differentiate

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[3] Dash (2010) says that the study of polysemy of a language has often been associated with the study of homonymy because distinction between the two has not often been very clear. However, he underlines that there is a need to draw a clear line of distinction between the two, because these forms differ from each other not only in their nature, but also in function and implication.

between polysemy and homonymy are etymology or the history of the word and if the meanings are related (Lyons, 1995). Therefore, it is often necessary to refer to the history of some word to see if the two meanings are historically related. In dictionaries, it is common to find polysemes under the same headword, while homonyms are entered as separate headwords, very often with different numbers (for instance, *bat*[1] or *bat*[2]). Palmer (1981, p. 102) also confirms that the decisions on how to enter a word into a dictionary, either as a polyseme or a homonym, are made based on etymology. If it is established that the identical forms are of different origin, then they are treated as homonyms, and are entered as separate headwords.[4] If the different forms are of the same origin, even if they have different meaning, they are treated as polysemy and are entered into the dictionary under one headword.[5] Mohan Raj et al. (2021, p. 141), however, warn that words become lost in etymology, and what once was a useful distinction of meaning may no longer be so. In this brief discussion, it can be seen that the first problem is related to the definition and classification of polysemy.

*Vocabulary learning and polysemy – possible problems.* Many researchers have noticed the problems of vocabulary learning, and in particular the problems related to polysemy in vocabulary learning. Laufer (1997, p. 152), for instance, argues that empirical evidence is available to illustrate learners' difficulties with homonymy and polysemy. Bensoussan and Laufer (1984) found that the largest number of errors in comprehension of words was induced by words with multiple meanings, and they found that learners who were familiar

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[4] *mole*[1] – 1. A small permanent spot on the skin; a birthmark 2. A stain or spot, as in garment; *mole*[2] – A small, insectivorous mammal (family *Talpidae*) with velvety fur, minute eyes, and very broad forefeet adapted for digging and forming extensive excavations; *mole*[3] – A jetty or breakwater, partially enclosing an anchorage or harbour; *mole*[4] – A morbid mass formed in the womb by the degeneration of the partly developed ovum, and giving rise to false pregnancy: also spelled *mola*; *mole*[5] – See MOL – *Chem*. The gram-molecule (Webster Comprehensive Dictionary, Vol. 2, 1977, p. 820).

[5] *range*, *n*. 1. The area over which anything moves, operates, or is distributed. 2. *U.S.* An extensive tract of land over which cattle, sheep, etc., roam and graze. 3. *U.S.* Pasturage; grazing ground. 4. *Bot. & Zool.* The geographical are throughout which a specific plant or animal exists. 5. The extent or scope of something: the whole *range* of politics. 6. The extent to which any power can be made effective: *range* of vision […]. 7. The extent of variation of anything: the temperature *range*. 8. The extent of possible variation in pitch: said of musical instruments or the voice. 9. A line, row, or series, as of mountains. 10. *U.S.* A row of townships, each six miles square, numbered east or west from a base meridian. 11. *Rare* Rank; order. 12. The horizontal distance between a gun and its target. 13. The horizontal distance covered by a projectile. 14. A place for shooting at a mark: a rifle *range*. 15. In archery, the number of ends shot at each given distance […]. 16. A large cooking stove for conducting several cooking operations at one time. 17. Stat. The inclusive difference between the extreme values in any series of variable data […] (Webster Comprehensive Dictionary, Vol. 2, 1977, p. 1044).

with one of the meanings of a polyseme/homonym did not abandon this meaning even though it did not make any sense in context. Thornbury (2002, p. 28) noticed that words with multiple meanings can be troublesome for learners, because having learned one meaning of the word, they may be reluctant to accept a second, totally different, meaning. He also described the polysemous nature of English vocabulary as a challenge to dictionary compilers, but also a complete headache for learners (Thornbury, 2002, p. 9).

In further illustration of variety of research of polysemy, we would mention Elston-Güttler and Williams's (2008) study which investigated the influence of the first language (L1) lexicalization patterns on the processing of the second language (L2) words in sentential contexts by advanced German learners of English, and they found out that the first language polysemy affected the second language meaning interpretation. Among the most recent research of polysemy, we would single out Ozturk's study (2018, p. 83), who investigated the acquisition of noun polysemy in English by EFL learners, in particular the differences among three types of senses (core vs. metonymical vs. metaphorical). She noticed that multiple meanings are even more widespread among high frequency vocabulary which is generally seen as more important to learn in a foreign language. Ozturk (2018, p. 83) mentions that her 2016 research has shown that 95% of the words from the most frequent 3,000 words of English had more than one meaning and it went up to 100% among the most frequent 1,000 words. Multiple meanings might also become a major challenge in reading authentic text (Ozturk, 2018, p. 84).

*Polysemy and learning ESP – possible problems.* The problems related to polysemy are even more pronounced in case of learning English for Specific Purposes (ESP), or in our case English for Police Purposes (EPP). Researching the problems that the learners of English language face, it has become clear that difficulties of ESP learners go beyond technical vocabulary. Technical vocabulary is an integral part of subject learning (Bravo & Cervetti, 2009; Woodward-Kron, 2008). Ha & Hyland (2017, p. 2) say that technical vocabulary is important in EAP classes (we would add here in ESP classes also), as it helps learners develop their subject knowledge and they further specify that a word with only one entry in a general/specialised dictionary or with the same entry in a general and a specialised dictionary is regarded as monosemous. In fact, it seems that learners acquire technical vocabulary more easily, particularly if they are familiar with the particular field in their mother tongue. The greatest problem is the vocabulary or words which have one meaning in General English and extended or new meanings in ESP. This is the category of words defined by some authors as sub-technical (Cowan, 1974; Baker, 1988, p. 91), or semi-technical (Trimble, 1985, p. 130; Farrell, 1990), or non-technical (Chung & Nation, 2003), in other words what we call polysemous words in this paper. They are often unnoticed

by both learners and teachers, as the former assume they have already learned their meaning, and the latter assume that learners would ask for additional explanation in case they have noticed that something is odd in the relevant sentence or text. Understanding may also be impeded by limited vocabulary knowledge particularly in authentic/technical texts. The additional problem is that EFL/ESP learners, although they may be aware of polyvalence in their own language, are often unaware of polysemy in the new language they are learning. In his doctoral thesis, Parent (2009) says that he is sometimes struck by the fact that learners are well aware of polysemy and homonymy in their first language but generally fail to find candidacy for it during problematic junctures in their second language. To be sure, they know it exists, and many low proficiency learners can even name a few L2 homonyms, but the ability to suspect lexical polyvalence, as Laufer (1997) has claimed, is often surprisingly unavailable.

In the previous research on homonymy and polysemy in English for Police Purposes, Mićović (2012, p. 45) discussed the findings related to new meanings a word gets over time. Namely, it is logical to expect that the older meaning of a word would be better known than the new one. This is what we have, for instance with ***bug***, where the meaning related to English for Police Purposes (a concealed microphone) originated later in time (1949) (Etymonline, n.d.). However, there were other quite the opposite examples, where the oldest meaning was less known, while the extended meaning which came later in time is better known today. Such an example is ***magazine***, which today is most known probably in its meaning of "a journal". The oldest meaning of this word dates back to 1580s, meaning "a warehouse, place for storing goods, especially military ammunition", and today it is almost obsolete. The meaning of "periodical journal containing miscellaneous writings" dates from the publication of the first one, *Gentleman's Magazine*, in 1731, while the meanings of "cartridge chamber in a repeating rifle" and that of "a case in which a supply of cartridges is carried" respectively date back in late 19th century (Etymonline, n.d.).

There is also a study of Xia (2020), who analysed the polysemy in English for Science and Technology (EST) translation. The author analysed the internal and external causes of polysemy in EST translation from the perspective of translation practice, noticing that with the continuous development of science and technology one word appears often in different disciplines (for instance, ***cell*** or ***reaction***). Nevertheless, people think that the meaning of one word remains the same, and in EST translation the context can also affect the accuracy of meaning and the consistency of the translation. Finally, Vardidze (2020) investigated the effectiveness of teaching polysemous nouns through his own innovative method that he called Similarity-Based Approach (SBA) and compared it to the translation-based vocabulary instruction method (TBM).

## *Material and Methods*

Prompted by findings of the authors mentioned earlier in the paper, in particular those by Parent (2009), Mićović (2012; 2020), and Xia (2020), we have decided to conduct this quantitative case study, with the aim of examining how our students deal with polysemy.

For this purpose, we have formulated the following research questions:

1. To what extent do our students recognize the meaning of polysemous words in different contexts?
2. Does the level the particular meaning/sense is associated with (according to the CEFR) influence the percentage of correct/incorrect answers?

The data were collected using a questionnaire and a vocabulary test. The questionnaire was used to establish how long the students had been learning English language and which secondary school they completed, while the vocabulary test was used to check the knowledge of core and additional meanings of selected polysemic words. The data were processed by counting and given as percentages in Table 2 below.

*Sample.* The research was conducted at the University of Criminal Investigation and Police Studies in Belgrade with 35 students of the first year of undergraduate studies of Forensic Engineering, who attended the course English Language I. The students volunteered to participate in the research. The data were collected at the beginning of two academic years respectively, in October 2018 and October 2019.

The students in Serbia are supposed to have a B2 level[6] of English language proficiency when they finish secondary school. This level is estimated based on the number of years of learning English as a Foreign Language in elementary and high schools in Serbia, which ranges from 10 to 12 years depending on whether they started to learn English as a Foreign Language in the first or in the third grade of elementary school. Various high schools select various course books, but they all finish the fourth grade of high school with a B2 level course book. This is also confirmed by Danilović and Grujić (2014, p. 205) as well as by Danilović-Jeremić (2015, p. 92), who confirm in their study that "the students had spent between eight and ten years learning English in elementary school and high school. Their level of proficiency in English was estimated as B2 (according to

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[6] It is very difficult to estimate the vocabulary size of our sample without testing, and the data found at different sources also vary as to how many words should be known for every level. According to Thornbury (2002, p. 21), students aiming to pass the Cambridge First Certificate Examination (FCE) should probably aim to understand at least 5,000 words. The Vocabulary size at different Common European Framework Levels (CEFR) is as follows: A1< 1,500 words; A2 – 1,500–2,500; B1 – 2,500–3,250; B2 – 3,250–3,750; C1 – 3,750–4,500; C2 – 4,500–5,000 (Milton, 2011, p. 224).

the Common European Framework of Reference)". However, speaking from the experience, the actual level of knowledge in most cases is lower, and regardless of the fact that the number of years of learning English as a foreign language is rather similar the students still differ a lot in terms of their knowledge. This claim would need to be investigated further, but in the previous research by Mićović (2020) on influence of vocabulary size on reading comprehension of ESP texts, the author established that the sample of research differed quite a lot, as the number of years they had been learning EFL ranged between 8 and 12, while the number of words they had learned ranged between 2,000 and 10,100 based on the Vocabulary Size Test by Nation (Nation & Beglar, 2007).

In the case of our sample, all the respondents learned English during their education prior to enrolment, and the number of years ranged from four (only two students) to thirteen. However, the majority of students were in the category of those who learned English for 12 years (26 or 74.29%) (Table 1).

Table 1. Structure of the sample

| Type of secondary school | Number of students | Number of years of learning English |
|---|---|---|
| Grammar school | 2 | 13 |
| Grammar school | 18 | 12 |
| Vocational school (Medical, Chemical, Music) | 8 | 12 |
| Grammar school | 1 | 10 |
| Vocational school (Medical, Chemical, Music) | 2 | 9 |
| Vocational school (Medical, Chemical, Music) | 2 | 8 |
| Vocational school (Medical, Chemical, Music) | 2 | 4 |

*Research instruments.* Two instruments were used to collect the data for this study, a questionnaire and a self-designed vocabulary test. The questionnaire consisted of two open-ended questions and it was used to get the basic details on the respondents. The first question was "How long have you been learning English?" and the second one was "What type of secondary school have you completed before enrolling at the University? (grammar school or vocational secondary school)".

The vocabulary test we used can be classified as diagnostic (Schmitt, 2000, p. 164), in terms that it was used to "diagnose" the knowledge of core and non-core meanings of words in our respondents. The purpose of this "diagnosis" was to get new insight in the overall knowledge of our students and the results were expected to help improve the English for Police Purposes course in the future.

The words selected to be tested are rather common, which with the exception of lexeme *bug* are included in the General Service List (GSL) published by Michael West (1953), which originally included about 2,000 important vocabulary words,

as well as in the New General Service List (NGSL), which was developed sixty years later by Dr Charles Browne, Dr Brent Culligan, and Joseph Phillips and it now contains 2,284 words. These words are thought to be of greatest 'general' use to learners of English (Browne, 2013). As said earlier, Ozturk (2018, p. 83) confirmed that 95% of the words from the most frequent 3,000 words of English had more than one meaning. The words we have selected also appear in the English for Police Purposes lessons that would be taught during the course.

Some items are given in two different meanings, some in three or four. The meanings were illustrated in a sentence, starting from the meaning which is supposed to be acquired earlier and then followed by the meanings which are supposed to be acquired later. Here is an example of one of the items on the test: the word *solution* is defined in Cambridge Dictionary (Cambridge Dictionary, n.d.) primarily as "the answer to a problem" and secondarily as "a liquid into which a solid has been mixed and has dissolved". Thus, when *solution* means "the answer to a problem", Cambridge Dictionary associates it to a B1 level of English and it represents the first sense of the word which users of English will think of, but, when *solution* means "a liquid", the dictionary signals the fact that solution is a specialized term from chemistry which is likely to be acquired later. Consequently, *solution* is a polyseme as it stands for these two various meanings which are meant to be learnt at different levels of English and for different purpose (Valcea, 2019).

The test used in this case study included 10 items given in 24 sentences illustrating both their core and non-core meanings. The respondents were asked to give a precise translation only of the term given in italic. The items that were chosen included the words that the students were supposed to have come across during the previous education and therefore were familiar with, and at the same time the words that were used in the texts the students would be taught during the semester. Here is the example of one item in the test:

> *search*
> 1. After a long *search*, they eventually found the missing papers.
>    – Nakon duge ____ konačno su pronašli dokumenta koja nedostaju.
> 2. The police carried out a thorough *search* of the suspect, but they – failed to find any drugs.
>    – Policija je izvršila detaljan ____ osumnjičenog, ali nije uspela da nađe drogu.

The examples and the explanations we use in the text and a related table were taken from online edition of Cambridge Dictionary (Cambridge Dictionary, n.d.), except in case of the noun *hair*, the explanation of which is taken from Wiktionary. The words selected to be tested in this case study are the following nouns: ***state***, ***solution***, ***servant***, ***office***, ***home***, ***power***, ***hair***, ***plant***, ***bug*** and ***search***.

## Results and Discussion

The results of the test are given in Table 2, which also contains the explanation what meaning was used in a sentence, and what level of Common European Framework of Reference (CEFR) for languages the meaning is associated with. For some meanings, the level was not specified in the dictionary. Our discussion was supported by the information about the selected items from the online edition of Cambridge Dictionary (Cambridge Dictionary n.d.) as well as from Online Etymology Dictionary (Etymonline, n.d.).

Table 2. Items and their meanings used in the test

| Item | CEFR level | Correct (%) | Incorrect (%) |
|---|---|---|---|
| *state*, a condition or way of being that exists at a particular time | B2 | 94.28% | 5.72% |
| *state*, a country or its government | C1 | 77.14% | 22.86% |
| *solution*, the answer to a problem | B1 | 100% | 0 % |
| *solution*, a liquid in which other substances have been mixed and dissolved | chemistry | 11.43% | 88.57% |
| *servant*, a person who is employed in another person's house, doing jobs such as cooking and cleaning, especially in the past | B2 | 45.71% | 54.29% |
| *servant*, a person who works for the government | B2 | 48.57% | 51.43% |
| *office*, a room or part of a building in which people work, especially sitting at tables with computers, phones, etc., usually as a part of a business or other organizationwhich people work, especially sitting at tables with computers, phones, etc., usually as a part of a business or other organization | A2 | 94.28% | 5.72% |
| *office*, a place where you can go to ask advice from or receive treatment from a doctor or dentist | A2 | 62.86% | 37.14% |
| HOME, the house, apartment, etc. where you live, especially with your family | A1 | 100% | 0 % |
| *home*, connected with or done in your own country | Not available | 91.43% | 8.57% |
| *power*, the amount of political control a person or group has in a country | C1 | 68.57% | 31.43% |
| *power*, strength | C1 | 71.43% | 28.57 |
| *power*, authority | C1 | 2.86% | 97.14% |
| *hair*, [U], the collection or mass of such growths growing from the skin of humans and animals, and forming a covering for a part of the head or for any part or the whole body | A1 | 100% | 0% |
| *hair*, [C], a pigmented filament of keratin which grows from a follicle on the skin of humans and other mammals | A1 | 80% | 20% |

| | | | |
|---|---|---|---|
| *plant*, a living thing that grows in earth, in water, or on other plants, usually has a stem, leaves, roots, and flowers, and produces seeds | A1 | 77.14% | 22.86% |
| *plant*, a factory in which a particular product is made or power is produced | Business English | 25.71% | 74.29% |
| *plant*, something illegal or stolen that has been put secretly in a person's clothing or among the things that belong to them to make them seem guilty of a crime | Not available | 11.43% | 88.57% |
| *bug*, a very small insect | B1 | 91.43% | 8.57% |
| *bug*, an illness that is usually not serious and is caused by bacteria or a virus | B2 | 82.86% | 17.14% |
| *bug*, a mistake or problem in a computer program | B2, IT | 68.57% | 31.43% |
| *bug*, a very small device fixed on to a phone or hidden in a room, that allows you to listen to what people are saying without them knowing | Not available[7] | 65.71% | 34.29 |
| *search*, an attempt to find someone or something | B1 | 88.57% | 11.43% |
| *search*, a careful examination of a place or a person in order to find something or someone | B1 | 68.57% | 31.43% |

If the results are interpreted with reference to the CEFR level the meaning is associated with, it can be seen that the words selected to be tested range from level A1 to level C1, that some meanings are associated not with the level but with the particular profession, such as chemistry or business, while for some meanings such information is unavailable. The correct answers for A1 meanings range from 100 % to 77.14%, for A2 from 94.28% to 62.86%, for B1 from 100% to 68.57%, for B2 from 94.28% to 45.57 and for C1 from 77.14% to 2.86%. As it can be seen, the percentage of correct answers tends to decline from level A1 to level C1. However, when the meaning tested is related to a certain profession, such as chemistry or business, the percentage of correct answers drops significantly to 11.43% and 25.71% respectively.

The results also suggest that in majority examples the first meaning did not present a problem for the students. In all cases, except in case of *servant*, the correct results ranged from 68.57 to 100%. In case of both meanings of *servant*, the answers were divided almost equally, but still slightly in favour of incorrect answers (54.29% and 51.43%), or we can say that less than a half of respondents provided correct answers in both cases (45.71% and 48.57% respectively). However, it seems that those who knew the first meaning also knew the second one. The explanation might be that the second meaning is rather close to the first one ("a person who is employed to do work for another person" (Cambridge Dictionary, n.d.)), so it was not difficult to provide a correct answer.

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[7] Although Cambridge Dictionary which we used for reference does not associate this meaning to any particular profession, we can say that this meaning can be associated to police vocabulary.

When other meanings are observed, the situation is quite different. The results suggest that these meanings did present a problem to a varying degree. The greatest percentage of incorrect answers were given in case of *power* in the senses of "authority" (97.14%), for *solution* when its meaning is associated with chemistry (88.57%) and *plant* when its meaning is associated with Business English (74.29%). As far as the senses related to chemistry and Business English are concerned, these findings are consistent with the studies by Cassels & Johnstone (1985) and Johnstone (1991), who argue that in a content area like science, where distinctions between every day and scientific meanings of words may be particularly salient the students consistently experience difficulties in recognizing the correct scientific usage of words that have distinct every day and scientific meanings (e.g., *random*). White (2016) argues that the language of science gives meaning to words in context which differs from their everyday (English) meanings. If familiar words obtain unfamiliar meanings due to the changed context, learners fail to understand the accepted meaning of these words. The everyday context that learners use to conceptualise concepts is mostly inadequate to reach the conceptual understanding shared by the scientific community.

If we refer to etymology in order to find the possible explanation for the above results, in case of lexeme *state*, the students seemed to be more familiar with its first and older meaning (according to the dictionary of etymology (Etymonline, n.d.)) than with the second meaning, but the difference in correct answers is not significant. In case of *solution*, students also seemed to be more familiar (100%) with the first meaning which is older and dates back from the 14th century (Etymonline, n.d.) than with the newer and more specific meaning, associated with chemistry. This result was a little bit surprising, taking into account that the majority of respondents had chemistry as a part of their high school curriculum (as they completed either a grammar school where the natural sciences were predominant or some of vocational high schools, such as medical high school or high school for dental technicians). From this point of view, it could be expected that they were familiar with the "chemical" meaning of the lexeme *solution*, but it turned out that the majority of the answers were incorrect (88.57%).

Lexeme *home* seems not to present problem to the students, yielding the high percentage of correct answers in both senses (100% and 91.43%).

In case of lexemes *office* and *bug*, the percentage of correct answers depended on the meaning in that results differed for almost one third. Although there is not a significant difference in two meanings of *office* in English, what makes it difficult is that there are two different translations into Serbian, the first one being more general (*kancelarija*), and this one did not present a problem for the students as 94.28% provided correct answers, while the second one required another word (*ordinacija*), and yielded less correct answers (62.86%).

Similar results are obtained for lexeme *bug*, the percentage of correct answers decreasing (as noticed before) with the level the particular meaning is associated with (B1 to B2 to IT to police profession), a significant drop being recorded for the fourth meaning which is considered related to police profession (from 91.43% to 65.71%).

Very interesting results come for lexeme *hair*. Here we actually have an example of count/non-count polysemy (Huddleston & Pullum, 2002, p. 336). As Huddlestone and Pullum (2002, p. 336) notice, "in some cases, the existence of paired count and non-count senses is entirely predictable, so that it is not necessary for a dictionary to list both: one can be inferred from the other". This is exactly the case with the Cambridge Dictionary, which offers the description of the uncountable meaning only: "the mass of thin thread-like structures on the head of a person, or any of these structures that grow out of the skin of a person or animal". This is why we had to look for the meaning of *hair* as a countable noun in another dictionary. Both meanings are given in the above table. The grammatical similarity with Serbian language is rather high. Although Serbian does not classify nouns as countable or uncountable, it does have a category of mass nouns, and in English this category is actually the same category as the category of uncountable nouns – it is defined as a noun without a plural form or a noun that cannot be counted (also known as non-countable or non-count noun). There are several translations of this noun available in Serbian, which depends on whether it is a common or mass noun. As a common noun, the meaning will correspond to the meaning of a countable noun in English, and it can be translated as *dlaka* (more general, and may refer to all types of hair on the human body, as well as the hairs coming from various animals) or *vlas* (more specific, referring only to those hairs on the human scalp). As a mass noun, the meaning will correspond to the meaning of an uncountable noun in English, and it can be translated as *kosa* in case of humans, or *dlaka* in case of animals (where it is synonymous with *krzno*, or *fur* in English). And here is where the problem is detected. The first meaning of *hair* as uncountable noun is the meaning for which 100% students provided the correct translation. However, when it comes to the second meaning of *hair* as a countable noun, 80% students provided the correct answers and 20% provided the incorrect answers. They used the same translation as in the first sentence (*kosa*), which is wrong since in this context humans and animals cannot be treated in the same manner.

The case with lexeme *power* seems to be somewhat different. It is given in three different meanings and each of these meanings has a different translation into Serbian. However, the hardest seems to be the third meaning. If we compare the three examples, the correct answers for the first and the second meaning of *power* are similar (68.57% and 71.43% respectively). In other words, the majority of respondents are familiar with these two meanings. As for the third meaning, which we would associate with English for Police Purposes, only one respondent

provided a correct answer while all the others used one of the previous two meanings, or provided incorrect answers (97.14%). As for the CEFR level, all three meanings are associated with C1 level (Cambridge Dictionary, n.d.), so the explanation for high percentage of incorrect answers for the third meaning cannot be there. It is the same with etymology, since the meaning of power as "legal power or authority; authorization", is given as the extension of the original meaning of "ability; ability to act or do; strength, vigor, might". A possible explanation that can support such high percentage of incorrect answers is that the respondents are not familiar with the appropriate translation in Serbian – *ovlašćenje* – since in Serbian it is most often used in legal discourse, they still may not be familiar with. In most cases the incorrect answers were *moć* or *snaga*. Another possible explanation might be that the more information about the context were required, which is consistent with the findings of Alnamer's (2017) study, who stated that it could be inferred that when more information about a context is provided, the context becomes more understandable, and the meaning of a polysemous word more accessible. According to Alnamer (2017, p. 119) this result also supports Kim and Choe's (2015, as cited in Alnamer, 2017, p. 119) suggestion that differences in second-language learners' knowledge can be measured not only by how many individual meanings they have memorised, but also by their ability to use contextual clues.

As for the lexeme *plant*, the first meaning seemed not to present a problem as the two extended meanings. According to the dictionary of etymology (Etymonline, n.d.), the first meaning of "any small vegetable life, vegetation generally" is recorded by 1550s. Most extended meanings, such as the second meaning given in the test, are from the verb, on the notion of "something planted", such as "construction for an industrial process," from 1789, at first with reference to the machinery, tools, apparatus, etc., later also the building; also slang meaning "a spy" (1812). The third meaning is not explained, but it is most probably derived also from the verb *plant*, meaning "to put something in a particular place". This meaning was also a problem to our respondents, as there were only four correct answers (11.43%) and 31 incorrect answers (88.57%). Perhaps, in this example the problem is that there is not a direct translation into Serbian, i. e. in this meaning noun *plant* does not have an exact match in Serbian but has to be translated with some form of the verb *plant* (for instance, one possibility is *podmetnuto*). Therefore, the errors or incorrect answers in this case may be explained by the lack of the corresponding term in Serbian.

The last item on the test, the lexeme *search*, was given in two slightly different meanings, but the second one yielded more incorrect answers. Although the first sentence illustrated quite a general meaning, and the second one was more police-related, in both cases the respondents seemed to be more familiar with the term *search* used in the context of information science (e.g., Google search), and they were inclined to translate it incorrectly as *pretraga, pretraživanje*.

According to the dictionary of etymology, and this came as a surprise, the second meaning is rather old. Namely, search as "a right to investigate illegal activity" is from early 15th century (Etymonline, n.d.). Both meanings are associated with B1 level according to the CEFR (Cambridge Dictionary, n.d.). There were more correct answers in the first example of *search* than in the second, but it was obvious that the incorrect answers the respondents provided were either *pretraga* or *pretraživanje*.

The results of the present case study suggest great similarity to the findings of a few previous studies. According to Bensoussan and Laufer (1984), polysemous words elicited the largest number of errors in the comprehension of words by EFL learners, and their performance was worse on guessing the meanings of these words than on guessing the meanings of other words. Laufer (1997), as said earlier, stated that EFL learners are reluctant to abandon the primary meaning even when it makes no sense in a context. The study revealed that the students faced difficulties in using the suitable equivalent in translating polysemous words. As Hulstijn and Laufer (2001) notice, even the advanced learners rarely knew all the meanings of a polysemous word. The results of the present case study are also similar to the results of Alnamer's (2017) study, which shows that the learners had no problems guessing the primary meaning of the English polysemous words, but they faced difficulty guessing the extended meanings of polysemous words in unusual contexts.

As it can be seen from the above, the results obtained in this case study do concur with the findings of the previous research by Bensoussan and Laufer (1984), Laufer (1997), Alnamer (2017), White (2016), as well as Cassels & Johnstone (1985) and Johnstone (1991).

## Conclusion

The present case study investigated the knowledge of core and non-core/extended meanings of the words used in both General English and English for Specific Purposes, in our case English for Police Purposes, in a group of students of Forensic Engineering.

It can be seen from the results that our respondents vary in their knowledge of polysemy, however, the first conclusion we make, which is also the answer to our first research question, is that the answers produced by our respondents regarding core and non-core (extended) meanings of polysemous words differ but they are very similar to the results of the previous studies (Bensoussan & Laufer, 1984; Laufer, 1997; Alnamer, 2017; White, 2016; Cassels & Johnstone, 1985; Johnstone, 1991). This is confirmed by their better results or higher percentage of correct answers related to core meanings (except in the case of noun *servant*). Our findings also support a part of the findings of previous research

by Ozturk (2018) (even though there are significant differences in her study and the present one), who investigated the acquisition of noun polysemy in English by EFL learners, focusing specifically on differences among three types of senses (core vs. metonymical vs. metaphorical). The results of her study indicated that core senses were known better than the corresponding extended senses and metonymical senses better than metaphorical senses.

We can also point out that two meanings seem to present a real problem for our respondents—*power* and *plant*, the former probably due to insufficient knowledge of legal vocabulary in Serbian and the latter due to the lack of direct translation into Serbian.

As for our second research question, the CEFT level the particular meaning of a polysemous word is associated with influences the percentage of correct answers in that the number of correct answers declines as the particular meaning is associated with a higher CEFR level. What has also been noticed is that whereas there is a moderate decline as we climb up the CEFR levels, there is quite a drop in correct answers when some meaning of a word is related with a certain profession (such as chemistry or business).

As for the future research, we must underline that this study was carried out at the beginning of the course English Language I as "a diagnosis of the students" knowledge of polysemy. It would certainly be interesting to repeat the testing at the end of the course English Language II (which follows the course English Language I, and both courses are held during the I year) to see if there are improvements in knowledge of polysemy after two courses, i.e., two semesters of learning and explicit teaching of English for Police Purposes.

Possible future solutions to the problem of polysemy in EPP learning could include the additional vocabulary exercises, which will deal with polysemic words or semi-technical words (if we refer to another classification mentioned earlier). It is clear that the current evidence does support the idea that the everyday meanings of scientific terms are a potential source of interference in meaning-making in scientific discourse (Osborne, 2002). Given that many words in science have both a specialized scientific meaning and a more common everyday meaning (e.g., *property*, *model*, *energy*, *force*, *charge*), Cerveti et el. (2015) say that it may be useful to target such words for additional instruction, perhaps highlighting differences between every day and scientific meanings. Therefore, the exercises should focus both on core and non-core meanings related with and significant for police profession specifically. Valcea (2019) argues that the senses of polysemous words can be easily taught by starting from the primary sense (which belongs to General English in most cases) and extending the meaning based on the features of GE word. She does not recommend gradual teaching of senses as it hinders a total grasp of the senses of a word. She finds polysemy a great way of working with vocabulary in an efficient way based on some connecting elements common to all/ some senses

of a word. Another way to improve the knowledge of both core and non-core meanings would be to include more reading of authentic technical texts, in which according to Ozturk (2018), multiple meanings might also become a major challenge. Technical texts are the best solution for any ESP course, and they can be used to test comprehension focusing not only on technical but on semi-technical words as well.

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## Проблеми са полисемијом код студената
## који уче енглески језик струке – студија случаја

### Резиме

Усвајање вокабулара приликом учења страног језика већ деценијама је у жижи интересовања многих истраживања. У оквиру тих истраживања, полисемија је препозната као посебни проблем у усвајању вокабулара. Дефинисана као појава када један облик речи има више повезаних значења, полисемија задаје главобољу и онима који уче општи енглески језик, али можда још више онима који уче енглески језик за неку одређену струку, где је овај проблем идентификован као проблем који превазилази учење стручног вокабулара. Наиме, ускостручни вокабулар углавном не представља проблем. Најчешће су то речи које имају одређено, специфично значење, које је онима који уче енглески језик за неку одређену струку лакше за усвајање уколико добро познају терминологију дате струке на матерњем језику. Проблем полисемије идентификован је као већи проблем, јер овакве речи могу да имају једно или два значења у општем енглеском језику, а друга или више других значења у различитим областима које не бисмо дефинисали увек као општи језик. Оно што још отежава ситуацију са савладавањем полисемије јесте чињеница да су они који уче страни језик, чак и у ситуацији када су свесни постојања полисемије у матерњем језику, склони да занемаре њено постојање у страном/ енглеском језику који уче, те да се, сходно томе, упорно држе оног значења речи које им је познато, одбијајући да усвоје неко друго (Parent, 2009).

У овом раду представићемо резултате студије случаја која је спроведена на Криминалистичко-полицијском универзитету у Београду са студентима прве године форензичког инжењерства. У првом делу рада дефинисан је укратко појам полисемије, а затим је дат и кратак преглед неких од истраживања, док је у другом делу рада представљено наше истраживање. Циљ истраживања био је да се утврди у којој мери студенти препознају различита значења полисемичних речи у различитим контекстима и да ли ниво према Заједничком европском референтном оквиру за језике са којим је одређено

значење повезано утиче на проценат тачних/нетачних одговора. У сврху прикупљања података, у истраживању су коришћена два инструмента. Први је био упитник којим су прикупљени основни подаци (дужина учења језика и врста завршене средње школе), а други је био тест сачињен за ово истраживање који се састојао од различитих значења истих речи датих у одговарајућим реченицама. Добијени резултати указују да студенти препознају и основна и пренесена значења речи, али у променљивом односу, што је потврђено вишим процентом тачних одговора када су у питању основна значења речи. Када је реч о томе да ли ниво са којим је одређено значење полисемичне речи повезано утиче на тачност одговора, можемо да констатујемо да проценат тачних одговора опада како расте ниво коме одређено значење речи припада (А1 до Ц1 према Заједничком европском референтном оквиру за језике), при чему је приметно да проценат тачних одговора више опада у случајевима када је нека реч повезана за одређеном струком (као на пример, хемија или пословни језик), него што је то случај са нивоом са којим се повезује одређено значење.

На основу резултата истраживања могуће је унапредити курс енглеског језика за полицијску струку и то тако што ће се увести већи број вежбања вокабулара који ће обухватити како основна тако и проширена значења речи, јер претходна истраживања указују (на пример, Valcea, 2019) да је боље истовремено учити сва значења него их давати појединачно. Поред тога, још један начин да се побоља знање различитих значења речи јесте сигурно и читање аутентичних стручних текстова, што је увек добар избор за сваки курс језика струке, на основу кога се касније може проверавати знање како основних тако и проширених значења речи.

*Кључне речи:* познавање вокабулара; полисемија; енглески језик за полицијску струку; основно значење; проширено значење.

# Literature

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# LONELINESS IN PHILIP K. DICK'S NOVEL *DO ANDROIDS DREAM OF ELECTRIC SHEEP?*

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# LONELINESS IN PHILIP K. DICK'S NOVEL
## *DO ANDROIDS DREAM OF ELECTRIC SHEEP?*

*Abstract.* The inhabitants of eerily desolated and bleak San Francisco in Philip K. Dick's novel *Do Androids Dream of Electric Sheep?* are all depressed, lonely, isolated, and alienated. The paper strives to analyze the characters of John Isidore, Rick and Iran Deckard, Pris Stratton, and Rachael Rosen, as well as the boundaries between the human and the android based on the notion of inverse parallelism—while humans program their emotions with mood organs and thus are becoming more similar to androids, androids yearn to possess human-like emotions and become humans. The paper argues that it is loneliness that is the prime driving force behind the process of inverse parallelism.

Over time, the definition of the word *loneliness* varied little in meaning. Walter William Skeat in *An Etymological Dictionary of the English Language* (1888) cites several synonyms for the word *lone*: solitary, retired, and away from company.[2] For the word *alone*, Skeat (1888) offers one but essential definition: quite by oneself. *The Holy Bible* speaks about loneliness at the mere beginning. It says: "And the Lord God said, It is not good that the man should be alone; I will make him an help meet for him" (King James Bible, 1769/n.d., Gen. 2: 18). According to *The Holy Bible*, Adam was alone when he was in Eden and thus God created him a companion, his wife Eve, so that he could have someone to communicate, to spend the day, and share his life with. *The Holy Bible* thus emphasizes that a man, from the beginning of the world, was not created to be or to live alone.

The characters in Philip K. Dick's novel *Do Androids Dream of Electric Sheep?* (1968), both human and android—John Isidore, Rick and Iran Deckard, Pris Stratton, and Rachael Rosen—feel lonely, alienated and isolated, estranged one from another while struggling to survive in the world devastated by a global nuclear war. John Isidore detests his loneliness and, as a substitute to a relationship with others, watches television all the time. Rick Deckard, a bounty hunter, is preoccupied with hunting and retiring the six renegade androids. Rick's wife Iran, perhaps the saddest and loneliest of all the characters in the novel, finds solace and consolation in the regular use of the empathy box. Despite the fact that she is married to Rick and that they live together, they remain lonely. Rachael Rosen and Pris Stratton, androids whose lack of empathy is the only thing that differentiates them from humans, are forced to pretend that they are humans in a society that shows no mercy to their kind. In their difference, all androids seek ways to pass as humans and develop meaningful relationships with others.

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[2] The Oxford English Dictionary (2010) defines *loneliness* as "a feeling of being unhappy because you have no friends or people to talk to". The Macmillan English Dictionary (2007) offers a range of synonyms for the same word such as *isolation*, *solitude*, *alienation*, *desolation*, *seclusion*.

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In a postapocalyptic world facing "the disastrous effects of global war, ecological catastrophe, urban isolation, the loss of family and friends" (Vinci, 2014, p. 94), all the characters in the novel "must cope with personal and cultural wounds caused by severe physical isolation, psychological alienation, and consistent and pervasive practices of discrimination" (Vinci, 2014, p. 91). As noticed by Jakovljević (2015, pp. 94, 95, 171), the relationship between the humans and the androids in the novel is that of inverse parallelism—while humans program their emotions with mood organs and turn to virtual reality-like empathy boxes to escape the dismal reality and, as a consequence, become more automatized and more similar to androids, androids yearn to possess human-like emotions and they struggle to obtain freedom and thus become more like humans. We can argue here that it is loneliness, actually, that is the prime driving force that is behind this process leading to inverse parallelism.

## Isidore in the All-Consuming Void

John Isidore, an outcast damaged by radiation and abandoned by almost everyone is a 'chickenhead', a below-average human, condemned to a solitary life in an abandoned apartment building and forced to earn his living as a driver in a repair facility for artificial animals that masquerades as a pet hospital. He is described as one of those "occasional peculiar entities" (Dick, 2017, p. 16) who "lived alone in [a] deteriorating, blind building of a thousand uninhabited apartments, which like all its counterparts, fell, day by day, into greater entropic ruin" (Dick, 2017, p. 20). Isidore longs to be among humans, among living creatures, and to have someone he could speak, smile, cry or simply spend time with. The "masterful world-silence" (Dick, 2017, p. 20) around him is terrifying, alarming, and frightening because the world he lives in and everything in it is gradually withering, disintegrating, dying, and turning into kipple.[3] Desperately unhappy and alienated, he is severely depressed. In an aching void that his reality has been turning into, he has no one to turn to for consolation or comfort.

> "He wondered, then, if the others who had remained on Earth experienced the void this way. Or was it peculiar to his peculiar biological identity, a freak generated by his inept sensory apparatus?" (Dick, 2017, p. 20).

And yet, although not suitable for emigration to the off-world colonies, this "inept sensory apparatus" is perfectly capable of perceiving the all-consuming void that he cannot escape from, the deadly silence which encompasses his entire being and emerges "from every object within his range of vision, as if it—the silence—meant to supplant all things tangible" (Dick, 2017, p. 19). Although left alone in an empty building and in an apartment in which kipple

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[3] Kipple represents debris or rubbish which multiples without the human interference.

gradually and constantly builds up, Isidore has strong determination and desire to live and do something meaningful. At one point he says that it is always "better, perhaps, to turn the TV back on" (Dick, 2017, p. 20) and not listen to the silence which fills every room of his apartment and his entire being. It is better for him to merely listen to any voices there are on Earth then hear the deadly silence which threatened to eat him alive.

> "Isidore's TV is constantly turned on and the television actually determines his activities, it creates his attitudes, preoccupies his thoughts and it even affects his limited and controlled perception of the world. His TV set receives only one channel, broadcast and sponsored by the government that continually advertises emigration" (Jakovljević, 2015, p. 106).[4]

Television plays a major role in his life and Isidor's perception of reality is shaped by and limited to what this device has to offer, and this is, at the same time, everything and nothing. To Isidor, Buster Friendly, an always-on-air television presenter, is the most important person in the universe. With Buster Friendly on air almost all the time, Isidore feels that there is someone with him. However, he is not entirely aware that Buster might not be a real human being but a construct. Isidore listens to him regularly and desperately wants to believe in everything he says.

Television is not the only technical device that Isidor uses nor is it the most important one. While desperately yearning for love, friendship or companionship and while struggling to free himself off the burden of his own irregularity, Isidore often uses an empathy box for the emphatic connection (Jakovljević, 2015, p. 100). Alone for so long, John Isidore has found a way to deal with loneliness and to somehow find a will to live. He frequently uses an empathy box, a machine which allows people to connect and share emotions and feelings, through a process called fusion, during mental and spiritual identification with Wilbur Mercer, the central figure and a martyr of Mercerism, a widely accepted religion centred around the idea of empathy. Given the fact that he is "already operating in the borderland between hallucination and reality" (Hayles, 1999, p. 175), this machine, in addition to the TV, has become the centre of Isidore's life and the only thing that keeps him living and breathing.

Burton (2015, pp. 162, 163) indicated that by merging with Mercer and other users of empathy boxes, people not only get to experience suffering, but *shared* suffering. To the people who regularly connect, even this is better than loneliness. When speaking about it to his newly discovered neighbour Pris, Isidore is thrilled and enthusiastic to have met her, but also baffled to hear that she has no empathy box of her own.

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[4] All the quotations which originally are not in English have been translated by the author of this paper.

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"But an empathy box", he said, stammering in his excitement, "is the most personal possession you have! It's an extension of your body; it's the way you touch other humans, it's the way you stop being alone" (Dick, 2017, p. 62).

Everybody has their own box, it is personal and private, and it allows people to establish emotional communication and, if they feel alone, enjoy the company of others, or to distance themselves from the world around them. The empathy box is the way one *stops being alone.* As Hayles (1999) noticed, the moment "a human grasps the empathy box, his consciousness fuses with that of unknown and unnamed others" (p. 177). The box consoles, offers solace, and brings comfort to those who seek it. The contact with "unknown and un-named others", the faceless and depersonalized entities, creates the illusion of belonging—the illusion, because while connected, the user becomes yet another nameless and depersonalized entity.

### Iran and Rick – Together but Alone

Like Isidor, Iran Deckard faces the burden and unbearable weight of the all-consuming void that comes with silence. At one point she decides to turn off the television and, instead, to listen to the silence of the empty apartments in their building. She "heard the emptiness intellectually" but "didn't feel it" (Dick, 2017, p. 5). She was in a mood programmed with a mood organ—she was grateful that she and Rick could afford the device, but she felt that the "absence of life, not just in [their] building but everywhere" (Dick, 2017, p. 5) was not healthy, just as her lack of reaction was unhealthy. The Penfield mood organ, according to Burton (2015, p. 154) only functions on people who do not need it, as is the case with Iran whose mood is generally low.

Instead of choosing happiness or satisfaction as her temporary mood, Iran chooses despair which additionally aggravates her mental state. Rick is irritated to learn that she has done this on purpose. The life on Earth to her is so futile and pointless that she has lost the will to live. When talking about his wife, Rick says, "She has nothing to give me", and desperately cries, "[M]ost androids I've known have more vitality and desire to live than my wife" (Dick, 2017, p. 88). Rick thus feels deserted, abandoned, and perhaps even slightly betrayed by his wife and has to find a way to deal with all those emotions without her help. He wants his wife's love, approval, support, and connection whereas she is unable to reciprocate. This is the greatest irony of their relationship, for even though they have each other they remain lonely.

Rick hopelessly searches for some sort of a connection with his wife who time and again remains coldly indifferent toward him. Their union shows that even marriage is not enough to save people from isolation and alienation. In

spite of being married and living together, notices Jakovljević (2017a, p. 170), they remain lonely and need to programme their own emotions, which makes them frighteningly similar to androids.

> "Emotions turn into programmes which determine the way that people communicate, whether they will quarrel or not, in what sort of mood they will wake up or spend the day, or even whether or not they will want to watch television. They are incapable of controlling their own emotions, wishes, and needs while their feelings and moods have been radically reduced to reactions adjusted according to the number of the programme in the machine settings" (Jakovljević, 2015, p. 97).

Iran is the saddest and loneliest of all the characters in the novel. Isidore is lonely and desperate as well, but he at least seeks company and desires socialization desperately. Iran, however, does not. Her absent-mindedness and detachment from her everyday reality is so potent that it reduces her presence in her marital life and apartment to mere physical existence.

Iran spends most of her time at home, almost never encountering the outside world, and she is almost completely dependent upon the empathy box, much more than her husband. Nothing and nobody can help Iran deal with her sorrow and pain other than the empathy box. Iran often has a much stronger will to spend the day within the virtual reality of the empathy box than with her husband. The moment Iran grabs the handles of the empathy box, Rick becomes "conscious of her mental departure, conscious of his own aloneness" (Dick, 2017, p. 162).

Unlike his wife, who almost never leaves the safety of her home, Rick spends a lot of his time away from it, keeping himself occupied and engaged while searching and retiring the renegade Nexus-6 androids, the most advanced models of the kind. The money he obtains from his job as a bounty hunter serves for purchasing an animal which is something both he and Iran most desire. The feeling of rejection and the cold treatment from his wife have undoubtedly led Rick to seek solace somewhere else. While in his hunt for androids, he meets Rachael, one of the androids that work for the Rosen Association. Up to this point, Rick has perceived androids as creatures without any capability to feel, care or empathize.

His view towards the androids suddenly changes. As Burton (2015, p. 157) pointed out, Rick starts having feelings towards Rachael with whom be becomes sexually involved. Although she did not pass the empathy test, he himself conducted in the past, Rachael ceased "to be an inanimate object for Deckard" (Wheale, 1991, p. 300). The relationship with Rachael undoubtedly helps him forget, at least for a short period of time, about the loneliness within his marriage and estrangement from his wife. To Deckard, she is no longer a mere android but *almost* a human being, while the words uttered by detective Resch echo in his mind, that he should go to bed with an android first and then kill her.

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## Rachael and Pris – Lonely Androids

Both Rachael and Pris struggle to find their place in the world full of bounty hunters. They both feel estranged by their very nature—they are androids.

The very first time Deckard meets Rachael he administers the empathy test on her. A human is "a specialized category of being that has exclusive access to empathy" (Vinci, 2014, p. 92) and it is precisely the possession of empathy that differentiates them from androids. Rachael nearly passes the test and this questions the credibility of the test itself. If the test failed it would be almost impossible to differentiate between androids and humans. As Seed (2011, p. 61) noticed, Rick himself becomes reluctant to believe that all androids are non-human and he cannot distinguish them any longer. In his essay *The Android and the Human*, a discussion about the nature of androids, Dick wrote that they were no longer constructs with a "sinister purpose in mind", as in his early stories: "The constructs do not mimic humans; they are, in many deep ways, *actually* human already" (Dick, 1995, p. 185).

Rachael is one of the Nexus-6 androids with very few friends of her own. She works for the Rosen Association with a clear goal. Her job is to seduce bounty hunters so as to make them incapable of hunting and retiring other androids. Luba Luft, an android and one of her closest friends is killed by Rick, leaving Rachael even more alienated as she virtually becomes friendless and lonesome. Like all the other androids, she too is "ontologically and socially sealed off from the rest of dominant culture" (Vinci, 2014, p. 98) and she must fight for herself.

At one point she starts questioning her status as an android as she, in her own words, feels "something like" (Dick, 2017, p. 173) empathy towards Pris. Although she feels sorry for Pris as Rick plans to find and retire her, her empathy mainly stems from the fact that Pris is an android who not only looks like her but is completely identical to her. She fears that Rick might not be able to differentiate between them and that he might even kill her instead. The fear of replication, according to Seed (2011, p. 60), is the central subject of this novel. Rachael desperately cries: "Identification; there goes I" (Dick, 2017, p. 173). Her concern and panic come from the knowledge that she might not be real. As Vinci (2014, p. 99) noticed, Rachael now, being an android who feels for Pris, cannot identify herself as such as androids are supposed to be beings without any empathy at all. Apart from sympathizing with Pris, Hayles (1999, p. 173) pointed out that Rachael also cares about Rick and that her feelings toward him are only growing as the novel progresses. She is then neither an android nor a complete human which further complicates her identity for she can find no place of her own.

Pris, unlike Rachael, has lots of friends, or at least had them until bounty hunters found them all and killed. Vinci (2014) states the following:

"Pris has a community. She is indeed an individual among others. The trauma she articulates is the one that every human *should* be articulating: the historical loss of loved ones and the extraordinary loneliness and isolation that inevitably follow" (p. 99).

The problem she is dealing with is one entirely different from Rachael's. The root of her isolation comes from her loss of friends. Pris, unlike Rachael, is surrounded by friends or even casual acquaintances such as Isidore. While talking with Isidore about her friends, she cries: "If they are dead, then it really doesn't matter" (Dick, 2017, p. 137), which indicates that her friends mean everything to her. Pris has feelings and empathy for people around her which, like Rachael, places her into the category of "unrealized placement in the human/android hierarchy" given the fact that she is both "the human and the android" (Vinci, 2014, pp. 98, 99). Not only is she capable of sympathizing with her friends but she feels that life without them makes no sense and that a solitary life is no life whatsoever.

Pris, as an android, shares the feeling of aloneness with Rachael. All the androids in the novel "are excluded due to the fact that they are perceived as inauthentic, hence radically different, and thus dangerous and threatening to the integrity of humanity" (Jakovljević, 2017b, p. 120). At one point, Pris clearly and strongly articulates her innermost feelings and emotions as well as her deepest trauma. She cries: "The androids", she said, "are lonely too'" (Dick, 2017, p. 139). Androids, unlike humans, do not have access to the empathy box which might help them, if not to be happy then at least to feel less desolate. Animals are another thing cherished by humans that androids cannot have.

## Animals as Healers

Rick and Iran bought an animal, an electric sheep because they cannot afford a real one until Rick earns enough bounty money for it. Rick and his wife desperately desire to possess a real animal, an increasingly rare possession in a dying world. As both of them are disappointed with their marriage and with little or no hope to flee the Earth, an animal appears to be the only thing that is left to them. Since they have no money to buy a real animal, they have to settle with an electric one instead which offers a feeling of contentment as well as consolation. It also creates an illusion for the neighbours because it is important to keep up appearances—an animal that one possesses shows one's status. There is not a single child mentioned anywhere in the novel. "Animals have taken the place of children, as objects of human affection" (Jakovljević, 2017a, p. 174). The role of animals in the novel is of no small importance, since they indicate just how desolate the world is, and how desperate its future is, and how unhappy both

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Rick and Iran feel. Not being able to seek solace in each other's company, they search it in other things, or in their case, in an animal. They place all the love and affection they have upon the electric sheep which does not even reciprocate.

Animals indeed hold a prominent place in the novel. "Animals, evoking feeling in their owners and capable of feeling themselves, occupy the privileged position of fellow creatures whose lives, like human lives, are sacred" (Hayles, 1999, p. 175). Almost everybody in the novel has their own animal and those who do not are struggling to obtain one. Hadomi (1995, p. 96) pointed out that people's humanity in the novel is the experience of empathy and love not only towards other humans and androids, but to animals as well. The key to understanding the importance of having an animal lies in the fact that they help people deal with their melancholy and sadness successfully. At one point in the novel Rick asks Iran whether a real goat he has just acquired cures her depression as it certainly does his. Her answer that: "It certainly does cure my depression" (Dick, 2017, p. 158) confirms that animals have taken the roles of the healers, or have even become a powerful medicine which mitigates the feelings of depression whilst "enabling them to escape temporarily from the traumatic realities that surround them" (Vinci, 2014, p. 101). Vinci (2014, p. 101) also indicated that the goat they possess makes them look more human and more alive as they both share their innermost feelings and emotions. They need it almost desperately, both for their marriage to work and for their general welfare. The goat allows them to connect and bond and after a long time they seem to start successfully dealing with their loneliness, at least temporarily. Both of them feel overwhelming joy upon seeing it and Iran immediately wants others to feel it too, as it was not something that happens often. Iran wishes to share their joy with others via the empathy box. As Vinci observed,

> "While actual animals may be bought, sold, impregnated, and ignored, the pleasure derived from them must be shared with others as a further way to exploit the animals and replace isolation with simulacral notion of community" (Vinci, 2014, p. 101).

Animals therefore have somehow become crucial and almost necessary to cure alienation, isolation, and loneliness, and if not stop than slow down the humans' gradual descent into android existence as defined by Dick. According to Dick (1995), a human cannot be turned "into an android if that human is going to break laws every chance he gets. Androidization requires obedience, and, most of all, *predictability*" (p. 191). When isolated from the others and left alone, a human becomes easy to control, and predictable, "pounded down, manipulated, made into a means without one's knowledge and consent" (Dick, 1995, p. 191).

The novel presents "a kind of religion of animal-ownership in the surviving human population" (Wheale, 1991, p. 298) where almost everybody struggles to acquire the real one, which is becoming increasingly difficult, or even to find

one, which is a very special experience that has become almost impossible in the dystopian world that surrounds them.

Rickels (2009, p. 108) noted that androids see through people's attachment to animals and realize that they do not have equal rights to them nor to the bond they bring. Garland, one of the android inspectors at the police station, when talking about their life on Earth, admits the following:

> "It's a chance anyway, breaking free and coming here to Earth, where we're not even considered animals. Where every worm and wood louse is considered more desirable than all of us put together" (Dick, 2017, p. 113).

While animals have a privileged status in the novel, indicated Canavan and Link (2019, p. 442), androids are denied their basic rights. This is why Rachael pushes Rick's goat over the edge of the building, as an act of revenge. Not only do animals receive more love and respect from the humans than the androids, but there is no act that can more seriously hurt a human. When taken into consideration what animals mean to humans and how important they are, it is an act of defiance, an act of revenge, but also an act aimed to make Deckard feel more lonely, more predictable and, as a result, more like androids.

*Conclusion*

Androids are intruders, who are completely alienated from the world and who will forever remain this "hybrid figure—part human, part machine—whose very existence calls boundaries into question" (Hayles, 1999, p. 177). Dick blurred a clear distinction between androids and humans by showing that even authentic humans can become androids if they are forced or tricked to be obedient and predictable. To Dick, an android is not merely a machine which acts and looks like a human but also a fully controlled human being. If so, the supposedly clear distinctions between humans and androids disappear.

Androids and humans in *Do Androids Dream of Electric Sheep?* inspire to question these boundaries because androids tend to possess some human-like qualities, while humans often act as if they are androids. Pris, for example, "is the only character who attempts to mourn, to imagine the loss of connection to others, the dashes of silences in her statement demonstrates her inability to inhabit the fullness of her loss" (Vinci, 2014, p. 99). The loss of her dear friends, of Luba Luft, Roy, and Irmgard Baty, torments Pris so much that she feels utterly deserted without them. Unlike Isidore, who learns to manage on his own, at least for a while, until he meets Pris, androids endure a dreadful ordeal and cannot truly exist and survive without their android companions. They are regarded as machines by bounty hunters, but they are machines who "are becoming more human, so to speak—at least in the sense that, as Wiener

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indicated, some meaningful comparison exists between human and mechanical behavior" (Dick, 1995, p. 184).

Androids are entities, supposedly, without empathy, but one can notice that the human characters in the novel often appear to have no empathy and they become dependent on machines: television sets, empathy boxes, and electric animals. People have lost control over their feelings and emotions, which is why every human in the novel, as noticed by Jakovljević (2017b, p. 122) may be an android, a technological replica or a fully controlled and androidized human. Rick, who goes around murdering androids, seems not to care whether they are alive or not. He has mixed feelings about Rachael. "Either way, exposure to her compromises his humanity with a touch of androidism, a possibility brilliantly realized in *Do Androids Dream* through the intimation that Deckard himself may be an android" (Hayles, 1999, p. 178). If Deckard, the bounty hunter who is in charge of administering the empathy test, is an android then all the characters in the novel could also be androids, which further blurs the differences between androids and humans.

What all the humans and androids in the novel have in common and what they all desperately yearn for is the need to belong, to be surrounded by others of their kind, and not to be alone. This is perhaps best expressed by Isidore near the end of the novel:

> "You have to be with other people, he thought. In order to live at all. I mean, before they came here I could stand it, being alone in the building. But now it's changed. You can't go back, he thought. You can't go from people to non-people" (Dick, 2017, p. 188).

Loneliness is a state that is disastrous if one wants *to live at all.* For humans, it means that they will gradually become *non-people,* the predictable machines incapable of empathizing. For androids, the arrival on Earth is seen as a chance for a change from *non-people* to people, but all their efforts are in vain if they stay alone. Living with the constant fear that each of them might fall under the category of being insufficiently human, there is little or no hope that things might change because they all, both the androids and humans, remain desperately lonely. To belong, therefore, be it with androids or people, is of the utmost importance for the survival.

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Усамљеност у роману
*Сањају ли андроиди електричне овце?* Филипа К. Дика

Резиме

Становници напуштеног и суморног Сан Франциска у роману *Сањају ли андроиди електричне овце?* Филипа К. Дика јесу депресивни, усамљени, изоловани и отуђени. У раду смо тежили ка томе да анализирамо Џона Исидора, Рика и Ајрин Декард, Прис Стратон и Рејчел Розен, као и границе између човека и андроида које се базирају на појму инверзног паралелизма – док људи програмирају своја осећања уз помоћ уређаја за расположење и тако све више постају сличнији андроидима, андроиди жуде за тим да имају људска осећања и тако постану људи. Закључује се да је усамљеност заправо та која је главна покретачка снага која стоји иза инверзног паралелизма.

*Кључне речи*: Дик; усамљеност; људи; андроиди; емпатијска кутија; инверзни паралелизам; животиње.

# History

# GEORGE PACHYMERES
# ON KING MILUTIN'S BRIDES
# AND THE ROLE OF QUEEN HELEN

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# GEORGE PACHYMERES ON KING MILUTIN'S BRIDES
# AND THE ROLE OF QUEEN HELEN

*Abstract*. The importance of diplomatic marriages for position and politics of Serbian King Milutin found its significant place in the vast historical work of the learned Byzantine scholar George Pachymeres. Of particular significance is Pachymeres' information of the role and the influence of Milutin's mother, Queen Helen, which demonstrates her unique position within the Serbian ruling family, and his superb understanding of the relations within the Serbian royal family.

The learned George Pachymeres is one of the least studied, and at the same time, one of the most misunderstood Byzantine authors. His voluminous, detailed, and highly idiosyncratic historical work—bearing the somewhat metaphysical title *Compositions of Histories* (Συγγραφικῶν Ἱστοριῶν), which betrays his profound philosophical knowledge—represents a unique collection of information on internal Byzantine history, and on the relations of the empire with the Serbs and the Bulgarians in the last third of the thirteenth and the first eight years of the fourteenth century.[2] High dignitary of the clerical hierarchy of the patriarchal church of Saint Sophia in Constantinople (but not a monk), an expert in Roman/Byzantine law, a philosopher who owned, read, and commented on the works not only of Aristotle, but of Plato, as well, Pachymeres was the intellectual whose attitudes and worldview escape any narrow qualifications.

The same can be said of his peculiar historical work. Stretching over eight hundred pages in the modern edition, Pachymeres' *Compositions of Histories* defies narrow categorizations, providing unique information on the fight between the supporters of the policy of the union of the Churches with Rome, whose leader was the emperor Michael VIII Palaiologos, and their opponents within the restored Byzantine empire, and, not least important, on Constantinople's relation with its Balkan neighbors during the reigns of the same emperor, and the time of his son Andronikos II Palailogos, who had radically changed his father's policy toward Rome. In one aspect, however, George Pachymeres' specific attitudes have no match in Byzantine historiography—his detailed accounts of the empire's relations with the Serbian and Bulgarian states depict in an unmatched detail the close connections within the specific community of the Orthodox polities, established, nurtured, and strengthened in the aftermath of the Crusaders' capture of Constantinople in 1204 (Stanković, 2015, pp. 35–48; Stanković, 2016, pp. 89–100).

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[2] Critical edition of Pachymeres' historical work: *Pachymérès Georges*, *Relations historiques* I–IV, vol V (indices), ed. A. Failler, Paris: Les Belles Lettres, Institut français d'études byzantines, vol. I–II (1984), vol. III–IV (1999), vol. V (2000) in the series *Corpus fontium historiae Byzantinae 24/1–5*. All translations in English from Pachymeres' History are mine.

Pachymeres was almost unbelievably well informed about the minutiae of Byzantine diplomatic efforts to bring both the Serbs and the Bulgarians into alliance with Constantinople, and the accompanying negotiations between, in particular, Byzantium and Serbia, during the time of the supreme power of Serbian King Milutin (1282–1321).[3] A contemporary of Serbian King Milutin, George Pachymeres had his own sources who had provided him with details on the empire's long-term relations with King Milutin, one of whom was his life-long friend, despite his unionist policy, John Bekkos, who became a patriarch of Constantinople in 1275, half a decade after leading a diplomatic mission to Serbia, which had achieved a deal for the then young Serbian prince Milutin to become the emperor Michael VIII's son-in-law, and owing to that alliance, the heir of his father King Uroš in Serbia (Станковић, 2022, pp. 79–103).

The account of that diplomatic mission to the court of the future King Milutin's father in 1270 is but one unique piece of information conveyed by George Pachymeres in his historical work pertaining to the oftentimes complex, but almost always friendly and conflict-free relations between the Byzantine empire and the Kingdom of Serbia in the last third of the thirteenth century. Pachymeres was so well informed about the details of marital arrangements between Constantinople and its Balkan Orthodox neighbors that he must have had among his sources some of the highest placed officials closest to both the emperor Michael VIII and his son, Andronikos II Palaiologoi. If John Bekkos, for whom Pachymeres reserves the highest praise in his works despite the for-mer's acceptance of the unionist policy of Michael VIII, could be recognized as his source for the 1270 mission that launched then fifteen-year-old prince Milutin into the high politics of that time in the Orthodox Balkans dominated by the resurgent Byzantine empire, then his sources for the negotiations between now forty-five-year-old Serbian King Milutin and the emperor Andronikos II Palaiologos in 1298–1299 are not as easily discernible. George Pachymeres was, without a doubt, very well connected in the Byzantine capital, highly respected within the circle of Byzantine intellectuals who were close to the imperial court, but his sources remain obscure, and the quality of his information unrivaled in this, and not only in this, period of Byzantine history. Pachymeres' interests for the details of the empire's diplomacy and, in particular, his understanding of the importance of the empire's alliances with the Orthodox states in the Balkans, namely Serbia and Bulgaria, reveal in no uncertain terms his comprehension of the dominant political trends in the Europe and the Muslim world of his time. All the above position George Pachymeres as one of the most important, and

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[3] On Pachymeres' unique information on Bulgaria and the negotiations between the emperor Michael VIII Palaiologos and the Bulgarian tsar Constantine Tich, see: Stanković, 2012, pp. 127–138. On his account of the relations in Serbia see: Станковић & Ердељан, 2021; Станковић, 2022.

the most profound Byzantine thinkers of the post-1204 Byzantine, and wider Orthodox world.

Pachymeres' in-depth knowledge and understanding of the relationships and dealings between the Byzantine Empire and its Balkan neighbors showcase the importance of diplomatic marriages as the preferred tool of Byzantine diplomacy, stretching all the way back to the beginning of the twelfth century and the reign of the emperor Alexios I Komenos (Stanković, 2022). At the sunset of the thirteenth century, the marriage alliance with the leader of the Christian, and in particular, the Orthodox world, *the emperor of the Romans* (the Byzantine emperor) Andronikos II Palaiologos, was of the utmost importance for the position, and the realization of political goals of Serbian King Milutin: a) for his position within Serbia and the prevalence he would thus gain over his older brother Dragutin and b) for his rise in the hierarchy of the Christian rulers in the Orthodox Balkans and beyond. That is why Pachymeres' insistence on the importance of King Milutin's mother, Queen Helen, as a guarantor of the marriage union between her son and Emperor Andronikos II's five-year-old daughter Simonis is so significant, offering once again a unique piece of information into prolonged, sensitive, and not always easy negotiations between Constantinople and King Milutin, which would eventually enable the Serbian king to finally become the son-in-law of the emperor of the Romans (Станковић, 2022, pp. 181–211).

The importance of King Milutin's mother, Queen Helen, and her influence over her sons as late as the end of the thirteenth century, is evident from the unique intelligence conveyed by George Pachymeres.[4] In this long paragraph, Pachymeres summarizes the marital status of the Serbian king, already explained earlier in his work in greater detail, his previous unions, spicing his account

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[4] *Pachymérès*, IV/X.1, pp. 307–309: Βασιλεὺς μὲν γάρ, ἐπεὶ πόλλ᾽ ἄττα τὰ προσιστά- μενα τῷ συναλλάγματι κατεφαίνετο, τό τ᾽ ἐφ᾽ ὁρκωμοσίαις τὸν κράλην φρικταῖς τὴν τοῦ Τερτερῆ προσλαβέσθαι. τό τε νομίμως δοκεῖν συνεζεῦχθαι, ἥ τ᾽ ἀφηλικίωσις τῆς νεάνιδος καὶ τὸ φθάσαι τὸν Σέρβον τὴν τἀδελφοῦ Στεφάνου γυναικαδέλφην, εἴτ᾽ οὖν καὶ αὐτοῦ βα- σιλέως, τὴν τοῦ ῥηγὸς Οὐγγρίας κόρην, κατὰ χρείαν τοῖς τῆς Σερβίας τόποις ἐπιστᾶσαν καὶ τὰ μοναχικὰ ἠμφιεσμένην, πορνικῶς γνῶναι — ταῦτ᾽ εἰς ἓν συναγόμενα αὐτάρκη τῇ πράξει προσίστασθαι κατεφαίνοντο —, ὁ γοῦν βασιλεὺς διὰ ταῦτα. ἅμα μὲν τὰ πολλὰ θεραπεύων, ἅμα δέ γε καὶ λογιζόμενος ὡς, εἴ τι καὶ παρασπονδοίη ὁ κράλης ἐπὶ τοῖς συγκειμένοις αὐτῷ τε καὶ Τερτερῇ, οὐδὲν ἔσεῖται μῖσος τῇ ἐκκλησίᾳ, μὴ ἀνάγκην ἐχούσῃ καθ᾽ ἱερὰς τελετὰς διὰ τὴν ἀμιξίαν ἐκείνου μιμνήσκεσθαι, διὰ ταῦτα θαρρῶν οἷς ἐλογίζετο, οὔτ᾽ ἐκοινοῦτο τῷ πατριάρχῃ τὴν πρᾶξιν καὶ ὅλαις ὁρμαῖς ἐχώρει διαπραξόμενος τὸ συνάλλαγμα.

Πατριάρχης δ᾽ αὖθις ὑβριοπαθῶν ἴσως ὑπερφρονούμενος ἐν τοιούτοις οἷς καὶ μᾶλλον ἔδει τῆς αὐτοῦ γνώμης, δοκῶν δὲ καί τι λέγειν ἄξιον εἰς τὸ καὶ ἑαυτὸν δεικνύναι μετεῖναι τῶν τοιούτων οὐχ ἧττον, καίτοι γε καὶ τῶν ἐνοχῶν ἀνεὶς τὴν τοῦ κράλη μητέρα, ἀξιώσασαν πρότερον ἐφ᾽ οἷς ἐπὶ τῇ τοῦ Τερτερῆ ἐνείχετο, εὔλογα λέγειν ἐδόκει. Ὡς τοίνυν βασιλεὺς ἤδη εἰς τοῦτ᾽ ὄντα τὸν πατριάρχην, προῆγε τοῦτον εἰς Σηλυβρίαν, αὐτὸς ἐν Δριπείᾳ καὶ ἔτι παρακαθήμενος.

with the gossip about Milutin's second wife, the Hungarian princess Elizabeth, of whom the Serbian church supposedly disapproved. That Pachymeres' skewed account should be taken in this regard with the grain of salt is clear from the detailed analysis of this time, and in particular of the inter-connected kinship networks: for the long time, both Dragutin and Milutin, and the future emperor Andronikos II were married to three sisters, Hungarian princesses, Catherine, Elizabeth, and Anna respectively.[5] The novel information that Pachymeres conveys in this passage, however, relates to the role of Queen Helen, to her importance within Serbia, and to one of the main demands by the Byzantine side: that the Queen Mother gives her written permission for the planned marriage between her younger son and the Byzantine purple-born princes Simonis.

Pachymeres provides the crucial point of his understanding of the situation within the Kingdom of Serbia by the end of this paragraph. Mentioning that the patriarch of Constantinople was feeling sidelined from the entire process of negotiations, the author stresses the emperor Andronikos II's argument that the current negotiations will result in a lawful union once Queen Helen approves the arrangements, since the *Queen Mother had previously dignified the arrangement with the daughter of Terter with her consent.*

Two important conclusions should be drawn from Pachymeres' unique insight:

– first, that the main demand by the Byzantines was that Queen Helen accepted the new marriage alliance, and with it the new policy of her younger son Milutin, the one that would certainly lead him on the course of political collusion with the older brother Dragutin;

– and second, that Queen Helen gave her approval for the previous marriage of King Milutin in the summer of 1284, with Anna, the young, at the time no more than five-year-old daughter of the new and mighty emperor of Bulgaria, George Terter. As Ivan Božilov had shown, Anna Terter, the daughter of the Bulgarian emperor George Terter and his second wife Maria, was – at the most – five years old when she married then thirty-year-old Serbian King Milutin in 1284 (Божилов, 1985 / 1994², pp. 257–259).[6]

According to Pachymeres' passage quoted above, Queen Helen had played an important and 'honorable' role in the negotiations that led to Milutin's marriage alliance with Anna Terter in 1284, and was expected to do the same for the

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[5] Both Dragutin and Milutin were in that way brothers-in-law with Andronikos II Palaiologos between 1274/5, when Milutin married Elizabeth, while the future Byzantine emperor was married with the Hungarian princess Anna from 1272 until her death in 1281 (Станковић, 2022, pp. 79–103). By marrying Symonis in the spring of 1299, King Milutin will become the *beloved son-in-law* of his one-time brother-in-law, Emperor Andronikos II Palaiologos, see: Stanković, 2013, pp. 57–68.

[6] Божилов, 1995, no. 448, p. 354 determines the year 1279 as the *terminus post quem* for the birth of Anna Terter.

planned marriage of the Serbian king with the five-year-old princess Simonis, the daughter of Emperor Andronikos II Palaiologos. At the beginning of the negotiations, the Byzantines had actually demanded the physical presence of the Queen Helen at the official wedding ceremony and the accompanying celebrations, but King Milutin managed to wrangle out of that unpleasant obligation. The Byzantines needed and asked for Queen Helen's blessing in order to secure King Milutin's loyalty to his newest father-in-law, Emperor Andronikos II Palailologos, who was four or five years the experienced king's junior, and to the Byzantine imperial family, in general.

But even though they did not manage to obtain the official approval of Queen Helen, the Byzantines needed not worry about the Serbian king's loyalty in the wake of his marriage with Symonis, short time after Easter, April 19, 1299. Milutin cherished his new status as the emperor's son-in-law and did not only remain loyal to Andronikos II but had radically changed the status of Serbian Kingdom in Byzantine politics and ideology. As Emperor Andronikos II Palaiologos, together with his son and co-ruler Michael IX were eager to stress, Serbian king had with his marriage not only become the beloved son-in-law of the former, and the brother-in-law of the latter, but had also entered into *union* with the Byzantine emperor. And both his son Stefan and grandson Stefan Dušan benefited from that special status and exploited it for strengthening their own position, but they never again managed to reach an alliance between Serbia and Byzantium as close as the one that was established with the marriage of Milutin and Simonis in 1299.

Byzantine concession to Milutin regarding Queen Helen's presence at the official wedding ceremony was the only request from which the Byzantines have walked away relatively at the beginning of the months-long negotiations. Queen Helen's acceptance of the new marriage of her younger son Milutin was, on the other hand, for months the main condition of the Byzantine side, since her acceptance, and acquiescence to the marriage of Milutin to Simonis would, for all the practical purposes, confirm the new political balance in Serbia, in which Milutin would take official and undisputed prevalence over his older brother Dragutin and his offspring, in the first place Dragutin's son Vladislav, the designated heir of both his father's and his uncle Milutin's lands.

That the marriage and political alliance were forged despite the lack of the formal sanction by Queen Helen is the testimony that both sides fully realized the importance of the establishment of the new alliance. In official Byzantine documents, therefore, it was referred not as a simple alliance (συμμαχία), but a true *union* (ἕνωσις) between the emperor of the Romans, Andronikos II Palaiologos and the Serbian King Milutin (Станковић & Ердељан, 2021, pp. 68–73; Станковић, 2022, pp. 207–211). That is why this seemingly *off the record*, *en passant* mention of Queen Helen and her role in Milutin's marriage alliances with two young princesses, the Bulgarian Ana Terter in 1284 and

Simonis Palaiologina in 1299 is of utmost importance, showing the highest level of Pachymeres' first-hand knowledge of the intricacies and details of Byzantine imperial diplomacy, but confirming both the importance of the Serbian Queen Helen for the internal Serbian matter and her understanding of the radical political shifts that will occur with her younger son's absolute *union* with the emperor of the Romans in Constantinople.

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# Георгије Пахимер о невестама краља Милутина и улози краљице Јелене

## Резиме

Значај политичких бракова за положај и укупну политику српског краља Милутина заузима истакнуто место у обимном историјском делу ученог византијског писца, мислиоца и филозофа Георгија Пахимера. Од посебне важности је Пахимеров јединствени податак о позицији и улози Милутинове мајке, краљице Јелене, који потврђује њено специфично место у оквиру српске владајуће породице, уз синове Драгутина и Милутина, као и Пахимерово непревазиђено познавање односа унутар српског владајућег рода.

*Кључне речи*: краљ Милутин; Георгије Пахимер; краљица Јелена; политички бракови; Симонида; византијско-српски односи; *уједињење.*

# ORGANIZATION AND WORK OF THE ČAČAK COUNTY COURT IN THE 1840S

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# ORGANIZATION AND WORK OF THE ČAČAK COUNTY COURT IN THE 1840S

*Abstract*. The aim of the paper is to present the organization and work of the Čačak County Court in the 1840s. The source material used for the paper are the reports of the Ministry of Justice, with statistical data, and lists of officials with information about employees, as well as published official state data and the *List of ax heads, municipalities and conciliation courts in the Principality of Serbia* from 1839. Also, a comparison will be made in relation to other county courts in the country during the observed period. Basic data will be presented on the costs that were determined for this court and the amounts that were deposited within this court, as well as those that were kept in the name of the assets of persons under guardianship (so-called *pupilar masses*).

## Introduction

After the Constitution of 1838, the Serbian state took the first steps towards the introduction of the rule of law, when the first laws and decrees on the organization and work of the courts, court proceedings, were adopted and stemmed from the Constitution.[3] At the beginning, the problems that arose due to the lack of adequate regulations and laws, and adequate court personnel, quickly became apparent. This is when the first statistics and official data on the work of the courts in Serbia were created, as part of the reports of the Ministry of Justice to the State Council, the first of which was submitted in 1846.[4] It is important to investigate the years when the Serbian court system was formed, primarily on the example of the county courts, in order to see how the judicial power coped with challenges and problems, bringing solutions according to the needs of practice, on the fly, with the trials and errors that follow the each start.

Forced by the rebellion of Abdulah and Petar Dobrnjac in the Požarevac nāhiye, Prince Miloš established the first nāhiye court in Požarevac in 1821 (Јанковић, 1955, pp. 63–64; Поповић, 2021, p. 179). In 1823, Prince Miloš established nāhiye courts in Čačak, Jagodina, Smederevo, Valjevo, and Šabac. The Valjevo Court was established in May, the Šabac Court in August, and the others in November of the same year. In 1824, courts were established for Rudnik nāhiye in Brusnica, for Ćuprija nāhiye in Svilajnac, and Užice-Soko nāhiye in

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[3] *Привремено устројеније и круī делаīносīи īримириīелних судова* (17 / 29. 1839); *Усīројеније судова окружни* (26. 1 / 6. 2. 1840); *Усīројеније Великоīа или Аīелационоīа суда* (26. 1 / 6. 2. 1840); *Указ о оснивању Суда вароши беоīрадске* (10 / 22. 10. 1841); *Расīис Минисīарсīва īравде о доказима у кривичном īосīуīку* (11 / 23. 2. 1842); *Доīуниīелна īравила у смоīрењу суђења īо часīи īрађанској и криминалној* (19 / 31. 5. 1845); *Тумачење Доīуниīелних īравила из 1845. īодине* (20. 7 / 1. 8. 1846); *Усīројеније Врховноī суда* (9 / 21. 9. 1846); *Усīројеније Аīелационоī суда* (1 / 13. 11. 1846); *Полицијска уредба* (18 / 30. 5. 1850) (Поповић, 2016, p. 227–228).

[4] The first preserved such report is: *Извод рада Поīечиīељсīва īравосуђа за 1844. и 1845. īодину*, Државни архив Србије / National Archives of Serbia (=ДАС), Државни савет / The State Council (=ДС), 1846, № 458.

Užice. In the summer of 1826, the Court for the Kragujevac nāhiye was established in Kragujevac, and in October 1827, the Court for the Belgrade nāhiye was established with its headquarters in the village of Rogača. Each nāhiye court had two members, one scribe and two policemen (Петровић, 1901, p. 605; Поповић, 2021, p. 179). In 1833, nāhiye courts were established in Kruševac, Aleksinac, Banja, Knjaževac, Zaječar, and Negotin. The court from Svilajnac was transferred to Paraćin. The Soko Court was separated from the Užice Nāhiye Court and located in Rogačica for Soko, in Podrinje nāhiye (Петровић, 1901, p. 614; Поповић, 2021, p. 179).

The Constitution of 1838 provided for the Court of Appeal, as a court of second instance, and designated the then capital, Kragujevac, as its seat. The Court of Appeal was exclusively concerned with reviewing and adjudicating cases and lawsuits that had passed through the lower courts. By decree of March 1, 1839, the prince appointed the members of the Court of Appeal (Љушић, 1986, p. 239; Поповић, 2021, p. 179). In the local administration of the Principality, until the Constitution of 1838, the judicial power was not independent and intertwined with the police. This was particularly evident in the municipality and captaincy (districts, smaller administrative units within the county), and to a lesser extent in the nāhiye (counties) and *areas*, that consisted of several counties. The Constitution established three types of courts: in each municipality, a conciliation court, in each county one first instance court, and in the capital, one court of appeal. Twenty-one articles of the Constitution (Articles 27–48) are devoted to the judiciary, almost one third. The reason is the large lack of laws and regulations that would apply to the courts and the importance attached to judicial institutions in the Principality in the 1830s (Љушић, 1981a, pp. 118–119; Поповић, 2021, p. 179). There was another judicial power not foreseen by the Constitution (cassation), which was exercised by the prince outside the Constitution (Јовановић, 1933, p. 18; Поповић, 2021, p. 179).[5]

## Circumstances of the 1840s and Conciliation Courts in the County of Čačak

As already mentioned, the Nāhiye Court in Čačak, later the Čačak County Court, was founded in 1823 by Prince Miloš Obrenović. The Čačak County consisted of four districts: of Dragačevo, Karanovac, Studenica and Trnava (Гавриловић, [1846] 1994, pp. 214–215). In 1839, the conciliation courts in District of Dragačevo had their headquarters in the villages of Kaona, Dubac, Guberevac, Viča, Kotraža, Lisa, Rti, Guča, Tijanja, Markovica, Grab, Goračići, Dljin, Lisice,

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[5] About the Court of Cassation, see: Кулаузов, 2015, pp. 13–20; Поповић, 2016, pp. 29–30, 42.

Kape, Virovo, and Mirosaljci. In the same year, in the District of Studenica, conciliation courts were located in the following villages: Baljevac, Trnava, Bioci, Mlanča, Ušće, near the fountain of Mato, Đakovo, Maljin Dol, and Plešin. The seats of conciliation courts in Trnava District were in Pakovraća, Atenica, Trnava, Ježevica, Premeća, Lazac, Goričani, Slatina, Zablaće, and Čačak. The conciliation courts in the District of Karanovac were in Karanovac, Adran, Mrsać, Samail, Rađevica, Vrdila, Bogutovac, Konarevo, Kurilovo, Otrok, Vraneši, Podunavci, Vrba, Dragosinjci, Ratina, Kamenica, Kruševica, and Mataruga (Љушић, 19816, pp. 167–175). There were 17 conciliation courts in the District of Dragačevo, 9 in the District of Studenica, 10 in the Trnava, and 19 in the Karanovac District, a total of 55. There are testimonies about the purchase of a cross and a Gospel for the needs of the Magistrate in Čačak in 1838, since before that the oath was taken in front of a simple small icon (Перуничић, 1968, pp. 361–362).

During the reign of Prince Aleksandar Karađorđević and Constitutionalists, certain poor counties, which were sparsely populated and poorly connected to other parts of the Principality, were areas where instability reigned, especially border counties, far from the capital and institutions, such as counties of Užice, Čačak, Kruševac, and Crna Reka. From the spring of 1846, Boža Pavićević and his band of robbers sporadically attacked the Čačak region. Haiduk attacks increased in frequency and strength from 1848. For the Čačak Couty Court itself, the case is evidenced that one night in May, six chained criminals escaped from its prison, among whom three became bandits and fled to Austria, to fight with the Serbs from the other side of the border against the Hungarians. The frequency of banditry in the Užice and Čačak counties after 1848 led to the abandoning milder measures against banditry by the Constitutionalists. The Police Code of 1850 appeared, and in April 1850, a law against banditry, known as the Užice Law, was adopted, according to which every caught haiduk had to be handed over to the county court, which was to try him without delay and, if proven guilty, to sentence the haiduk to death and hand him over to the county head office for execution, which acted as a court of first instance. In June 1850, the effect of the Užice Law was extended to the Čačak County. As an example, we should mention the first-instance verdict of the Čačak District Court against the family of Ranko and Milenko Karadža, from October 1850, by which Ranko was sentenced to six and the other five haiduks to three years of imprisonment, including corporal punishment. The convicts had to compensate the state for the damage done, and the family of Ranko Karadzha had to be deported to another county. The Karadža family submitted a request to the Court of Conciliation not to expel them, which was submitted to the Čačak Municipality in January 1851, and the Court of Conciliation guaranteed the Karadža family, except for Ranko's house. Ranko Karadža and his comrades escaped from prison in March of the same year, and in May, Ranko was found and killed. In July 1851, when Ranko was already dead, the Court of Appeal decided to reduce his corporal

punishment, but he was sentenced to 12 years of imprisonment in heavy iron. His comrades received a double sentence, i.e., six years of hard prison. In July, the Supreme Court sentenced Ranko to 12 years in prison and the 'dead whip', while his comrades were released from prison and were supposed to be released after serving corporal punishment (Милосављевић, 2009, pp. 118–136).[6]

## The Staff of the Čačak County Court in the 1840s

According to the published official state data, in the period 1839–1850, the presidents of the Čačak County Court were Miloš Tajsić, Dimitrije Madžarević, Teodor Božić, Petar Radovanović, Todor Bojanić, Stanisav Stefanović, Ilija Momirović, again Miloš Tajsić, Milenko Đorđević, and Mijailo Georgijević. The members of the Court were Dimitrije Madžarević, Vasa Simić, Mijailo Radojević Samailac, Marko Lazarević, Gile Crpčanin, Stevan Erić, Kosta Čolak-Antić, Gaja Krstić, Sreten Jevtić, Vasa Gligorijević, Jevtimije Vesović, Rista Babović, and Andrija Stamenković. The duties of court secretary were carried out by Jelisija Paunović, Jovan Peruničić, Dimitrije Milosavljević, Marinko Radovanović, Jevtimije Vesović, Hristofer Petrović, Simeon Simić, and Stevan Dinić. The post of scribe was held by Petar Jovanović, Dimitrije Milosavljević, Dimitrije Ilić, Jevtimije Vasić, Petar Janošević, again Jevtimije Vasić, Simeon Simić, and Sima Mihajlović, while the post of junior scribe was held by Sima Atanasijević, Sima Simić, Milovan Pantelić, Rista Petrović, Lazar Rašković, Krsta Nikolajević, and Stevan Petrović. The *practicioners* (interns) were Sima Maksimović, Dimitrije Stanić, Milutin Ostojić, Dimitrije Ilić, Stefan Stanić, Simeon Maksimović, Milosav Stanojević, Jovan Milosavljević, Ljubomir Gavrilović, Lazar Aranđelović, Alimpije Popović, Rista Spasojević, and Marko Đorđević (Поповић, 1999, pp. 185–186).

The Commission for the Improvement of Civil Judicial Proceedings from 1845 concluded that the courts were overburdened due to the inexperience of judges and the small number of court personnel, and recommended an increase in the personnel of the courts, which were grumbling in front of a large number of cases. Among them was the Ćuprija County Court, and a scribe was added to it. A scribe was added to the Belgrade City Court and to the county courts of Belgrade, Šabac, Čačak, and Smederevo. Another *Head of the Table* of the Court of Appeal was also added. The county courts of Valjevo, Kragujevac, Jagodina, Crna Reka, Aleksinac, and Gurgusovac worked poorly due to the inexperience of the staff (Станковић, 2013, pp. 156–157; Поповић, 2021, pp. 181–182).

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[6] See: Љушић, 1985, pp. 73–100; Пејин, 1986, pp. 77–98; Пејин, 1989, pp. 29–81; Мацаревић, 1990, pp. 27–77; Мацаревић, 1991, pp. 28–87; Мацаревић, 1995, pp. 7–34; Милосављевић, 2006, pp. 5–51; Милосављевић, 2007, pp. 5–49; Милосављевић, 2014, pp. 39–64; Милосављевић, 2016; Милосављевић, 2017.

Before we present the conduit list data from the report of the Ministry of Justice for 1844, stored in the archival fund of the State Council in the National Archives of Serbia, it should be recalled that, according to the published official state data, the president of the Court in 1844 was Stanisav Stefanović, appointed on April 15 of the same year, before that this duty was performed by Todor Bojanić, since 1842 (Поповић, 1999, p. 185).

Stefan Erić, 53 years old, in excellent health, served as a member of the Čačak County Court. He was married, had three children, and was born in Viča, in the District of Dragačevo, in March 1792. From 1805 to 1813, he was a *buljubasha*, then he served in various professions, as a district elder and a member of the Krajina County Court. During his service, he received five wounds fighting for the liberation of his homeland from the enemy, in the battles near Brza Palanka, Pazar, Dubalj, and Čačak. He became a member of the Čačak County Court in December 1842. He could read and write a little, was familiar with calculus, as well. It was not known how he performed his duties before, since the former president of the court Bojanić did not provide data for Erić's conduit list. In the last few months, he proved himself as accurate enough in the execution of official duties, he was of good nature and behavior during that period and there were no bad remarks on that issue. The new President of the Court was not yet sufficiently familiar with Erić's capabilities. Erić was still in the process of trial regarding the criminal case and it was not known whether he would be able to avoid guilt.[7]

Another member of the Court was Gile Crpčanin, a 38-year-old man in perfect health. He was born in Novi Pazar and had five children. He served as a member of the Čačak County Court from September 24, 1842. He did not know how to read and write; he showed good ability in judging. In recent months, he had shown that he performed official duties quite well and had good governance.[8]

The third member of the Court was Gaja Krstić, 45 years old, who suffered from back pain. He was married, had three children, and was born in Jarmenovci in the County of Rudnik in 1800. From 1842, he was a temporary member of the Užice County Court, and in 1844, he became a member of the Čačak County Court. He knew very little to read and write and it did not help him even for his own purposes, he had weak abilities in judging. Sometimes he showed disobedience to his superior during the very session of the Court.[9]

The Secretary of the Court was Marinko Radovanović, 32 years old, married, with two children, from the village of Bogatić, in the District of Mačva, which was within the Šabac County. From 1831, he was an intern for three years

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[7] ДАС, ДС, рол. бр. 132, № 458/1846.

[8] Ibid.

[9] Ibid.

and scribe of the Šabac County Court for five years, secretary of the mayor's office for one year, head of the Ministry of Internal Affairs for two years. Due to the popular uprising in 1842, he was out of office for nine months. He graduated from normal schools in Požarevac and was of good abilities, punctual in the execution of official duties, good natured and good at governing himself.[10]

The duty of scribe of the Court was performed by Petar Janošević, 27 years old and healthy, unmarried, born in the village of Vlaški Dol in the District of Morava, within Požarevac County. From 1833, he was first an unpaid, then a paid intern at the Court of the Požarevac County, then the scribe of the Administrative Princely Economy and Military Commissariat in Požarevac, the scribe of the Aleksinac Quarantine, within the Municipality of the Požarevac County, the secretary of the Municipality of the Kragujevac County, and he was deprived of that duty in 1842. In 1843, he was appointed temporary assistant of the County Court of Ćuprija, and from 1844 he was the scribe of the Čačak County Court. He graduated from normal schools in Požarevac and was of good abilities, punctual in the execution of official duties, good natured and good at governing himself.[11] The position of assistant scribe of the Court was held by Jevtimije Vasić, 34 years old, married, father of two children, born in Užice. From 1834, he was an office employee at the Serbian All-People's Court, a scribe at the Court of the Čačak County and the Court of the Užice County. He was transferred to the Ministry of Justice; he was the secretary of the Consistory of the Eparchy of Užice in Čačak. In 1842, he was not deprived of his service. He finished normal schools and then continued his education in Šabac. He had good abilities, completed his official duties punctually, had good manners and character, and deserved promotion to a higher position.[12]

The intern at the Court was Milisav Stanojević, about 20 years old, born in Rgotina, in the District of Vražogrnci, within the County of Crna Reka. From 1843 to 1844, he served without pay at the Court of the County of Crna Reka. He finished high school and was of weak abilities, calm nature, and good behavior. The second intern was Jovan Milosavljević, 26 years old. He was born in the village of Godović in the District of Studenica, within the County of Čačak, he was married and had a son. In September 1840, he became a teacher in Mala Rača in the District of Rača in the Užice County, then he served as a temporary notary at the Consistory of the Diocese of Užice. He graduated from the Gymnasium in Kragujevac and the clerical school in Belgrade. Since he had been in the service of the Court for a short time, his ability could not be estimated, nor his character, and his governance and performance of duties were exemplary.[13]

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[10] Ibid.

[11] Ibid.

[12] Ibid.

[13] Ibid.

It can be noted that the members of the Court were poorly educated people with an experience in civil service. The secretary, scribes, and interns were more educated, having completed normal schools and, in some cases, grammar schools, meaning that they were able to perform their duties and perform daily tasks. Almost all employees were born and educated in Serbia or Turkey, were originally from, worked and performed duties in Čačak, neighboring and even distant counties. Several of them were dismissed during the 1842 rebellion. Since the Čačak County was far from the capital and on the border, it is possible that people with weaker abilities or who were replaced earlier in the service were sent there, so that they would be marginalized and less potential danger to the state. From the words of the president of the Čačak County Court that his predecessor did not leave a conduit list and that there are not many testimonials about the previous abilities of the employees, as well as from certain poor ratings of the staff, the quality of the staff of the Court can be doubted.

## Statistics of the Čačak County Court in the 1840s

Statistical data on the work of the Čačak County Court in the 1840s were not the subject of a specific research. In the monograph *Istorija Čačka: hronologija od praistorije do 2000. godine* (History of Čačak: Chronology from Prehistory to the Year 2000) one can find basic information about the court personnel, while in the collection of documents *Čačak and Gornji Milanovac*, edited by Branko Peruničić, there are certain documents about the nature of the litigations that were conducted in this court (Davidović & Pavlović, 2009, pp. 127, 134; Перуничић, 1968, pp. 443, 447, 453, 457, 558). For the understanding of the Serbian judicial organization, under which jurisdiction was also the Court of the Čačak County, the doctoral dissertation of Miroslav Popović, *Judiciary in the Principality of Serbia (1838–1869): organization and basics of judicial proceedings*, is important (Поповић, 2016). The data used in this part of the paper are based on archival materials stored in the National Archives of Serbia. The archival fund County Court in Čačak (1834–1918) is preserved in the Inter-Municipal Historical Archive in Čačak, but, unfortunately, only one document has been preserved for the observed period, which is not important for the given topic.

In this part of the paper, data will be analyzed concerning the nature of the cases that were conducted in this court. Also, a comparison will be made in relation to other county courts in the country during the observed period. Basic data will be presented on the costs that were determined for this court and the amounts that were deposited within this court, as well as those that were kept in the name of the assets of persons under guardianship (so-called *pupilar masses*).

Graph 1. The number of criminal offenses adjudicated at the Court of Appeal, the Court of the City of Belgrade, county, extraordinary and martial courts in 1844[14]
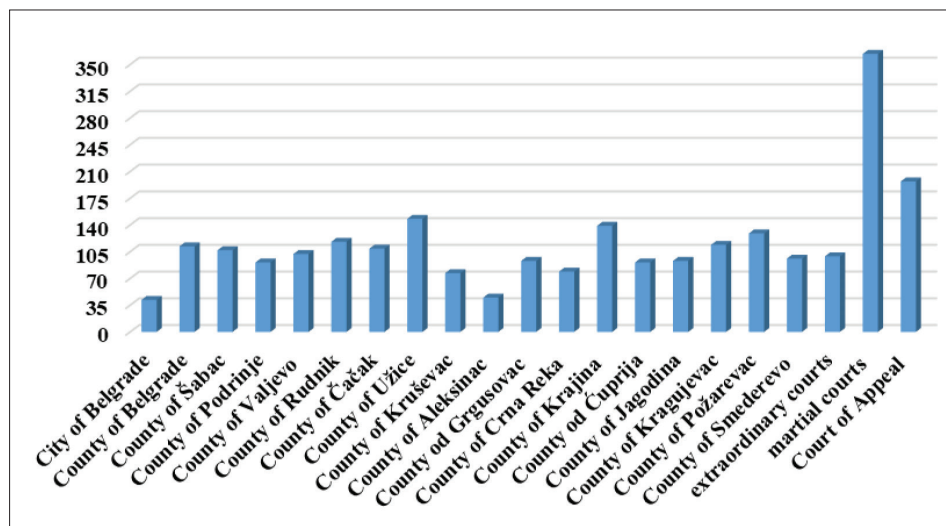


With 109 adjudicated criminal offenses, the Čačak County Court was in the middle category in terms of the number of adjudicated criminal offenses in 1844, while the highest number of criminal offenses recorded in the regular courts was in the Užice and Krajina county courts. By far the largest number of adjudicated criminal offenses were conducted in the martial courts, since the Catan Rebellion took place that year, for which a martial court was formed and operated.

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Graph 2. Structure of adjudicated criminal offenses at the Court of the Čačak County
    in 1844[15]
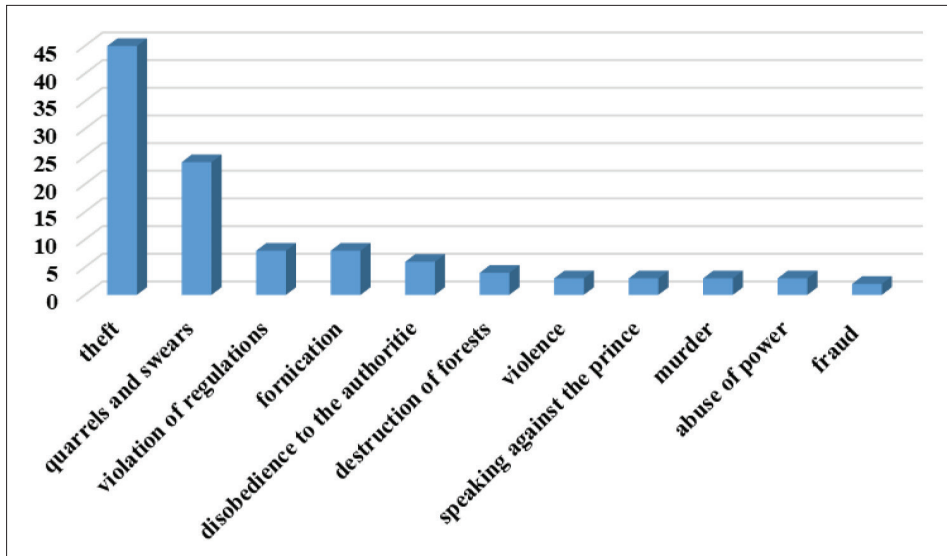


Criminal acts included murder, theft, fornication, quarrels and swearing, speaking against the prince and the state, arson, cordon violations, violence, defamation, damage, abuse of power, sodomy, false lawsuits and testimony in court, fraud, violation of regulations, disobedience to the authorities, rebellion. Of the above-mentioned criminal offenses that were resolved in the courts in 1844, most of them were the subject of court proceedings in the Court of the Čačak County. More than half of the solved crimes were those about theft, quarrels and swearing. Fornication and violation of regulations each accounted for 7.3% of the total number of crimes. With three cases each of murder, speech against the prince and the state, violence and abuse of power, these acts accounted for 11% of the total number of criminal cases. Frauds that were the subject of two court proceedings accounted for the smallest number.[16]

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[15] ДАС, ДС, рол. бр. 132, № 458/1846, *Извод свих криминалних ѝарница и кри-*
*вичних дела од 1. јануара до 31. децембра 1844. године*; Поповић, 2016, p. 86.

[16] Theft took 41.3%, quarrels and swearing 22%, disobedience to the authorities 5.5%, destruction of forests 3.7%, violence, speaking against the prince and the state, murders and abuse of power 2.8% each and frauds 1.8% of the whole number of adjudicated criminal offences in 1844.

Graph 3. The number of unsolved criminal offenses at the Court of Appeal, the Court of the City of Belgrade, the county, and the martial courts in 1844[17]
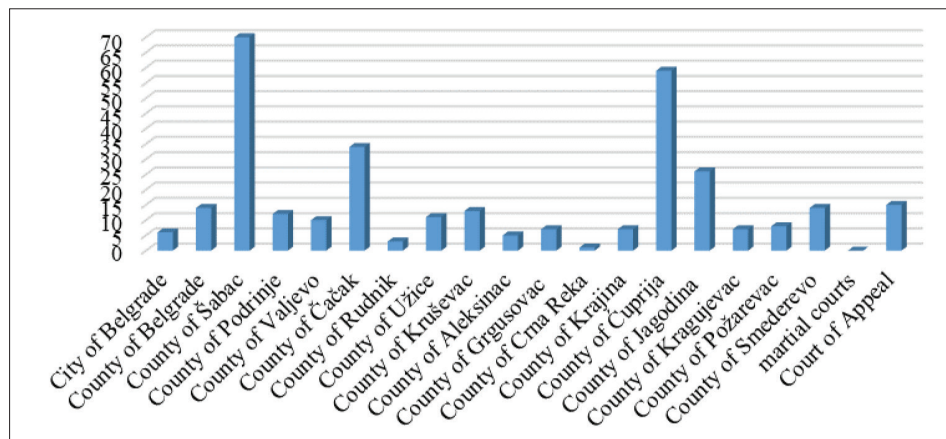


The Court of the Čačak County, with 34 unsolved crimes, belongs to the middle category in terms of the number of unsolved crimes. The largest number of uncompleted criminal offenses were recorded by the Šabac and the Ćuprija county courts. In contrast to the adjudicated criminal acts, in which the martial courts were leading, in 1844 not a single case was recorded that was not resolved in the martial courts. The Court of Crna Reka County recorded the lowest number of unsolved crimes—one case of murder.

Graph 4. Structure of unsolved criminal offenses at the Court of the Čačak County in 1844[18]
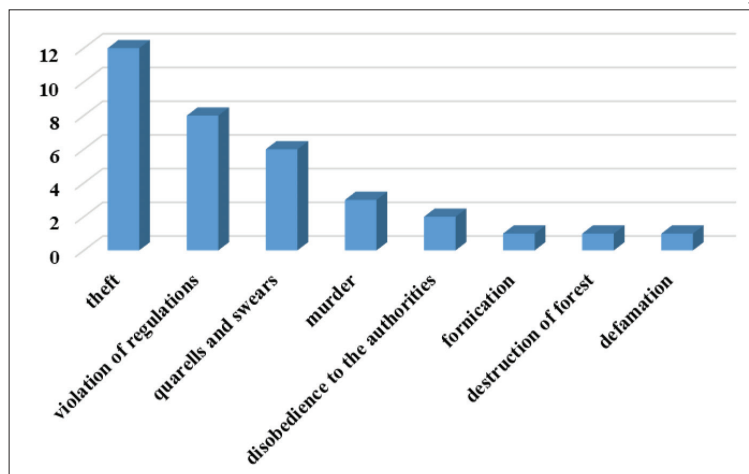


[17] ДАС, ДС, рол. бр. 132, № 458/1846, *Извод свих криминалних парница и кривичних дела од 1. јануара до 31. децембра 1844. године*; Поповић, 2016, p. 86.
[18] Ibid.

The number of unsolved cases related to criminal offenses was about three times smaller than the number of adjudicated crimes. As in the case of adjudicated crimes, in the case of unadjudicated criminal court proceedings, slightly more than half of the total number consisted of criminal acts of theft, quarrels and swearing. Violation of regulations was the subject of 23.5% of criminal acts. Murder cases, as well as adjudicated crimes, were the subject of three court proceedings.[19]

A comparative review of adjudicated and unadjudicated criminal cases shows that the crimes that were adjudicated to the greatest extent were related to the speech against the prince and the state (100%), violence (100%), abuse of power (100%), fraud (100%), fornication (88.9%), quarrels and cursing (80%), arson (80%), theft (78.9%). It is obvious that the crimes from which the state suffered the most damage were the best dealt with.

Graph 5. The number of completed civil lawsuits at the Court of Appeal, the Belgrade City Court and county courts in 1845[20]
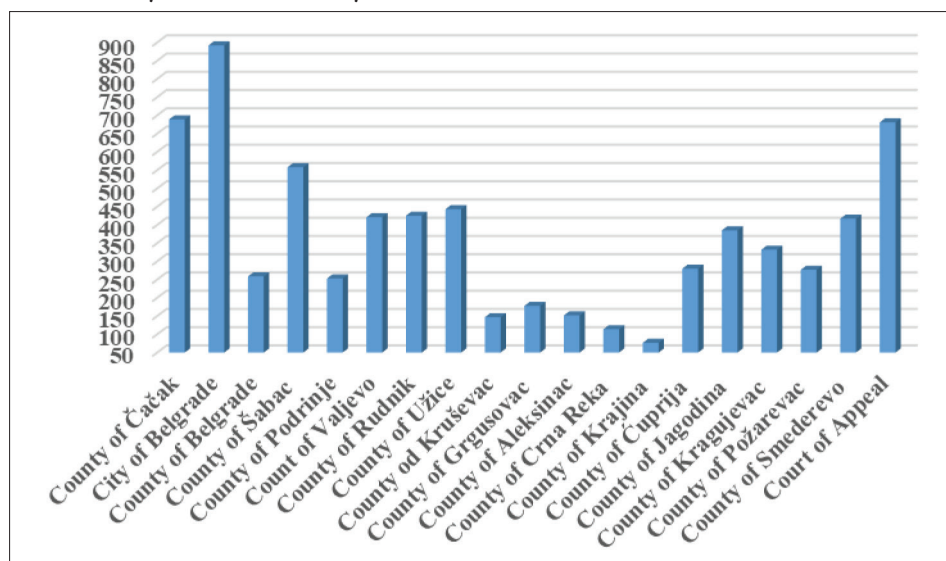


With its 689 civil lawsuits, the Court of the Čačak County was at the very top in terms of the number of civil lawsuits for which the judgment was pronounced in 1845. That year, 681 lawsuits ended up being revised at the Court of Appeal. The largest number of completed litigations was recorded by the

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[19] Theft took 35.3%, quarrels and swearing 17.7%, murders 8.8%, disobedience to the authorities 5.9%, fornication, destruction of forests and defamation 2.9% each of the whole number of unsolved criminal offences at the County Court of Čačak in 1844.

[20] ДАС, ДС, рол. бр. 132, № 458/1846, *Извод свих ѿрађанских ѿарница од 1. јануара до 31. ѕецемѕра 1845. ѿод ѿри окружнима, вароши Беоѿрада и Аѿелационом суду вођени.*

Belgrade City Court with 892 completed disputes, while the lowest number was recorded by the Krajina County Court with only 77 litigations.

Graph 6. Structure of completed civil lawsuits at the Court of the Čačak County in 1845[21]
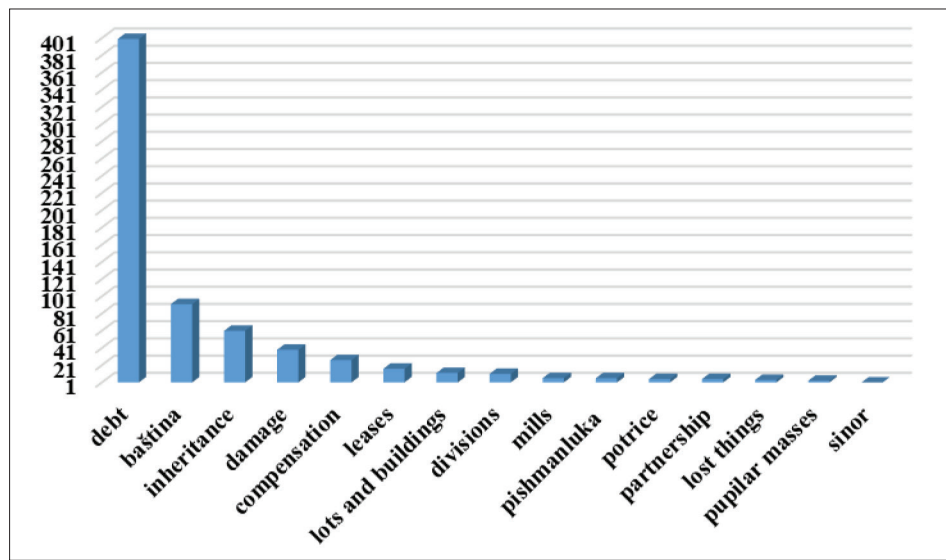


In 1845, slightly more than half of the civil lawsuits that received a verdict were those conducted over various types of debts.[22] A more significant share in

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[21] ДАС, ДС, рол. бр. 132, № 458/1846, *Извод свих īрађанских īарница од 1. јануара до 31. децембра 1845. īод īри окружнима, вароши Беоīрада и Айелационом суду вођени.*

[22] Debt disputes took 58.1% of the total number of civil lawsuits that ended at the Court of the Čačak County in 1845. Disputes about different types of fees, leases, lots and buildings, divisions, water mills, withdrawal from the contract (so-called *pishmanluk*), damage caused by livestock in someone else's land property (so-called *potrica*), partnership, lost things, about assets of persons under guardianship (so-called *pupilar masses*), disputes among neighboring villages about borders (so-called *sinor*) accounted for 3.9%, 2.5%, 1.7%, 1.6%, 0.9%, 0.9%, 0.7%, 0.7%, 0.6%, 0.4%, 0.2% of the total number of completed civil cases at the Court of the Čačak County in 1845, respectively. And in the previous year, 1844, more than half of the civil lawsuits conducted at the Court of the Čačak County were about various types of debts. Debt disputes accounted for 61.6% of the total number of civil lawsuits that ended up in the Court of the Čačak County in 1844. Their number compared to that of 1845 increased by 76.9%. In 1845, there was also an increase in the number of lawsuits regarding *baština* and inheritance by 240.7% and 84.8% respectively. In 1844, the number of lawsuits over mills and *potrica* was 6 times less than in 1845, as well as disputes over so-called *pupilar masses*, which were 2 times less than in 1845. Debt disputes took 58.1% of the total number of civil lawsuits that ended up at the Court of the Čačak County in 1845. Disputes about *baština*, inheritance, damages, compensation, leases, lots and buildings, division, mills, *pishmanluk, potrica,* partnership, lost things, *pupilar masses,* and *sinor* accounted for 13.4%, 8.9%, 5.7% , 4%, 2.5%, 1.7%, 0.9%, 0.9%, 0.7%, 0.7%, 0.6%,

the total number of lawsuits was occupied by disputes over intestate succession of hereditary estates (Serb. *baština*), inheritance, and various types of damages, 13.4%, 8.9%, and 5.7%, respectively[23] (*Зборник закона и уредаба* 1, 1840, p. 103). There were only three resolved civil lawsuits that had so-called *pupilar masses* as their subject. Only one court case involved a dispute over a *sinor*.[24]

Graph 7. Number of unsettled civil cases at the Court of Appeal, Belgrade City Court and county courts in 1845[25]
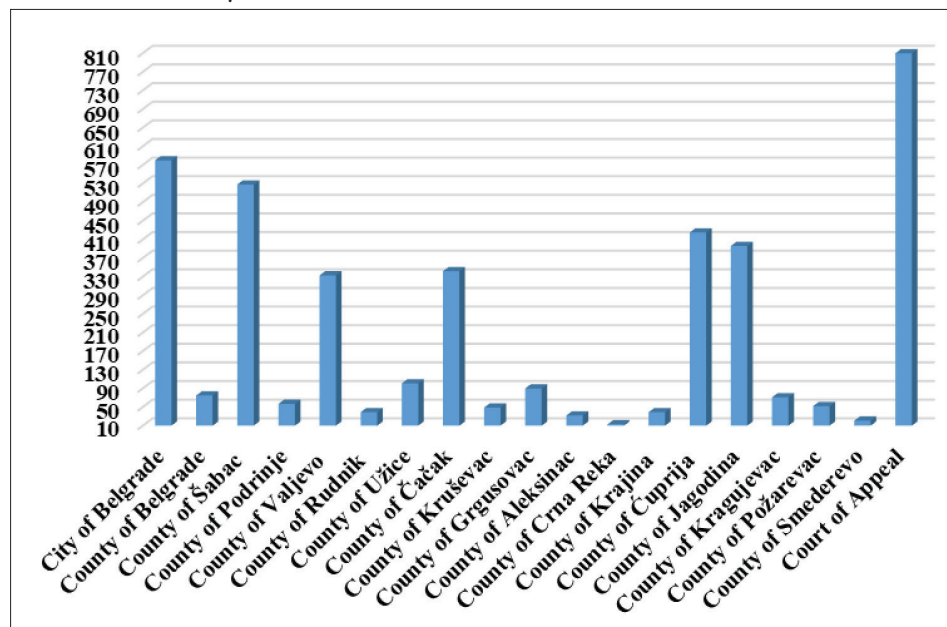


With 342 unsettled civil cases, the Court of the Čačak County was in the middle in terms of the number of unsettled disputes in 1845. Most of the courts recorded a higher number of completed than unresolved civil lawsuits, except for the courts of the Čuprija and Jagodina counties, and the Court of Appeal, which had a 19.8% higher number of pending than adjudicated civil

0.4%, 0.2% of the total number of completed civil lawsuits at the Čačak County Court in 1845, respectively.

[23] According to the Law from 1840, every Serb had the right to claim his planted or unplanted land in court and the court had to accept to examine that claim. Also, no one could be deprived of land without a court verdict. Since 1833, when the sipahi relations ended, everyone who happened to be on a certain land had the right to that land and was equal in rights to those who had deeds.

[24] Disputes among neighboring villages about borders.

[25] ДАС, ДС, рол. бр. 132, № 458/1846, *Извод свих грађанских парница од 1. јануара до 31. децембра 1845. год при окружнима, вароши Београда и Апелационом суду вођени.*

litigations. The Čačak County Court had a 50.4% lower number of pending than adjudicated civil cases.

Graph 8. Structure of pending civil cases at the Court of the Čačak County in 1845[26]
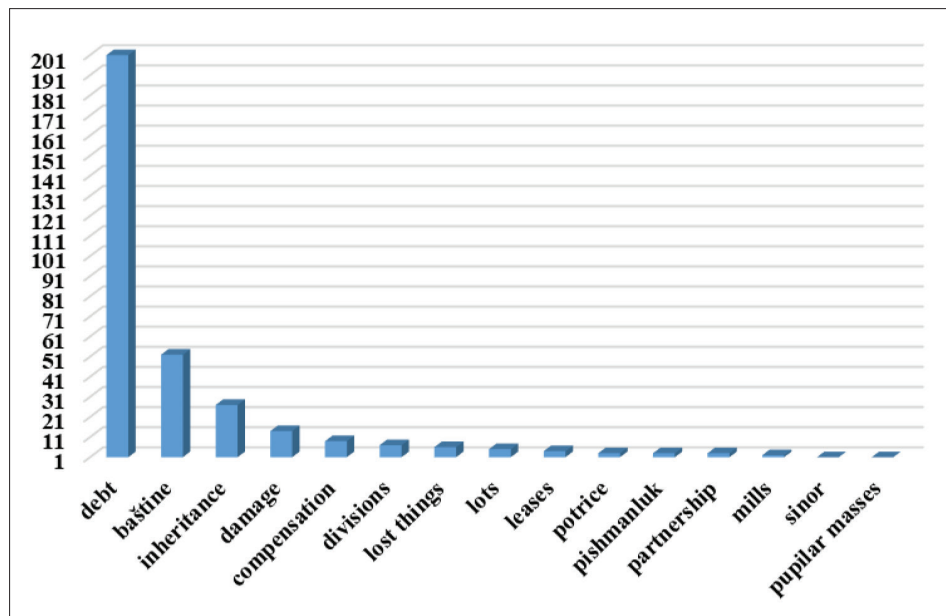


As in the case of completed lawsuits, debt disputes accounted for the largest share—59.9% of all pending court proceedings conducted at the Čačak County Court in 1845. Disputes about *baština*, inheritance and various types of damages accounted for 15.2%, 7.9%, and 4.1%, respectively, of the total number of pending litigation. The smallest number was occupied by disputes about *pupilar masses* and *sinor*, with only one case each.[27]

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[26] ДАС, ДС, рол. № 132, № 458/1846, *Извод свих ūрађанских ūарница од 1. јануара до 31. децембра 1845. ūод ūри окружнима, вароши Беоūрада и Аūелационом суду вођени.*

[27] Disputes about compensation, division, lost things, lots, leases, *potrica*, *pishmanluk*-abandonment of contracts, partnerships, mills, *sinor* and *pupilar masses* accounted for 2.6%, 2.1%, 1.8%, 1.5%, 1.2%, 0.9%, 0.9%, 0.9%, 0.6%, 0.3%, 0.3% of the total number of lawsuits that remained unresolved at the Čačak County Court in 1845, respectively. Even in 1844, the largest number of pending lawsuits were conducted over various types of debts – 41.9% of the total number of lawsuits that did not receive a verdict, while their number increased by a slight 2.4% compared to the following year. The smallest share, as in 1845, was occupied by disputes over *pupilar masses* and *sinor*, with one case each that remained unresolved in 1844. Disputes regarding *baština*, compensation, inheritance, damages, division, lots and buildings, water mills, leases, *potrica*, partnerships, *pishmanluk*, *pupilar masses* and *sinor* accounted for 19.5%, 17.4%, 11.7%, 3.1%, 1.5%, 1.3%, 1.1%, 0.8%, 0.6%,

A comparative review of the number of adjudicated and unadjudicated civil lawsuits in 1845 shows that the majority of adjudicated disputes were related to leases (81%), *pupilar masses* (75%), mills (75%), damages (70.9%), lots and buildings (70 .6%), inheritance (69.3%), rescission of contract (66.7%), debt (66.1%), *baština* (63.9%), partnership (62.5%), *potrica* (62.5%), division (61.1%), *sinor* (50%). Only disputes regarding compensation and lost items did not have a single resolved case. If we compare the data from 1845 with those from 1844, it can be seen that there was a more efficient management of lawsuits, considering that in 1844 most disputes had a larger number of pending than adjudicated cases.

Graph 9. Trend in the number of adjudicated and pending criminal offenses at the Čačak County Court for the period 1844–1847[28]
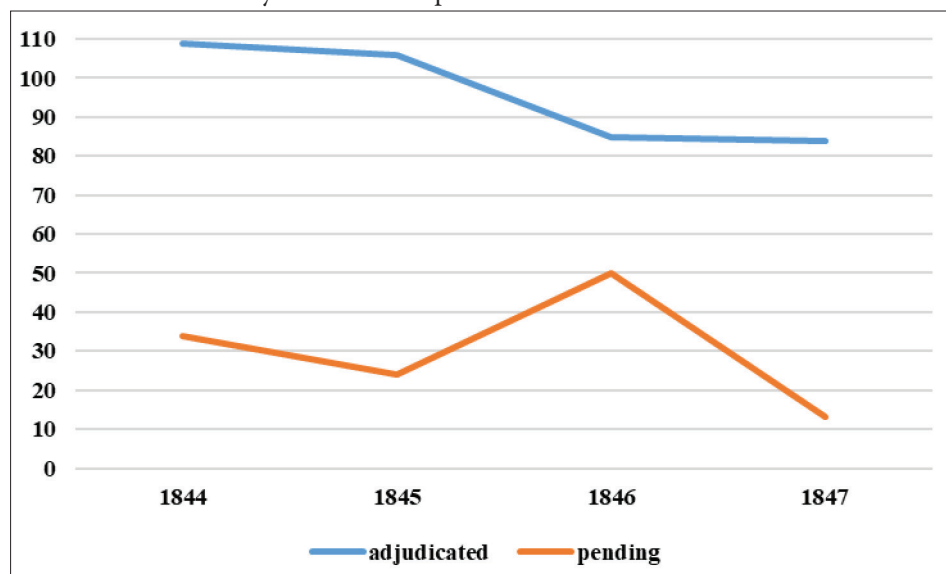


In the period from 1844 to 1847, at the Čačak County Court, the number of criminal offenses that received a verdict was higher than those that remained unsolved, on average 3.9 times. The number of completed criminal cases in the observed period was in decline – in the last year, that number decreased by 22.9% compared to the year 1844, when the maximum in terms of adjudicated criminal offenses was recorded. The trend of the number of pending crimes recorded oscillations—the maximum was recorded in 1846, when it was 47.1%

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0.4%, 0.2%, 0.2%, 0.2% of the total number of civil cases that remained unresolved at the Čačak County Court in 1844, respectively.

    [28] Поповић, 2014, pp. 117–118; ДАС, Министарство иностраних дела – Внутрено одељење (=МИД-В), ф.2 р.71/1848.

higher compared to the initial year. The minimum number of unadjudicated criminal offenses at the Čačak County Court was recorded in the last year of the observed period and was 61.8% less than in 1844, and 74% less than the recorded maximum.

Graph 10. Trends in the number of civil lawsuits at the Court of the Čačak County for the period 1844–1847[29]
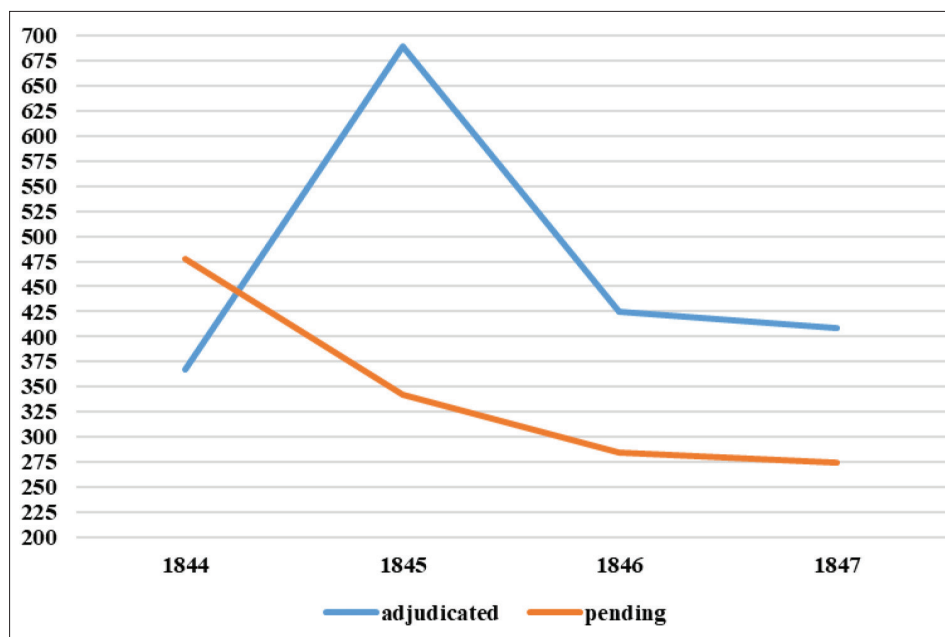


In the observed period, the number of adjudicated civil cases was higher in all years except in 1844, when their number was 23.1% lower than those that were not concluded during the year. In other years, the number of adjudicated civil lawsuits was 66.4% higher than those that remained unresolved. The trend in the number of adjudicated civil cases recorded oscillations in the observed period, the maximum was recorded in 1845, when it was 87.7% higher compared to the initial year, which was followed by a decline and in the last year the number of completed civil cases was 40.6% lower than the recorded maximum. The trend in the number of pending civil lawsuits was on the decline during the observed period. The minimum was recorded in the last year when it was 42.3% lower than the maximum recorded in the initial year of the observed period.

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[29] Ibid.

Graph 11. Comparative overview of the number of criminal offenses and civil cases for the period 1844–1847[30]
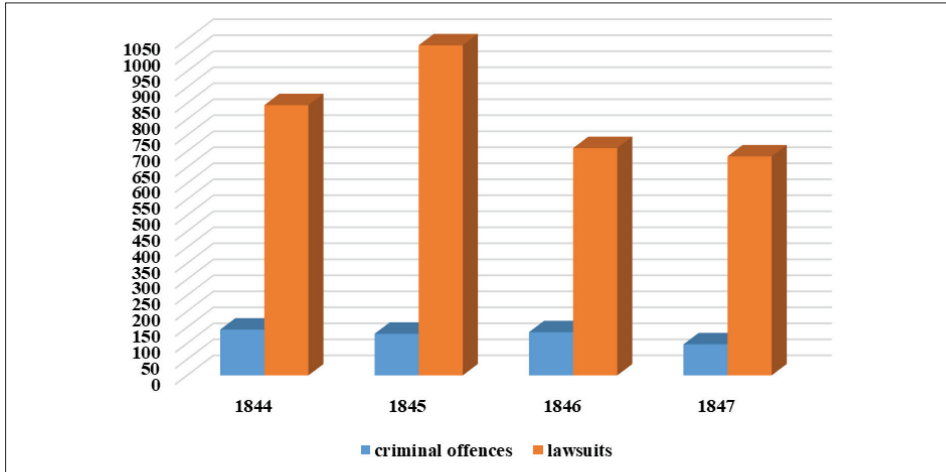


During the observed period, the number of lawsuits was on average 6.5 times higher than the number of criminal acts. The biggest difference between these two types of cases was recorded in 1845, when the number of civil proceedings recorded at the Čačak County Court was 7.9 times higher than the number of criminal acts that reached this court.

The activity of the county courts and the Belgrade City Court also included the custody of deposit values. According to the Decree of November 18, 1847[31], 2% of the deposited money was charged on cash and valuables, regardless of how long they were kept, except in cases where the creditor would deposit a bond (*Зборник закона и уредаба* 4, 1849, p. 143). At that time, 1% of the deposited money went to the court treasury. According to the amendment to the law dated 28.2.1852, if a certain person did not want to receive the money belonging to him, the court had the obligation to keep the money for another year. If by then no person appeared to claim the amount, then it would be considered alienated and would belong to the state treasury (*Зборник закона и уредаба* 6, 1853, p. 87). In 1845, the largest deposited amount was recorded at the Belgrade City Court, while the Court of the Čačak County received the largest deposit in relation to the other county courts, with the exception of the Court of the Belgrade County.[32] Also, in all courts, the amounts of money received were higher than

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[30] Поповић, 2014, pp. 117–118; ДАС, МИД-В, ф.2 р.71/1848; ДАС, ДС, рол. бр. 132, № 458/1846, *Извод дейозита свих судова од 26. октобра 1844. до конца октобра 1845. године.*

[31] Dates are given according to the Gregorian calendar.

[32] The amount of deposit money received at the Čačak County Court in 1845 was 44,642 tax grosh.

the amounts that were issued in that year, and on average 93.9%. At the courts of the Kragujevac, Požarevac, Ćuprija, and Smederevo counties, neither the receipts nor the issuance of deposit money were recorded in 1845. In 1845, the Court of the Čačak County issued a sum 2.1 times smaller than that which was handed over to the court for safekeeping that year.[33] It is not clear whether the court deposit meant a deposit in a broader sense or, perhaps, that money belonged to the convicts, so the court kept the money while the convicts were serving their sentences.

The courts, in addition to the money deposited within them, were also in charge of keeping the money of minor heirs, who were under guardianship, the so-called *pupilar* money. According to the Ordinance of May 28, 1845, the exclusive right to take care of the *pupilar masses* fell under the jurisdiction of the county courts, except in those cases in which the tutor or heir had certain appeals. At that time, appeals were submitted for consideration to the Court of Appeal (*Зборник закона и уредаба* 3, 1847, p. 53). There is a document from the year 1845, which shows in what form and how much value the estate of the *pupilar mass* was entrusted to the courts.

Graph 12. The amount of received and issued values of the pupilar masses at the Court of the Čačak County in 1845 in tax grosh[34]



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The courts were charged with safeguarding the estate of the deceased until the heir(s) came of age. That legacy could be in the form of real estate, movable property, bonds and cash. The courts had the right to issue the cash with interest and then the corresponding interest was added to the trust estate. In 1845, the Court of the Čačak County was among the lowest in terms of cash, with only 5,899 tax grosh, on which amount interest of 260 tax grosh was realized.[35]

Overall, the lowest value was in the movable property, in which the Court of the Čačak County belonged to the middle, having other county courts in regard. The value of movable property was 10.5 times less than the highest amount recorded at the Court of Smederevo County, while, regarding the smallest value recorded at the Court of Gurgusovac County, was 25.1 times higher.

The average value of immovable property was 5.6 times higher than the value of movable property entrusted under the jurisdiction of county courts. With 92,928 tax grosh in immovable property, the Court of the Čačak County was in the middle level of real estate value. The largest sum was recorded by the Požarevac County Court—139.9% higher value than that of the Čačak County Court. The lowest value in real estate was recorded at the Court of the Podrinje County with only 5,618 tax grosh, which was 93.9% less than the real estate value Court of the Čačak County.

Bonds were also part of the legacy of the pupilar masses.[36] Their total value in the courts in 1845 was the highest in relation to all other forms that were entrusted for safekeeping in the form of pupilar masses. The amount that the court could demand in the name of bonds at the Court of the Čačak County was 37.3% less than the average. By far the largest claims were registered at the Požarevac County Court, while the smallest were recorded by the Crna Reka County Court.[37]

Courts handed over immovable property, movable property, principal sum with associated interests and bonds to the heirs of the pupilar masses. While the pupilar mass was lying within the courts for safekeeping, the court was obliged to pay the tax for the pupilar fund out of cash. According to the Decree of March 17, 1838, 1/6 of the cash went to this fund. (*Зборник закона и уредаба* 4, 1849, стр. 123) Courts gave money from this fund with interest at a rate of 10%, which by the law of October 29, 1849 replaced the previous rate

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[35] In that year, the Belgrade City Court received the most money on behalf of the pupilar masses, and the amount was 35.5 times greater than that received by the Court of the Čačak County, while the smallest amount of money was received by the Court of the Kruševac County, which was only 3.8% less from the one received by the Čačak County Court.

[36] Bonds were claims of the pupilar masses from their debtors.

[37] The value of bonds entrusted to the Požarevac County Court was 10.5 times higher than that recorded at the Čačak County Court. The value of bonds at the Court of Crna Reka County was 5.3 times lower than that recorded at the Court of Čačak County.

of 6% (*Зборник закона и уредаба* 4, 1849, p. 139). In 1845, the Čačak County Court did not record any issuance from the pupilar masses.[38]

According to the budgets of the Principality of Serbia, which were created in the 1840s, the costs allocated for the county courts and the Court of the City of Belgrade accounted for an average of 69.9% of the expenditures planned for the Ministry of Justice (Павловић, 2017, pp. 70–73). The largest share among them was occupied by the Court of the City of Belgrade,[39] followed by the Court of the County of Belgrade,[40] while the other county courts had an equal share, which accounted for an average of 5.3% of the budget allocated to the county courts and the Court of the City of Belgrade. In 1844, the Court of the Čačak County accounted for 5.18%, in 1846 5.44%, in 1847 5.42%, and in 1848 5.24% of the total costs allocated to the county courts and the Belgrade City Court. In 1844, the employees of the Čačak County Court were a member of the court, a secretary, a scribe, a junior scribe, and a practitioner (intern). Their annual salaries that year were 450, 350, 200, 150 and 100 thalers, respectively.[41] In the 1850s, the number of employees in the Čačak County Court increased, so in 1855 the staff numbered the president, three members, a secretary, an accountant of the second class, an assistant accountant, an archivist, a senior scribe, two junior scribes, prison guard and three cops. Their annual salaries then amounted to 700, 1350[42], 350, 250, 150, 200, 200, 300[43], 72, 180[44] thalers, respectively.[45] If the salary values from 1844 and 1855 are compared, it can be seen that there was no change in their amount. The

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[38] The largest amount of cash was issued at the Court of the City of Belgrade, while the lowest value was recorded at the Court of the Podrinje County. The recovery of real estate was recorded in four courts: the Court of the Požarevac County, the Court of the Krajina County, the Court of the Kragujevac County and the Court of the City of Belgrade, which also recorded the highest value. The issued bonds were recorded in the majority of courts, of which the highest value was at the Belgrade County Court and the smallest at the Jagodina County Court. The highest value of issued tax was recorded by the Court of the City of Belgrade, while the lowest was recorded by the Court of the Crna Reka County.

[39] In the four years for which the budgets of the Ministry of Justice have been preserved (1844, 1846, 1847, and 1848), the Belgrade City Court accounted for an average of 7.9% of the expenditures allocated to the county courts and the Belgrade City Court.

[40] In the four years for which the budgets of the Ministry of Justice have been preserved (1844, 1846, 1847, and 1848), the Court of the Belgrade County accounted for an average of 6.5% of the expenditures allocated to the county courts and the Belgrade City Court.

[41] ДАС, ДС, № 458/1846.

[42] This amount applies to all three members, so the annual salary of one member was 450 thalers.

[43] This amount refers to two junior scribes, so the salary of the junior scribe was 150 thalers.

[44] This amount refers to three cops, so the annual salary of a cop at the Court of the Čačak County amounted to 60 thalers.

[45] ДАС, ДС, рм др. 189, 1854, др. 516, *Буџет прихода и расхода за 1854/1855. годину*, др. 722.

increase followed only after 1856, but due to the lack of branching of the budget of the judiciary for those years, it is not possible to present exactly how much that increase amounted to (Павловић, 2017, pp. 77–79).

The budget of the courts, starting from 1844, grew and reached its maximum near the end of the 1850s. Thus, for example, in 1858, the budget of the courts amounted to 224% of the budget from 1844. The number of courts did not change significantly during the 1840s and 1850s, but the increase occurred due to the increase in the number of employees as well as their salaries. Namely, in the 1850s, there was a branching of the written activity at the courts, as a result of which protocolists, registrars, archivists, expeditors, accountants were introduced (Павловић, 2017, p. 83).

*Conclusion*

In 1844, the Court of the Čačak County was in the average among the county courts in terms of the number of criminal offences. The number of unadjudicated crimes was about three times lower than the number of adjudicated crimes. More than half of the cases in both categories of criminal offenses were cases related to theft, quarrels and swearing. Crimes such as speaking against the prince and the state, violence, abuse of power, from which the state suffered the most damage, were resolved the fastest. With its 689 civil lawsuits, the Court of the Čačak County was at the very top in terms of the number of civil court proceedings for which a verdict was pronounced in 1845. As for the number of pending civil cases, the Court of the Čačak County recorded an average value in 1845, and that number was 50.4% lower than the number of adjudicated civil cases. Debt disputes accounted for the largest share of both lawsuits categories. In the period from 1844 to 1847, the number of solved criminal offenses tended to decrease. A similar trend was observed in pending crimes, with the fact that in 1846 there was a sharp increase in pending criminal cases. The trend in the number of adjudicated civil cases recorded oscillations in the period from 1844 to 1847, while the number of pending disputes was in decline. Except in the initial year of the mentioned period, the number of settled civil cases was 66.4% higher than those cases that were waiting to receive a verdict. During the same period, the number of lawsuits was on average 6.5 times higher than the number of criminal offenses. In 1845, the largest deposit amount was recorded at the Court of the City of Belgrade, while the Court of the Čačak County received the largest deposit in relation to the other county courts, with the exception of the Court of the Belgrade County. The expenses allocated in the budgets for the county courts in the 1840s accounted for an average of 69.9% of the planned expenses for the Ministry of Justice. Among them, the largest share was occupied by the Court of the City of Belgrade and the Court of the County of Belgrade,

while the other county courts had an equal share, accounting for an average of 5.3% of the expenditures allocated for the county courts and the Court of the City of Belgrade. In 1844, 1846, 1847, and 1848, the Court of the Čačak County accounted for 5.18%, 5.44%, 5.42%, and 5.24%, respectively, of the total costs allocated to the county courts and the Court of the City of Belgrade.

The members of the Čačak County Court were of lesser education, but people with great experience in performing state affairs. The lower staff had mostly completed normal schools or gymnasium, which was enough to perform their duties. They were mostly people born and educated in Serbia. The employees were natives and previously worked in the same or neighboring districts, although there were also those from further away. A good part of the staff was deprived of service in 1842. This gives the impression that people who were problematic or less prepared were often sent to border districts, far from the capital, such as Čačak. The court probably had more personnel, three members of the court, a scribe and his assistant, due to the larger volume of work. The Commission for the Improvement of Judicial Procedure in 1845 included the Čačak court in the list of burdened and intervened. The efficiency of the Čačak County Court improved in the following years, as was the case with some other courts that were found to be overburdened in 1845, such as the Čuprija and Smederevo county courts, who also showed better results.

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## Организација и рад Суда Округа чачанског 1840-их

### Резиме

Циљ рада је да се представе организација и рад Суда Округа чачанског 1840-их година. Изворну грађу представљају извештаји Министарства правде, са статистичким подацима, и листе чиновника са информацијама о запосленима, те шематизам и Попис пореских глава, општина и примирителних судова у Кнежевини Србији из 1839. године. У овом раду биће анализирани подаци који говоре о природи предмета који су вођени на овом суду. Такође, биће извршена и компарација у односу на остале окружне судове у земљи у току посматраног периода. Биће представљени и основни подаци о трошковима који су одређивани за овај суд и износима који су били депоновани при овом суду као и онима који су чувани на име пупиларних маса.

Чланови Чачанског окружног суда били су слабијег образовања, али људи са великим искуством у вршењу државних послова. Ниже особље имало је завршене махом нормалне школе или гимназију, што је било довољно за вршење дужности. Махом су то били људи рођени и школовани у Србији, који

су били родом и који су претходно радили у истом или суседним окрузима, мада је било и оних из удаљенијих округа. Добар део особља био је лишен службе 1842. године. То одаје утисак да су често у погранично округе, удаљене од престонице, попут Чачанског, слати људи проблематични или слабије спреме. Суд је, вероватно, због већег обима посла, имао бројнији персонал, три члана суда, писара и његовог помоћника. Упркос томе, али и чињеници да је Комисија за унапређење судског поступка 1845. године сврстала Чачански суд у списак оптерећених и интервенисала, ефикасност Суда Округа чачанског побољшавала се у наредним годинама, као што је био случај и са неким другим судовима који су нађени пренапрегнутим 1845, попут ћупријског и смедеревског, који су, такође, показивали боље резултате.

*Кључне речи:* Кнежевина Србија; судство; статистика; Суд Округа чачанског.

# HOW CAN A SERBIAN HISTORY TEXTBOOK BE USED TO THOROUGHLY TEACH THE CAUSES OF THE HOLOCAUST?

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# HOW CAN A SERBIAN HISTORY TEXTBOOK BE USED
# TO THOROUGHLY TEACH THE CAUSES OF THE HOLOCAUST?

*Abstract*. A history textbook authored by Mira Radojević, was written for history students aged 18, entering their final year of a four-year Serbian grammar school education. The textbook presents in chronological order a range of topics that canvas the seminal political events that shaped Europe and America throughout the 20th century. The textbook's primary drawback is an absence of the learning tasks required to facilitate improved learning in relation to higher order thinking. This paper aims to overcome this issue. The manuscript does not represent empirical research; rather, it is more of a practitioner piece, with the goal of providing a framework in which the textbook can be utilised to gradually and meaningfully develop a causal analysis of the Holocaust. Four history classes, broken into a series of five steps, are designed to be used in concert with Mira Radojević's textbook. It is however the hope that these steps will provide a framework to be used with a variety of textbooks that, like the Mira Radojević's textbook, will focus on the historical facts rather than on causal analysis of the Holocaust and developing students' higher order thinking.

*Introduction*

The textbook authored by Mira Radojević covers a broad range of chronologically presented topics, providing the detailed and coherent explanations of the chief political process throughout the twentieth century. As such, it equips students with a thorough understanding of the political climate surrounding the rise of Nazism as well as the subsequent developments in Germany. By integrating a study of the Holocaust to a certain extent, the textbook is in line with the strong recommendations for the Holocaust teaching given by many researchers (Bankier, 1992; Bloxham, 2009; Foster, 2020), maintaining that students' understanding of the Holocaust is enhanced provided they acquire a sound knowledge of the historical context.

Apart from comprehension, the use of adequate pedagogical resources has the potential to help teachers develop critical thinking in their students (Kovač, 2022). Deepening students' understanding of the complexity of historical causes is particularly important, as it is crucial for any historical enterprise (Lee & Shemilt, 2009; Voss et al., 1998). Woodcock (2011) further elaborates that understanding of the causes of an event is crucial not only for a historical understanding but for personal life. The topic of the Holocaust and mass violence is especially important for Serbian children, having in mind different monstrosities committed by the Ustasha regime (Gulić, 2017; Ćulibrk, 2014).

The aim of this paper is to provide a framework to be used with a variety of textbooks that, like the Mira Radojević's textbook, will focus on the historical facts rather than on developing students' higher order thinking and gradual analysis of the causes of the Holocaust. Given that Serbian curricula stipulate only one class for addressing the Holocaust, the teaching activities presented in this paper are suitable for history clubs and extracurricular activities, rather than regular history classes. Apart from that, the sequence of teaching activities is suitable for International Baccalaureate Diploma Programme history classes, as developing critical thinking through a detailed analysis of historical events, debates and group work, corresponds with the teaching aims of the Programme (https://www.ibo.org/benefits/why-the-ib-is-different/). The teaching activities

are supposed to be conducted in four history classes of 45 minutes, the first of which includes the first two steps.

The teaching activities are developed in the following five steps:
(1) Revision of students' prior factual knowledge
(2) Emphasising the importance of multiple causality in history
(3) Introducing new vocabulary and causal classification
(4) Developing understanding of the hierarchy of causal importance
(5) Envisaging different historical scenarios

Step 1. Revision Activities

Gray (2015) emphasises the importance of students' prior knowledge for the Holocaust teaching, underlining that students encounter the topic with different preconceptions. Both Gray (2015) and Salmons (2011) explain that students often engage with the term 'Holocaust' through the lens of morality, ethics and fiction or non-academic contents. In this respect, the authors elaborated the potential risk of historical inaccuracies or misconceptions. Gray (2015) advises that inaccuracies and misconceptions in students' knowledge should be addressed through an adequate teaching of past events and processes. Another important reason for revision, emphasised by Gray (2015), is that the level of students' previous knowledge shapes the content of what will be taught. To that end, the first step in the Holocaust teaching should be an inquiry into the students' prior knowledge. The main causes of the Holocaust addressed in previous lessons of the Mira Radojević's textbook are presented in Table 1.

Table 1. Some of the Holocaust causes touched upon in the textbook by Mira Radojević

| Previous knowledge | Lesson title | Causes of the Holocaust |
|---|---|---|
| The causes mentioned in previous lessons | *Fascism and Nazism* | Crisis of democracy<br>Fear of communism<br>Economic problems<br>Frustrated nationalisms<br>Racism |
| | *New Order in Occupied Europe* | Anti-Semitism<br>Nurnberg Laws<br>Cristal Night<br>Hitler's attitudes and successes<br>Propaganda<br>Political violence |

Jackson (2013) designed a lesson plan, using cause and change, to answer students' demand for an overview of antisemitism. He wrote down the causes of antisemitism on cards, which students were supposed to put into three different

categories. The categories he had in mind revolve around the issues of wealth, power and religion. He also gave to students some blank cards on which they were supposed to write other causes they could recall by themselves. Even these causes should be put into one of these categories.

Drawing on Jackson's (2013) ideas a slightly different approach seems to be more relevant to the question of the causes of the Holocaust. Rather than determining the number of categories and their names, this paper argues for students' revisiting all the Holocaust causes mentioned in different textbook chapters and subsequently assigning them the task of determining the number of categories and criterion according to which students assign one specific cause to a relevant category. Allowing students more freedom in their choice of the topic of historical enquiry turned out to be stimulating for their work (Hammond, 2011). Given that the topic of the enquiry in question—the causes of the Holocaust—is already given on this occasion, it might be sensible to assume that students should be given as much freedom as possible when dealing with categorisation. Hammond's (2011) view that freedom is motivational and Gray's (2015) proposal of an initial enquiry into the students' factual knowledge of the Holocaust main terms and events are the two persuasive arguments that have been integrated into the following teaching activity (Activity 1).

Activity 1: Revision

A) Write down the causes of the Holocaust drawing on the textbook and web resources.

B) Classify them into three to six categories. One must have reasons for putting each cause into a relevant category.

C) Compare them with a student sitting next to you. Be prepared to explain your classification to the class and explain the reason for assigning each cause to the relevant category.

This activity revises the prior substantive knowledge on the Holocaust in order to make preparation for the further steps with which the causal reasoning shall commence. When dealing with this task the teacher should intervene with their explanations about the Jewish identity and the integration of the Jewish population into the German society. The reason for this is that these facts and processes are not clarified in the textbook and students might not understand the crucial factual links by conducting online research on their own.

Lower performing students can find the task of determining their own criterion for the causal classification very challenging. Consequently, working in small groups and exchanging students' ideas might be a way to overcome this issue.

Step 2. Emphasising the Importance of Multiple Causality in History

Woodcock (2011) emphasised that it is essential for students to understand that nothing in history has a single, isolated cause, but is a result of multiple causes. Furthermore, he explained that these causes have a complex interrelation and do not simply act on each other in a linear chain (Woodcock, 2011). Many other researchers emphasised the complexity of the causal explanation in history education (Chapman, 2003; Chapman & Woodcock, 2006; Gray, 2015; Jackson, 2013; Lee & Shemilt, 2009; Totten & Feinberg, 2016, Kovač, 2021a). While some of them designed teaching activities which begin with historical content for the causal analysis (Jackson, 2013), Chapman (2003) argues for a non-historical toolkit at an early stage of causal analysis. He first introduces the story of Alphonse the Camel using the benefits of a familiar analogy to analyse the causes of a fictional event in order to increase students' understanding of causation; this is to improve students' reasoning when they transition over into explaining the occurrence of historical events (Chapman, 2003). This practice corresponds with abovementioned argument presented by Kitson et al. (2011) and it gradually introduces a causal complexity. However, unlike Chapman (2003), this paper proposes an introduction of the Holocaust causal analysis which is fictional, but simultaneously related to the theme of the Holocaust. It might be reasonable to assume that the analysis of plain accidents may serve to reflect the complexity of causes. Furthermore, the teaching activity design (Activity 2) is envisaged to capture students' imagination for the topic, in line with Harris (2005) and Kitson et al. (2011) argument that a creative and engaging opening is crucial for any successful teaching intervention. Finally, the teacher may note to students that airplane accidents are rare and many factors would have to act together in order to cause an accident (Activity 2).

Activity 2: Multiple Causality Analysis

A) Present the students with the (printed) pictures of famous German writers and painters of the late 19th and early 20th century emphasising their contribution to the European cultural heritage. Also present several pictures of cabaret and vanguard of the Weimar Germany.

B) Contrast these pictures with the carefully chosen pictures of the concentration camps.

C) Show the picture of a crashed airplane; shortly discuss with students the reasons of airplane accidents. Students should be aware that any of the reasons such as bad weather, a broken engine, or an inexperienced pilot, is not enough to cause an accident. However, if all of them act together they may cause a catastrophe. For a causal analysis, any of these causes is necessary but not sufficient.

D) In the course of this activity play the music of Wagner. Introduce students with the fact that until recently Wagner's music was prohibited in many places. Get them to speculate the reasons for this for in less than a minute, in order to stimulate their curiosity. Finally, briefly familiarize students with the controversy around Wagner's music and the Holocaust.

Academics Lee et al. (1998) emphasised the tendency of students to neglect broader contextual forces when analysing the causes of events. To that end, another study has been launched by Voss et al. (1998) which confirmed the same findings.

In a similar vein, my students focus mainly on the personal cause, or the actions of the pilot, when explaining the causes of given airplane accident. According to Gray (2015), students tend to blame one person – Hitler in their explanations of the causes of the Holocaust. His arguments correspond with the findings of Pettigrew et al. (2009). The analysis of the fictional story of an airplane accident would encourage students to note that a damaged airplane engine alone, or the weakened German morale after 1919 alone, cannot cause a catastrophe. The Activity 2, as presented above, is furthermore suitable for its interpretative symbolic meaning; what my eighteen-year-old students infer from the crashed airplane is the crash of an ideology, possibly humanity, or, arguably a nation, which not long ago was a precursor the European culture.

The Activity 2 is supposed to help students understand that no historical event is a result of a single, isolated cause, as it is one of the first points explained by Chapman (2003) and Woodcock (2001). Additionally, the teaching activity may be used to introduce the concept of causal necessity and sufficiency (Chapman, 2003; Lee & Shemilt, 2009; Voss et al., 1998).

Nonetheless, Activity 2 cannot be used to deepen students' understanding of a complex causal classification, for determining the hierarchy of causal importance and analysing alternatives, which are deemed to be the subsequent steps of the causal analysis (Chapman, 2003; Chapman & Woodcock, 2006; Woodcock, 2011). These will be analysed in the following sections.

### Step 3. Introducing New Vocabulary and Causal Classification

With the goal of deepening further students' causal understanding, introducing diverse vocabulary would be is necessary, which is the first issue discussed in this section. The second question relates to the application of new vocabulary in developing students' causal classification.

Much has been said about the link between the use of language and the process of learning. Vygotsky underscored the importance of language in the process of learning as early as in the mid of the last century (Wertsch, 1985).

Academics Dickinson and Lee (1978) were among the first to contribute to the question of language in history education, noting that history, unlike many

other disciplines, lacks its specialised language and relies on the terms from every-day communication instead. Consequently, the understanding of many important historical terms depends on students' previously acquired knowledge. In other words, what Dickinson and Lee (1978) emphasised is that a historical term, used also in ordinary life, may have a variety of meanings for different students.

It comes as no surprise that history education researchers tried to precisely determine the meaning of the day-to-day term 'cause', which in a historical context is complex. Chapman (2003) suggests that deepening students' understanding of the nature of causation through the use of language is a crucial teaching activity.

In a similar vein, Lee and Shemilt (2009) argue that a disciplined use of language is a tool to move students from what they call the 'level two'. Consequently, they proposed directing the teaching activities on explaining the differences in the meaning between actions, collective mentalities and events for the sake of deepening students' understanding of causal reasoning (Lee & Shemilt, 2009).

Woodcock (2005) argues even more convincingly in favour of the benefits of teaching linguistic skills. According to Woodcock (2005), precise language helps students understand the precise meaning of the causes. His point is similar to that made by Chapman (2003), arguing that different words should be used to explain different types of causes. Woodcock (2005) however went further in his argument, introducing a wide range of phrases not only for the types of causes, but for helping further causal explanation and elaboration. What seems to be particularly interesting is his analysis of the word 'latent'. Assigning to the word atmospheric meaning, Woodcock (2005) almost entered the area of mysticism. Entering this field, playing with words, or similarly dimming the lights (Harris, 2005) is likely to capture students' imagination. This example shows that besides usefulness in many respects, activities of word-playing can be thought provoking and engaging to students. Nonetheless, it seems that one of Woodcock's (2005) arguments is deeply flawed. Emphasising the importance of language, he claims that language is liberating both of expression and of taught. Appreciating the use of the language and his arguments, it might be sensible to believe that this assumption has gone too far, as the importance of language for peoples' thoughts has not been proven yet (Boroditsky, 2003). Succinctly, the process of how people think is not completely known and is still under research.

It might be sensible to assume that introduction of a new specialised language enhances students' understanding of the causal classification. Consequently, the following part of this section deals with the question of how to classify the causes of the Holocaust by means of using appropriate terms as headings of each category of causal classification. Given that the proposed classification mainly draws on Chapman's (2003) classification, this section contains the explanation of why Chapman's (2003) arguments seem the most compelling as well as the reasons for certain amendments to his teaching activities.

Chapman (2003) developed classification of causes, drawing on the language and comments of the historian Richard Evans. He devised a sophisticated, but very clear classification. Chapman (2003) divided causes according to their content, time, role and importance. His further elaboration of causes to subcategories seems to be particularly useful, as each word clearly describes the type of a cause. Chapman's (2003) classification of causes would fit the content of the textbook in question.

However, historical context as a cause is not present in Chapman's (2003) classification. The analysis of 'context' in the discussion about the Holocaust causes seems to be educationally beneficial, as it represents a phenomenon which varies in various countries and different periods. Consequently, its consideration may foster discussion and critical thinking among students. Besides, historical context is coherently explained in the textbook and students should be able to apply and deepen their knowledge on this occasion.

Consequently, this paper argues for replacing Chapman's (2003) word 'content' with the word 'context' and encourage discussion about economic, cultural and ideological context. The word 'context' can cause confusion among lower-performing students, given its abstract connotation. However, this group of students can just brainstorm very general ideas about context and any further elaboration would require teachers' explanation and specification of what they mean by the word 'context'.

Elaborating the Chapman's (2003) classification of causes further, it would be sensible to add a 'personal cause', which is meant to be focused solely on Hitler's actions. Even though Hitler as a cause should not be overemphasised, as Gray (2015) argued, but it must not be neglected. That is the reason why this paper argues for adding a 'personal cause' to the Chapman's (2003) classification of causes.

In his academic article, Woodstock (2011) defined causes as human and non-human. Further he divided the former in cultural, mental, and social causes. What seems to be particularly interesting and adoptable to teaching the Holocaust is his reconsideration of luck, chance and accident. Having considered luck as an inadequate solution, he argues for the use of the word 'accident', explaining the role of the favourable winds for Williams' success in England (Woodstock, 2011). Considering that the Nazi responsibility for the Reichstag fire is still arguable, there are grounds for this being an accident which had long term consequences. Consequently, this paper argues for adding 'accidents' as cause to Chapman's (2003) classification of causes. It might be reasonable to assume that considering accidents can foster discussion amongst students, but educators should proceed with caution, as there is a risk of this question yielding unhistorical responses.

Another amendment made to the Chapman's (2003) teaching activity for classification relates to students' considering of the same cause in different roles

and contexts. For instance, seeing the same card as economic cause and a long-term cause, students will be less likely to adopt a rigid view that one specific cause provoked just one concrete consequence.

Drawing on the idea emphasised by both Kitson et al. (2011) and Young and Muller (2014), that teachers should begin their teaching activities with what students already know, this paper proposes that students first put cards with the causes of the airplane accident into the table below. Unlike in Chapman's (2003) Alphons the Camel or Buckaroo, students will use the same learning activities for causal analysis of both the fictional and historical event. Besides the symbolic meaning of the airplane accident, educators can better reflect the similarity of the causal analysis between ordinary life and the historical event. As a result, students can better understand the academic content and are able to personalise the past in a more meaningful way (Activities 3 and 4).

Read the story about Danilo the Pilot and complete Activity 3.

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*Danilo the Pilot*

Danilo was born in 1948 in a rustic town located in the Socialist Federal Republic of Yugoslavia. As a child he dreamed of becoming a pilot. He entered the Yugoslavian Pilot Academy as a young man, despite his struggles with the English language. This difficulty was expected since foreign language classrooms in Socialist Yugoslavian placed a stronger emphasis on grammatical rules than on conversational skills. Yugoslavian schools also lacked capable teachers; many did not have strong language skills themselves, as spending time in English-speaking countries was frowned upon during the Cold War.

Upon graduating from the academy, Danilo was employed by a Yugoslavian airline company. The airline industry in Yugoslavia was gradually developing during this time. In 1972, the company employing Danilo bought several used planes from the Soviet Union. Due to cold war tensions, the Yugoslavian Ministry of Transport refused a much better American offer for a line of planes that were technologically far more advanced.

Eventually, young Danilo set off on his first transatlantic voyage. He was in charge of both the equipment he commanded as well as the 250 civilian souls on board. Danilo was informed by his weather tower of a minor storm he would likely encounter during his journey Stateside. Without warning the weather front shifted, transforming this previously minor gale into a rampaging tempest. Intrepid Danilo had never before encountered a storm of such magnitude. Desperately, he fought the raging winds in an attempt to keep his aircraft on course. Suddenly, the turbulence caused the left-wing engine to go silent. Danilo knew that he

could continue the trip with this glitch. However, he quickly informed the nearest American military installation of his situation in the hope that they would lead him to a safe landing. The American staff rattled off a string of quick and clipped instructions, attempting to guide Danilo through the eye of the storm. Unfortunately, Danilo misunderstood one of the instructions and the situation quickly went from bad to worse. As a result, the young pilot lost control of the plane and was forced to make an emergency landing in the ocean. Fortunately, help came immediately thereafter and the passengers on board came away mostly unscathed. Nonetheless, the plane could not be salvaged and Danilo was found guilty of causing the accident.

Activity 3: Causal Classification Based on Fictional Story

A) Write on the cards the causes of the plain accident and classify them under context heading in the table below (Table 2).

B) Rearrange the same causes under time heading and then role heading.

C) Divide as many cards as you can into the personal or accident causes.

D) Be prepared to give an explanation for your categorisation at any time during the task.

Table 2. Causation types

| Context | Economic |
|---------|----------|
|         | Cultural |
|         | Ideological |
| Role    | Precondition |
|         | Trigger |
| Time    | Long-term |
|         | Short-term |
| Personal |         |
| Accidents |       |

Activity 4: Holocaust Causal Classification

Look at the table above again. This time fill it in with the causes of the Holocaust.

A) Using the textbook and relevant resources write one cause of the Holocaust on each of twelve given blank cards and organise them by the context headings.

B) Rearrange as many cards as you can first under the 'time' and 'role' headings.

C) Divide as many cards as you can into the personal or accidents headings.

D) Be prepared to give explanation for your categorisation at any stage of the task.

Confusion may arise attempting to divide causes in either cultural or ideological. The fact that many Germans tolerated Hitler's radical ideas came from their dissatisfaction with the Weimar Republic and to a certain extent with the Weimar Culture, which they considered as decadent. The border line cases such as this one may be assigned into the cultural or ideological subcategory, however, students ought to give proper explanations.

Step 4. Developing Understanding of the Hierarchy of Causal Importance

Once students are familiar with the necessary vocabulary and they have revisited some of the main Holocaust causes and historical events, educators should be prepared to move them onto the next stage of causal thinking. This point was made by Chapman (2003). He wanted his students to be engaged with many activities with the goal of getting them to notice a correlation between causes and determine their importance. Dealing with this issue, Chapman (2003) proposed a pedagogic strategy which is based on asking students counterfactual questions. With the aim of making causal reasoning more challenging and appealing to students, Chapman (2003) devised the 'diamond nine'. The shape of the diamond nine indicates the position of each cause in relationship to other causes and with a final outcome. Chapman (2003) combined this approach with posing counter-factual questions. It might be sensible to assume that the diamond nine fits the purpose of the Holocaust analysis. It seems to enable students to visualise causes.

Lee and Shemilt (2009, p. 47) emphasised the risk of 'students being unaware of many possible scenarios' which could have occurred. For deeper understanding, it is essential for students to understand that history is not a determined route from over-determined past to undetermined future, or as they put it 'a deterministic series of links' (Lee & Shemilt, 2009, p. 47). They also warned about possible students' perception of causes as particularly powerful events which simply make other events to occur.

Clarifying further the complexity of causal analysis, many researchers (Chapman, 2003; Chapman & Woodcock, 2006; Woodcock, 2011) explained that students are supposed to determine the strength of influence each cause had on other causes and on a final outcome. Besides this, Woodcock (2011) noticed the negative effect that any error in chronology might have on causal analysis. The same issue was raised by Totten and Feinberg (2016) referring specifically to Holocaust education. They pointed out that any minor chronological imprecision might hinder students' understanding of the causes of the Holocaust. It might be sensible to assume that educators should not only insist

on chronological precision as an activity in itself, but use any opportunity and context to get students to revisit chronology. For that reason, the chronology revision has been included in the causal analysis in the teaching activity bellow (Activity 5).

Aside from the chronological addition, another minor amendment to Chapman's (2003) teaching activities has been made. The Activity 5C) aims to reduce at least some of the risks noted by Lee and Shemilt (2009). As explained above, Lee and Shemilt (2009) emphasised the possibility of students seeing causal events only in this capacity. The causes put in the table are thoroughly explained in the textbook.

Activity 5: Revision Activities and Analysis of the Link Between Causes and Consequences

A) Fill in the table below using your own knowledge, textbook and web resources.

B) Add as many causes as you can on your own.

C) Try to chronologically determine each of the causes and be prepared to give the reasons for your chronological frame.

D) Imagine the causes given in the table are consequences. Write possible cause(s) of those consequences.

E) What is the link between these new causes you have written?

Table 3. Causes and consequences of the Holocaust

| Cause | Consequence |
|---|---|
| Ancient anti-Semitism | |
| Nuremberg Laws | |
| Hitler's military success | |
| Hitler's economic success | |
| Wannsee Conference | |
| New order in Europe | |
| The Cristal Night Kristallnacht | |
| | |
| | |
| | |

Activity 6: Diamond Nine

A) Choose the most important causes you have written in Table 3 to complete the 'diamond nine' (Figure 1). Put the most important causes towards the top, and less important towards the bottom of the diamond nine.

Figure 1. Diamond nine
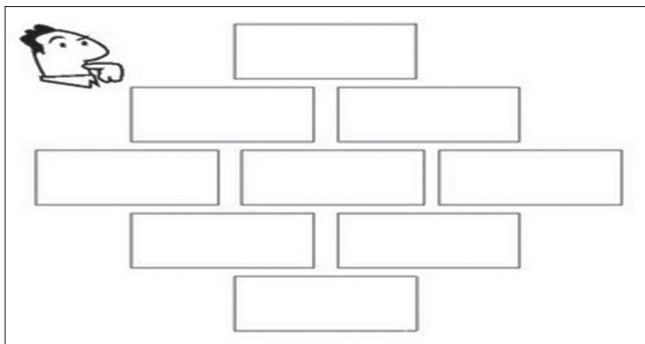


B) Compare your answer with a student next to you. You must write down reasons for your answer. Be prepared to present your diagram to the class.

Activity 5 (C), might foster a dialogue, as students should chronologically determine Hitler's economic and military success differently. Nonetheless, there is a tiny line between dialogue and confusion in this context and the teacher's explanation of what they precisely mean by Hitler's successes might be necessary. Furthermore, a detailed discussion on this, can be time consuming.

Students completing the Diamond nine might put Hitler at the top of the Diagram. This answer is acceptable provided they show awareness of the circumstances and historical context which helped Hitler to rise to power and attain some of his goals. If students place Hitler on the top of the Diagram solely for his personal anti-Semitic views, their understanding of the Holocaust is likely to be poor. It is also possible that some of them would put an important cause at the bottom of the Diagram because they do not understand the significance of its consequences.

It might be reasonable to assume that one of the criteria for determining the importance of a cause might be the number of similarly significant consequences it caused. The risk students would regard these causes as isolated potent events is partially low, as they already have completed Activity 5D) in this section. The risk will be further reduced once they are able to envisage alternative historical scenarios, which will be discussed in the next section.

Step 5. Envisaging Alternatives

The teaching activities above seem unfit for the purpose of envisaging alternative historical scenarios, which are considered the more sophisticated phase of students' causal reasoning (Lee & Shemilt, 2009). In the light of this there is the risk of students regarding the Treaty of Versailles as the cause of the economic crisis, which on the other hand caused political crisis, helping

Hitler to come to power and achieve his anti-Semitic plans. Even though this link is correct, young people should be aware that at any point events might have taken different root and that history is much more than a series of links.

Aware of similar risks, Chapman and Woodcock (2006) set the goal of raising awareness in students of why something happened sooner and not later, and what the likelihood was of a completely different outcome. In other words, they wanted their students to examine the degree of likelihood of different historical scenarios within a given context. This is linked with the above-mentioned educational issue noted by Lee and Shemilt (2009). Succinctly, they wanted to challenge possible students' misconceptions that history is a one-way street from over-determined past to the present without many possibilities and different likelihood of their happening.

It might be sensible to assume that the opportunity should be taken to include the educational issue of envisaging alternatives when teaching the Holocaust causes. Furthermore, this educational challenge relates to the over-arching purposes of both history education and education in general. In the words of Barton and Levstik (2004, p. 36), history is a subject which engage students in 'weighing alternatives'. Similarly, in explaining powerful knowledge, Young and Muller (2014) and Young (2015; 2013a; 2013b) clearly state that it should enable students to envisage alternatives.

Activity 7 have been drawn upon many ideas that Chapman and Woodcock (2006) proposed for the topic of the Abyssinian crisis. Given that their teaching activity is a very elaborate webpage, this paper combined and simplified some of the many ideas they presented. In doing so the peculiarity of topic (the Holocaust) and the content of the textbook in question have been considered. For this table to be clear to students, one of the many of the Holocaust causes has been selected – namely, the Allies' share in responsibility for the escalation of the Holocaust. In this way students should revisit the political situation in Europe and the world from 1918 to 1945 to evaluate different actions when the (future) Holocaust could have been prevented (Activity 7).

Activity 7: Envisaging Alternatives

Complete the table below using previously analysed Holocaust causes. Put them in the chronological order.

Table 4. Could the Allies have prevented the Holocaust?

| Cause of the Holocaust | What the Allies could have done at the moment? | How likely from 1 to 5 (5-very likely) was that scenario? | What was, actually, the Allies' real reaction? |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

This task should be assigned to students with caution and additional explanations. It would be ideal for students to complete the exercise in dialogue with the teacher. The teacher should explain the meaning of the term Allies, because the prosecution of Jews started before the alliances of the WW2 were formed and Britain, France, USA and U.S.S.R. could have taken actions to mitigate the effects of the Holocaust in different periods. Furthermore, without proper explanation, students might understand that the Allies were the most responsible for the Holocaust.

## *Final Discussion*

The main drawback of the textbook is the absence of toolkits envisaged for improving higher order thinking, or in this context, the complex Holocaust causal analysis. Consequently, by designing elaborate, thought-provoking toolkits and combining them with the content of the textbook, the teacher can help students acquire 'deep or thick' knowledge on the topic. As Newmann and Wehlage (1993, p. 10) noted: 'Knowledge is deep or thick when it concerns the central ideas of a topic or discipline. For students, knowledge is deep when they make clear distinctions, develop arguments, solve problems, construct explanations, and otherwise work with relatively complex understanding. Depth is produced, in part, by covering fewer topics in systematic and connected ways'. It might be sensible to believe that helping students acquire dense knowledge about the causes of the Holocaust and is an extremely pertinent teaching task challenged by the politically unstable Balkans especially concerning that one of its learning goals is 'to prevent future genocides and human right abuses from happening again' (Gray, 2015, p. 9; Kovač, 2021b).

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# На који начин користити српски уџбеник из историје за подучавање узрока Холокауста?

## Р е з и м е

Уџбеник из историје Мире Радојевић представља најдетаљнији актуелни српски уџбеник за четврти разред гимназије. У уџбенику су хронолошким редом изложени европски и свјетски политички догађаји од суштинског значаја за историју XX вијека. Овај рад има за циљ да отклони примарни недостатак уџбеника у контексту наставе Холокауста, а то је одсуство дидактичких материјала намијењених за развој критичког мишљења. Стога су у раду презентовани дидактички материјали који могу допунити уџбеник приликом обраде ове теме. Материјали садрже пет корака којима се поступно анализирају узроци Холокауста, а предвиђени су за четири часа историје. Осим тога, дијелови овог рада могу служити као допуна другим уџбеницима у којима су квалитетно обрађени историјски процеси, али им недостају дидактички материјали за развој критичког мишљења.

*Кључне ријечи:* настава Холокауста; анализа узрока; класификација; Србија; уџбеници; историја.

# PONDERING POTTERY – ELEMENTAL CHARACTERIZATION OF EARLY ENEOLITHIC POTTERY FROM ŠANAC–IZBA NEAR LIPOLIST

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# PONDERING POTTERY – ELEMENTAL CHARACTERIZATION OF EARLY ENEOLITHIC POTTERY FROM ŠANAC–IZBA NEAR LIPOLIST

*Abstract*. Pottery from the site of Šanac–Izba near Lipolist was examined to reveal its chemical content. The site is located in western Serbia, Šanac–Izba near Lipolist. It was a small settlement only 40m in diameter and surrounded by a ditch. During the excavations in 2013 four pits and the remains of one burnt building were discovered. The site dates to the Early Eneolithic according to the regional chronology, late 5th millenium BC. Though three of the pits were of an unknown, yet later date. The pottery from the site is characterized by a diverse mix of cultural types that originate from the central Balkans and the southern Pannonian Basin. In particular, Bubanj and Tisapolgar culture influence is to be noted. Diagnostic fragments of pottery were sampled and analyzed for two key reasons. One, is there a significant difference in the chemical profile between the different pottery types? And two, can a chemical variability be observed between pottery that belong to different cultures? Forty one samples were selected based on their typology and in a way that represents all of the site features. Afterwards the samples were powdered and examined by pXRF and the results were statistically processed. According to the results, there is no significant difference in chemical profile between different pottery types nor is there a significant difference between different cultural traditions. Albeit, there was a single fragment of a storage vessel with calcium values that were several times higher than the average. Most likely this vessel (and its content) came to the site trough exchange, marital ties or as a gift.

## Introduction

During the fifth millennium BC, great socio-economic and cultural changes took place in western Serbia and the central Balkans (modern-day Serbia) in general. These changes in demography and settlement size, population mobility and settlement pattern, economic strategies and cultural style also mark the end of Late Neolithic Vinča culture and the beginning of Early Eneolithic in the term of regional relative chronology (Tripković & Penezić, 2017, p. 1).

During the transition from the Late Neolithic to the Early Eneolithic, a new type of enclosed site emerged in western Serbia. This type of site was first described in the works of Trbuhović and Vasiljević (Трбуховић & Васиљевић, 1975) during the seventies of the twentieth century; the settlements are circular in base, surrounded by a ditch and are usually up to 50 meters in diameter (pp. 157–160). This type of settlement is primarily characterized by a ditch that serves as a defense against floods frequent in the wetland area of Мачва (Радовановић, 1994, pp. 8–10). Obrovac-type sites have been the subject of intensive study over the last decade.

In order to clarify the cultural practices of the inhabitants of the Obrovac type, it is important to perform archeometric analyses of samples from sites of this type. For this reason, this paper deals with pXRF analysis of ceramics from the Šanac–Izba site near Lipolist, which belongs to the Obrovac type. The aim of this paper is to enrich with another aspect not only interpretation of this site, but also to contribute to the understanding of the Early Eneolithic in general in the area of western Serbia.

## Subject of Research

The site that this paper focuses on is Šanac–Izba near Lipolist in the Mačva plain (area of western Serbia), which is dated to the Early Eneolithic (Tripković, 2017, p. 53). The pottery of the Early Eneolithic period in northwestern Serbia is characterized by a mixed style of Early Eneolithic cultures, among which

the characteristics of the Bubanj culture (4500–3800 BC) are recognizable, as well as the cultures of Lenđel, Lasinja, Tisapolgar, and others (Tasić, 1979, pp. 97–98, 109).

Mačva was a very marshy area since the Pleistocene and presumably till the Middle Ages (Стојић & Церовић, 2011, p. 18) and is prone to flooding to this day (Stefanović et al., 2014, p. 86). According to the literature, the specific adaptation of the local population to such living conditions is reflected in settlements of the Obrovac type (Chapman, 1981, p. 117). Although most Obrovac-type sites are described as smaller hilly sites up to 50 m in diameter, there are also examples of extremely large settlements with ramparts. Most of the Obrovac-type sites were surrounded by a visible ditch, which was singled out as an important characteristic of the whole group (Трбуховић & Васиљевић, 1974, p. 160). Based on previous data, settlements of the Obrovac type can be dated to the fifth millennium BC (Трипковић et al., 2017, p. 75).

## Site of Šanac–Izba near Lipolist

The Šanac–Izba site is located, about 1 km north of Lipolist (44°43'38.14"N, 19°30'4.81"E) in the Mačva plain. The village is located in the southern part of lowland Mačva, which is connected to the south by the hilly area of Pocerina and rises at the end to the mountain Cer. The pedological background of the site environment consists of pseudogley (Tripković, 2017, p. 51) characterized by stagnation of surface waters and moderate to high acidity (Aleksić, 2015, pp. 8–9, 32).

The site is in the shape of a smaller hill with a circular base, with a diameter of 35m to 40m, and at the highest point it is raised 1.5 m from the surroundings. A shallow depression resembling a ditch surrounds the site. On the south side there is a ramp about 2m wide that connects the hill with the area outside the village. This ramp was probably used to access the site (Трипковић et al., 2017, pp. 71–72).

Later magnetometric prospecting established that the site contained 1–2 buildings, which were significantly damaged by plowing and their remains were scattered throughout the site. Based on plant and animal remains, it can be concluded that a typical Neolithic-Eneolithic economy was practiced by the inhabitants. This is indicated by characteristic plant remains such as *Triticum monococcum*, *T. dicoccum*, *T. aestivum / durum* and in the case of animal remains *Sus scrofa domesticus*, *Bos taurus* and *Ovis / Capra*. Based on previous analyses of ceramic material and stone tools, as well as interpretations of stratigraphic records, it can be considered that this site was primarily occupied for a short period of time in the early Eneolithic (Tripković, 2017, pp. 53–68).

Two 2×2m trenches were investigated at the site, 4m apart, both in the central part of the site. Remains of at least one building and four pits buried in the pedological base were found in the trenches. The pits were measured

from a surface 2.0–2.5m deep. Yellow clayey soil is the pedological base in both trenches. This soil gradually acquired a darker shade in the higher levels, until it became distinctly dark gray, almost black. The average thickness of the dark layer was about 0.4m, but it was often much thicker. That dark layer was paleosoil on which cultural remains were deposited in the form of a collapsed building with other archeological material. Archaeological remains are covered with reddish-yellow sediment, which also contained small and medium-sized pieces of daub and ceramics. Above was a surface layer up to 20cm thick, devastated by plowing (Tripković, 2017, p. 72).

Excavation of two trenches revealed four pits and the remains of at least one dwelling. The floor of the dwelling was not found; however, fragments of oven flooring were sporadically found. Based on the vitrified pieces of daub, it is clear that the building burned at a very high temperature, and most of the ceramic fragments in the ruin layer also burned secondarily. Approximately simultaneously or somewhat later compared to the dwelling is pit 4. Pit 4 was noticed only after removing the destruction layer from trench 2, however, according to the reconstruction of stratigraphic relations, this pit was probably buried from the top of the destruction layer. Although further analyses are necessary to establish their relationship, pit 4 and dwelling 1 certainly date from the period of the original occupation of the site. Pit 4 differs significantly from other pits at the site in terms of filling, which in the lower half of the pit consists of thin alternating layers of ash-gray and red earth. Such a combination has not been found in the other pits (Трипковић et al., 2017, p. 66).

At least three pits (1–3) from the site are from a later period, however, the time of their burial cannot be determined with certainty. The origin of the sediment in the area of these pits can be traced all the way to the arable layer. The pits contained diagnostic pottery of Bubanj and Lasinja cultures but there is nothing in the site stratigraphy to indicate that the pits are the same age. Researchers rather tend to explain the situation as a secondary occupation of the site for an unknown reason. In their opinion, the pits were not backfilled after digging but were gradually filled through a process of natural sedimentation and erosion. Unfortunately, the details of the process of sedimentation cannot be easily reconstructed due to the fact that the upper levels of the cultural layer, approximately from the top of the destruction layer to the surface layer, may have been damaged in the past (Трипковић et al., 2017, pp. 66–68).

Pottery from the site is typical of Мачва and generally western Serbia during the early Eneolithic. Some of the most common types are beakers, conical bowls, bowls with a inverted rim, goblets with horn-like lugs and bowls with horn-like lugs, larger forms such as amphorae, etc. Various parallels can be found with these forms at sites that are spatially and temporally close, such as Livade–Kalenić and Bodnjik (Благојевић, 2005, pp. 50–52; Живановић, 2013, p. 17).

## Research Goals and Hypotheses

In this paper, the current knowledge about the Šanac–Izba site is enriched by applying XRF analysis to selected ceramic samples using a portable device. This analysis proved to be suitable because the method itself is characterized by high speed of data acquisition, low destructiveness and good quality of analysis (Papachristodoulou et al., 2006, p. 347).

This paper has two main analytical steps. The first step was to examine the similarities and differences in the chemical compositions of different types of vessels, as well as the correlation between the type of vessel and their inclusions and fabric. There are studies that have addressed the issues of the operational chain and paste recipes in the Vinča culture in Serbia (Amicone et al., 2020; Perišić et al., 2016; Spataro, 2018), but such analyses have not been performed on Eneolithic material from western Serbia.

In this paper it was assumed that there is a difference in composition between different types of vessels, i.e., that they used different paste recipes for different types of pottery at Šanac–Izba. The hypothesis of a difference in composition between different types of vessels was based on the assumption that vessels with a rougher fabric contain a larger amount of non-clay elements (Rice, 2005, p. 324).

Of course, we should not forget how much the composition of the ceramic paste can vary (even within the same vessel) according to its chemical content, for which there are several reasons. It can be assumed that all ceramics from one Neolithic site will be similar, because in the Neolithic, local clay and inclusions were primarily used to make pottery. However, this may not be the case at all. Ethnoarchaeological research of Pereulele pottery in Spain is well known, which showed that pottery, although produced from local clay (even by the same potters), had a statistically significant difference in composition between vessels (Buxeda I Garrigos et al., 2001, pp. 2–11).

The variability of clay in the paste provides data on the preparation of raw materials and their origin. In ethnographic studies dealing with the production of ceramics, potters choose raw materials based on several factors, among which the properties of the material and ease of acquisition stand out. However, the choice of clay for making ceramics can also be influenced by taboos and rituals. Added inclusions are easily recognizable if they are not naturally present in the clay (e.g., bone, slag, large pieces of grog), while for those that may be naturally present, such as sand, it may be difficult to say whether they were added by a potter (Amicone et al., 2020, p. 89).

The second step of the research was to test the origin of vessels with horn-like lugs, which are an important characteristic of the Eneolithic in western Serbia and are very common in the area north of the Sava and Danube. A certain part of the ceramic assemblage of the Šanac–Izba site consists of vessels with horn-like lugs. Previously, this type of handle was considered to be an

influence from Pannonian Basin, and the presence of such vessels indicates a certain degree of influence of this area on Mačva (Живановић, 2013, p. 27). Examining them will reveal which paste this type of vessel is made of, and thus whether they were made in another way compared to other types or not. It was expected in this research that ceramics with horn-like lugs would have similar if not the same chemical content as the other types.

## Materials and Methods

The pXRF device used is a Niton XL3t GOLDD + manufactured by Thermo-Fischer Scientific (2010). The detector type is a geometrically optimized large area drift detector. The instrument has a silver anode with a voltage of 50kV and 200μA. The pXRF instrument was calibrated to obtain usable data. There are many ways in which a pXRF device can be calibrated and some methods are more and some less accurate. However, even with the best calibrations, there are differences in the concentrations of many elements, depending on the reported study, from 2% to as much as 36% (Conrey et al., 2014, p. 298). It should be noted that in this paper, the goal is not to achieve the exact composition of the sample, i.e., real quantitative analysis (nor is this possible with the pXRF device), but to find a general elemental trend. For calibration purposes, a reference sample (XL3t catalog number 195–019) was used, as well as soil and ore testing standards from the ThermoFischer manufacturer (XL3t Soil / Mining QC 500–705; Reference Sample Set).

The spectra obtained by pXRF analysis were then statistically processed in the SPSS and Orange programs. Primarily cluster analysis, correlations, and principal component analysis (PCA) were used. Differences in composition were considered statistically significant for r values less than 0.05, ie., less than 5% probability that the difference is the result of a chance. This value is standard for most statistical analyses.

A sample of 50 sherds of pottery was used to analyze the pottery from the Šanac–Izba site. Samples were taken in such a way that most units and all features were represented. Diagnostic fragments (rims, handles, bottoms, etc.) were used for the samples for comparative stylistic-typological analysis.

The problem with pXRF analysis is that the data on the composition of the sample, especially in samples such as ceramics, are subject to the influence of difficult to control experimental conditions such as porosity and geometry of the analyzed ceramics. Particularly lighter elements are at risk of analytical errors in samples that have an abraded, irregular surface (Gauthier & Burke, 2011, p. 284). Thus, samples were prepared by powdering the pieces of pottery. A sample weighing about five grams was removed from the sherds. This powder was then transferred to an XRF powdered sample box and covered with

plastic wrap. Powder samples were prepared in a fume hood at the Faculty of Pharmacy in Belgrade to eliminate excess dust that could contaminate other samples. Between the preparation of each sample, the mortar and the pestle were wiped with a disposable paper towel and distilled water (Fig. 1).

Figure 1. Diagram of sample preparation



Although certain authors perform two or three measurements per sample in order to then use the mean but, this usually does not lead to significantly different and/or better data. However, this is not always the case (Liritzis et al., 2020, p. 8). For this reason, two measurements of each sample were used in this study. In the statistical analyses themselves, only the means of these measurements was used.

All samples were analyzed in soil mode for at least 105 seconds. Of these, 60 seconds was used in the filter for basic elements that make up the majority of the sample composition, 30 in the filter for trace elements with a low atomic number, and 15 seconds in the filter for trace elements with a high atomic number. These measurement lengths are considered sufficient for quality analyses on the pXRF device used, although longer measurements such as 60 seconds in each filter can be used, but no significant accuracy improvement is obtained (Thermo Fisher Scientific Inc., 2010, p. 151, 163).

Before the statistical analyses, the data was, of course, standardized. This is a necessary step in statistical data processing where the data points do not have the same lower and upper limit. After that, descriptive statistics were made for all samples. All statistical analyses were performed in the SPSS (version 22) and Orange (version 3.28.0) program for statistical data processing. Most of the data visualizations were made in the Orange program.

## Results and Discussion

In total, 33 elements were analyzed: Fe, Ca, K, Mn, Ti, Mo, Zr, Sr, U, Rb, Th, Pb, Au, Se, As, Hg, Zn, W, Cu, Ni, Co, Cr, V, Sc, S, Ba, Cs, Te, Sb, Sn, Cd, Ag, Pd. According to the results, Fe, Ca and K make up the largest share in the composition (above 10,000ppm), the amounts of Mn and Ti are also significant (below 1,000ppm), and all other elements can be found in traces (below 500ppm). It should be noted that all these elements are impurities of the clay itself, which primarily consists of aluminosilicates.

Samples were analyzed first to find out if there was a correlation between chemical composition and ceramic types (Fig. 2). Based on hierarchical clustering of all analyzed elements with Manhattan distance and Ward linkage, there are nine clusters in the Orange program, two of which are individual samples. No clear groupings around different ceramic types can be observed here, but all types can be found mixed in clusters. The annotations in the Figures 2 and 3 represent pottery types: 1 – conical bowl, 2 – biconical bowl, 3 – bowl with inverted rim, 4 – bowl with lug like handle, 5 – beaker, 6 – foot of a beaker/ conical bowl, 7 – beaker with two handles from the rim, 8 – amphora, 9 – rough vessel presumably used for storage or cooking, 10 – strip like handle, 11 – lug like handle, 12 – tunnel like handle, 13 – pot base, 14 – ornament.

Figure 2. Hierarchical clustering with all elements
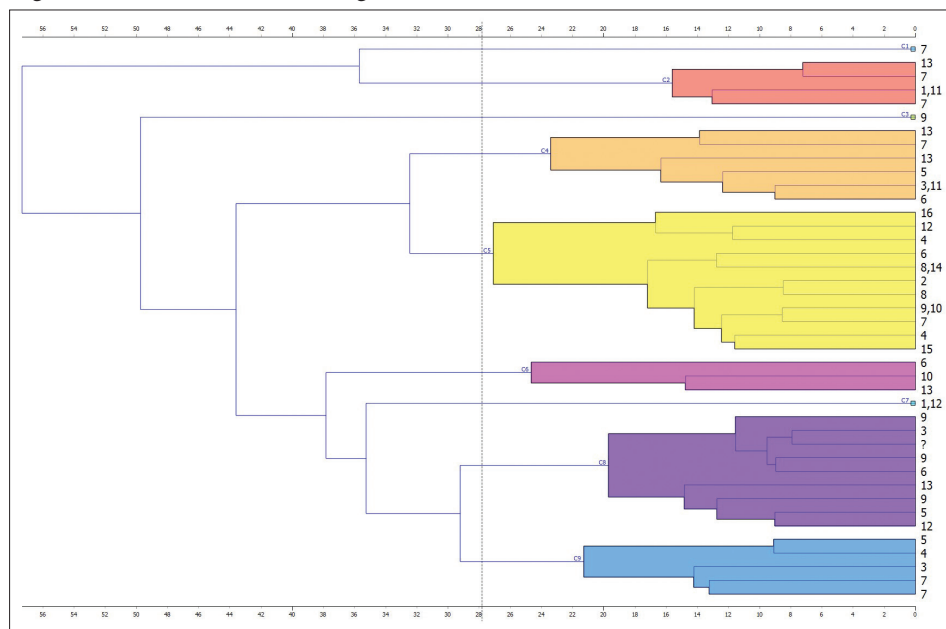
One of the performed statistical analyses dealt with the correlation of exclusively calcium (Fig. 3).

Figure 3. Hierarchical clustering with only calcium
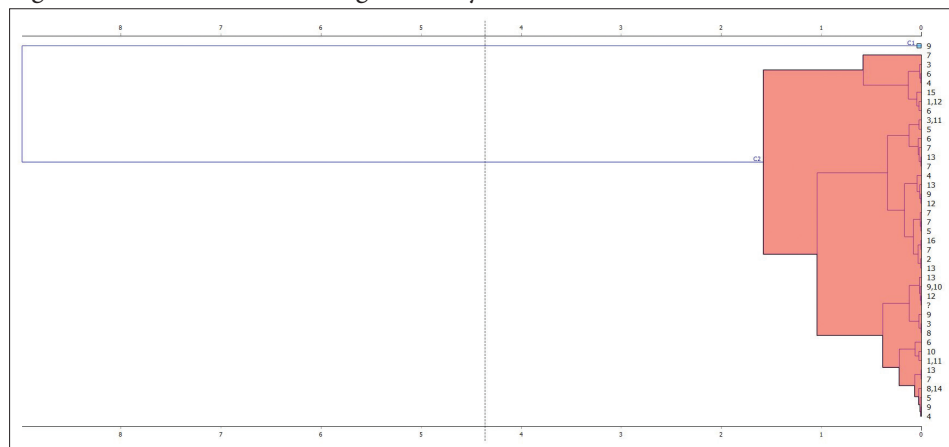


Two clusters were formed, the second of which contains all samples except one, a sample named 20-38-2. It is even more unusual that 20-38-2 is a fragment of a large vessel (9) that has very few visible inclusions and with a fine fabric. This means that the high calcium content is not the result of inclusions but the use of clay that is naturally rich in calcium carbonate (Vuković, 2017, p. 27). Thus, the sample 20-38-2 was either an experiment using another source of clay, a fluke, or perhaps was even brought in from somewhere. Why a different source of clay would be used for only these vessels alone cannot be known with certainty. It is unlikely that the clay deposit used to make all the other vessels became inaccessible, because the site was not inhabited for a long time. There is a possibility that the vessel reached the site by exchange from a nearby site from the Early Eneolithic, such as Šanac in Obrovčine, Majur–Veliki Obrovac, and others. Why a different source of clay would be used for this one vessel alone cannot be known with certainty. It is unlikely that the clay deposit used to make all the other vessels became inaccessible, because the site was not inhabited for a long time. It could possibly be a consequence of the blurring of differences between populations and cultures that is characteristic of the region during Early Eneolithic. There is also the possibility that the vessel reached the site by exchange from a nearby site from the Early Eneolithic, such as Šanac in Obrovčine, Majur–Veliki Obrovac, and others.

The second analysis deals with fabric, inclusion size, and their amount. Of the four clusters discovered, the second of which contains most of the samples, while the first cluster consists of a few diverse (inclusion and fabric wise) members. Along with those two there are two single member clusters and one

of them has a fine fabric (sample 30). It is clear that all samples are quite mixed in the clusters when it comes to inclusions and fabric which confirms that there is no correlation between inclusions, fabric and chemical content.

PCA was also performed, i.e., analysis of principal components (Fig. 4).

Figure 4. Principal component analysis
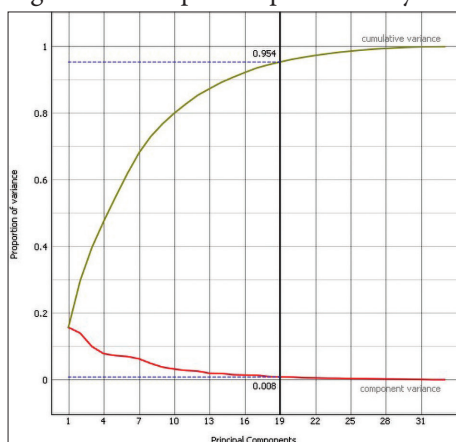


In the analysis of the samples, 19 elements explain 95% of the variance. In any case, a large number of elements contribute to the variance, and the way clusters are formed cannot be based on only a few characteristic elements. There is no noticeable grouping by ceramic categories by principal components.

Louvain clustering was performed together with the analysis of principal components and two relatively close clusters were formed. These clusters do not appear to be formed on the basis of differences in ceramic type or the type and number of inclusions. Within 2 standard deviations from zero, 66% of the samples are present, which means that there is a significant number of samples with unusual values. What should be noted are the two samples that represent the outliers of the first and second clusters sample 21 (cluster 1) and sample 30 (cluster 2). Sample 30 is a fragment of a large vessel. Sample 21 is not yet reliably typologically determined. Both samples have very high values of principle component 2 but differ completely in the amount of principle component 1 where Sample 30 is six positive standard deviations away from zero and Sample 21 is four negative standard deviations away from zero.

According to previous analyses, there is no statistically significant difference in the chemical composition of vessels between types. This means that the locals did not use different paste recipes for different types. Different recipes of the paste would not have been used if there was no real need for them (Vuković, 2017, p. 53). Samples of vessels with horn-like lugs can be found scattered in clusters, which means that there is no statistically significant difference in composition between this type and others.

## Conclusion

Ceramics from the Šanac–Izba site were examined with the primary goal of determining variations in the composition of ceramics. The first step was to determine whether there was a difference in the compositions of the vessels between the different types of pottery at the site. The second step dealt with the vessels with horn-like lugs because this form was previously considered an influence from the Pannonian Basin, and the question was whether this type was made from the same recipe as other forms or different. This information is important because it sheds light on the technology of making ceramics at the Šanac–Izba site.

Ceramic samples have been analyzed with the pXRF instrument, a method that has been widely and successfully used in archeology for decades. This instrumental method was chosen because of its satisfactory accuracy, speed of data acquisition and affordability.

XRF analysis found that there is no significant difference in composition between different types of vessels when all the analyzed elements were taken into account. This indicates that the inhabitants of Šanac–Izba used a 'universal' paste recipe for different functional types. The only confusion is the sample 30, which contained a much larger amount of calcium. The reason for this cannot be reliably determined without additional analyses. Possible reasons are, first of all, exchange and use of another source of clay for an unknown reason.

No statistically significant difference in vessel composition was found between different fabrics and inclusions. The division into ceramic types of rough and fine fabrics was observed in other localities that are temporally, spatially and culturally close to the Šanac–Izba site, such as Livade–Kalenić, Bodnjik, and others. It is not yet known whether there is a difference in composition between the different fabrics and inclusions at the above-mentioned sites. Vessels with horn-like lugs were shown not to have a statistically significantly different composition compared to other vessels. This means that this category of pottery was not imported but was produced from the same raw materials as other types of ceramics. This result was expected, considering that local clay is most often used in the Neolithic, and the import of ceramic vessels with their content was at a low level during the early Eneolithic.

Despite the fact that this study did not lead to too many unexpected conclusions, it confirmed certain hypotheses. The only surprise is the result that there is no difference in composition between different types of pottery.

It should be noted that these samples were tested with a pXRF device that has difficulty to detect nuances in the composition in contrast to techniques such as FTIR, INAA, ICP-MS and others (Tykot, 2016, p. 46). Therefore, these preliminary results should be taken as incomplete. It would be useful in the future to improve the research by testing these samples with another useful

and complementary method, such as FTIR, NAA, ICP-MS, and others. In the absence of the above-mentioned methods, it would be necessary for further research in this direction that the samples be subjected to microscopic analysis in order to identify minerals in the samples. This analysis is a good starting point for pXRF analysis of pottery from several Obrovac sites. Sampling of not only pottery but local clays as well, should be considered in order to identify potential clusters in terms of recipe and sources of raw materials used. Gajić-Kvaščev & al. (2012) for example, managed to examine Neolithic pottery from several sites by pEDXRF analysis and then used this data to classify unknown pottery samples (p. 2).

Obrovci are an important phenomenon characteristic of Mačva and the period of transition from the late Neolithic to the early Eneolithic. However, there are not many papers dealing with the problem of Obrovci, because for a long time this type of site saw little attention due to the assumption that they are related to trenches from Serbo-Turkish wars. Therefore, knowledge about Obrovac-type settlements is limited by a small number of excavations and research. However, the situation is starting to change for the better lately and there is a noticeable increase in the interest of the archaeological public for localities of the Obrovac-type. Unfortunately, the transition period between the Neolithic and the Eneolithic in the central Balkans is little researched and equally unknown. We hope that future research of Obrovac-type sites will lead to new knowledge about the time when the Balkans, as always, was experiencing a great series of socio-economic changes.[2]

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Р е з и м е

Током петог миленијума п. н. е. дошло је до великих друштвеноекономских и културних промена у западној Србији, као и на централном Балкану уопште. Ове промене најавиле су крај позног неолита и винчанске културе, али и почетак раног енеолита у релативној хронологији. Током транзиције из позног неолита у рани енеолит јавља се нови тип насеља зван Обровац у западној Србији. Ове насеобине кружног облика оивичене су јарком и пречник им је најчешће до 50 м. Јарак је овим насељима био кључна карактеристика и служио је као одбрана од поплава које су биле врло честе у западној Србији, а нарочито у Мачви.

Ради разјашњења културних пракси житеља Обровца, било је неопходно извршити археометријске анализе узорака керамике са једног таквог локалитета. Керамика, као најчешћи налаз на археолошким локалитетима помоћу метода природних наука, може пружити обиље података о животу у прошлости. Из тог разлога, овај рад бави се анализом керамике са локалитета Шанац–Изба код Липолиста, који припада локалитету Обровац. Циљ овог истраживања није само употпунити интерпретацију овог локалитета већ и допринети разумевању раног енеолита уопште у западној Србији.

На локалитету Шанац–Изба откривени су остаци једног објекта и четири јаме. Објекат и једна јама датују се у рани енеолит, док су остале јаме накнадно ископане. Керамика са локалитета представља мешавину културних утицаја са централног Балкана и јужног дела Панонске низије. Узет је 41 узорак од

дијагностичких фрагмената керамике који представљају све целине са локалитета да би се одговорило на два главна истраживачка питања, и то: Да ли постоји значајна разлика у хемијском саставу између различитих типова керамике? Да ли постоји значајна разлика у хемијском саставу између типова који припадају различитим културним традицијама? Узорци су након одабира били спрашени те анализирани. Анализа је извршена XRF аналитичком методом, а на крају су добијени спектри статистички обрађени.

На основу резултата не постоји статистички значајна разлика у елементарним профилима између различитих типова, односно, функционалних група, као ни између различитих културних група. Керамика на локалитету, технолошки гледано, прављена је на различите начине, али од истих сировина. Међутим, треба напоменути један необичан узорак који потиче од посуде највероватније коришћене за дуготрајно складиштење намирница. Овај узорак садржи многоструко веће вредности калцијума у односу на остале узорке и то не може бити случајно. Фрагмент ове посуде највероватније је завршио на локалитету због размене или као поклон из другог насеља. Локалитети попут Обровца нису довољно истражени, као ни период раног енеолита у Србији, али ситуација се мења набоље у последње време и надамо се да ће се у будућности овај позитиван тренд и наставити.

*Кључне речи:* XRF; рани енеолит; западна Србија; керамика.

# Pedagogy

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# PERCEPTION OF MEDIA LITERACY IN THE EDUCATION COMMUNITY

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# PERCEPTION OF MEDIA LITERACY
# IN THE EDUCATION COMMUNITY

*Abstract.* The aim of the study is to analyze the perception of media literacy of educational community (high school and college students, higher educational population and masters of science) using a combination of qualitative and quantitative research methods. The survey was conducted during 2021. Technique of interview was used on a sample of 120 participants about participants' perceptions of media literacy. Total 107 participants gave complete responses, and the results are evaluated based on established categories according to the level of accuracy of answers. Categories are formed according to content analysis and cross-referenced with socio-demographic characteristics. Having in mind a favourable educational structure of the research sample, the starting thesis is that respondents will have a clear understanding of media literacy. The results indicate that the majority of participants properly perceive media literacy in terms of critical reflection of media content, but not as the ability to produce media content as an essential characteristic of participatory culture, which leaves space for improvement and development of a productive cooperation of media users, as the inevitable trend of modern, media-driven society. The qualitative nature of this study enabled the recognition of diverse and deeper categories of phenomena of media literacy in current scientific knowledge. This qualitative approach of the comprehension of media literacy provided insights that are valuable as theoretical contribution, but are first and foremost a precious asset for the creators of media policy, especially for media education strategies.

## *Introduction*

Revolution of the internet caused by the introduction of Web 2.0 is linked with the economic, social, and political expectations (the term Web 2.0 means a new internet generation that opens far higher levels of participation and interaction of Internet users, compared to the previous internet generation). Active users jointly use, revise, modify, organize, create, and spread information and knowledge on the internet. Their role is evolving from passive consumers of information to active participants and creators of media content. Technological optimists are suggesting that the immediate participation of a large number of competent media users achieve the effects of collective intelligence, as a consequence having emergence of the so-called participatory culture.

However, media also show ambiguity. Never before has mankind had the chance to collect, process, and transmit this much information; on the other hand, the wealth of information resources and technology are often used as an instrument of social power and manipulation. Media inform, entertain, and educate us, as well as persuade, indoctrinate, guide towards wrong judgments and actions, and even intellectually pollute us. Along with Chomsky (2002), many media critics warn of the danger of media manipulation and indoctrination (Castells, 2018; Marwick & Lewis, 2017; Winn, 2017; Derakhshan & Wardle, 2017; Ambrozy & Sokolovská, 2018; Mazarr et al., 2019; Bradshaw et al., 2021). Growing up in the mediatized society and in digital, interactive relationships, includes the dimension of alienation and dissociation. This technological change is perceived by technological pessimists as a kind of socio-psychological threat (Siegel, 2008; Helprin, 2009; Carr, 2010). In fact, the risk of negative effects of media which cyber pessimists warn about occur if the audience is not competent to use media for their own purposes (and not for someone else's), aware of the presence of prejudice, lobbying, and propaganda in media content, possibilities for abuse of personal data, invasion of privacy, etc.

One of the basic solutions to these dilemmas lies in strengthening the media literacy, as the users' ability to use media in order to fulfil one's own aims: informing, using, critically reflecting on, and communicating the information

in contemporary, mediatized world. Media education is becoming a strategic priority of many national and international public media policies. Namely, media literacy is considered as the ability to find and evaluate information, connect and cooperate with others, create and share media content, i.e., to use media strategically to solve problems and achieve personal, professional, and social goals (Hobbs, 2010; Grech, 2014, p. 79; Carretero et al., 2017; Bulger & Davison, 2018; Yanarates, 2020). While the creation and dissemination of media content become more decentralized and the role of users far more proactive, media literacy also evolves from the ability of competent usage of media content to competent creation of media content. All this reflects a strong need for a strategic approach to media literacy (ML) through the creation of national and international public media policies.

Authors such as Klein (2009), Arsenijević and Andevski (2015), Mihajlov Prokopović (2018), and Yanarates (2020) point out that ML is extremely important for the following reason: the priceless value of users' media participation can be projected on social engagement, expressing and polarizing of public views. It becomes too precious a resource to be left neglected. Therefore, ML is becoming an important social topic in recent decades and the focus of various national and international educational policies (Buckingham, 2003; Jenkins, 2006; Howard et al., 2021), and thus a wide interest and research area in a field of media education have been opened. However, comprehensive studies of this phenomenon in the world are scarce, as the research methodologies are still in the process of development and reshaping. In this sense, this paper presents an interesting contribution to the theory of media as qualitative research of a media users' comprehension of media literacy. It provides systematised media users' point of view on the phenomenon of media literacy. Therefore, this qualitative approach of the comprehension of media literacy provides results that can offer useful insight to practitioners and theoreticians, and a precious asset for the creators of media policies, especially for media education strategies.

## Contemporary Media Literacy

Contemporary views of media literacy imply the inclusion of technical, research, and social competencies. Emphasis is placed on the possibility of critical 'reading' of critical understanding of contents that media convey and the development of personal communication skills for "active participation in society" (Matović, 2011, p. 54). This quality of active participation in the modern media driven world becomes as important as the quality of critical thinking (Bruns, 2007; Van Dijck, 2009; Chan et al., 2021). In this way the phenomenon of ML has become a question of public policy and democratization of society, and ultimately qualified by the National Leadership Conference on Media Literacy

in 1992 as "the ability to access, analyse, evaluate, and create media in a variety of forms" (Aufderheide & Firestone, 1993, p. 6).

Such a dynamic and holistic understanding of media literacy indicates that it is not a product but a process of continues learning and adaptation. Media literacy need to be aligned with changes in social, economic, and technological circumstances affecting the media. Therefore, instead of the final result, it forms a continuum of literacy that extends from mere informing, through understanding, using and evaluating media, to ability to communicate through creation of new media content for active participation in society.

When it comes to the research studies, Buckingham (2003) and Literat (2014) point to the lack of an appropriate methodology. Studies conducted so far were mainly oriented on specific areas: the measurement of ability to understand textual and audio-visual media content (Rosenbaum, 2007; Phang & Schaefer, 2009) or the assessment of effectiveness of ML enhancement programmes (Gonzales et al., 2004; Phang & Schaefer, 2009; Erdem & Erişti, 2022). Few quantitative studies developed a more comprehensive approach, by examination of users' understanding, critical reflection, and creation of media content (Literat, 2014; Hallaq, 2016). Hence, there is a need for deeper understanding of media literacy in practice that necessarily combines qualitative and quantitative research methods.

## Research Methodology

The research focuses on perception of ML of the representatives of educational community (high school students, university students and individuals with bachelor, and master of science degrees). Research was conducted in Serbia on a sample of 120 respondents. During the interview, participants were asked to give their own definition of ML. The aim of this study is to analyse how the users perceive media literacy, primarily with the combination of qualitative and quantitative research method. In doing so, the above considerations are taken as a reference framework, which view media literacy as a continuum of literacy that extends from mere informing, through understanding, using and evaluating media, to ability to communicate through the creation of new media content for active participation in society.

The education population was selected with the intention of painting the future civic, democratic, and digitized society, the population that should provide leadership in the world of application of new media. Out of the 120 participants in the research, 107 of them have given complete responses that are analysed for the purposes of this study. The technique of an interview was selected for this research, which helps participants to express their views and allows the transformation and reflection of their opinions. Transcripts are

analysed by applying open coding, segmentation of the data into initial codes. Categories are formed to group these initial codes in a thematic, logical, and consistent way. After analysing the presence and nature of these categories, which provide rich, but also complex image of perceptions of ML, a number of groups have been discussed in which these categories can be categorized for easier understanding of the research results.

*Research sample.* As previously mentioned, 120 individuals have participated in this research, 107 of which provided a complete answer. Four possible groups of participants are defined by level of education, and after clarification of answers, a relatively uniform structure of all groups was accomplished.

Table 1. The structure of research participants by education levels

| The area of education / Level of education | H&S | NS | E&T | **Total number of participants** |
|---|---|---|---|---|
| High school student | 10 | 9 | 8 | **27** |
| College degree | 12 | 6 | 7 | **25** |
| University student | 13 | 8 | 9 | **30** |
| Master of science degree | 11 | 3 | 11 | **25** |
| **Total number of participants** | **46** | **26** | **35** | **107** |

H&S – Humanities and social sciences; NS – Natural sciences; E&T – Engineering and technology

Education area is a variable worthy of consideration as it represents and defines reasoning and thinking. Therefore, three fields of education are covered, humanities and social sciences (H&S), natural sciences (NS) and engineering and technology (E&T). A higher number of complete responses from the interviews came from participants of socio-humanistic orientation, while the smallest part was provided by participants with natural sciences backgrounds. This is a reflection of the structure of profiles in higher education as well as of the willingness of respondents to cooperate, how the H&S field part of sample showed greater motivation, as they were closer to the subject of the research problem. The sample also has an even structure by level of education, and four groups of research participants (from high school students to participants with master of science degree) have 25 to 30 participants. Participants who are in the process of education belong to a group of high school students (27) or university students (30), and those who completed the process of education belong to a group with a BA degree (25) or MSc degree (25).

## Research Results

*Criteria for classification of responses.* The collected responses—the qualitative empirical material—are classified into appropriate categories for further analysis. The determinant of the classification of respondents' responses was the degree of comprehension of the phenomenon of media literacy. The diversity of the perceptions of this phenomenon by the research participants have resulted in a wide classification of responses, from the lowest to the highest level of understanding.

Categories:
1. being informed about public happenings;
2. the ability to find the relevant information for one's own purposes;
3. the ability to use new technologies;
4. the ability to communicate through media platforms;
5. understanding media content without the critic distance;
6. understanding and critical reflection on the media content;
7. understanding, critical thinking, creating and upgrading the media content.

Diagram 1. Frequency of the category of participants' responses
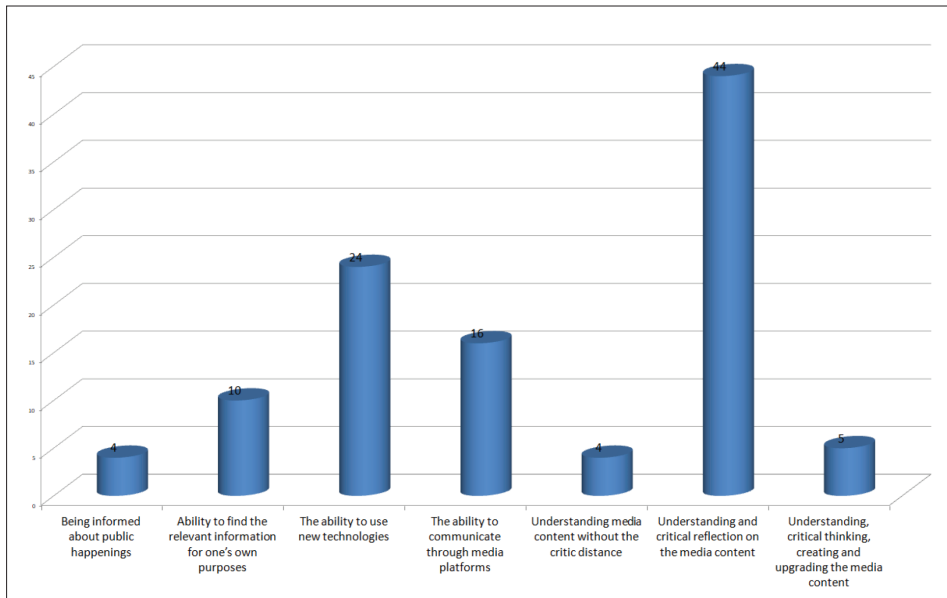


Diagram 1 shows the frequency of the response category in the overall distribution. The dominance of the 6th category (understanding and critical thinking of media content) is evident, 44 out of 107 respondents have given an answer that is classified in it, then category 4 (the ability to use new technologies) and

category 3 (the means of communication through media platforms), while the others are evenly distributed. The following text summarizes the transcripts from the interviews that are classified in given categories.

Category 1 – Being informed about public happenings (4 out of 107 responses):
- *being informed about public happenings;*
- *being informed, using internet;*
- *use of all means of information gathering;*
- *following the press, web sites, TV shows.*

Category 2 – The ability to find the relevant information for one's own purposes (10 out of 107 responses):
- *utilize different kind of media (TV, radio, newspapers, digital media) in order to get information of general and personal relevance;*
- *surfing internet and using obtained information;*
- *ability to inform oneself and obtain necessary information;*
- *knowledge of basic terminology related to new technologies for the exchange of information, primarily using the internet, ability to use those technologies to find out information necessary in everyday life;*
- *ability to search and use content from (multi)media and its application in everyday life.*

Category 3 – The ability to use the new technologies (24 out of 107 responses):
- *knowledge of IT and the proper use of the content that they offer;*
- *ability to use a computer and different software;*
- *familiarity with the advantages and the use of ICT;*
- *use of a computer, a Smartphone and other gadgets for personal needs;*
- *work on modern devices such as computers and some software programs.*

Category 4 – The ability to communicate through media platforms (16 out of 107 responses):
- *way of communication on social networks, by e-mail and on the internet in general (abbreviations, slang);*
- *being familiar and apply language used in media;*
- *to be familiar with and to respect moral conventions on internet and social networks;*
- *knowledge about a specific jargon (words, phrases, abbreviations) used on various media – social networks, internet, television, etc.;*
- *familiarity with terms of use and behaviour on social networks, as well as active usage of social networks.*

Category 5 – Understanding media content without the critic distance (4 out of 107 responses):
- *ability to access media content and to understanding it;*
- *ability to understand different media messages;*
- *explore and understand media content;*
- *understand the content of information in media.*

Category 6 – Understanding and critical reflection on the media (44 out 107 responses):
- *analysing and evaluating media messages, reading between the lines, not believing in any information presented;*
- *media are primarily meant for entertainment purposes, information provided are only partially authentic and truthful: don't believe everything and think for yourself;*
- *ability to critical and analytical think about media and its content;*
- *ability to find, use and approach information with criticism from all the media – from television, to internet and other digital and communication technologies;*
- *man is not subservient to media, filtering information that are presented, or, 'I do not need to hear my own opinion, I can create it by myself based on the information I receive';*
- *control and separate information as truthful from those that are not, relevant/irrelevant, true/false;*
- *awareness of the credibility and quality of various media contents that we independently discover, adequately analyse and interpret them;*
- *proper use of media, knowledge of media background, what lies behind final product we see/hear.*

Category 7 – Understanding, critical thinking, creating and upgrading the media content (5 of 107 responses):
- *when people critically think and are creative producers of media messages;*
- *critical use of media, how media works, use of media for purpose of emancipation and increased participation;*
- *individual's ability to read and create media texts for individual development and for the improvement of society;*
- *the ability of rational and meaningful interpretation of media messages, ability to access, analyse, evaluate and transmit messages through media;*
- *the ability of critical thinking through monitoring, analysing, assessing and selecting information, as well as creative application and uploading them through any given medium.*

## Discussion

*Analysis of categories of participants' responses.* The respondents' notion of media literacy gravitates around seven separate units, which are presented in this paper as categories of responses. The analysis of the content of these categories of answers suggests that they correspond to the observation of the phenomenon of media literacy as the above continuum that extends from informing, through understanding, usage and evaluation of media, to the ability of communication by creating new media content. The first category (being informed on current affairs) indicates the lowest level of understanding, and a somewhat higher level of perception of media literacy is finding information for personal purposes, which requires more proactive attitude from mere, passive 'consumption' of media content. Higher categories of understanding ML are abilities of communication through media platforms or using new technologies, which are necessary, but not sufficient for media competence. Substantial difference appears in crystallizing the fifth category of understanding of media content, without critical distance, though. This category is on a higher level of the first one (being informed), because being informed about the current events itself does not necessarily means understanding their relevance or importance, but implies only following news, regardless if they are significant to the individual or not. The biggest turnaround comes with the 6th category, which combines this critical approach, often appointed by research participants. Finally, the last category includes media production, i.e., the creation and upgrading the media content, as a socially-responsible, competent media user who participates in creating media content and contributes to the network content which the individual uses.

Analysis of the frequency of categories with respondents indicates that by far the largest number of responses is the almost entirely correct perception of the ML phenomenon, *understanding and critical reflection on media*, which confirms the initial premise of the research. Only 5 of 107 participants included 7th criterion (*media production, or creative participation as an integral part of modern media literacy*) in their arguments. It is interesting that the attitude of participants that media literacy is the usage of new technologies (24 out of 107) dominates, which is too unilateral and mechanical an approach to this complex phenomenon. It should be pointed out that terms like 'new technologies', 'computer', and 'internet' are very often mentioned in responses distributed in other categories, but their essence was focused on the given application of new technologies, not just their usage. In the case of category 3, responses are precisely focused on the actual use of new technologies. The fourth category (16 out of 107) is also an interesting approach of participants that ML is the art of communication through media platforms (social networks, forums, e-mails, etc.), most often through digital media. Other categories (being informed about

public happenings; the ability to find the relevant information for one's own purposes; and understanding media content without the critic distance) are marginally present in perceptions of the participants. Only 5 of 107 participants included media production, or creative participation as an integral part of modern media literacy in their arguments. This confirms Carpentier's (2012) attitude that participation is not the same as interaction, as well as Nielsen's (2006) pessimistic attitude that 90% of users 'hide', are passive, and do not contribute, 9% are involved from time to time, and only 1% do significantly participate.

It is important to note that, observing all the categories, each is a prerequisite, but not a complete condition for ML (except for the last). In the theoretical part of the paper it has already been elaborated how contemporary media literacy encompasses critical as well as technical, social, and research skills (Jenkins et al., 2009).

*Groups of response categories*. Due to the number of response categories and easier understanding of the general tendencies of participants' perceptions, certain categories are merged in three large thematic homogenous groups in relation to the level of understanding ML. The first group of responses, which accounts for almost a quarter of the responses (28 out of 107), encompasses categories that have an inadequate understanding of media literacy, including categories of *being informed about public happenings* and *the ability to use new technologies*. Thus, respondents have added technical and informative skills to media literacy, but not social, research, and critical skills.

The second group of the responses (defined by 30 out of 107 respondents) presents partial understanding of the media literacy phenomenon. This response group combines the categories *the ability to find the relevant information for one's own needs*; *understanding content without critical distance;* and *the ability to communicate through media platforms* precisely because all of these skills are a prerequisite for forming media literacy. Unlike the previous group of responses, participants perceive media literacy as an understanding of media content, but not as the critical thinking and the ability to build media content in cooperation with other users. Therefore, this group of responses includes other, somewhat partial forms of the understanding of media literacy: *the ability to find relevant information for one's own needs* and *the ability communication through media platforms*. The ability to find relevant information for one's own needs is the activity in which a user establishes control over their use of the media—in terms of overcoming the trap of passive media consumption—and takes a more proactive attitude of media usage meeting their own requirements. The ability to communicate through media platforms refers not only to the mere exchange of information, but also to communication oriented to a wider audience, following the principles of usage of media (communication) platforms, as well as the explication and articulation of personal views and opinions about media contents, commenting, estimating or analysing, which even lead to the creation

of an impact on the audience and profiling new views; it, therefore, represents a relatively higher form of perceiving media literacy, though partial.

The third group, which is the most prevalent (49 out of 107 responses) reflects the full, or almost full, understanding of ML and includes one or a combination of two following criteria: *understanding and critical reflection on media* as well as *the understanding, critical thinking, creating and upgrading the media content.* The prevailing term is 'critically' that is aligned with verbs describes, perceives, accesses, receives, analyses, and evaluates. Furthermore, another term is present 'creation' or 'creative participation' in media content through modification, improvement, and posting new content, in other words, socially responsible creative participation on the internet. Research participants perceive ML in the proper sense because they not only view it as critical thinking skill, but also as research and social skill, where the use of technology is assumed. The answers range from understanding and critical analysis of media content, through understanding of media and the ways they impact the society, through the use of media for personal purposes ('immunity' to the vulnerability to manipulation of the media and propaganda) and finally, building media content as a backbone of a participatory culture (Jenkins et al., 2009; Yanarates, 2020; Nielsen et al., 2021; Chan et al., 2021).

Diagram 2. Research participants' response in relation to the level of education
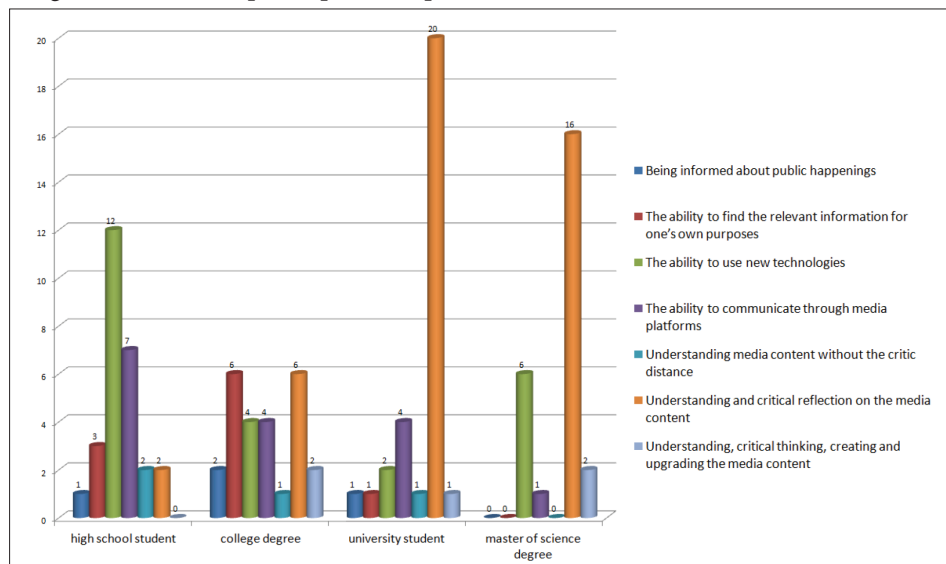


*Content analysis of participants' responses.* Diagram 2 indicates that the higher level of understanding ML was shown by participants of a higher level of education, university students and respondents with MSc. The lowest form of understanding ML was shown by high school students, as the youngest, least

educated, and the least skilled participants on the network, as evidenced by empirical and theoretical findings (Livingstone, 2002; UNESCO, 2013; Arsenijević & Andevski, 2016; Howard et al., 2021).

Diagram 3. Research participants' responses in relation to the field of education
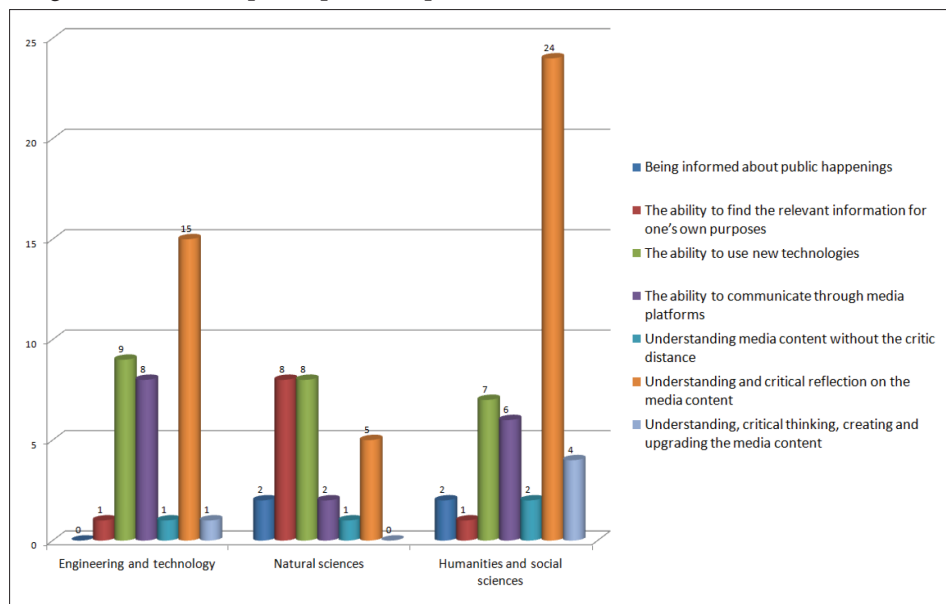


From a viewpoint of educational field, *category understanding and critical reflection on the media content*, as almost the most correct perception of media literacy, is dominant in the field of humanities and social sciences, after which the perceptions of ML as *a skill of communication* and *the use of new technologies* are prominent. What is understandable and logical is an obvious preference of participants in the field H&S to understand and define ML, to give it communicative dimension, and to recognize its participatory and interactive character. A similar structure has the group of participants in field of engineering and technology. It is interesting, however, that the distribution of responses from participants from natural sciences field is different, that is, they have a more mechanical approach, perceiving media literacy through communicational and technological dimension far more than from the viewpoint of critical reflection, as well as the creation of media content.

Apart from the sixth category (*critical reflection and understanding of media content*), a dominant perception of media literacy is as a skill of using new technologies. New technologies and the internet have great influence in life of modern men, with a number of challenges in their dealing with media content. Users of new technologies can access websites, upload digital text, audio, photo,

and video material, produce and distribute media content. The fundamental question in this regard is imposed whether the ability to use modern technology includes media literacy. Reducing ML to simply using digital technology represents perhaps the most risky, inappropriate, and incorrect understanding of ML. All this draws attention again to the already established lack of ML education and is accelerating the need for its implementation.

## Conclusion

While considering the encouraging results that more than 45% of the participants of the participants perceived ML in a relatively or completely correct way, we must take into account the favourable educational structure of the research sample. Selection of this specific sample structure was deliberate in order to indicate a 'standpoint' of the possible interpretation of probable results of the average population.

Returning to the sample of this research, the education community, and despite the positive findings, it remains that more than half of the respondents have either a wrong or partial understanding of the media literacy phenomenon. The analysis of the results of this study suggests that a large proportion of research participants believe that media literate individuals are those who have a developed skill of using new technologies or who are regularly informed about public events, reducing media literacy to a technological and informational dimension and giving it a mechanistic character.

For instance, only a few participants perceive ML in light of transmedia navigation – monitoring the same happening or content through different types of media – as seen from the part of the answers: *the ability to search and use content from (multi)media and its application in everyday life*; *use of all means of information gathering; using various types of media (TV, radio, newspapers, digital media) in order to get information of general and personal significance.* In the rest of the participants' answers there are those in which the ability to use a variety of media sources was mentioned, but not the ability to track content using a combination of the same. Herein lies the problem of insufficient media convergence (Jenkins, 2006; Jenkins et al., 2009), which is not a technology issue, but the ability to use converged media content. This study indicates that the education community separately and incoherently observes and collects information in online and offline space, even from media sources individually. Research participants view access to new and old media as separate actions, and do not realize the importance of media convergence and diversification, as the basic principle of ML.

Moreover, a small percentage of participants (5 of 107) is aware of the fact that the contemporary ML is a question of critical reflection, in equal measure as media participation. In today's participatory culture, user engagement becomes

increasingly important, so as to enrich and co-produce cultural, artistic, technical, and present social media content. In this way, those results indirectly confirm earlier findings (Matović & Milin Perković, 2014) about the lack of depoliticization and the polarization of media in Serbia. This study leads to the conclusion that the Serbian educational community lacks the awareness of creative, interactive, responsible participation in the multimedia space and of the need for users' contribution to the social, political, cultural, technological, and any other form of present knowledge on internet. Therefore, even though we can conclude that the basic premise of the research that most of the research participants would show understanding of ML is confirmed, this leaves space for improvement and development of a productive cooperation of media users, as the inevitable trend of modern, media-driven society.

New technologies allow everyone to participate in the creation and expansion of internet content. However, the quantity of information and various access methods do not guarantee the quality and creativity of their use. The tools of education, critical reflection, and creative online activities should be in the focus. Informational society will not contribute to the development of democratic capacity and development of knowledge in society as long as an individual as a consumer and passive recipient of information is not be able to select, organize, and use the information in a creative and socially responsible way.

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## Медијска писменост из објектива образовне заједнице

### Резиме

Савремена виђења медијске писмености подразумевају да она укључује медијске, али и техничке, истраживачке и друштвене компетенције. Акценат се ставља колико на могућност критичког тумачења медијских садржаја толико и на развијање личних и комуникационих способности за активно учествовање у друштву. Медијска писменост последњих деценија из тог разлога постаје важна друштвена тема и фокус различитих националних и међународних образовних политика. Отворени су многи правци и поља истраживања у оквиру медијског образовања, али је и даље мало свеобухватних и дубинских студија овог феномена.

Циљ рада је да се комбинацијом квалитативних и квантитативних метода анализира перцепција медијске писмености образовне заједнице (средњошколци, студенти, високообразовна популација и мастери/магистри наука), те рад пружа систематизовано гледиште корисника медија на феномен медијске писмености. Притом се, као референтни оквир, узима то да медијска писменост чини континуум који се протеже од пуке информисаности, преко разумевања, коришћења и процене медија, све до способности комуницирања у друштву путем креирања новог медијског садржаја.

Истраживање је спроведено на узорку од 120 учесника током 2021. године у Републици Србији, уз употребљену технику интервјуа. Потпун одговор дало је 107 учесника, а резултати су анализирани по утврђеним категоријама за процењивање тачности одговора на постављено истраживачко питање. Категорије су формиране на основу анализе садржаја, а касније су квалитативним методама укрштане са социодемографским карактеристикама учесника истраживања.

Полазна теза истраживања је, узимајући у обзир повољну образовну структуру узорка, да ће испитаници имати релативно јасно поимање значења медијске писмености. Резултати указују на то да већина испитаника правилно

доживљава медијску писменост као критичку рефлексију медијског садржаја, али не и као способност креирања новог медијског садржаја, те да има парцијално разумевање овог појма. Готово четвртина испитаника сматра да медијски писмени појединци имају развијену вештину коришћења нових технологија или да се редовно обавештавају о јавним дешавањима, сводећи медијску писменост на технолошку и информациону димензију. Веома мали број учесника (мање од 5%) у својим образложењима обухватило је и медијску продукцију, односно креативно партиципирање као саставни део савремене медијске писмености.

Анализа резултата у односу на ниво образовања показала је да више нивое разумевања медијске писмености показују испитаници вишег нивоа образовања. Посматрано по области образовања, испитаници друштвено-хуманистичког поља имају највише разумевање медијске писмености, односно, у највећој мери препознају њен критичко-партиципативно-интерактивни карактер, након којег следе испитаници техничко-технолошког образовања, док испитаници природно-математичког опредељења имају став према медијској писмености који је више механицистички, посматрајући медијску писменост кроз технолошку призму, далеко више него кроз призму критичког промишљања и креирања медијског садржаја.

Образовна популација изабрана је са намером осликавања будућег грађанског, демократског и дигитализованог друштва, популације која треба да буде предводник у свету примене нових медија. Стога, иако можемо закључити да је делимично потврђена основна претпоставка истраживања да ће, с обзиром на повољну образовну структуру, већина учесника истраживања показати разумевање медијске писмености, ово истраживање оставља простор за унапређивање и развој продуктивног садејства корисника медија, као неминовног тренда савременог, медијатизованог друштва.

Резултати овог истраживања омогућили су спознају разноврснијих и дубљих категорија феномена медијске писмености у досадашњем научном сазнању. У том смислу, овај рад приказује допринос теорији медија, као квалитативно истраживање разумевања медијске писмености од стране корисника медија. Резултати, стога, могу бити корисни увиди за практичаре и теоретичаре, али и драгоцен ресурс за креаторе медијских политика, посебно стратегија медијског образовања.

*Кључне речи*: медијска писменост; политика медијског образовања; квалитативно истраживање.

# ATTITUDES OF STUDENTS OF TEACHER EDUCATION FACULTIES IN SERBIA ON THE CONCEPT OF QUALITY SCHOOL

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# ATTITUDES OF STUDENTS OF TEACHER EDUCATION FACULTIES IN SERBIA ON THE CONCEPT OF QUALITY SCHOOL

*Abstract.* In order to answer the question of how to make education better in the society of the digital era, it is important to consider the attitudes and opinions of student teachers towards the characteristics of a quality school. For that purpose, the research was conducted whose goal was to determine the attitudes of students of teacher education faculties, student teachers, on the concept of a quality school as well as on the emancipatory role of students and teachers necessary for the work in a quality school. The research was conducted on a sample of 1,044 students of teacher education faculties in Serbia. The Likert scale of attitudes was applied in the research. The paper presents the results of research on the concept of a quality school that would lead every student to success. It was determined that the emancipatory role of students is best seen through the extent to which they are actively engaged in their own evaluation of their achievements; how much they prepare during their studies to accept the features of a more efficient conception of a school in which every student will succeed. The results provide a very reliable basis in modeling a quality school and effective teaching that would encourage students and lead them to success according to their individual abilities.

## Introduction

Our research is focused on students' attitudes about the concept of a quality school. Rapid scientific and technical-technological changes lead to rapid changes in work and business processes that intensify, become more efficient, and of better quality. The function of the faculty is to educate students to live and work in knowledge society organizations whose basic values are the applicability of knowledge, active attitude towards professional development, and continuing education (Andrews & Higson, 2011; Person & Rosenbaum, 2005; Zelloth, 2009). Teachers will be able to use the acquired knowledge during university education in everyday life and future professional work, all with the aim of improving and shaping the existing system of upbringing and education (Каменарац & Андре, 2010). This obliges the school as a creator of knowledge, not only to follow but to be a leader of innovative knowledge. Innovations are a condition for the school not to lag behind social and technological advances in a reality that is evolving intensively every day (Вилотијевић & Мандић, 2015). Traditional school and reproductive teaching in the digital age do not sufficiently encourage the development of innovative changes in education. Incentives for abandoning traditional models of education—abandoning formal educational frameworks and finding new educational models—come from different areas of pedagogical work (Matović, 2000; Савовић & Јевтић, 2000). All of them suggest that education should imply the acquisition of permanent competencies, relying on creativity, innovation, and personal autonomy. Important characteristics of individuals that influence its realization in individual and social life, and which are at the same time a criterion for directing the development of its competence, are: autonomy, tolerance, participation, openness, and flexibility (Ђуришић Бојановић, 2007; Gojkov, 2004). The professional competencies that students, future teachers, acquire during their university education are the main factor of productivity, competitiveness, and quality of future work.

Today's school is at a turning point, both in terms of the organization and the content of upbringing and education, and the further development and character of the teaching process. It is static in its organization, the content of

education is fragmented, and the teaching process is of a reproductive character. Therefore, it is necessary to completely overwrite the traditional form of the school in a complete creative and critical transformation that will be based on a new paradigm of development. It is in this foundation that many unknowns and traps are hidden, many possible misconceptions and deviations, improvisations and imitations, possible radical ambitions, but also retrograde stagnation (Pivac, 1995). Therefore, it is necessary to scientifically restructure the internal organization of the school by using existing scientific results and applying various forms, methods, and procedures in the teaching process. The goal of a quality school cannot only be for the teacher to teach, but, above all, for the student to learn and the teacher to be a leader and collaborator (Ђорђевић, 2006). Đorđević (Ђорђевић, 2006) also believes that teaching and learning are not two parallel and externally connected processes, but two sides of a unique, complex teaching event in which measures and actions of teachers and actions and activities of students depend on each other, while supporting and promoting each other. Proponents of a quality school also shift the focus of work from competition to cooperation. The ability of an individual to work in a team with others—to exchange ideas and skills with others as well as to cooperate in resolving conflicts—is one of the most important competencies in the 21st century. Continuous encouragement of students to surpass their peers has significant consequences for the social and emotional development of students (Шевкушић Мандић, 2006). This is one of the reasons why cooperative learning is being insisted on more and more. Ševkušić Mandić (Шевкушић Мандић, 2006) also cites Deutsche's definition, which says that the cooperative social situation is a context in which an individual can achieve a goal only if everyone in the group achieves that goal. Achieving that goal, individuals are said to be interdependent in an advancing way. Vincent Okonj (in Вилотијевић & Мандић, 2016) succinctly points out the weaknesses of today's school, which are a product of Comenius' conception: a) encyclopedism, which burdens students' memory instead of preparing students for work; b) education is a closed circle, it has a final character instead of opening the way for further education; c) teaching and the teacher are authoritarian, coercion is applied instead of preparing the student for life in a democratic society.

Overcoming existing problems and achieving a quality school is possible by abandoning what is outdated and obsolete, by introducing new and efficient content of the education, methods, and procedures. Traditional teaching is characterized by giving importance to teaching, memorization, and verbal understanding. Learning should involve much more than memorizing facts, rules, principles, and laws. It must contain an understanding as well as an understanding of the methods by which the most significant areas of knowledge were created (Ђорђевић, 2012).

A large number of previous researches were focused on the examination of factors that are related to success in learning and the performance of the teaching process. The results most often pointed to various psychological and other characteristics of the child as the main factors (personality traits, gender, age, abilities, etc.), but numerous elements of the school environment should not be neglected as an important link in this process. In addition to research, teaching practice also indicates that the number of these elements is large, so the organization of teaching, teaching content, physical conditions, school equipment for teaching, family support, etc., can also be highlighted (Ђигић, 2013). However, as already mentioned, one of the most important elements is the teacher. The positive and negative behaviors of teachers largely determine the effectiveness of work in the classroom and significantly affect student achievement, as well as interpersonal relationships between students and teachers, and student satisfaction with the teacher and with the teaching practice.

The research related to the assessment of the quality of teaching in schools in Serbia, when devising the strategy of building the quality of education in teaching, could be briefly presented as follows: the teaching practice in our schools is inconsistent with modern tendencies in teaching, whether they are determined based on modern conceptions of education in classes or relevant educational documents (Mitrović & Radulović, 2014). This assessment was based on data collected in several empirical studies. Data on teaching in our schools—teaching methods, assessment practices, literacy development, etc.—were collected through research in which the basic methodological procedure involved observation, description, and analysis of teaching practice, and the selection of data for analysis, the analysis and assessment itself was carried out by the researchers.[3] The elements for the strategy were also derived from another empirical research which examined teachers' evaluations of the quality of their own work (Stančić, 2014). Although this source represents an examination of the teacher's perspective, its focus was not on the teachers' view of the quality of teachers and teaching in the existing practice. The importance of teachers and their perspective in a quality school was based on previous research. We will judge how teachers perceive the quality of teachers' actions and teaching based on their perception of teachers' actions in current practice and on the basis of comparing their perception of practice with what they consider to be good teacher actions. The decision to specifically investigate the teacher's view of the 'typical' and 'ideal' teacher and through the analysis and comparison of these two images to conclude about the quality of teaching, means that the teacher is the focus of this research in two ways: as an object of research (typical teachers in our schools, their understanding of the actions of a good teacher); and as a

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[3] For data on these researches, their results, and interpretation see Митровић, 2006; Mitrović, 2014; Radulović & Mitrović, 2015.

feature of the methodological approach (research of the teacher's perspective). We mentioned earlier that the reason for studying the teacher's view of a quality school is based on the understanding that quality cannot be understood without their perspective. Emphasizing the importance of teachers is characterized by numerous works on education and contemporary educational documents. Researchers often stress that the learning and achievement of students depend on the teacher (Goe, 2007; Goe & Stickler, 2008; Rivkin et al., 2005; Wenglinsky, 2002), even when they admit that it is not known exactly which qualifications, characteristics, and behavior of the teacher are the most important (Goe, 2007; Goe & Stickler, 2008). *The Strategy for the Development of Education in Serbia until 2020* (*Стратегија развоја образовања у Србији до 2020. године*, 2012) discusses the quality of teachers not only as one of the components of the quality of education, but also as the cause of the poor results of students on international and national tests, it even claims that "it is clear to everyone that they are the key factor in student success" (p. 181). We believe that this assessment is exaggerated and insufficiently argued, because research shows that student achievements are the result of a complex set of different factors; therefore, quality in education should be viewed systemically (Mitrović & Radulović, 2014; Pavlović Breneselović, 2015). A quality school implies quality work of teachers, because we see the work of teachers as a component of the quality of education.

New circumstances demand a teacher-creator who will give up their transmission role and become a collaborator, advisor, and guide to students. The student must get out of the passive and move into a subjective position, and the school, in accordance with the requirements of emancipatory pedagogy, must help them become an autonomous, self-determining person who influences the educational process and participates in planning and evaluating their own work.

The aim of the research was to determine the attitudes of student teachers about the concept of quality school as well as the emancipatory role of students and teachers to work in an efficient school necessary for the teaching process.

## Method

The research sample was stratified and randomized. The blend of intentional and unintentional samples contributed to its greater reliability. The random sample allows the probability that each respondent from the population will be selected in the sample. The selection of examinees from each subgroup of the population was performed using a table of random numbers. The basic features of the sample resembled the basic set from which it was taken. This contributed to its representativeness and reliability. The research sample included 1,044 students of teacher education / pedagogical faculties in Serbia. Of that sample, 778 are females and 266 males; of that, 337 are second-year students, 374 third-year

students, and 333 fourth-year students. The Likert scale of attitudes was applied in the research. The answers on a five-point scale range from strongly agree to strongly disagree. Based on the obtained results, the distribution of students' answers included in the research sample was determined. Data were processed using descriptive statistical procedures in the SPSS software.

The survey and the scaling technique were used in the research. Within these techniques, the following instruments were applied: a questionnaire on students' attitudes and opinions on a quality-innovative school; and a scale (questionnaire) about students' attitudes, about their perception of the organization of teaching in a quality-innovation school.

The questionnaire on students' attitudes and opinions on the quality-innovative school was created in the form of a Likert summation scale. The items referred to different aspects of quality-innovative schools. These claims represented the hallmarks of quality schools. The instruments were created based on the study of several sources about a quality school, the roles and competencies of teachers. Responses on the scale range from strongly agree to strongly disagree. In this way, we could determine the cumulative values for each unit. Based on the obtained results, the distribution of responses of all students included in the research sample was determined.

The validation of this instrument was performed on a convenient sample of respondents. After the item analysis and the calculation of statistical values, the final instrument used in this research was created. The data were processed using descriptive statistical procedures in the SPSS software. The authors used calculations of arithmetic means (M), Fisher's coefficient (F), and significance level < 0.05 < 0.01 (Sig.).

## Results and Discussion

We researched students' attitudes about the important features of a quality school that would more optimally meet the current needs of students and lead them to success. We were interested in whether the students, who are preparing for the teaching profession, have positive attitudes towards the characteristics of the concept of a quality school. The results are shown in Table 1.

Table 1. Characteristics of a quality school

|  | M-value | Rank |
|---|---|---|
| Application of innovative teaching models. | 3.96 | 9 |
| The school is a learning institution. | 4.08 | 5 |
| The school is a research laboratory. | 3.96 | 8 |
| The school is an institution of cooperation and trust. | 4.07 | 2 |
| The school is in constant developmental changes. | 3.92 | 13 |

| | | |
|---|---|---|
| At school, everyone has enough time for others. | 3.93 | 10 |
| Teachers deal with the child, and less with the subject. | 3.81 | 15 |
| Teachers are primarily educators. | 4.07 | 6 |
| The school groups must be small enough to be effective. | 4.09 | 3 |
| The school is a community of teachers and students that connects trust and respect. | 4.12 | 4 |
| The emancipatory role of students is expressed in the school. | 3.93 | 11 |
| Evaluating and obtaining feedback is daily. | 4.01 | 7 |
| Powerful and diverse sources of knowledge are used. | 4.96 | 1 |
| Students use reminders to evaluate their achievements in front of the teacher. | 3.93 | 12 |
| In the school, a small number of teachers in one class organize the work of several subjects. | 3.91 | 14 |
| The school works in one shift. Students complete all obligations during the day at school. | 3.80 | 16 |

*Students' attitudes towards the characteristics of the concept of quality school.* The presented values of arithmetic means (M) indicate very positive attitudes towards all features of the concept of quality school. The values of arithmetic means range from M 3.80 to 4.96 from the maximum possible grade of 5. Student teachers primarily point out that powerful and diverse sources for independent acquisition of knowledge can be used in a quality school (M = 4.96). Independent acquisition of knowledge is the first on the list of important characteristic of the concept of quality school. At the center of pedagogical work in a quality school is the independent work of students. The use of different sources for acquiring innovative is one of the important requirements of modern didactics and teaching methodology.

Student teachers believe that the school must be an institution of cooperation and trust (M = 4.07). This is primarily important for the institutions that educate young individuals. Trust and cooperation are effectively managed by acquiring knowledge and other values. This feature of the quality school concept is in the second place on the scale. In order to achieve a more effective educational process, a quality school must divided the students into small enough groups, i.e. 20–24 students, in order to organize intensive interactive teaching. It is a condition for getting to know students better, to diagnose and monitor their development. A quality school, as the respondents believe, must be a community of teachers and students (4.12), which connects trust and respect. This feature is on the fourth place of the scale. In such circumstances, the school can be modeled as a learning institution (4.08), in which everyone learns, not just students. One of the conditions for a quality school is not to lag behind social progress; it is an imperative of a learning society in which the modern school realizes its pedagogical function. This feature is on the fifth place of the ranking scale. In a

quality school, especially in the lower grades of primary school, teachers should first and foremost be educators who provide intellectual, moral, and social instructions. This feature is in the sixth place of the ranking scale. Respondents ranked continuous feedback in the seventh place (4.01). Monitoring and evaluation, as a way of obtaining feedback, must take place continuously, i.e. every step of pedagogical activity must be followed. The class should be organized so that during it, and in the end in particularly, students know what knowledge they acquired, and the teacher should have a clear picture of the knowledge of his students. The system is the connection of parts into a harmonious whole. Feedback must follow every step of the teaching process, and in order for it to be successful, students must receive real-time feedback on their achievement. Only in this way can they correct mistakes in learning in time, can confirm what they have learned well and in the end they can be successful. The current traditional school is the most vulnerable in this aspect.

The school valorizes student achievement with a large delay, separating it from the learning process. That is the reason for its great failure. They experience failure more often than success. The school, as the respondents point out, must be a laboratory where students experiment, research, discover knowledge, the truth known and unknown to them, In such a school, laboratory, there is a real, true interaction, not only between students themselves, or between teachers and students, but also between the subject of learning, action, source, subject of learning and the subject who learns. This characteristic, the concept of quality school is on the eighth place of the ranking scale (M = 3.96). A quality school must be innovative enough. The application of innovative models of teaching is a condition for the school to surpass the traditional organization and to constantly surpass the previous, insufficiently effective concept of its work. Although this feature is on the tenth place of the ranking scale according to the average M-values, it approaches the score M = 4, which clearly speaks of its important place on the list of quality school features (M = 3.96).

*Students' attitudes towards quality school characteristics by year of study*. The senior students of teacher education faculties are considered to be sufficiently introduced into the problems of school and educational practice. Furthermore, they are able to think about the concept of quality school and efficient teaching from the point of view of their experiences in education, and additionally also theoretically. We were interested in whether the respondents, considering the years of study, have different perceptions and special attitudes towards the characteristics of the concept of a quality school. We assumed that there were no statistically significant differences in students' attitudes towards the characteristics of a quality school in relation to the years of study. In response to this task, we calculated certain values which are given in Table 2.

Table 2. Characteristics of a quality school – year of study

| Features of an efficient school | Year of study | | | F | Sig. |
| --- | --- | --- | --- | --- | --- |
| | II | III | IV | | |
| | | M | | | |
| Application of innovative teaching models. | 4.09 | 4 | 3.75 | 4.816 | 0.008 |
| The school is a learning institution. | 4.15 | 4.25 | 3.84 | 7.034 | 0.001 |
| The school is a research laboratory. | 4.02 | 4.15 | 3.73 | 8.027 | 0.000 |
| The school is an institution of cooperation and trust. | 4.06 | 4.42 | 3.84 | 12.846 | 0.000 |
| The school is in constant developmental changes. | 3.97 | 4.07 | 3.72 | 4.686 | 0.010 |
| At school, everyone has enough time for others. | 4.10 | 3.99 | 3.71 | 5.450 | 0.005 |
| Teachers deal with the child, and less with the subject. | 3.93 | 4.01 | 3.59 | 7.022 | 0.001 |
| Teachers are primarily educators. | 4.02 | 4.32 | 3.86 | 9.906 | 0.000 |
| The school groups must be small enough to be effective. | 4.09 | 4.23 | 3.94 | 3.235 | 0.040 |
| The school is a community of teachers and students that connects trust and respect. | 4.02 | 4.27 | 3.97 | 4.327 | 0.014 |
| The emancipatory role of students is expressed in the school. | 3.97 | 4.07 | 3.76 | 3.762 | 0.024 |
| Evaluating and obtaining feedback is daily. | 4.01 | 4.18 | 3.83 | 4.611 | 0.010 |
| Powerful and diverse sources of knowledge are used. | 3.93 | 4.11 | 3.85 | 3.391 | 0.034 |
| Students use reminders to evaluate their achievements in front of the teacher. | 3.98 | 4.06 | 3.76 | 4.007 | 0.019 |
| In the school, a small number of teachers in one class organizes the work of several subjects. | 3.97 | 4.03 | 3.73 | 3.673 | 0.026 |
| The school works in one shift. Students complete all obligations during the day at school. | 3.88 | 3.96 | 3.57 | 5.012 | 0.007 |

M (arithmetic mean); F (Fisher's coefficient); Sig. (significance level <0.05 <0.01)

Observing the results, as a whole, we see that the average values range from M = 3.57 for the item *The school works in one shift. Students complete all obligations during the day in the school.* given by 4th year students up to M = 4.42 for the item *The school is an institution of cooperation and trust.* shared by 3rd year students. M-values indicate that students express positive attitudes towards the characteristics of the concept of a quality school of the future. It is interesting to note that the opinion that the school should create conditions for students to complete their obligations at school and not have homework, so that they can achieve richer social relations in the family and not be hindered by previous homework, is in relation to all other claims in all three generations of students which received the lowest grades. It can be stated that the discussed item does not exceed the average value of 4 (M2 = 3.88; M3 = 3.96; M4 = 3.57), but is very high.

Differences in the assessment of the characteristics of a quality school were found between students of different years of study. Data on these differences are shown in Table 2. Applying the multiple correlation procedure (Multiple Comparisons, Dunnett T2), the differences between the examined groups of students were determined. Table 2 shows the obtained statistically significant differences between students of different years of study in the assessment of certain important features of a quality school. Senior students generally express a lower degree of agreement with statements that reflect a quality school, compared to 2nd and 3rd year students. The grade of the offered features of a quality school generally decreases with the age of the students: the higher the year of study, the lower the grade. Does student learning become more critical with time, or is it something else? How did study programs affect students with their content at teacher education faculties? This logical assumption should be checked in further research.

Our expectations that there are no statistically significant differences in students' attitudes about the characteristics of the concept of quality school in relation to the year of study have not been confirmed. Namely, it was determined that there is a statistically significant difference in students' attitudes towards the characteristics of the concept of quality school in relation to the years of study: the higher the year of study, the less agreement with the offered characteristics of the school. Senior students express the lowest degree of agreement with the characteristics of the quality school concept.

*Students' attitudes towards quality school characteristics by place of study.* In this part, our task was to determine the attitudes of students from different faculties. Namely, some faculties operate in large urban areas while most of them operate in smaller cities. We were interested in whether there are differences in the attitudes of students towards the characteristics of the concept of a quality school in the place of study. We assumed that there were no statistically significant differences in students' attitudes towards the concept of a quality school in relation to their place of study. The results and calculated values are given in Table 3.1.

Table 3.1. Assessment of important features of a quality school – place of study

| VARIABLE | | Interactive independent | Application of innovative work models | Everyone learns at school | The school is a research laboratory | The school is an institute of cooperation and trust | The school is in constant developmental changes | At school, everyone has enough time for others | Lectures are a rarity | Teachers deal with the child and less with the subject | Teachers are primarily educators |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Belgrade | M | 4,76 | 4,67 | 4,54 | 4,43 | 4,49 | 4,57 | 4,59 | 4,57 | 4,51 | 4,56 |
| | N | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 |
| | SD | 0,462 | 0,535 | 0,602 | 0,674 | 0,602 | 0,584 | 0,634 | 0,612 | 0,641 | 0,663 |
| Užice | M | 4,00 | 3,91 | 4,16 | 4,08 | 4,24 | 3,85 | 3,95 | 3,91 | 3,71 | 4,04 |
| | N | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 |
| | SD | 1,167 | 1,001 | 1,035 | 0,884 | 1,058 | 1,066 | 1,021 | 0,983 | 1,062 | 0,999 |
| Jagodina | M | 3,93 | 3,98 | 4,23 | 4,07 | 4,26 | 3,82 | 3,85 | 3,76 | 3,79 | 4,11 |
| | N | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| | SD | 1,209 | 1,085 | 1,096 | 1,093 | 1,063 | 1,347 | 1,299 | 1,241 | 1,197 | 1,048 |
| Sombor | M | 3,43 | 3,60 | 3,74 | 3,65 | 3,86 | 3,65 | 3,69 | 3,64 | 3,75 | 4,00 |
| | N | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 |
| | SD | 1,081 | 1,067 | 0,894 | 1,010 | 1,109 | 0,997 | 1,029 | 0,887 | 1,015 | 0,946 |
| Vranje | M | 3,74 | 3,77 | 3,49 | 3,45 | 3,96 | 3,96 | 3,38 | 3,11 | 3,47 | 3,83 |
| | N | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| | SD | 1,132 | 1,047 | 1,177 | 1,138 | 1,285 | 1,160 | 1,243 | 1,238 | 1,266 | 1,257 |
| Leposavić | M | 2,87 | 3,13 | 3,00 | 3,13 | 2,73 | 3,33 | 2,80 | 3,13 | 2,93 | 3,07 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | SD | 1.106 | 1.042 | 1.486 | 1.279 | 1.363 | 1.269 | 1.064 | .730 | 1.015 | 1.202 |
| NO Vršac | M | 3.80 | 3.67 | 4.33 | 4.00 | 4.13 | 3.80 | 4.20 | 3.47 | 3.67 | 3.93 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | SD | .847 | 1.093 | 1.093 | .983 | 1.332 | .847 | 1.064 | .973 | 1.422 | 1.202 |
| NO Novi Pazar | M | 3.56 | 2.89 | 4.33 | 3.78 | 3.89 | 2.78 | 3.78 | 2.67 | 3.67 | 3.67 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| | SD | .856 | .583 | 1.085 | 1.060 | 1.231 | 1.060 | 1.166 | 1.085 | 1.188 | .686 |
| In total | M | 3.98 | 3.95 | 4.09 | 3.98 | 4.12 | 3.93 | 3.94 | 3.82 | 3.85 | 4.08 |
| | N | 534 | 534 | 534 | 534 | 534 | 534 | 534 | 534 | 534 | 534 |
| | SD | 1.125 | 1.047 | 1.070 | 1.022 | 1.113 | 1.108 | 1.126 | 1.086 | 1.117 | 1.031 |

Table 3.2. Assessment of important features of a quality school / place of Teacher Faculty Education (continued)

| | VARIABLE | The school and classes are small enough | School-community of teachers and students | In school, the emancipatory role of the student is expressed | Evaluation and feedback | Various sources of knowledge are used | Students self-evaluate their achievements | In evaluation, students use reminders | A small number of teachers organize work from several subjects | The school works in one shift | Spatial organization according to inform. paradigm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Belgrade | M | 4.61 | 4.60 | 4.54 | 4.72 | 4.46 | 4.54 | 4.57 | 4.51 | 4.55 | 4.59 |
| | N | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 |
| | SD | .605 | .608 | .699 | .530 | .560 | .560 | .572 | .628 | .559 | .554 |
| Užice | M | 4.05 | 4.18 | 3.89 | 4.04 | 4.01 | 3.85 | 4.11 | 3.96 | 3.84 | 4.18 |
| | N | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 |
| | SD | 1.046 | .888 | .919 | .856 | .926 | .989 | .966 | 1.034 | 1.187 | .983 |
| Jagodina | M | 4.21 | 4.26 | 4.05 | 4.00 | 3.90 | 4.04 | 3.89 | 3.89 | 3.90 | 4.11 |
| | N | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| | SD | 1.028 | 1.042 | 1.079 | 1.220 | 1.116 | 1.074 | .994 | 1.140 | 1.230 | .924 |
| Sombor | M | 3.77 | 3.69 | 3.69 | 3.81 | 3.90 | 3.65 | 3.58 | 3.58 | 3.73 | 3.83 |
| | N | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 |
| | SD | 1.134 | 1.195 | 1.115 | 1.236 | 1.046 | .997 | 1.128 | 1.092 | 1.096 | 1.105 |
| Vranje | M | 3.55 | 3.57 | 3.45 | 3.34 | 3.85 | 3.43 | 3.43 | 3.64 | 3.43 | 3.85 |
| | N | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| | SD | 1.299 | 1.281 | 1.486 | 1.221 | .955 | .903 | .950 | 1.092 | 1.543 | 1.142 |
| Leposavić | M | 3.27 | 2.87 | 3.27 | 3.27 | 3.07 | 3.20 | 3.20 | 3.00 | 2.20 | 3.13 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | SD | 1.311 | .819 | .868 | 1.143 | .944 | .925 | 1.186 | 1.114 | .847 | 1.224 |
| NO Vršac | M | 4.07 | 4.13 | 3.80 | 3.73 | 3.33 | 3.60 | 3.67 | 3.60 | 3.07 | 3.53 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | SD | 1.202 | 1.106 | 1.064 | 1.015 | 1.028 | 1.102 | 1.028 | 1.037 | 1.363 | 1.332 |
| NO Novi Pazar | M | 4.33 | 4.22 | 3.22 | 3.33 | 3.78 | 3.44 | 3.22 | 3.78 | 3.22 | 3.89 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| | SD | .840 | .943 | 1.263 | 1.188 | .943 | 1.097 | 1.263 | .943 | 1.263 | .900 |
| In total | M | 4.09 | 4.10 | 3.94 | 4.02 | 3.97 | 3.92 | 3.94 | 3.92 | 3.81 | 4.08 |
| | N | 534 | 534 | 534 | 534 | 534 | 534 | 534 | 534 | 534 | 534 |
| | SD | 1.081 | 1.056 | 1.084 | 1.100 | .982 | 1.005 | 1.040 | 1.062 | 1.237 | 1.029 |

From the results shown in Tables 3.1 and 3.2, it is possible to notice that all features exceed the limit of the arithmetic mean M=3 of respondents from all teacher education faculties except in Leposavić, where several items are below 3.00. In total, the sum of the arithmetic mean of all items and their M-values indicate that students show strong attitudes towards the characteristics of the concept of quality school.

Respondents from Belgrade and Jagodina express strong views where the arithmetic mean is 4.068 in Belgrade, and somewhat less in Jagodina, 4.002 is the most common. It follows from this that the proposed concept of a quality school, which was evaluated and supported by student teachers from the mentioned faculties, is acceptable and supported. Student teachers from other faculties also have positive attitudes where the arithmetic mean value is very close to 4.00 (Užice 3.998, Vranje 3.834, NO Vršac 3.776, NO Novi Pazar 3.775, Sombor 3.612, and Leposavić 3.03). Students teachers, i.e. students of all teacher education faculties expressed very positive attitudes where the arithmetic mean value is around 4.00, except for students from Leposavić whose attitudes have the value of 3.030.

Statistically significant differences were found in the attitudes of student teachers from different places of study according to the stated characteristics of a quality school.

## Conclusion

Students who study in Belgrade have the highest marks for all the offered characteristics of a quality school, and thus the most positive attitude towards all the features of the concept of a better and more successful school. In almost all characteristics, the average grade of students from Belgrade is over 4 (*Interactive independent work of students.* M=4.76). The lowest grades were given by students from Leposavić (*The school is an institution of cooperation and trust.* M=2.73).

Based on the findings, it is possible to conclude that the social environment has a certain influence on the attitudes of the respondents towards the characteristics of a quality school. It is logical to assume that the information of future teachers about the quality of school work and the necessary changes also affects their perception of the concept of a quality school.

Therefore, students of teacher education faculties in the total research with their positive attitudes strongly support the concept of a quality school that would lead students to success according to their abilities through effective pedagogical work. The assessment of the offered features of an efficient school of the future generally decreases with the age of the students, the higher the year of study, the lower the mean value. Statistically significant differences were found in the attitudes and opinions of student teachers from different places of study according to the characteristics of the school of the future. In general, students who study in Belgrade have the highest grades about the school of the future,

and thus the most positive attitude towards all features of the concept of a quality school, while the lowest grades were given by respondents from Leposavić. Respondents in total express positive attitudes towards the characteristics of the concept of a quality school. The M-values of the respondents' attitudes are high, and at some faculties (Belgrade, Jagodina) they exceed M=4.00 and approach the optimal limit value (5.00). It was found that there are statistically significant differences according to the place of study. Respondents studying in larger urban areas have more positive attitudes towards the concept of a quality school. Also, it was found that there is a connection between the year of study and the strength of students' attitudes: students of lower years of study have more positive attitudes towards the characteristics of the concept of a quality school.

Based on the obtained results, it was determined that there are statistically significant differences in the attitudes and opinions of respondents towards the concept of quality school in relation to the year and place of study. The higher the year of study, the less agreement with the concept. The place of study has an impact on the strength of attitudes and opinions of respondents on the concept of quality school. These differences do not call into question the manifestation of their positive attitudes towards the concept of a quality school, because it is only about their intensity. However, the question arises as to whether students adapt to a traditional school with years of study or there are some other factors that should be explored. In any case, it is unlikely that over the years of study, their critical attitude only towards the characteristics of the concept of a quality school grows, because it is more realistic to expect such an attitude to manifest itself towards a traditional school.

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## Ставови студената учитељских факултета у Србији о концепту квалитетне школе

### Резиме

Да би се одговорило на питање како образовање учинити квалитетнијим у друштву дигиталне ере, значајно је сагледати и ставове и мишљење студената, будућих учитеља, према обележјима квалитетне школе. У ту сврху спроведено је истраживање чији је циљ био да се утврде ставови студената учитељских факултета о концепту квалитетне школе, као и о еманципаторској улози ученика и наставника неопходних за рад у квалитетној школи. Истраживање је спроведено на узорку од 1044 студента учитељских факултета у Србији. У истраживању је примењена Ликертова скала, а приказани су резултати истраживања о концепту квалитетне школе која би сваког ученика водила до успеха. Утврђено је да је еманципаторску улогу ученика најбоље сагледати кроз то колико су они постали актери сопственог вредновања својих постигнућа, односно, колико се они у току студија припремају да прихвате обележја ефикасније концепције школе у којој ће сваки ученик у њој бити успешан. Резултати пружају доста поуздану основу у моделовању квалитетне школе и делотворне наставе која би ученике подстицала и водила до успеха према њиховим индивидуалним могућностима.

*Кључне речи*: мишљење студената; концепција; школе; еманципаторска улога ученика.

# FUNCTIONAL ABILITIES OF CHILDREN AS FACTORS OF SCHOOL ACHIEVEMENT

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# FUNCTIONAL ABILITIES OF CHILDREN AS FACTORS OF SCHOOL ACHIEVEMENT[4]

*Abstract.* Understanding the factors which affect students' school achievement is an important knowledge source for strategic planning and encouraging changes in education. In this paper, we focused on examining the factors related to personal characteristics. The aim of this research was to determine the relation between school failure and achievements in certain functional abilities, such as: academic skills (reading, writing), attention, communication (receptive and expressive speech), class participation, and behavior. The sample included 195 younger school-age children of both genders. Students' functional abilities were assessed by the S.I.F.T.E.R. scale (Screening Instrument for Targeting Educational Risk). The results showed that school achievement correlated with all assessed functional abilities. The coefficient of multiple determination showed that 48% of individual differences in children's school achievement can be explained by individual differences in the given model of functional abilities. It should also be emphasized that only two functional abilities, attention and communication, were singled out as statistically significant particular predictors.

*Introduction*

The prevailing belief in the literature and school practice is that school success is a significant predictor of optimal professional development and success in life, while school failure is a problem that should be worked on preventively (Scott et al., 2019). Students' school failure is a very complex and serious personal and social problem with numerous negative consequences on the overall development of their personality and their future life. The consequences of school failure are reflected both in a child's personality and their life in general, and can occur at the pedagogical-psychological level, as well as at the wider socio-economic level (Malinić & Gutvajn, 2012). They are most frequently manifested as the loss of motivation and feeling of helplessness, inferiority, withdrawal, and the development of negative personality traits. The motivation is an important predictor of many student outcomes such as self-efficacy, academic engagement and academic achievement (Opdenakker et al., 2012). Apart from that, negative attitudes toward school, teachers, and learning often occur, which further leads to disrupted communication within family and at school (Huang & Anyon, 2020). Authors of various theoretical orientations have dealt with school failure. Thus, there are many different definitions of the term 'failure' in the literature. Failure is most defined as: (a) a discrepancy between students' achievement and intellectual abilities (Bartels et al., 2002; Deary et al., 2007); (b) consequence of a discrepancy between students' abilities and demands placed upon them (Henderson & Mapp, 2002); and (c) a problem caused by various psychosocial factors (Subotnik et al., 2011). The consequences of school failure are educational, social, cultural, economic, and professional (Giavrimis & Papanis, 2008).

There are many different causes leading to someone being labelled as 'unsuccessful at school'. Causes of school failure with three broad groups of factors: family (parents' education level, parents' employment, material income, number of household members, completeness of the family, psychosocial climate in the family, family relations, parents' expectations) (Castro et al., 2015; Fan et al., 2011); school (teachers' preparation for educational work and the quality

of that work, organization of teaching, application of modern methods, forms and tools in teaching, interpersonal relations between students and teachers, general atmosphere in the school, expectations of teachers) (Asikhia, 2010); and students' personal characteristics (intelligence, values, interests, expectations) (Saklofske et al., 2012; Topor et al., 2010). This research examined some of the possible causes of school achievement that arise from the personal characteristics of students, examined how certain functional abilities of students affect school achievement.

One of the operational definitions of functional abilities can be found in the Functional Abilities Classification Tool – FACT (Klein & de Camargo, 2018). Authors define this construct as a child's use of skills in a typical environment without additional support. In other words, the level of functional abilities is determined by whether and to what extent a child needs support to participate in daily activities. The concept of functional abilities in this paper was observed as a superior construct with five important areas which may affect school achievement: academic skills (reading and writing), attention, communication, class participation, and behaviour. With regard to the aforementioned definition of functional abilities, it would mean that those children who need additional support in the mentioned areas have certain difficulties in functioning in the education process. Bearing in mind the complexity of causes of failure in school, as well as their multiplicity, in this research, the issue of failure in school will be considered as a consequence of difficulties that appear in school skills, communication, attention, participation during the class, and the student behaviour.

Reading and writing are most often considered basic academic skills. Difficulties in basic academic skills can lead to specific learning disabilities. This group of disorders most often includes reading disorders (dyslexia), writing disorders (dysgraphia and dysortography), and calculation disorders (dyscalculia). Difficulties in these skills can later cause problems in learning the content of other subjects. Specific learning disabilities, if left untreated, can potentially cause problems throughout life, including poorer school performance, lower self-esteem, higher rates of dropping out of school, greater psychological difficulties, poor mental health, as well as higher rates of unemployment (Edition, 2013). About 80% of cases of failure in school come precisely from some form of specific learning disabilities (Hudson et al., 2007). The prevalence of dyscalculia ranges from 5 to 6% (Shalev, 2004), and dyslexia and dysgraphia from 5 to 10% in the student population (Habib, 2000). It is believed that an individualized approach to the student and, if necessary, the creation of suitable educational programs in a way that suits the student himself, his interests, and capabilities can help overcome the present difficulties (Daniels & Stafford, 1999).

Attention plays a very important role in the process of processing information. It participates in the active selection of stimuli, the importance of which

is conditioned by its external characteristics, individual preferences, motivation, and cognitive strategies that a person uses (Gomes et al., 2000). Attention involves a series of processes such as filtering stimuli and balancing multiple stimuli, and attributing emotional significance to these stimuli (Ratey, 2001). There are two main forms of attention: passive and active. Passive attention refers to the involuntary process of focusing on external events that stand out from the environment, such as a sudden flash, sound, or strong smell. Active attention is voluntary and driven by alertness, concentration, interest, and needs such as curiosity and hunger. Active attention requires effort (Gaddes & Edgell, 1994). Attention is the first step in the learning process. One cannot understand, learn, or recall what one has not paid attention to when one comes into contact with certain content for the first time. Attention is highly significant both for cognitive development and the process of learning (Buha et al., 2017). General attention disorder is most often manifested in three forms, namely attention disorder without hyperactivity (ADD – Attention Deficit Disorder), attention disorder with hyperactivity (ADHD – Attention Deficit Hyperactivity), and a combined form. A large number of authors state that the prevalence of attention deficit disorder ranges from 2 to 11% in the population of children (Rešić et al., 2007). A child with attention deficit disorder cannot solve a task because they are impulsive, interrupt solving a task abruptly, have difficulty concentrating when learning, and usually disrupt the rest of the class, which poses a big problem for a teacher who does not know how to deal with such situation (Hughes & Cooper, 2007). In addition to general attention deficit disorder, there are also specific disorders which affect only one type of stimulus reception and processing, such as short-term or long-term auditory or visual attention. Many research studies show that the precision in reception and processing of auditory stimuli is very important in the process of learning (Northern & Downs, 2002). In 35% of students who had difficulties in receiving and processing auditory stimuli repeated a class at least once at school, while 13% of them requested additional support in education. The results of numerous studies indicate that minimum hearing dysfunctions have a negative influence on children's functioning in various areas, such as: communication, school achievement, and behaviour (Đoković et al., 2014; Hadjikakou & Stavrou, 2016). One of the very common disorders that affect students, and which teachers and even parents are often unaware of, are mild or minimal hearing impairments. Children who are in the developmental period must have precise hearing for the sake of quality speech and language development and understanding of school material. The authors who deal with this problem agree that the normal hearing threshold values for children should range from 0 to 15 dB, unlike adults whose normal hearing threshold is determined by the range from 0 to 20 dB (Bess et al., 1998; Northern & Downs, 2002). Furthermore, teachers observed behavioural problems in 20% of children with unilateral hearing loss. The rate of academic failure is 10

times higher in children with unilateral hearing loss compared to hearing peers. Research conducted in Serbia on 1,165 elementary school students showed that 8.1% had unilateral and 4.3% mild bilateral hearing impairments (Đoković & Ostojić, 2009). Children with minimal hearing loss face greater academic and social difficulties than children with normal hearing.

Learning language is a primary developmental process for children. It is necessary for children to develop their receptive (ability to understand) and expressive (ability to use) language skills to become effective communicators. A variety of people play a significant role in supporting this process, including parents/guardians, family members, educators (McIntyre et al., 2017). It is expected that younger children's families and school-aged children's families and classroom teachers facilitate language development since this primary process also lays the foundation for the learning of a secondary process, written language (Perfetti & Sandak, 2000). Educators working to support children's language development, need to assess and monitor children's receptive and expressive language learning progress for them to become effective communicators and lay the foundation for later developing literacy skills (i.e., reading and writing skills). When children start school, they encounter completely new factors that affect their language development. At younger school age, language competence expands and phonological, syntactic, and lexical-semantic development continues (Lazarević, 2006). A large number of studies have been conducted on the prevalence of speech and language disorders in school-age children in developed countries such as America, Canada, Great Britain, and Australia (ASHA, 2015). Law et al. (2000) based on a literature review related to the assessment of speech and language delay in British children found a prevalence of 2 to 25%. Research in Australia showed that 16 to 22% of speech and language disorders were recorded in children (McLeod & Harrison, 2009), while Canadian research showed a significantly lower prevalence of 8.04% (Beitchman et al., 1986). Research conducted in Serbia from 2015 shows that 19.9% of students from the 1st to 3rd grade of primary school have a speech-language disorder, 13.7% have dyslexia and 18.4% have dysorthographic disorders (Milankov, 2015). The question of the success of children with speech and language disorders in mastering school material and their position in school is very significant. Teachers should recognize children's possibilities and support children's development in every way. Their effectiveness in creating successful educational activities for children with speech and language disorders is greater if there is a partnership between teachers, specialists (speech therapists), and parents.

The variety of interests and their intensity at school age are important for the amount and quality of knowledge that students acquire during schooling and contribute to the engagement and greater involvement of students in class and to the design of the learning process as a whole. The engagement of primary school students is related not only to their educational achievements, but

also to their psychological characteristics. It is believed that an individualized approach to a student, and, if necessary, the development of appropriate education programs which meet the needs of students, their interests, and abilities, can help overcome the existing difficulties (Daniels & Stafford, 1999). The relation between students' school engagement, based on their interests and their school achievement, is significant when the achievement is measured by school grades and when teachers consider students' results on criterion-reference tests (Maksić & Tenjović, 2008). Students' class participation and appropriate behaviour requires: effort, persistence, concentration, attention, asking questions, and contributing to group discussion (Fredricks et al., 2004).

Among the authors, there is no agreement on the prevalence of behaviour problems among children of younger school age, so the results vary from study to study. Research conducted on the population of elementary school students in India indicates the presence of behavioural problems from 1.16% to as many as 43.1% of students (Jogdand & Naik, 2014). Estimates of the prevalence of behavioural problems range from 3.5% to 32.3% (Conley et al., 2014). Research conducted in southern Italy, in relation to teachers' and parents' assessments, indicates that every tenth child has serious emotional and behavioural difficulties (Gritti et al., 2014). Two large-scale British studies report that 10% of school-age children have psychological difficulties, with half the students having clinically serious behavioural problems (Whear et al., 2013). In Great Britain, a study was conducted on a sample of 10,438 children, aged 5 to 15 years, which determined that 5 to 6% of primary school children manifest externalized and 3 to 4% internalized behavioural problems (Mooij & Smeets, 2009).

Factors of school achievement are numerous and diverse and should thus be examined from different aspects. In this paper, we focused on examining several specific areas of functional abilities which may be the factors that affect school achievement. The aim of this research was to determine the relation between specific functional abilities and school achievement of students.

The authors main hypothesis is that difficulties which may occur in academic skills (reading and writing), attention, communication, class participation, and behaviour, act in synergy and affect the capacity of functional abilities in school achievement.

## Method

*Sample*. Students attending the first, second, third, and fourth grade of elementary school participated in the research. Out of the total of 195 students, 44 attended the first grade (22.6%), 47 attended the second grade (24.1%), 55 attended the third grade (28.2%), and 49 attended the fourth grade (25.1%) of elementary school. There were 96 (49.2%) boys, and 99 (50.8%) girls. Serbian elementary and

secondary schools use a five-point grading system: unsatisfactory (1), satisfactory (2), good (3), very good (4), and excellent (5). Students' overall achievement at the end of each term represents the mean of final grades in each subject and is ranged accordingly: satisfactory (2.00–2.49), good (2.50–3.49), very good (3.50–4.49), and excellent (4.50–5.00). With regard to school achievement, there were 12 (6.2%) satisfactory students, 27 (13.8%) good students, 81 (41.5%) very good students, and 75 (38.5%) excellent students. The students were assessed by 8 primary school teachers. For the implementation of the research, consent was obtained from the parents/guardians of 195 children of younger school age.

*Instrument.* The S.I.F.T.E.R. scale (Screening Instrument for Targeting Educational Risk) by Anderson (1989) was used in the research. With the author's permission, the scale was linguistically validated for Serbian language. It includes five areas of assessment (i.e., academic skills, attention, communication, school participation, and behaviour) and has the total of 15 questions, three for each assessment area. Each question is graded from 1 to 5. It should be emphasized that the attention area refers to auditory attention, while communication refers to vocabulary, comprehension, and intelligibility of child's speech. At the end of the scale, there is an educational risk scoring matrix with three categories—pass, marginal, and at risk. The task of primary school teachers was to complete the S.I.F.T.E.R. scale for each student and add comments if necessary. Teacher comments are intended for notes about a child's health problems, repeating a grade, additional support, or a child's IEP. The teachers underwent a training in which they were given explanations on how to complete the S.I.F.T.E.R. scale. The original purpose of this scale was to assess children's functioning in a classroom and to identify those students who were at risk due to hearing problems. However, the S.I.F.T.E.R. scale also provides very reliable data on other functional characteristics of students in the process of education and is a good tool for predicting school achievement. Anderson (1989) recommends that each student who is assessed as marginal or at risk, should be examined in detail depending on their individual results. Thus, for example, failure in academic skills points to the need for educational assessment, failure in communication indicates the need for an assessment of a speech and language pathologist, and failure in school behaviour indicates the need for an assessment of a psychologist or a social worker. If the failure in the area of attention or class participation is combined with other areas, assessment of an audiologist may be suggested.

S.I.F.T.E.R. is an instrument that has been used in a large number of studies and has been shown to be very reliable and sensitive for detecting students who are at risk of school failure (Anderson, 1989; Tharpe et al., 2003; Khodaei et al., 2022). In this research, the reliability testing of the applied questionnaire was arranged on the examined sample, which showed good reliability, the Cronbach's alpha ranges from 0.81 to 0.96.

Based on this, the categorical variables in this research are academic skills, attention, communication, class participation, and behaviour, and the predictors are gender, class, and success. Academic achievement is the mean of grades in school subjects, in this research it was calculated for first, second, third, and fourth-grade students. In the first grade during the school year, the progress in achieving the prescribed outcomes is shown by a descriptive grade. According to the Rulebook (2013), there is a four-level scale for evaluating the success of first grade students. It consists of the following levels of progress: progress is less than expected; progress is constant but slower; progress is at the expected level; and progress is above the expected level. For the sake of easier data processing, we reformulated the advancements into grades from 2 to 5 (Rulebook, 2013).

*Statistical data processing.* Measures of descriptive statistics (arithmetic mean, standard deviation, frequencies), ANOVA, Pearson correlation coefficient, and multiple regression analysis were used in data processing.

## Results

Table 1 shows basic measures of descriptive statistics for academic skills, attention, communication, class participation, and behavior in younger school-age children. With regard to the assessed areas, students achieved the best results in behavior and class participation, while somewhat lower scores results were obtained in communication, attention, and academic skills. The average grade of school achievement in children from the first to the fourth grade of elementary school was 4.12.

Table 1. Basic statistical indicators of the results of specific functional abilities on the S.I.F.T.E.R. scale and school achievement (n=195)

|  | *M* | *SD* | *Min.* | *Max.* |
|---|---|---|---|---|
| Achievement | 4.12 | .87 | 2 | 5 |
| Academic skills | 11.73 | 2.95 | 3 | 15 |
| Attention | 11.23 | 3.72 | 3 | 15 |
| Communication | 11.17 | 3.20 | 3 | 15 |
| Class participation | 12.00 | 3.37 | 3 | 15 |
| Behavior | 13.20 | 2.58 | 4 | 15 |

The application of Pearson correlation coefficient determined the presence of a statistically significant positive moderate and high correlation between school achievement and all specific areas of functional abilities, as well as the intercorrelation of these areas (more details in Table 2). Due to such high degree of correlation between the criterion variable and predictor variables, and due to high intercorrelation of predictor variables an, additional check was performed

in order to eliminate the possible suppressing effects. By checking statistical collinearity, it was determined that the tolerance for all predictor variables was above the limit of 0.10 and that the inflation factor was below 10, which indicated that none of the predictor variables was redundant.

Table 2. Correlation between school achievement and specific areas of functional abilities (*n*=195)

|  | Achievement | Academic skills | Attention | Communication | Class participation | Behavior |
|---|---|---|---|---|---|---|
| Achievement | - | .59 | .65 | .65 | .65 | .47 |
| Academic skills | .59 | - | .76 | .85 | .87 | .56 |
| Attention | .65 | .76 | - | .83 | .83 | .70 |
| Communication | .65 | .85 | .83 | - | .88 | .59 |
| Class participation | .65 | .87 | .83 | .88 | - | .63 |
| Behavior | .47 | .56 | .70 | .59 | .63 | - |

Note. All correlation coefficients are significant at the 0.01 level.

Regression analysis was performed to determine the cumulative effect of analyzed specific areas of functional abilities on school achievement. All analyzed specific areas of functional abilities (i.e., academic skills, attention, communication, class participation, and behavior) were included in this model. The coefficient of multiple determination showed that 48% of individual differences in students' school achievement can be explained by individual differences in predictor variables, (i.e., in specific areas of functional abilities) (Table 3). The standard error was small and lower than the standard deviation of the criterion variable (school achievement, SD=0.871). Its value was 0.636 which points to the accuracy of the model of selected predictor variables.

Table 3. Results of regression analysis of specific areas of functional abilities with regard to students' school achievement (*n*=195)

| Predictors | School achievement | | |
|---|---|---|---|
| | $R^2$ | $F$ | $\beta$ |
| Academic skills | | | .04 |
| Attention | | | .29* |
| Communication | .47 | 34.8* | .25* |
| Class participation | | | .22 |
| Behavior | | | .00 |

*$p > .05$.

Only two out of five variables were singled out as independent predictors. It was determined that only attention (p=0.011) and communication (p=0.045), as

specific functional areas, made a particular statistically significant contribution to the regression model (Table 3).

Only two variables (attention and communication) were singled out in the previous analysis. However, it was interesting to analyze individual contribution of each predictor variable, which was done by gradually introducing one by one into the given model using stepwise regression (Table 4).

Table 4. Results of semi-partial correlations of specific areas of functional abilities with regard to school achievement ($n$=195)

| Predictors | School achievement | |
|---|---|---|
| | $R^2$ | $R^2$ change |
| Attention | .43 | .43* |
| Communication | .46 | .03* |
| Class participation | .47 | .00 |
| Academic skills | .46 | .00 |
| Behavior | .46 | .00 |

*$p$ > .01.

The results shown in Table 4 indicate that it was important to perform stepwise regression analysis in order to determine individual contribution and significance of predictor variables to school achievement. This analysis also confirmed the previous result that only two predictor variables, attention and communication (receptive and expressive speech), made a significant individual contribution to school achievement. The results showed that attention contributed about 43% to the explanation of individual differences in school achievement, and that communication made an additional contribution of about 4%. Individual contribution of attention was highly statistically significant (p=0.000). Although communication contributed in small percentage to the explanation of the criterion variable variance, this contribution was statistically significant (p=0.000). The remaining three predictor variables (academic skills, class participation, and behavior) had no or a minimum effect on school achievement, which indicates that they should not be included in the given model (see Table 4).

## Discussion

The results of this research lead to a conclusion that attention and communication are specific functional abilities which affect individual differences in school achievement and that they are the two most significant predictors in the analyzed model. It is possible that these functional abilities are somewhat

complementary and that they have a cascade effect on other functional abilities. However, in order to confirm this, it is necessary to conduct additional research aimed at examining these effects.

Other research studies also show that attention is one of the most significant independent predictors of school achievement (Biederman et al., 2004; Kessler et al., 2006). Fried et al. (2016) determined that 28% of children with attention deficit disorder repeated a grade, while in typical population this happened in 7% of cases. The results of this and similar research studies, which lead to a conclusion that attention difficulties are the main risk for school failure, have significant clinical and educational implications. Since the onset of attention deficit disorder is at preschool age (Wilens et al., 2002), and it is a treatable disorder, these findings should encourage professionals to help in identifying children with this disorder so that they could be included in intervention programs as early as possible. School failure affects not only an individual but also their family and wider social community, since it happens that the presence of a learning disabilities often leads to repeating a grade and/or dropping out of school. Educational difficulties, failure, and drop-out are connected to adverse reaction on the part of young. It has been proven that children with learning difficulties, who cannot follow teaching techniques get together with similar peers who have the same learning abilities and behavior. This increases the risk of marginalization and anti-social behavior. What is more important is that the wrong use of educational techniques forms a particular way of thought, characterized by lack of perspective, withdrawal, and school indifference (Giavrimis & Papanis, 2008).

Recent research studies indicate that particularly high school students drop out because of negative attitudes towards attending school, which is associated with symptoms that may indicate an undiagnosed attention deficit disorder (Bridgeland et al., 2006.). The authors further emphasize that early screening of this disorder at schools may be an important measure for preventing school failure and dropping out of school. The phenomenon of school non-attendance represents a significant issue for educators and mental health professionals (Carpentieri et al., 2022).

Numerous foreign and domestic research studies (Bess et al., 1986; Culbertson & Gilbert, 1986; Đoković et al., 2003; Klee & Davis-Dansky, 1986) show that attention, especially auditory, is important not only for speech and language development, but also for learning and thus for school achievement. The fact that students with minimum hearing impairment 10 times more frequently fail at school is a sufficient reason to pay attention to this problem (Bess et al., 1998).

It is well documented in the literature that minimum hearing impairment has a negative impact on children's functioning in various domains such as communication skills, academic achievement, and social behavior (Powers,

2003; Power & Hyde, 2002). Research has also shown that even children with a minimal or unilateral hearing loss face greater academic and social difficulties than children with normal hearing.

Most (2004, 2006) came up with interesting results using S.I.F.T.E.R. (Screening Instrument for Targeting Educational Risks) for examination of effects of the level of hearing loss on academic achievement in children attending regular schools. Although it was expected that children with unilateral and mild bilateral hearing loss would achieve better results or have better class participation than those with moderate and severe hearing loss, this was not the case. The children with greater level of hearing loss had better results on the following areas of S.I.F.T.E.R.: communication, participation, and total score. The reason for these unexpected results as pointed out by Kuppler, Lewis, and Evans (2013) can be found in the fact that the children with greater hearing loss had support in schools, used hearing aids, or were enrolled in programs of early auditory rehabilitation. Similar results were found in a study by Antia, Jones, Reed, and Kreimeyer (2009) which has shown that the level of hearing loss correlated with achievements in reading only and not in math, language, writing, or academic status. Authors conclude that this does not mean that the level of hearing loss does not affect academic achievement. The effects of the level of hearing loss can be clearly seen when the results of total academic achievement of children with hearing loss are compared with expected grade norms. Studies usually report underachievement. Conclusions based on the studies by Most (2006) and Antia, Jones, Reed, & Kreimeyer (2009) tell us that any level of hearing loss, even if mild, can lead to academic underachievement (Đoković et al., 2014).

The significance of communication (receptive and expressive speech) in school achievement is expected because it is indicated by a larger number of research studies (Law et al., 2000). Gibbs and Cooper (1989) state that about 90% of children who fail at school have speech and language difficulties. Many children start school with poor language skills (Norbury et al., 2016). Between 7% and 16% of children have less developed speech and language not explained by other developmental difficulties and lag behind the average for more than 1.5 standard units on tests related to certain chronological age (Reilly et al., 2010). Although language difficulties are evident when enrolling in school, nothing is usually done to overcome this problem (Beitchman et al., 1986; Law et al., 2008; Tomblin et al., 2003). Unlike preschool children in whom it is possible to take numerous measures to reduce or completely treat speech-language disorders, school-age children are at high risk of permanent language disorders and other academic difficulties.

It is very important to emphasize that children with learning disabilities are a heterogeneous population with large variability in symptomatology (Casey et al., 2014; Zhao & Castellanos, 2016). Currently, an increasing number of

authors emphasize that it is more useful to give up on research dealing with strictly defined deficits and turn to studying the mechanisms and dimensions of disabilities in a heterogeneous population at multiple levels (Cuthbert & Insel, 2013; Doherty & Owen, 2014; Holmes et al., 2019). By rejecting diagnostic categories, these authors emphasize that the aim is to understand and characterize (probably multiple) dimensions of difficulties for each child individually, and to select effective intervention programs. Comorbidity levels in various aspects of learning disabilities are high. It is estimated that reading disabilities occur together with disabilities in mathematics (Moll et al., 2014) or with speech-language disorders (McArthur et al., 2000) in about 50% of cases. Speech and language disorders most frequently occur as part of some other developmental disorders, such as attention deficit hyperactivity disorder (ADHD) (DuPaul et al., 2013), disharmonious development (Flapper & Schoemaker, 2013), dyslexia (Fraser et al., 2010), and social, emotional, and behavioral disorders (Lindsay & Dockrell, 2012; St Clair et al., 2011).

## Conclusion

What is essential in determining and understanding the factors which lead to school failure is their early identification and taking actions to prevent academic difficulties. This would certainly contribute to alleviating the problem for children, their parents, teachers, school, and wider social community. To achieve that, it is necessary to take extensive actions at several levels. First of all, teachers must be trained to recognize the factors which lead to school failure, but they also need to be provided with simple, fast, and easy to implement tool for that purpose. The S.I.F.T.E.R. scale, primarily intended for identifying personal educational risks, was used in this research. This instrument has proved to meet some of the criteria expected from screening versions. First of all, it is easy to use and score, and it covers all functional abilities relevant to the educational process. Furthermore, the results of this scale clearly indicate whether a child is at educational risk, and if so, what type of support they need. However, this scale also has its limitation, which is focusing solely on personal factors of school failure, while it is a known fact that the causes of it are diverse. This means that it would be useful to design a more comprehensive unified protocol which would, in addition to personal factors, also recognize family and school factors of school failure.

Schools need to be well acquainted with the possibilities of additional support for this population of children, react timely, and access appropriate resources. It is estimated that about 15% of children have special needs in the learning process (Department for Education, 2017), which is certainly a significant number. The system of providing additional support for students in the regular education system is still not well developed in Serbia. Data obtained

from practice indicate the existence of differences with regard to which region the school belongs. It should also be emphasized that a very small percentage of special educators work as professional consultants in regular schools, which significantly hinders the process of providing additional support for the children who need it.

A large number of researches and experiences from practice indicate that teachers do not have enough competence to design adequate support. Difficulties in educational work in regular schools are also evident. In large departments, it is difficult to work with children who have disabilities under the IEP. Due to the increasing number of children with disabilities in regular schools, it is necessary to hire new and competent staff—special education teachers.

This research has certain limitations related to a relatively small sample stratified from three schools from the regular education system, and a relatively small number of teachers who participated as assessors. Also, the authors did not have an insight into whether the children had an identified and diagnosed disability or disorder at the preschool age, and whether they were included in some rehabilitation programs, which would certainly contribute to better interpretation of the obtained results. The limitation of this research is a relatively dated tool.

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## Функционалне способности деце као фактори школског постигнућа

### Резиме

Постоји низ различитих личних и срединских фактора који могу утицати на школски успех и због тога их је потребно истражити са различитих аспеката. Разумевање фактора који утичу на школско постигнуће ученика представља

важан извор сазнања за стратешко планирање и подстицање промена у образовању. Досадашња истраживања идентификовала су велики број фактора релевантних за школски успех ученика и они су углавном покривени ширим категоријама, као што су: породица, школа и личне карактеристике ученика. Циљ истраживања био је да се утврди повезаност школског неуспеха са постигнућима у појединим функционалним способностима као што су: академске вештине (читање, писање), пажња, комуникација (рецептивни и експресивни говор), учествовање на часу и понашање. Узорак је чинило 195 деце оба пола, млађег основношколског узраста. Функционалне способности ученика процењиване су S.I.F.T.E.R. скалом (*Screening Instrument for Targeting Educational Risk* – Скрининг инструмент за откривање образовног ризика). S.I.F.T.E.R. скала даје веома поуздане податке и о другим функционалним карактеристикама ученика у процесу наставе (академске вештине, пажња, комуникација, учешће у настави и понашање) и представља добар инструмент за предвиђање могућег школског неуспеха. Резултати ове скале недвосмислено упућују на то да ли је дете уопште у образовном ризику, а ако јесте, упућује се на то који видови подршке су му потребни.

Резултати су показали да је школско постигнуће у корелацији са свим процењеним функционалним способностима. Коефицијент вишеструке детерминације показао је да се 48% индивидуалних разлика у школском неуспеху деце може објаснити индивидуалним разликама у понуђеном моделу функционалних способности. На основу резултата овог истраживања може се закључити да су пажња и комуникација два најважнија предиктора у анализираном моделу. Суштина откривања и разумевања фактора који доводе до школског неуспеха је у њиховом раном препознавању и предузимању активности које би спречиле академске тешкоће. Тиме би се, свакако, допринело пружању адекватне подршке како деци и њиховим породицама тако и наставницима, школи и широј друштвеној заједници. У Србији још увек није довољно добро разрађен систем пружања додатне подршке за ученике у редовном систему образовања. Веома мали проценат дефектолога ради на позицији стручног сарадника у редовним школама, што сигурно значајно отежава процес добијања додатне подршке за децу којој је то потребно.

*Кључне речи*: школско постигнуће; функционалне способности; деца млађег школског узраста; S.I.F.T.E.R. скала.

# Psychology

# HEALTH BELIEFS AND HEALTH ANXIETY AS PREDICTORS OF COVID-19 HEALTH BEHAVIOR: DATA FROM SERBIA

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# HEALTH BELIEFS AND HEALTH ANXIETY AS PREDICTORS OF COVID-19 HEALTH BEHAVIOR: DATA FROM SERBIA[6]

*Abstract*. The end of 2019 and the beginning of 2020 were marked by the appearance of the virus SARS-CoV-2, which led to a health crisis around the world. Health preventive behavior was highlighted as, at that time, the only form of prevention of the spread of the disease. Factors that will lead people to adhere to the recommended forms of behavior have become the subject of research in various scientific disciplines. The Model of Health Belief is one of the dominant frameworks for studying health behaviors, and thus behaviors related to COVID-19. Health anxiety and beliefs about illness and preventive behavior are the starting point for considering the level at which individuals adhere to the recommended measures. The main goal of this research was to examine a model in which health anxiety and health beliefs are predictors of preventive health behavior in relation to COVID-19. The sample consisted of 420 respondents, 66.3% of whom were women. They completed an online questionnaire comprising the following instruments: Short Health Anxiety Inventory, COVID-19 Health Belief Scale, and COVID-19 Health Behavior Scale with two subscales—Protection in Social Contacts and Hygiene. After controlling for effects of gender and presence of chronic disease, perceived benefit of preventive behavior and the observed barrier can predict protection in social contacts. Hygiene can be predicted by the perceived benefit of preventive behavior and the perceived barrier. Health anxiety has not been shown to be a significant predictor of health behavior. The paper discusses the theoretical and practical implications of the obtained results. The obtained results partially support the Model of Health Beliefs. In order to increase the degree to which individuals adhere to health behaviors, the benefits of preventive behaviors should be emphasized while the barriers should be reduced.

## Introduction

In 2020, the world faced a new virus from the coronavirus family, causing infection in a large number of people. State and local level authorities appealed to the population to adhere to the recommended prevention measures: maintaining personal hygiene (thorough hand washing and use of disinfectants); maintaining social distance (physical distance of at least 1.5 m in contact, avoiding social gatherings); and wearing protective masks. However, evidence soon emerged that a significant number of people did not adhere to these measures, as well as a number that denied the seriousness of the new infectious disease. This is very worrying, especially if we take into account the data of the relevant ministry and competent institutions. At the end of 2020, the total number of infected people in the Republic of Serbia was close to 340,000, while the number of deaths from COVID-19 was over 3,200 (Institute for Public Health of Serbia "Dr Milan Jovanović Batut", 2021). During the time period we collected research data (first half of 2021), the total number of infected people in Serbia rose to over 718,000, while the number of deaths from COVID-19 was over 7,000 (Institute for Public Health of Serbia "Dr Milan Jovanović Batut", 2022).

The scientific community around the world has been mobilized to get answers to many questions about the new disease. In a relatively short time, a large number of research studies were conducted, which dealt with different aspects of behavior during a pandemic. The results of the research available at the beginning of 2021 show that women are more likely to adhere to the recommended preventive measures (Alves et al., 2020; Clark et al., 2020; Kim et al., 2020; Shahnazi et al., 2020; Vardavas et al., 2020), as well as those living in the city (Shahnazi et al., 2020), health care workers (Barakat & Kasemy, 2020; Kim et al., 2020; Vardavas et al., 2020) and people with higher education (Alves et al., 2020; Barakat & Kasemy, 2020; Kim et al., 2020; Vardavas et al., 2020). When it comes to the age of the respondents, the results are inconclusive. In most studies, older respondents (especially age ≥65) were found to adhere more to preventive measures (Barakat & Kasemy, 2020), while there are also studies where age has not been shown to be significant (Clark et al., 2020).

In addition to demographic variables, many others, such as personal and cognitive-behavioral, were examined. Personality traits have been shown to be significantly associated with adaptation to new behaviors (Chan et al., 2021), as well as with respect for prescribed measures (Nowak et al., 2020). Personal self-efficacy, threat assessment, and personal coping mechanisms proved to be important predictors (Bashirian et al., 2020). Those more knowledgeable about COVID-19 (Alves et al., 2020; Iorfa et al., 2020), as well as those who have positive attitudes towards such behavior, have proven to be more inclined to practice preventive behavior (Alves et al., 2020). The perception of risk from COVID-19 (Iorfa et al., 2020), the external locus of control directed towards health workers (Berg & Lin, 2020), coping planning and action planning (Lin et al., 2020) were also significantly related to preventive behavior.

The results of a large scientific study have shown that recommended health behavior contributes significantly to the avoidance of COVID-19 and that health beliefs remain significant predictors of health behavior even after controlling for personal and demographic variables (Clark et al., 2020). The Health Belief Model (Rosenstock, 1966; 1974) implies that all health beliefs can be grouped into several categories: perceived susceptibility to the disease; perceived severity of the disease; perceived benefit of behavioral change; and perceived barriers to action (Green & Murphy, 2014). Perceived susceptibility refers to how much a person perceives to be at risk to get a particular disease. The perceived severity of the disease implies the assessment of the severity of the physical, psychological, and social consequences that a possible disease may have. The last two aspects imply that each person makes an analysis of the benefits of the health behavior, as well as an analysis of possible obstacles that stand in the way of behavioral change. At the time we collected the data (first half of 2021), we found very few researches of relations between health beliefs and preventive behaviors during the COVID–19 pandemic. Previous research has shown that adherence to preventive measures during the COVID-19 pandemic can be predicted on the basis of perceived barriers (Barakat & Kasemy, 2020; Tadesse et al., 2020; Shahnazi et al., 2020), perceived susceptibility (Barakat & Kasemy, 2020; Clark et al., 2020), benefits (Barakat & Kasemy, 2020), and perceived severity of the illness (Berg & Lin, 2020; Clark et al., 2020).

Health anxiety is used to denote fears that arise from misinterpretations of bodily symptoms as indicating severe illnesses (Asmundson et al., 2001; Salkovskis et al., 2002). To reduce their fears, individuals suffering from health anxiety tend to seek additional information and perform safety behaviors (Abramowitz & Moore, 2007). Based on that rationale, we could expect that people with health-related anxiety will be more inclined to practice the recommended forms of behavior during a pandemic, because that will lower the risk of contracting the disease. We only found two studies on health anxiety during the pandemic. In the first, the researchers examined the tendency of individuals with health-related anxiety to

interpret somatic sensations as symptoms of COVID-19 (Cannito et al., 2020). The second study explored the possibility of health anxiety to predict fear of COVID-19 (Mertens et al., 2020). On the other hand, some studies have shown anxiety (Kim et al., 2020) and anxiety in relation to COVID-19 (Broomell et al., 2020) may be significant predictors of preventive behavior during a pandemic.

As the Health Belief Model is one of the dominant scientific starting point for predicting health behavior, there is a surprisingly small number of studies in which this model is used for studying adherence to preventive behavior related to COVID-19; furthermore, no such research has been found in our country. In addition, no study has been found in which health anxiety is treated as a predictor of preventive behavior related to COVID-19.

The main aim of this research was to examine the model in which health anxiety and health beliefs are predictors of preventive health behavior related to COVID-19. By preventive health behavior, we mean compliance with measures that are mandatory or recommended by competent institutions—maintaining social distance, wearing protective masks, frequent and thorough hand washing, use of disinfectants, etc.

## *Methods*

The sample included 420 adults, age from 18 to 61 (M = 31.65; SD = 12.72). Two thirds of the respondents were female (66.3%), mostly from urban areas (78%). About 32% of the respondents indicated they suffer from some kind of chronic disease. Participants were collected by using snowball-sampling method (Goodman, 1961). The questionnaire was administered online, with initial distribution of survey link via Facebook and Viber. The study was approved by The Commission for Ethics in Research of Faculty of Philosophy in Kosovska Mitrovica. The data were collected in the first half of 2021.

In this research, in addition to collecting demographic data (age, gender, and presence of any chronic disease), we used the following questionnaires:

• *Short Health Anxiety Inventory* (SHAI, Salkovskis et al., 2002), which assesses the level of health anxiety without asking questions about the health status. The questionnaire consists of 18 items, each containing four statements that are scored from 0 to 3. The questionnaire consists of two subscales: the Illness Likelihood (14 items) and the Concern for Negative Consequences (4 items). The reliability of the first subscale in our study was Cronbach α = .71, the second only α = .52, and the whole questionnaire α = .73. As the second subscale had unsatisfactory reliability, we adopted only the Illness Likelihood component in the further analysis as health anxiety.

• *The COVID–19 Health Beliefs Scale* (Živković et al., 2021), which assesses the expression of beliefs that respondents have in relation to COVID-19. This

scale consists of 15 items grouped into four subscales: observed susceptibility to COVID-19, observed severity of COVID-19 disease, observed benefit of preventive behavior, and observed barriers to preventive behavior. Respondents answer on a 5-point Likert-type scale, from 1 – completely disagree to 5 – completely agree. The reliability of subscales in our study had Cronbach values α = .70, .67, .79, and .63.

 • *The COVID–19 Health Behavior Scale* was constructed for the purposes of this research. It consists of 14 items, with a range of answers from 1 – completely disagree to 5 – completely agree. The questions are designed to measure the degree of compliance with those forms of health behavior that are recommended by the competent health institutions and communicated to the public through various media. The examples of items are: "I talk to people from a distance of at least 1 meter"; "I use a surgical mask and hygienic gloves when I go out"; "I wash my hands with soap and water after contact with external objects"; and "I avoid close contact with people who have a fever, sneeze or cough". Because this is the new measure, we performed Explorative Factor Analysis (EFA) and obtained two very interpretable factors. This two-factorial solution was adopted for further analyses. We named the two obtained factors Protection in Social Contacts (8 items, Cronbach α= .77) and Hygiene (6 items, Cronbach α= .77). They explained about 42% of variance of COVID–19 related health behavior. The internal consistence of total scale was Cronbach α= .85.

 *Statistical analysis.* To test correlations between main variables, we calculated Pearson's r coefficient. To test the proposed model of predictors of COVID–19 related health behavior, we performed hierarchical linear regression analysis.

## Results

The first step was to the calculate descriptive indicators of the main research variables. The data are shown in Table 1.

Table 1. Descriptive statistics of the main research variables

|  | Observed range | Mean | SD |
|---|---|---|---|
| Perceived benefits | 4–20 | 16.83 | 2.98 |
| Perceived barriers | 3–15 | 4.87 | 2.24 |
| Perceived susceptibility | 4–19 | 9.83 | 2.97 |
| Perceived severity | 3–15 | 5.43 | 2.52 |
| Health anxiety | 0–21 | 8.46 | 4.19 |
| Protection in social contacts | 14–35 | 29.35 | 4.75 |
| Hygiene | 16–35 | 30.79 | 4.06 |

Our respondents perceive the benefits of preventive behavior to the greatest extent, while obstacles to the least. The observed susceptibility to COVID-19 is in the range of moderate, the observed severity of the disease is very low, as well as health anxiety. Our respondents have high scores of Protection in Social Contacts and Hygiene. Table 2 shows the correlations between aspects of health beliefs, health anxiety, and health behavior.

Table 2. Correlations between health anxiety, beliefs, behaviors, and age

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1. Perceived benefits | - | | | | | | | |
| 2. Perceived barriers | -.35** | - | | | | | | |
| 3. Perceived susceptibility | .38** | ,07 | - | | | | | |
| 4. Perceived severity | .13** | ,04 | .172** | - | | | | |
| 5. Health anxiety | .11* | .03 | .23** | -.00 | - | | | |
| 6. Protection in social contacts | .56** | -.27** | .30** | .11* | .03 | - | | |
| 7. Hygiene | .46** | -.35** | .11* | .03 | .00 | .63** | - | |
| 8. Age | -02 | .08 | .26** | .04 | -.01 | .09 | -.12* | - |

$^*$ p < .05; $^{**}$ p < .01.

Significant positive correlations were obtained between protection in social contacts and perceived benefits of preventive behavior, perceived susceptibility to disease, and perceived severity of COVID-19 disease. Significant and negative correlations were obtained with perceived barriers to preventive behavior. Hygiene-related health behaviors were positively correlated with perceived benefits of preventive behavior and susceptibility to COVID-19, and negatively correlated with perceived barriers to preventive behavior and age. Health anxiety was significantly positively associated with perceived susceptibility to COVID-19 and perceived benefit from the preventive behavior. The respondents' age was positively correlated with the observed susceptibility to COVID-19.

In order to test the significance of the obtained differences regarding the gender and the burden of chronic disease, we conducted two t-tests. The results show that women have significantly higher scores on the perceived benefit from preventive behavior ($t(418)= -3.24$, $p< .001$), health anxiety ($t(418)= -2.59$, $p< .001$), protection in social contacts ($t(418)= -3.55$, $p< .001$), and hygiene ($t(418)= -5.59$, $p< .001$). Men have significantly higher scores on perceived barriers to preventive behavior ($t(418)= 3.79$, $p< .001$). For other variables, no significant differences were obtained in relation to the gender. People suffering from a chronic disease perceive the benefit of preventive behavior to a lesser extent ($t(418)= -2.60$, $p= .003$), and perceive obstacles in preventive behavior to a greater extent ($t(418)= 2.78$, $p< .001$), as well as susceptibility to COVID-19 ($t(418)= 2.56$, $p= .003$). People suffering from a chronic disease showed a higher level of health anxiety compared to other respondents ($t(418)= 4.07$, $p< .001$).

Finally, to examine whether COVID-19 health behavior can be predicted by health anxiety and health beliefs, we conducted two hierarchical regression analyses, for two criterion variables. In order to control the impact of demographic variables, in the first step we entered gender, age, and chronic disease. In the second step, we entered health beliefs and health anxiety. The results are shown in Table 3.

Table 3. Hierarchical regression analyses for dependent variables Protection in Social Contacts and Hygiene

| Predictors | Protection in social contacts | | Predictors | Hygiene | |
|---|---|---|---|---|---|
| | $\Delta R^2$ | $\beta$ | | $\Delta R^2$ | $\beta$ |
| Step 1 | .048*** | | Step 1 | .082*** | |
| Gender | | .177*** | Gender | | .251*** |
| Age | | .080 | Age | | -.109* |
| Chronic disease | | -.027 | Chronic disease | | .005 |
| Step 2 | .318*** | | Step 2 | .213*** | |
| Gender | | .098* | Gender | | .168*** |
| Age | | .048 | Age | | -.108* |
| Chronic disease | | -.109** | Chronic disease | | .080 |
| Perceived benefits | | .496*** | Perceived benefits | | .386*** |
| Perceived barriers | | -.095* | Perceived barriers | | -.186*** |
| Perceived susceptibility | | .087 | Perceived susceptibility | | -.020 |
| Perceived severity | | .038 | Perceived severity | | -.004 |
| Health anxiety | | -.073 | Health anxiety | | -.066 |
| Total $R^2$ | .367*** | | Total $R^2$ | .295*** | |

* $p < .05$; ** $p < .01$; *** $p < .001$.

Models for both criteria proved to be significant (Protection in Social Contacts $F(5, 409) = 26.30$, $p < .001$; Hygiene $F(5, 409) = 18.99$, $p < .001$). After controlling for effects of gender and burden of a chronic disease Protection in Social Contacts can be predicted by the perceived benefit from preventive behavior and perceived barriers. These predictors explain about 37% of the variance of Protection in Social Contacts. By using the same regression model, it is possible to predict about 30% of the variance of Hygiene. However, health anxiety was not significant predictor of both criterion variables.

## Discussion

The main objective of this study was to examine whether COVID-19 health behavior can be predicted based on health anxiety and health beliefs. Firstly,

we examined levels of protective health behavior. Our respondents have high scores both in terms of protection in social contacts and in terms of maintaining hygiene. This means that our respondents highly adhere to the recommended forms of health behavior during a pandemic. A satisfactory level of adherence to preventive behaviors has been obtained in other studies (Bashirian et al., 2020; Breakwell et al., 2021). When analyzing the expression of health beliefs regarding COVID-19, we can observe that our respondents mostly perceive the benefits of preventive behavior, while obstacles the least. However, while the perceived susceptibility to COVID-19 is in the low-to-moderate range, the perceived severity of the disease is very low. We cannot be satisfied with these results, because the perceived severity of the disease concerns the assessment of the severity of the physical, mental, and social consequences that a possible disease may have. Statistics on COVID-19 showed that it can be very serious disease, causes many deaths and long-term consequences. Rosenstock (1974) claimed that to adopt a health care behavior and avoid risks for diseases, the patient must believe he is susceptible to the disease; that the disease has serious (negative) impact, at least moderately; to believe that adopting certain behaviors is beneficial to reduce risks; and that barriers are not insurmountable. It is obvious that very low perceived severity of disease is not proper motivation for adoption/change of the health behavior. In other studies (Bashirian et al., 2020), all beliefs, including perceived severity of COVID-19, were very high. Informing the public about the unpredictability of COVID-19 and the severe and long-lasting consequences of this disease, as well as its lethality, is a part of the COVID-19 prevention campaign around the world, even in Serbia. This indicates that our society, even after a year and a half from the beginning of the pandemic was not convinced enough that the disease itself was serious, as well as its consequences. Variations in the severity of COVID-19 disease have been reported in other studies and depend on many factors (duration of a pandemic, education, presence of various diseases, etc.) (Barakat & Kasemy, 2020; Costa, 2020).

Aspects of COVID–19 health behavior are related to health beliefs. Protection in social contacts was positively correlated with perceived benefits of preventive behavior, perceived susceptibility to COVID-19, and perceived severity of the COVID-19 infection, while negative correlation was obtained with perceived barriers to preventive behavior. Health behaviors related to hygiene were positively related to the perceived benefits of preventive behavior and perceived susceptibility to COVID-19, and negatively related to perceived barriers to preventive behavior. These results are completely in line with the Health Beliefs Model (Rosenstock, 1966; 1974) according to which health beliefs represent the basis of health behavior and the model by which it is possible to achieve a change in behavior.

In this study, health anxiety was not significantly related to health behavior. These results are completely unexpected, given that an earlier study found that health anxiety can predict fear of COVID-19 (Mertens et al., 2020), and that individuals suffering from health anxiety tend to perform safety behaviors (Abramowitz & Moore, 2007). Our result could be explained by the fact that in the present study the health anxiety of the respondents was low and that perhaps different study design (with different levels of health anxiety) could provide more accurate findings. Also, health anxiety is a general state and it is possible that some COVID-19 related anxiety would be a significantly related with COVID-19 preventive behavior.

The age of the respondents was positively related only to the perceived susceptibility to COVID-19 and negatively related to the behavior related to hygiene, while there was no connection to protection in social contacts. The first result is quite expected, because the characteristic of this disease itself is that affects the elderly more often and in a more severe form, about which the public is constantly informed. The second and third results are surprising, because we expected the elderly to show higher scores on all forms of recommended health behavior. Results opposite to ours were obtained in some other studies (Kim & Kim, 2020; Vardavas et al., 2020), while in one study (Clark et al., 2020) age was not associated with health behavior. However, in one study in Serbia, results were obtained that partially support our results. The researchers found that younger respondents are more inclined to adhere to movement restrictions (Cvetković et al., 2020). The authors explain this by better adoption of messages that are placed through the media, which young people use much more often and partly by significant fines. In our study, women had significantly higher scores on both aspects of health behavior, health anxiety, and perceived benefits from preventive behavior, while men had higher scores on perceived barriers to preventive behavior. Such results were quite expected and obtained in previous research (Alves et al., 2020; Clark et al., 2020; Cvetković et al., 2020; Kim et al., 2020; Kim & Kim, 2020; Shahnazi et al., 2020). When it comes to respondents who suffer from a chronic disease, they have higher health anxiety compared to healthy respondents. This means that they are more inclined to interpret various bodily symptoms as a sign of a serious illness (Asmundson et al., 2001; Salkovskis et al., 2002). Chronic patients perceive less benefit from preventive behavior and perceive obstacles in preventive behavior to a greater extent, as well as susceptibility to COVID-19. These results indicate that chronically ill people see the situation in which they find themselves in a rather pessimistic way—they believe that they are at increased risk of getting sick and do not see the benefit of preventive behavior, but only obstacles. The reasons for that can be found in the messages that are distributed through the media, in which the vulnerability of chronic patients is emphasized. On the other hand, the possibilities for medical treatment of their underlying disease are drastically

reduced, especially for diabetes, chronic obstructive pulmonary disease, hypertension, heart disease, asthma, cancer, and depression (Chudasama et al., 2020). However, they do not show a higher level of preventive behavior compared to healthy respondents. Perhaps this can be explained by the otherwise very high level of preventive behavior, at the level of our entire sample.

Finally, this study showed that health behavior can be predicted based on some health beliefs of the respondents, but not based on health anxiety. We have already discussed the possible reasons for the lack of correlation between health anxiety and health behavior in the previous text. At this point, we will focus on the significant predictors of health behavior obtained in the present study. Protection in social contacts can be predicted on the basis of the perceived benefits of preventive behavior, perceived barriers, gender, and chronic illness of the respondents. Hygiene can be predicted based on the perceived benefits of preventive behavior and perceived barriers, gender, and chronic disease of the respondents. Both models are significant and can explain 37% and 30% of the variance in aspects of health behavior related to COVID-19, respectively. It is important to note that the perceived benefit of preventive behavior and the perceived barriers have significant predictive value for both aspects of health behavior, when demographic variables are controlled. These results partially support the Health Beliefs Model (Rosenstock, 1966; 1974); although, it is not clear why the perceived susceptibility to the disease and the perceived severity of the disease COVID-19 did not prove to be significant predictors. It is possible that our respondents, regardless of their own belief in susceptibility to the disease and the severity of the disease itself, were inclined to act in accordance with the recommendations if they perceived the benefit of that behavior and did not see significant obstacles. However, perceived susceptibility to the disease and the perceived severity of the disease COVID-19 were not significant predictors in some other studies, too (Karimy et al., 2021). A very small significance of susceptibility to the disease and the observed severity of the disease were obtained in an earlier study (Clark et al., 2020). Perceived barriers to preventive behavior were significant predictors of preventive behavior in other studies (Asmundson et al., 2001; Barakat & Kasemy, 2020; Karimy et al., 2021; Karl et al., 2021; Mahindarathne, 2021; Shahnazi et al., 2020; Shitu et al., 2022; Zewdie et al., 2022), as well as perceived benefits of preventive behavior (Barakat & Kasemy, 2020; Clark et al., 2020; Karimy et al., 2021; Karl et al., 2021; Mahindarathne, 2021; Vardavas et al., 2020; Zewdie et al., 2022). These results suggest that public information campaigns and the promotion of preventive health behavior in relation to COVID-19 should be designed to focus on clearly presenting the benefits that respondents derive from such behavior, as well as on reducing barriers to its implementation.

## Study Limitations

This research has several limitations. The first concerns the self-reporting online way of collecting data. This method does not always lead to accurate data, because the answers may be caused by various motivational or cognitive processes (Araujo et al., 2017). The second limitation concerns the fact that two thirds of the respondents were women, therefore, we must be careful when generalizing the conclusions drawn. Third, our respondents were relatively young, so a sample of older respondents could give somewhat different results.

## Conclusion

This research showed that if people believe that the recommended forms of health behavior related to COVID-19 are useful and that the barriers to their implementation are significant, they will be more prone to engage in preventive behaviors. This indicates the possibility that adult health behavior can be improved through campaigns that emphasize all the benefits of such behavior and insist on reducing barriers to their implementation (accessibility, security, etc.). Also, given the insignificant predictive value of health anxiety, susceptibility to disease, and perceived disease severity, we can conclude that intimidation campaigns, especially of younger adults, are not effective. Instead, the focus should be placed on highlighting the benefits and removing the barriers to health behavior during a pandemic.

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## Здравствена уверења и здравствена анксиозност као предиктори здравственог понашања током пандемије ковида 19: подаци из Србије

### Резиме

Крај 2019. и почетак 2020. године обележила је појава вируса SARS-Cov-2, који је довео до здравствене кризе широм света. Здравствено превентивно понашање истакнуто је као, у том тренутку, једини облик превенције ширења болести. Фактори који ће довести до тога да се људи придржавају препоручених облика понашања постали су тема истраживања различитих наука. Модел здравствених уверења је доминантан оквир за проучавање здравственог понашања, па самим тим и понашања у односу на ковид 19. Здравствена анксиозност и уверења о болести и превентивном понашању представљају полазну тачку за сагледавање нивоа у коме се појединци придржавају препоручених мера. Основни циљ овог истраживања био је испитати модел у коме су здравствена анксиозност и здравствена уверења предиктори превентивног здравственог понашања у односу на ковид 19. Узорак је састављен од 420 испитаника, већином жена. Онлајн упитник који су испитаници попуњавали састављен је из следећих инструмената: Кратког инвентара здравствене анксиозности, Скале здравствених уверења према ковиду 19 и Скале здравственог понашања у вези са ковидом 19 са две супскале: Заштитом у социјалним контактима и Хигијени. Заштита у социјалним контактима може се предвидети на основу опажене користи од превентивног понашања, опажених баријера, пола и оптерећености испитаника неком хроничном болешћу. Хигијена се може предвидети на основу опажене користи од превентивног понашања, опажених баријера и пола испитаника. Здравствена анксиозност није се показала као значајни предиктор здравственог понашања. У раду су дискутоване теоријске и практичне импликације добијених резултата, који делимично иду у прилог Моделу здравствених уверења. Они нам указују да,

ради повећања степена у коме се појединци придржавају здравственог понашања, треба наглашавати користи које имају од превентивног понашања и умањити препреке том понашању.

*Кључне речи*: здравствено понашање; здравствена анксиозност; Модел здравствених уверења.

# CYNICISM, PESSIMISM, AND HOMOPHOBIA AS PREDICTORS OF NEGATIVE ATTITUDES TOWARDS PEOPLE WITH HIV/AIDS

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# CYNICISM, PESSIMISM, AND HOMOPHOBIA AS PREDICTORS OF NEGATIVE ATTITUDES TOWARDS PEOPLE WITH HIV/AIDS

*Abstract.* The aim of the research was to examine whether it is possible to predict negative attitudes towards people with HIV/AIDS with the help of cynicism, pessimism, and homophobia. The sample was convenient and consisted of 100 respondents (M = 20, F = 80), average age 22.63 (SD = 5.04). The following instruments were used for the operationalization of the mentioned constructs: Scale of Pessimism, Scale of Cynicism, and Test of Homophobia (H25). To measure negative attitudes towards people living with HIV/AIDS, we used a subscale of the test which operationalizes the tendency to stigmatize and discriminate against people living with HIV/AIDS. Hierarchical linear regression was used to process the results. Predictors were pessimism, cynicism, and homophobia, while the criteria were negative attitudes towards people with HIV/AIDS. The results show that the first two models were not statistically significant, while the last model, after adding a variable that measures homophobia, becomes significant. The model composed of cynicism, pessimism, and homophobia explains 34% of the total variance (p = .00). Homophobia makes a significant contribution to the prediction, which is also a statistically significant predictor of negative attitudes towards people with HIV/AIDS ($\beta$ = .54, t = 6.43, p = .00). Pessimism was also a statistically significant individual predictor ($\beta$ = 20, t = 2.00, p = .05). It can be concluded that higher levels of pessimism and more pronounced homophobia significantly predict negative attitudes towards people with HIV/AIDS.

*Introduction*

*HIV/AIDS.* The term stigmatization comes from the Greek word *stigma*, which was a sign or mark applied to the body of slaves (Klauder, 1938). The sign was applied by cutting the skin or creating burns and it indicated something unusual or bad in the person. It was assumed that the people who own the mark on the skin were slaves, traitors, or criminals and should be avoided (Goffman, 1963). Stigmatization of people living with HIV/AIDS was noted during the first registration of the disease and has been associated with homosexuals, promiscuous women, and drug users (Von Collani et al., 2010). Factors of attitudes towards patients are social distance, negative stereotypes, and attribution of responsibility (Von Collani et al., 2010). Traditional attitudes towards gender roles, as well as negative attitudes towards homosexuals, are associated with negative prejudices towards people living with HIV/AIDS (Baunach & Burgess, 2013). People living with HIV are exposed to a number of negative attitudes that lead to their isolation (Adrien et al., 2012). Revealing HIV status to others can lead to the loss of friends, avoidance by others and discrimination, but even possession of the disease can lead to feelings of shame and isolation (Berger et al., 2001). People living with HIV/AIDS state that it was harder for them to face the prejudices of others than to live with the disease and that prejudices were common and led to concealment of health to avoid rejection by others (Giacomozzi et al., 2019).

*Cynicism*. Cynicism is the belief that people are hypocritical, selfish, duplicitous, and insincere (Ćubela Adorić & Tucak, 2006). Cynicism implies a negative attitude towards individuals and society. As such, it is characterized by negative emotions, criticizing and belittling others, but also the values they stand for (Marković et al., 2016). Wrightsman (1992) cites life philosophies that were acquired early and influenced our understanding of the world. They are the following: trust or distrust, rationality-irrationality, altruism, selfishness, independence or striving for conformity, complexity-simplicity, and similarity, more precisely diversity. Also, Erickson (Erikson, 2008) distinguishes eight stages in the development of personality, where trust or distrust finds its place,

as the first stage. Wrightsman (1991) speaks of cynicism as the opposite dimension of trust in others. Cynicism develops as a means of defense against the environment, thus trying to prevent a person from being hurt (Marković et al., 2016). It is less pronounced in women than in men, as in the elderly, according to Wrightsman (1992). However, Marković & al. (2016) do not find differences in terms of gender and state that cynicism is more pronounced in the elderly. If an individual is cynical about the behavior he expects from the person who is the subject of the attitude, then they are more likely to express distrust of the other party, on the other hand, if a person trusts others, it is unlikely to be cynical when it comes to the expected behavior (Thompson et al., 2000).

*Pessimism*. Pessimism represents a negative view of the world, as well as future and present aspects of life (Penezić, 1999). When faced with a threat or challenge, pessimists tend to be suspicious (Carver & Scheier, 2001). Pessimism correlates significantly with neuroticism and negative affect (Marshall et al., 1992). It also negatively correlates with psychological well-being (Augusto-Landa et al., 2011). Optimists and pessimists have different mechanisms when it comes to dealing with difficulties. When faced with difficulties, optimists tend to keep working even though the situation is difficult. On the other hand, pessimists are not inclined to take action, although it could make the situation or the future more positive, and often give up (Scheier & Carver, 2018). Pessimism is associated with a cold and hostile style. It is assumed that such a style, cold and hostile, will cause distance from others (Smith et al., 2013). Pessimism and optimism have been registered as statistically significant predictors of depressive symptoms (Chang et al., 2013). Pessimists have more pronounced levels of depression compared to optimists, also, pessimists achieve significantly higher levels of values on the dimensions of apathy, sleep disorders, irritability, and social withdrawal (Joshi & Tomar, 2012). Also, pessimists are more exposed to the risk of anxiety, obsessive compulsive symptoms, somatic problems, as well as problems in social functioning (Van der Velden et al., 2007).

*Homophobia*. The term homophobia was first used by Weinberg (1972) and meant fear and hatred directed towards people of homosexual orientation, as well as fear of being in their environment. Later, homophobia takes on the meaning of any negative reactions or attitudes toward homosexuals (Herek, 2004). Homophobia is significantly associated with authoritarianism, sexism, and religious fundamentalism. Also, aggression proved to be a statistically significant predictor of homophobia (Nagoshi et al., 2008). Homophobia is more pronounced among people of more conservative political orientation, people of more religious character, less openness to experiences, and more conscientious (Živanović et al., 2014). People who have contact with individuals of homosexual orientation are more likely to have more favorable attitudes toward that population (Malley & Tasker, 2004). Homophobia is more pronounced in males (Živanović et al., 2014; Lingiardi et al., 2005). More egalitarian attitudes toward

gender roles in females are significantly associated with positive attitudes toward homosexuals (Basow & Johnson, 2000). Exposure to homophobia significantly affects depression and anxiety in males, as well as personal stress, while women are more prone to withdrawal than others (Poteat & Espelage, 2007). On the other hand, D'Augelli et al. (2002) state that females show more pronounced values on the scales of anxiety and depression, and that they have more frequent sleep problems. Members of sexual minorities report higher levels of depression and a greater propensity to use alcohol and marijuana, as well as more pronounced suicidal feelings (Espelage et al., 2008). Exposure to negative attitudes is equated with psychological abuse, which can lead to a sense of justification for such actions and create shame and guilt in individuals (Gonzales, 2016).

As no research has been found that deals with the topics of pessimism and cynicism as variables that potentially affect attitudes towards people with HIV, and given that cynicism is seen as a negative attitude towards others (Marković et al., 2016), and pessimism as a negative view of all aspects of life (Penezić, 1999) that can lead to distance from others (Smith et al., 2013), this was precisely the goal of this research. In addition, the variable of homophobia was used. Thus, the aim of this study was to examine whether pessimism, cynicism, and homophobia are statistically significant predictors of negative attitudes towards people with HIV/AIDS.

## Method

*Sample.* The sample was convenient and consisted of 100 respondents (F = 80), average age 22.63 (SD = 5.04). 79.6% of respondents were heterosexual, 10.2% bisexual, 8.2% homosexual, and 2% said they were asexual. The majority of respondents, 81%, are students. The research was conducted online, using *Google Forms*, the questionnaires were shared via social networks (Facebook, Instagram, etc.). The collection of respondents lasted about two weeks. The respondents were informed about the basic ethical aspects, that they could withdraw from the research at any time, that the research was completely anonymous and on a voluntary basis, with which they agreed.

*Instruments.* The following instruments were used:

• *The Pessimism Scale* (Penezić, 1999). It consists of 8 items on a five-point Likert-type scale (1-does not apply to me at all; 5-fully applies to me). Reliability is satisfactory and amounts to α = .83 (Penezić, 1999), while in this research it amounts to α = .88. Examples of items are: I rarely expect something good to happen; It is better to expect failure, you are less shaken when it actually happens; etc.

• *The Cynicism Scale* (Ćubela Adorić & Tucak, 2006) was used to operationalize a given construct. It consists of 10 items that are answered via a six-point

scale (-3 I do not agree at all; +3 I completely agree). The reliability of the scale is α = .80. Some items are: People pretend to care more about others than they really do; Most people actually don't like to put themselves out there to help others; Most people are not honest for the right reason, they are afraid of being caught in the act; etc.

• *The Homophobia Test* (H25) was used to measure homosexual attitudes (Živanović et al., 2014). The test consists of 25 items on a five-point Likert-type scale. The reliability of the test is high and amounts to α = .97. In this study, reliability is α = .96. Some of the items are: Homosexuality should be eradicated; Being gay does not mean being less valuable; Gay is ok; I would rather kill myself than be gay; etc.

• A questionnaire by Genberg et al. (2009) was used to examine attitudes towards people living with HIV/AIDS. The scale consists of 19 items that make up three subscales: negative attitudes, perceived discrimination, and fairness. For the purposes of this research, a subscale of negative attitudes will be used, the reliability of which in this research is α = .87. The answer are given on a five-point Likert-type scale, from 1 I do not agree at all, to 5 I completely agree. Examples of items are: People living with HIV/AIDS should be ashamed; People with HIV/AIDS are disgusting; People with HIV/AIDS should be treated like others; etc.

## Results

The basic descriptive statistical measures are presented below.

Table 1. Basic descriptive statistical measures

|                    | Min   | Max  | AS    | SD    | Sk    | Ku    |
|--------------------|-------|------|-------|-------|-------|-------|
| Cynicism           | -1.40 | 1.65 | .39   | .62   | -.52  | .74   |
| Pessimism          | 8     | 97   | 19.85 | 7.27  | .57   | -.54  |
| Homophobia         | 27    | 102  | 50.62 | 17.60 | 1.36  | 1.13  |
| Negative attitudes | 1     | 4.50 | 1.28  | .58   | 3.24  | 11.76 |

*Note. min = minimum value; max = maximum value; AS = arithmetic mean; SD = standard deviation; Sk = value of skjunis; Ku = value of courtesy.*

The following is an overview of the correlations between the variables used.

Table 2. Correlations between variables

|                        | 1     | 2    | 3   | 4 |
|------------------------|-------|------|-----|---|
| 1. Negative attitudes  | 1     |      |     |   |
| 2. Cynicism            | .11   | 1    |     |   |
| 3. Pessimism           | .21*  | .12  | 1   |   |
| 4. Homophobia          | .53** | -.08 | .04 | 1 |

*Note.* *p < .05; **p < .01.

Pessimism and homophobia have statistically significant correlation with negative attitudes towards people living with HIV/AIDS.

Hierarchical linear regression was used to process the results. Predictors were cynicism, pessimism, and homophobia, while the criterion variable was negative attitudes towards people with HIV/AIDS. As cynicism is a philosophy of life that is acquired early in life and does not change easily (Wrightsman, 1992), it was inserted in the first step. After that, pessimism was added as a negative view of life and life aspects (Penezić, 1999), and finally homophobia, which means negative reactions and attitudes towards people of homosexual orientation (Herek, 2004).

Table 3. Results of hierarchical linear regression

| Predictors | β   | t    | p   | R   | R²  | ΔF    | df 1 | df 2 | p ΔF | F     | df 1 | df 2 | p   |
|------------|-----|------|-----|-----|-----|-------|------|------|------|-------|------|------|-----|
|            |     |      |     | .11 | .01 | 1.22  | 1    | 98   | .27  | 1.22  | 1    | 98   | .27 |
| Cynicism   | .11 | 1.10 | .27 |     |     |       |      |      |      |       |      |      |     |
|            |     |      |     | .23 | .05 | 4.02  | 1    | 97   | .05  | 2.63  | 2    | 97   | .07 |
| Cynicism   | .09 | .86  | .39 |     |     |       |      |      |      |       |      |      |     |
| Pessimism  | .20 | 2.00 | .05 |     |     |       |      |      |      |       |      |      |     |
|            |     |      |     | .58 | .34 | 41.33 | 1    | 96   | .00  | 16.26 | 3    | 96   | .00 |
| Cynicism   | .13 | 1.59 | .12 |     |     |       |      |      |      |       |      |      |     |
| Pessimism  | .17 | 2.06 | .04 |     |     |       |      |      |      |       |      |      |     |
| Homophobia | .54 | 6.43 | .00 |     |     |       |      |      |      |       |      |      |     |

The first two models are not statistically significant, while the last one is. The third model explains 34% of the total variance (p = .00). Homophobia makes a significant contribution to the prediction, which is also a statistically significant predictor of negative attitudes towards people with HIV/AIDS (β = .54, t = 6.43, p = .00). Pessimism is also a statistically significant individual predictor (β = 20, t = 2.00, p = .05).

## Discussion and Conclusion

The aim of the research was to examine whether it is possible to predict negative attitudes towards people with HIV/AIDS with the predictors of cynicism, pessimism, and homophobia. Models composed of pessimism and cynicism are not statistically significant, while the model that contains the scale of homophobia, in addition to cynicism and pessimism, is significant.

Pessimism and homophobia have a statistically significant correlation with negative attitudes towards people living with HIV/AIDS. Also, pessimism and homophobia stood out as statistically significant predictors of negative attitudes.

Pessimism has a positive correlation with the criterion variable, which indicates that higher levels of pessimism significantly predict more pronounced negative attitudes towards people with HIV/AIDS. When we talk about optimism, that is, pessimism, some people are generally more inclined to one side of this dimension. Namely, as optimists tend to see the world positively, pessimists tend to see negative aspects of the world around them (Hetch, 2013). Also, pessimism implies a tendency to emphasize things in a negative and unfavorable way, therefore, to take a gloomy life attitude, and the attitude is a way of life (Singh & Mishra, 2012). As pessimism represents a negative view of the world as well as future and present aspects of life (Penezić, 1999), and is a predictor of problems in social functioning (Van der Velden et al., 2007), this could potentially be the reason for the connection between these constructs. Also, pessimism is associated with a cold and hostile style, which is assumed to cause distance from others (Smith et al., 2013), which also may be the case with people with HIV/AIDS.

When it comes to the association of homophobia with negative attitudes towards people living with HIV/AIDS, more pronounced homophobia leads to negative attitudes towards people with HIV. The results are in line with the results of Peate et al. (2002) who concluded that the more positive attitudes towards AIDS, the less pronounced homophobia. Namely, in their research, a statistically significant relationship was established between attitudes towards AIDS, as well as persons suffering from AIDS, and homophobia. The results show that the more positive the respondents' attitude towards AIDS, the less expressed homophobic attitudes. As this research was conducted on medical staff, it showed that the more informed a person is about AIDS, the less homophobic they are and the more willing they are to provide care to patients. Also, the results of Adrien et al. (2012) show that negative attitudes towards people living with HIV are associated with more pronounced homophobia as well as less knowledge about HIV transmission. That knowledge and stigmatization are important predictors of stigmatization is also evidenced by the research of Beaulieu et al. (2014).

Although, due to the construct of cynicism, as a negative attitude towards individuals and society, characterized by negative emotions, it was expected that cynicism would be a significant predictor, the results show that this is not

the case. Namely, a very small and unbalanced sample is a major lack of this research, which can also be the reason for the absence of a significant relationship between cynicism and negative attitudes towards people with HIV/AIDS.

As negative attitudes towards people with HIV/AIDS can significantly affect a person's functioning, the importance of research is reflected primarily in elucidating the relationship between these constructs, as well as their use in practice to model pessimism through counseling and combating negative attitudes through education. In the future research, it is desirable to use a more balanced sample in terms of age, gender, as well as sexual orientation, and examine the differences between these groups, which is a disadvantage of this research. The research can be seen as a pilot study whose preliminary results need to be developed in the future.

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## Цинизам, песимизам и хомофобија као предиктори негативних ставова према особама са ХИВ-ом/АИДС-ом

### Резиме

Циљ истраживања био је испитати да ли је помоћу цинизма, песимизма и хомофобије могуће предвидети негативне ставове према особама са ХИВ-ом/АИДС-ом. Узорак је пригодан и сачињен од 100 испитаника (М = 20, Ж = 80), просечне старости 22,63 (SD = 5.04). За операционализацију су коришћени следећи инструменти: Скала песимизма, Скала цинизма и Тест хомофобије (X25). За мерење негативних ставова према особама са ХИВ-ом/АИДС-ом

коришћена је субскала теста који операционализује склоност стигматизацији и дискриминацији особа са ХИВ-ом/АИДС-ом. За обраду резултата коришћена је хијерархијска линеарна регресија. Предиктори су песимизам, цинизам и хомофобија, док критеријум представљају негативни ставови према особама са ХИВ-ом/АИДС-ом. Резултати показују да прва два модела нису статистички значајна, док последњи модел, након додавања варијабле која мери хомофобију, постаје значајан. Модел сачињен од цинизма, песимизма и хомофобије објашњава 34% укупне варијансе (p = .00). Значајни допринос предикцији даје хомофобија, која је уједно и статистички значајан предиктор негативних ставова према особама са ХИВ-ом/АИДС-ом (β = .54, t = 6.43, p = .00). Статистички значајан појединачни предиктор је и песимизам (β = 20, t = 2.00, p = .05). Може се закључити да виши нивои песимизма и израженија хомофобија значајно предвиђају негативне ставове према особама са ХИВ-ом/АИДС-ом.

*Кључне речи:* ХИВ; АИДС; негативни ставови; цинизам; песимизам; хомофобија.

# Exhibition Review

# A REVIEW OF THE EXHIBITION
# *NIKOLA DOBROVIĆ: UNDER THE BANNERS OF MODERNIST MOVEMENTS*
## (SASA GALLERY, BELGRADE, MAY 24 – OCTOBER 2, 2022)

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## A REVIEW OF THE EXHIBITION *NIKOLA DOBROVIĆ: UNDER THE BANNERS OF MODERNIST MOVEMENTS* (SASA GALLERY, BELGRADE, MAY 24 – OCTOBER 2, 2022)[2]

The Serbian Academy of Sciences and Arts (SASA) has dedicated the year 2022 to Academician Nikola Dobrović (February 12, 1897, Pécs, the Hungarian County of Baranya, Austro-Hungarian Empire – January 11, 1967, Belgrade, Socialist Federal Republic of Yugoslavia) and to celebrating the 125th anniversary of the birth of this prominent Serbian and Yugoslav architect of the modern era.

The exhibition *Nikola Dobrović: Under the Banners of Modernist Movements*, curated by Professor Marta Vukotić Lazar, PhD, and Bojan Kovačević, MSc, and opened at the SASA Gallery on May 24, 2022, to run until October 2, 2022, occupies a central place in the program *Marking the 125th Anniversary of the Birth of Architect Nikola Dobrović*.

The curators of the exhibition decided to consider the periods of Dobrović's growing up and schooling, and then the entire independent activities of the architect, not only through a chronological display of completed buildings, competition entries, and unexecuted projects, but also through extensive correspondence between Petar and Nikola Dobrović, which chronologically fits into the Prague and Dubrovnik periods of Nikola's creative work and illuminates them from another angle, important for the cultural history of Belgrade, Serbia, as well as for the spirit of the cities and areas to which this builder belonged.

The most significant source for studying Nikola Dobrović's oeuvre is his *Legacy*, which in 1995 Stanislava Pešić, Yugoslav and Serbian actress, after inheriting it from her aunt Ivanka Dobrović (the architect's wife), donated to the Museum of Science and Technology in Belgrade.[3]

The extensive legacy of Petar Dobrović in the Archives of the Serbian Academy of Sciences and Arts (the SASA Archives) in Belgrade, a gift from Olga Dobrović (1993), the wife of Petar Dobrović (the SASA Archives, Historical Collection No 14758), is organized into eight classification groups and has a

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[2] The project of celebrating the jubilee, along with a wide range of accompanying events for the duration of the exhibition and throughout 2022, has been realised with the support of the Ministry of Education, Science, and Technological Development and the Ministry of Culture and Information of the Republic of Serbia.

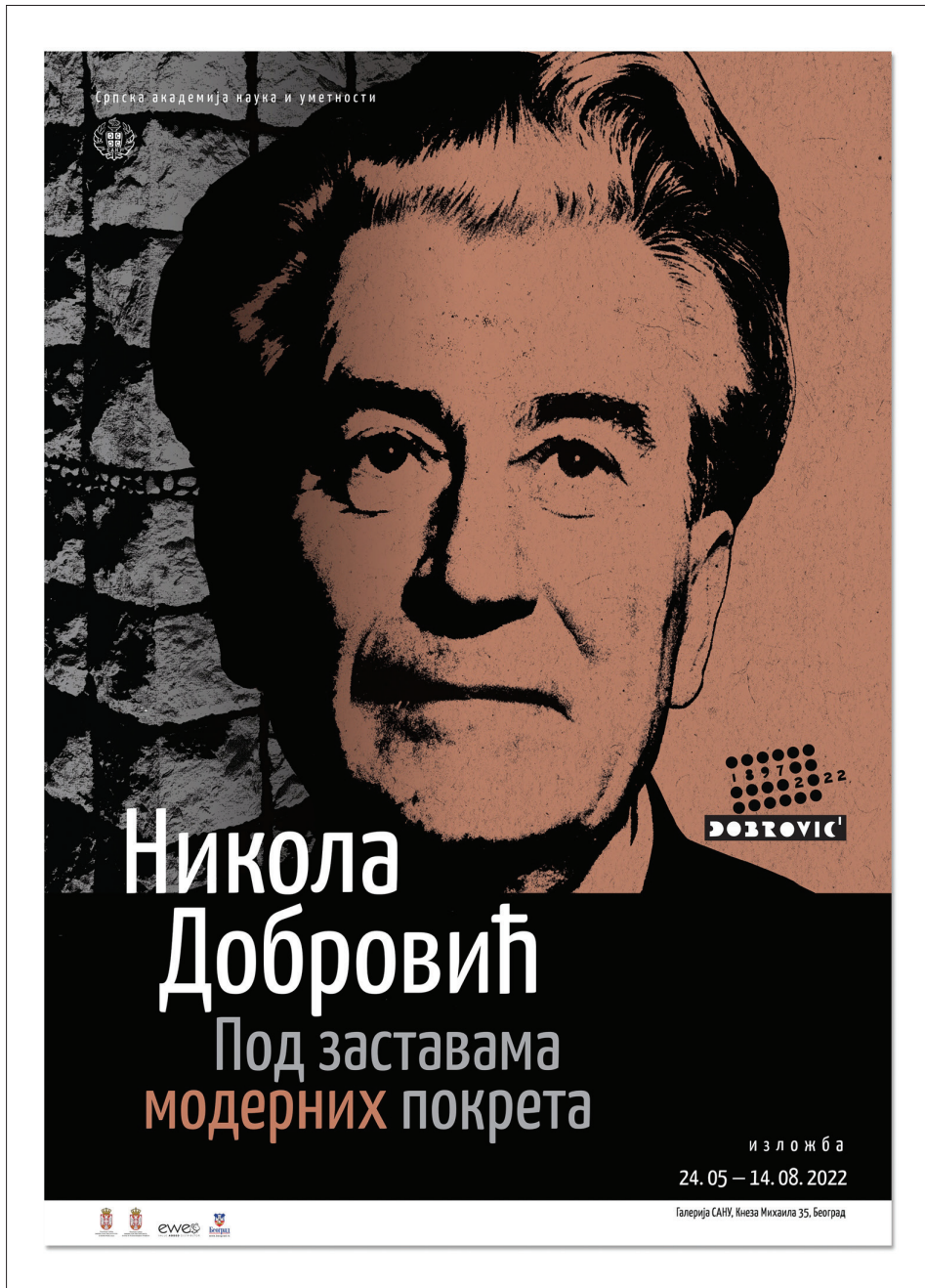[3] The Legacy of Nikola Dobrović was received from Mrs Stanislava Pešić on November 11, 1995.

Figure 1. Dragana Lacmanović, Poster for the exhibition *Nikola Dobrović: Under the Banners of Modernist Movements* (Gallery of the Serbian Academy of Sciences and Arts, Belgrade, 24/05/2022 – 02/10/2022).

total of 1,916 documents.[4] The legacy of Nikola Dobrović, which is kept in the same place (Historical Collection No 14878), and which was separated from the bequest of Ivanka Dobrović, wife of Nikola Dobrović, to the Library of the Serbian Academy of Sciences and Arts (the SASA Library, 1995), is arranged into five classification groups with a total of 121 documents and was also researched for the purposes of the exhibition.[5] As a gift, according to her will dated June 9, 1995, Nikola Dobrović's wife, Ivanka Dobrović, donated his rich personal library to the SASA Library,[6] which also gave impetus to the explorations aimed at the realisation of the exhibition. In 2018, as an act of support for the forthcoming celebration of Nikola Dobrović's jubilee, Dr Relja Živojnović donated to the SASA Archives the legacy of his father, Dr Svetozar Živojnović from Herceg Novi, who was the founder and long-time director of the Institute of Physical Medicine and Rehabilitation Dr Simo Milošević in Igalo, and through whose efforts the architect Dobrović had left significant achievements in Herceg Novi and Igalo. This legacy was added to the Legacy of Nikola Dobrović (the SASA Archives, Historical Collection 14878–II) and was also a valuable incentive for the realisation of this monographic exhibition.

The extensive material collected and explored led the curators of the exhibition to divide Dobrović's oeuvre into three periods: Prague (1919–1934), Dubrovnik (1934–1943), and Belgrade (1945–1967), with boundaries between them remaining open for mutual permeating and the free flow of all influences from one period to another. In this context, the exhibition layout designer, architect Marina Dokmanović, in agreement with the curators of the exhibition, decided to structure this multidisciplinary exhibition within the gallery space in eight sections, as the most purposeful way to present to the visitors for the first time previously unexhibited, comprehensive material gathered from various institutions and brought to this one place to showcase the life and work, and the period to which the architect Nikola Dobrović belonged and contributed as a full member of the Serbian Academy of Sciences and Arts, full professor at the University of Belgrade, holder of numerous honorary titles and social and public recognitions.

Through the original archival materials (several hundred signed items) from the legacies of the architect Nikola Dobrović, which are kept in the Museum of Science and Technology and the SASA Archives in Belgrade, and artistic photographs (hundreds of photo-records) of the current state of Nikola Dobrović's realised works, through historical photographs and postcards from museums, archives, and private collections, along with five video materials made for the needs of this exhibition (duration about 5 minutes each), dealing with Dobrović's

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[4] The Legacy of Petar Dobrović, the SASA Archives, Historical Collection No 14758.

[5] The Legacy of Petar Dobrović, the SASA Archives, Historical Collection No 14878.

[6] Personal library of Nikola Dobrović, the SASA Library. See about it in: *Ivanka Dobrović's Testament dated June 9*, 1995 (the SASA Archives, 14878–90).

oeuvre in Prague, Dubrovnik, and Belgrade, and a precious documentary about the life and work of Nikola Dobrović, entitled *Urban Planner Must Be an Architect* (duration 48'39") produced by the Educational-Scientific Programme of the Radio Television of Serbia (RTS) and a 1964 film entitled *Contemporary Architecture of Yugoslavia* (duration 16'15") from the collection of *Filmske Novosti* (a film production company and archive) in Belgrade, the audience gains completely new knowledge about this builder. A special contribution to the exhibition has been made by the seven completed models of Dobrović's buildings, among which the monumental model of Dobrović's General Staff Building in Belgrade in the scale of 1:125 (made by Vladan Jovanović) is the leading one, which does not diminish the exceptional contribution of the students of the Faculty of Architecture in Belgrade, who made the other six models under the mentorship of Professor Zoran Abadić and Dr Jelena Bogosavljević.[7] The exhibition also presents eight oil paintings by the painter Petar Dobrović, the brother of the architect, from the collections of the Heritage House – the Gallery of Petar Dobrović and the National Museum in Belgrade, where, in addition to Nikola's portrait and Petar's self-portrait, individual and group portraits of personalities which marked the life of the architect Nikola Dobrović are also exhibited. Next to them, there are also paintings of streets (in Pécs and Dubrovnik), chosen not only as testimonies on the places to which he was attached, but also as essential elements of all cities, including those two, while the painting of an old olive tree, a symbol of peace, life, health, learning, and wisdom, is singled out and presented only as a tree, the most important natural aid, according to Dobrović, in the formation of the urban landscape and green spaces in the public discourse of the interwar modernisation of cities. The exhibition also presents the work of the contemporary Serbian sculptor Mrđan Bajić on the subject of the bombing of Dobrović's General Staff Building in Belgrade in 1999, as an important contribution to the exhibition and an incentive to act in the direction of the urgent restoration of this most significant and the only executed work by Dobrović in Belgrade and Serbia.

The exhibition is accompanied by a luxurious 204-page catalogue with numerous black-and-white and colour illustrations, many of which are published for the first time. Along with the edition in Serbian, the catalogue in English has been published as a special edition. In addition to these two, the Serbian Academy of Sciences and Arts is preparing three more publications, which will

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[7] The model of the Terazije terrace (1:200) was made by Olivera Sadžaković, Nevena Đuričić, Milica Veljović, and Miša Žegarac; the model of the Hotel Grand on Lopud (1:125) was made by Ana Ljujić, Miodrag Novaković, Tijana Grujicić, and Ljubica Živanović; the model of the Villa Vesna on Lopud (1:50) was made by Vera Vranić and Matea Prokić; the model of the Villa Svid in Zaton near Dubrovnik (1:50) was made by Jovana Đurovski and Tatjana Đuričić; the model of the Villa Mudra in Srebreno near Dubrovnik (1:50) was made by Danica Kostić and Anđela Aranđelović; the model of Nikola Dobrović's Summerhouse on Lopud (1:50) was made by Teodor Jovanović, David Volarević, and Jovana Đurovski.

Figure 2. Dragana Lacmanović, Front page of the exhibition catalogue *Nikola Dobrović: Under the Banners of Modernist Movements* (the Gallery of the Serbian Academy of Sciences and Arts, Belgrade, 24/05/2022 – 02/10/2022).

be available to the professional circles by the end of the jubilee year 2022: the monograph *Nikola Dobrović: His Life, Work, and Time* in Serbian and English; and a collection of proceedings from the International Scientific Meeting *125th Year Since the Birth of the Architect Nikola Dobrović (1897–2022)* organised by the SASA, the Faculty of Architecture and the Faculty of Philosophy of the University of Belgrade, which will take place on November 17–18, 2022, at the SASA and the Faculty of Architecture in Belgrade.

Around the exhibition, as the central event in marking of the jubilee of Nikola Dobrović, numerous important events with a multitude of participants and activities clustered, taking place in several locations in Belgrade under the auspices of the Association of Architects of Serbia in the 17th Belgrade International Week of Architecture (BINA, May 26 – June 7, 2022) and the Academy of Architecture of Serbia, while at the Faculty of Architecture in Belgrade, winter and summer semester 2021/2022 were dedicated to this jubilee, with a series of lectures and activities related to the regular, elective, and postgraduate courses, along with the organisation of accompanying events, such as open workshops, discussions, expert guest lectures, and the preparation of the Student Competition for Conceptual Architectural-Urban Design of the Reconstruction of the Buildings of the Dobrović's General Staff, with an exhibition of competition entries in Knez Mihailova Street in Belgrade in the immediate vicinity of the SASA Gallery (May 27 – June 10, 2022) organised by BINA and the Faculty of Architecture in Belgrade, etc. The Library of the Serbian Academy of Sciences and Arts has also prepared a chamber exhibition dedicated to the 125th anniversary of the birth of Nikola Dobrović, a significant figure from the history of the Serbian Academy of Sciences and Arts; the materials from the Library collection, along with biographical and other data have been displayed in the new showcases of its reception hall.[8] On the initiative of the President of the Organising Committee for *Marking the 125th Anniversary of the Birth of Nikola Dobrović*, academician Milan Lojanica, the International Scientific Meeting *125th Year Since the Birth of the Architect Nikola Dobrović (1897–2022)* is to be held in Belgrade on November 17–18, 2022 under the auspices of the SASA, the Faculty of Architecture, and the Faculty of Philosophy of the University of Belgrade. The Radio Television of Serbia (RTS), as a national media house, supported the jubilee by producing a documentary about the life and work of Nikola Dobrović, entitled *Urban Planner Must Be an Architect*, viewed through the prism of archival sources, audio and video materials, as well as through testimonies on and interpretations of Dobrović's life, works, and the times to which he belonged, as given by his former students, today's distinguished Serbian architects Aleksandar Stjepanović, Živojin Bata Karapešić, Dragoljub Bakić, and Đorđe Bobić, Dobrović's relative, Vesna Pešić, Serbian sociologist and politician, Ivanka Dobrović's niece, to whom Nikola Dobrović was an uncle, and the curators of the exhibition. The documentary is made by the RTS Educational Scientific Programme team, led by the editor-in-chief Ilija Cerović, the show-editor Mirjana Bjelogrlić Nikolov and the director Ivana Stevens.[9]

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[8] Степановић Тодоровић, С. & Нинић, М. (2021). *Библиотека Српске академије наука и уметности: 1841–2021*. Београд: Српска академија наука и уметности.

[9] The documentary is available at: https://www.youtube.com/watch?v=HW2TgcPtNm4

On the one hand, the exhibition is dedicated to the architect Nikola Dobrović and concepts and phenomena, personalities, and works that paved his path, determined his directions, sharpened his creative horizons, and brought him to Belgrade as a life and professional destination. Its second dedication is directed towards the legacies of architects of the Late Modern Era, from which every thorough research of the works of individual builders starts, and then focuses on the study of realised projects and archival, photographic, newspaper, and historiographic materials. By presenting the family legacy of Nikola Dobrović—which contains: technical documentation of executed and unexecuted works (projects, sketches, drawings, competition entries, urban plan designs, etc.) made in various techniques and on various supports, student works, photographs, diplomas, awards, charters, plaques, excerpts from the daily and periodical press, published and unpublished texts, books, scientific articles, travel writings, diaries, technical reports, letters, as well as his personal library that completes the picture of him—the intention has also been to point out, from the perspective of the explored Dobrović's legacy, that legacies of this kind are particularly indispensable sources for historians of modern architecture as well as those responsible for the protection of cultural monuments.

Special attention has been paid to the influence of the older brother, painter Petar Dobrović (1890, Pécs – 1942, Belgrade) on the life and work of the architect Nikola Dobrović, which is further evidenced by the *Excerpt From the Diary of Nikola Dobrović*, preserved in the legacy of Petar Dobrović, with extensive correspondence exchanged between the brothers from 1914 until Petar's sudden death in 1942, and the documentation related to their joint exhibition activities from the middle of the third to the very beginning of the fourth decade of the 20th century. Petar's influence was exceptionally strong, even decisive, both from the aspect of Nikola's commitment to fine arts and contemporary trends in them, and from the point of view of Petar's persistent aspiration for his younger brother to obtain Yugoslav citizenship and to settle in Belgrade, where Petar himself found haven, living and working there until the end of his life, searching for his place within the framework of the Yugoslav artistic orientation. However, Nikola Dobrović would only settle permanently in Belgrade after the Second World War, and it would become his great inspiration and professional challenge to put his efforts into raising this city at the confluence of two rivers to the level of famous European cities through modern architecture and urban planning.

Architect Nikola Dobrović was a proponent and follower of avant-garde artistic tendencies transferred from the Hungarian, but also from the Prague milieu, the latter having been the centre of modern ideas,[10] where he received

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[10] The idea of pan-Slavism, promoted among the Slavic peoples in the Austro-Hungarian monarchy in the period immediately before and after its collapse, greatly contributed to the arrival of a large number of Czechoslovak builders and artists in Serbia.

his education and gained his first independent architectural experiences. What was common to all avant-garde movements, in addition to their interdisciplinarity and their multimedial nature, was their strong engagement to influence the processes of transformation of society and social behavior through radical artistic activity, where art is almost identified with life.[11]

When we talk about the architect Nikola Dobrović then he is, first and foremost, the winner of numerous architectural competitions and the builder of Mediterranean villas in the Kingdom of Yugoslavia between the two world wars; while after the Second World War, this man with a strong fighting spirit becomes the chief architect and the first urban planner of the post-war *Greater Belgrade*, a founder of the Urban Planning Institute of the People's Republic of Serbia, the director of the Urban Planning Institute of the Executive Board of the People's Committee of the City of Belgrade, a visionary, and less often a builder of huge edifices with complex functions, a full professor at the Faculty of Architecture of the University of Belgrade, a full member of the Serbian Academy of Sciences and Arts, and so on, but above all an idealist artist, with an honest and strong spirit who believed that urban planning and architecture could be used to fight for a new, fairer, and better society. Exactly as the architect Karapešić, one of his students, wrote: "It should not be overlooked that at the moment when the great virtue of commitment was put to the test, the man at the front stayed where he thought it was necessary. He sacrificed everything he had, and he had his life at his desk, to his duty to the war-torn tribe, the duty to the Slavic peoples (...).":[12]

From the numerous projects, competition entries, urban plans, and ideas of Nikola Dobrović, several buildings in Prague, numerous villas in Dubrovnik, a hotel on Lopud, the Children's Department of the Institute of Physical Therapy and Medical Rehabilitation in Igalo, etc., were built, while in Belgrade, in Serbia, only the complex of buildings today known as Dobrović's General Staff Building was completed. This devastating disproportion between conceptual sketches and realised works reached its crescendo in 1999, when in the NATO bombing of Belgrade, Dobrović's only executed project in this city—an ensemble of two large buildings at the intersection of Nemanjina and Knez Miloša streets

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After the First World War and the formation of the Czechoslovak Republic and the Kingdom of Serbs, Croats and Slovenes, then Yugoslavia, cross-cultural cooperation between these two newly formed states intensified, primarily through the activities of the Czechoslovak-Yugoslav League, founded in 1920 in Prague; through the exchange of architectural information through two important exhibitions: the *Exhibition of Czechoslovak Artists and Architects* in 1925 and the *Exhibition of Czechoslovak Architecture* in 1928, as well as the *Exhibition of Belgrade Architects* in Prague in 1930. See about it in: Дамљановић, Т. (2004). *Чешко-срйске архишекшонске везе 1918–1941*. Београд: Републички завод за заштиту споменика културе.

[11] Denegri, J. (1994). Avangarda pojam trajanja. *Komunikacije*, 88, 6.

[12] Karapešić, Ž. B. (1967). Za radnim stolom Nikole Dobrovića, *Vidici*, 107, 10–11.

(building A, before 1999, was the Headquarters of General Staff of the Army of Yugoslavia, and building B was at the same time the seat of the Federal Ministry of Defence)—completely collapsed, and its functional role was extinguished.[13]

All the books that Nikola Dobrović wrote, mainly for his students, thematically covering the fields of urban planning and architecture, he dedicated in his mind and in an associative way to the *World Brotherhood of Architects*, as he inscribed on the margins of numerous notebooks, handwritten to the last page and stored in the SASA Archives in Belgrade.[14]

This layered approach of an urban planner and practicing architect was also transferred to the period of his pedagogical work, when he had to introduce students to the most hidden secrets of the craft: how to establish a proper critical disposition in dealing with the offers from the world; how, through constant checks of our practice, to approach its thorough evaluation; how to determine the reasons for certain decisions and spatial results; how to perform the evaluation of architecture at the level of forms and the processes of creation of those forms; and so on. His critical judgments, often very strict, still ring in the ears of his students.

As a kind of substitute for the denied engagement in the field of practical work, Nikola Dobrović was appointed a university professor at the Faculty of Architecture in Belgrade, where he held courses from 1948 to 1967, first on Urban Planning Studies, and then on the subject of Contemporary Architecture, which he himself introduced. Dobrović spent the last decades of his life designing, but also writing numerous books for teaching purposes at the Faculty of Architecture.[15] Whole generations of students were educated on Dobrović's books and lectures, and today's generations of architecture and urban planning students, as well as all related faculties, use Dobrović's books: *Urban Planning and the Forces That Set It in Motion* (1948); *Urban Planning Through the Centuries 1 – Yugoslavia* (1950); *Urban Planning Through the Centuries – Ancient History* (1952); *Contemporary Architecture 1 – Origin and Genesis* (1952); *Urban Engineering 1A* (1953); *Contemporary Architecture 2 – Proponents* (1955); *Urban Engineering 1B* (1957); *Urban Engineering 2A-2B – Traffic* (1958); *Contemporary Architecture 3 – Followers* (1963); *Contemporary Architecture 4 – Intellectual Tributaries* (1965); posthumously published *Contemporary Architecture 5* (1971); and more.[16]

As a part of his books, Dobrović published his mostly competition works and conceptual sketches, and he did so in order to introduce his students to

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[13] Матовић, Д. (субота, 1. мај 1999). Злочиначки пројектили засули спасилачке екипе, *Политика*, 13; Павловић, М. (недеља, 9. мај 1999). Још један злочин НАТО агресора у старом центру Београда. Погођена зграда Владе Србије, *Политика*, 13.

[14] *Genesis, development, present and future of Dubrovnik*. Handwritten notes, undated. The Legacy of Nikola Dobrović, the SASA Archives, 14878/III–10.

[15] Vukotić Lazar, M. (2002). *Beogradsko razdoblje arhitekte Nikole Dobrovića (1945–1967)*. Beograd: Plato, 159–160.

[16] Ibid. 245–270.

the secrets of the creative process, the one that did not tolerate routine and compromises, for, as he himself once wrote: "When determining the quality of a national school and of an individual author within it, one should also keep in mind the not-small role of temperament, which stands significantly above all secondary phenomena of a more or less technical nature."[17]

The great influence he had on his students, and thus on the Union of Students which initiated and organised various activities, is best reflected in the example of the student newsletter *Bulletin of the Club of Young Architects*, launched in 1964 with the intention of enabling members to learn about 'selected thoughts and problems of contemporary architecture'. In almost every issue of the *Bulletin*, an article by Dobrović was published.[18]

Sensing, as he himself put it, that the *Grim Reaper of Humanity* is getting closer and closer to him, he decided to visit the places he loved and dealt with all his life. In 1966, *NIN*, a weekly news magazine from Belgrade, published his four article-studies about the cities of Venice, Dubrovnik, La Valletta in Malta, and Korčula, in a column entitled *From the Architect's Travel Notebook*. It was his last attempt to join his spiritual curiosity with the curiosity of students, colleagues, and artists. 'The desire to think properly in architecture' is also the message that remains left when the last page of his last book was closed.

Thus, Nikola Dobrović's books became guardians of the autobiographical and cultural-historical discourse, gaining yet another aspect of importance in the interpretation of his character and work in the context of modern architecture in Serbia.

As an uncompromising fighter for his principles and the high artistic values of architecture and urban planning, insufficiently understood in the environments in which he worked—throughout the Kingdom of Yugoslavia between the two world wars, and throughout the Socialist Federal Republic of Yugoslavia after the Second World War up until his last breath—Nikola Dobrović combined in his life and architectural destiny the most significant features of European and Serbian history. Exactly as he himself stated at the lecture entitled *Lecture on Nikola Dobrović*: "What is our task on this part of the Earth's globe? Isn't it to grind this material, imported with no customs inspection needed, in a domestic mill and that during the grinding process, we add to that material all the ingredients, spices, and flavours of the local soil, local brains and hearts, which will transform it into our product, into a product of our national school? Nikola Dobrović tried something in this sense. The fact that he didn't achieve better success could be attributed to the stronger force of external factors."[19]

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[17] Dobrović, N. (1960). Pokrenutost prostora Bergsonove dinamične sheme – nova likovna sredina. *ČIP*, 100, 11.

[18] Миленковић, Д. (1953). Клуδ младих архитеката. *Архиⓣекⓣ*, 9, 37–38.

[19] Dobrović, N. (1971). Predavanje o Nikoli Dobroviću. U: Z. Manević (prir. i ur.), *Savremena arhitektura 5* (85–88). Beograd: Zavod za izdavanje udžbenika SR Srbije.

Figure 3. Nikola Dobrović with a worker at the construction site of the Grand Hotel, Lopud near Dubrovnik, 1936. The Museum of Science and Technology, Belgrade.



Figure 4. The "Dobrović General Staff" complex after the NATO bombing. Photo by Branislav Strugar, postcard from 1999.

Nikola Dobrović passed away at the age of seventy, on January 11, 1967 in Belgrade.

When the exhibition *Architecture of Nikola Dobrović* was opened in the Student Cultural Centre in Belgrade (SKC) on April 25, 1978, on the initiative of the Study Group for Contemporary Architecture *Nikola Dobrović* founded at the Faculty of Architecture in Belgrade, and when the organisers sought out his former students, all of them, as the architect Ranko Radović wrote, "were unanimous in asserting that Nikola Dobrović exerted a huge influence on each one of them, and therefore an influence on the architecture of these regions and in these times."[20]

The same conclusion emerged from the event initiated by Ljiljana Miletić Abramović and Marta Vukotić Lazar almost four decades later—a photo session on April 21, 2017, from 4 to 6 p.m. at the Museum of Applied Arts in Belgrade, entitled *To the Professor with Love*. This accompanying manifestation of the 39th Salon of Architecture in Belgrade in the form of a performance—a photo shoot for a group portrait of Nikola Dobrović's students who had attended and taken exams at the Faculty of Architecture in Belgrade ending with the summer semester of 1966/67—was marked by the unison stance of the participants, that there has not yet appeared such a fighter for the principles of modern architecture and urban planning, nor a person equal to him in terms of the 'fighting spirit' within that field, both in Serbia and in former Yugoslavia, a person whose influence was equally strong and indelible, not only in the domains of designing cities and houses, scientific research, professional and pedagogical activity, but in the realm of shaping the general cultural-historical climate of that era as well.[21]

The same unison attitude, accompanied with deep, unchanged emotions regarding their teacher, was expressed through the testimonies and interpretations of his life, work, and the era to which he belonged, by his former students, today's distinguished Serbian architects: Aleksandar Stjepanović, Živojin Bata Karapešić, Dragoljub Bakić, and Đorđe Bobić in the documentary *Urban Planner Must Be an Architect*, which was realised in the jubilee year of 2022 by the Educational Scientific Programme of the Radio Television of Serbia on the occasion of the 125th anniversary of the birth of Nikola Dobrović.[22]

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[20] Vukotić Lazar, M. (2002). *Beogradsko razdoblje arhitekte Nikole Dobrovića (1945–1967)*. Beograd: Plato, 140–141; Вукотић Лазар, М. (2018). *Никола Добровић: живот, дело и доба коме је припадао*. Београд: Филозофски факултет у Косовској Митровици, 265–269.

[21] Ibidem.

[22] See about it at: https://www.youtube.com/watch?v=HW2TgcPtNm4

## *Nikola Dobrović: a biographical timeline*

1897    Born on February 12 into a Serbian merchant family in Pécs (the Hungarian County of Baranya, Austro-Hungarian Empire), as the fourth child of Petar and Irena Dobrović. In his hometown of Pécs, he completes elementary school and classical gymnasium.

1900    His father Petar Dobrović dies.

1913    On a letter from Petar Dobrović Jr. (Nikola's eldest brother) to his mother Irena, the address of the Dobrović family in Pécs is written: 33 Buranya Arpad St, Pécs, Hungary.

1914    Stevan and Đorđe, his two brothers, die.

1915    Nikola Dobrović enrolles in architectural studies at the Royal Joseph Technical University (Királyi József Műszaki Egyetem) in Budapest.

1916    Due to the mobilization, he interrupts his studies.

1919    He enrolles in the College of Architecture and Construction at the Czech Technical University in Prague (Vysoke školy architektur a pozemniho stavitelstvi pri Českem vysokem učeni tehnicskem y Praze).

1921    Petar Dobrović sends a postcard to his brother Nikola at the address: Signor Nikola Dobrović, student of architecture, Praha, Czech Republic, R.Č.S.

1923    He graduates from the College of Architecture and Construction at the Czech Technical University in Prague.

1923    He works as an architect in the bureau of Bohumil Hübschmann in
to 1925  Prague.

1925    His mother Irena lives in Novi Sad. She receives mail at the address of the Hotel Sloboda.

1925    He comes into the architectural bureau of Dr Antonín Engel in Prague.

1925
to 1929  He works in the Dušek–Kozák–Máca architectural bureau in Prague.

1929    Having obtained the licence, he receives the title of independent architect. Since then he works as self-employed.

1930    His mother Irena receives mail at the address 2 Baranjska St, Novi Sad, Dunavska Banovina (the Danube Banovina, one of the provinces within the Kingdom of Yugoslavia).

1933    He is awarded the Order of Saint Sava, 3rd Class, by the Kingdom of Yugoslavia.

1934    He leaves Prague.

1934    Until the outbreak of the Second World War, he works as a self-em-
to 1941  -ployed architect in Dubrovnik.

1938    He obtains the title of licenced engineer.

1940    As a mobilized soldier of the old Yugoslav army, he ends up in Vojvodina, where he is hiding in Novi Sad, disappointed.

1941    On 4 March, he marries Ivanka Hadži, the daughter of a prominent lawyer from Novi Sad, Kosta Hadži. Very soon after that, he takes refuge on the island of Lopud.

1942    His brother, painter Petar Dobrović, dies of a heart attack in the elevator of his building at 35 Kralja Petra Street in Belgrade.

1943    Following the fall of Italy to the Allied Forces in the Second World War, he crosses the Adriatic Sea on a small motorboat and arrives in Bari, where he reports to the newly established partisan base, and then goes to Rome. Soon after, he moves with a partisan unit to the island of Vis.

1944    At the end of the year, he comes by plane to the liberated territory near Mionica in Serbia. After that, he arrives in Belgrade.

1944    After the liberation of Belgrade, he is appointed head of the Architectural Department of the Ministry of Construction of the Democratic Federative Yugoslavia, which he would manage until the arrival of trustees Rade Pribićević and Živa Đorđević. Nikola Dobrović begins the reconstruction of the destroyed Belgrade, while there is still war on the Syrmian Front. The building where Nikola Dobrović lives is located at 6 Stevana Sremca St in Belgrade. Dobrović's apartment was on the third floor.

1945    He is appointed director of the Urban Institute of the Republic of Serbia.

1946    He becomes the director of the Urban Planning Institute of the Executive Board of the People's Committee of the City of Belgrade and the Chief Architect of the City.

1947    He is granted permission to move into an apartment on the third floor in 6 Stevana Sremca St in Belgrade.

1948
to 1967    He is a full professor at the Faculty of Architecture in Belgrade.

1948    He is the president of the Association of Engineers and Technicians of Yugoslavia and a councilor of the City of Belgrade.

1955    He is the president of the Association of Urban Planners of the People's Republic of Serbia.

1957    He is a member of the Urban Planning Council of the City of Belgrade.

1959    He becomes an honorary corresponding member of The Royal Institute of British Architecture (RIBA), London.

1961    His mother Irena, who lived with him and Ivanka Dobrović, dies.

1961    He is elected an honorary member of the Club of Young Architects of the Faculty of Architecture in Belgrade, and on December 21, 1961, he

is elected a corresponding member of the Serbian Academy of Sciences and Arts.

1962    He receives the October Award of the City of Belgrade for the SSPD East Wing Building in Belgrade.

1963    On June 17, he becomes a corresponding member of the Yugoslav Academy of Sciences and Arts (JAZU) in Zagreb.

1963    In September, he receives the Golden Badge of the Yugoslav Association of Urban Planners.

1963    He becomes an honorary member of the Association of Architects of Belgrade.

1964    He receives the 7th of July Award of the Socialist Republic of Serbia for Lifetime Achievement.

1964    He becomes a permanent honorary member of the Association of Architects of the Socialist Republic of Serbia.

1965    On October 26, he is awarded the Order of Labor with the Red Banner by the Socialist Federal Republic of Yugoslavia.

1965    On December 16, he is elected a full member of the Serbian Academy of Sciences and Arts.

1966    In May, at the invitation of the Urban Planning Institute of the Socialist Republic of Serbia, at the celebration of the centenary of the creation of the Urban Plan of Belgrade, Nikola Dobrović is present on behalf of the Serbian Academy of Sciences and Arts.

1967    Nikola Dobrović passes away on January 11, at the age of seventy. He is buried at the New Cemetery in Belgrade, plot 24, grave 16-IV, alongside his brother, the painter Petar Dobrović, and his mother, Irena Dobrović.

1967    The Hungarian Embassy sends a letter to the Serbian Academy of Sciences and Arts stating that "the Hungarian Academy of Sciences had the intention and desire to elect academician Nikola Dobrović as its member at its regular annual assembly in 1967. As the academician Nikola Dobrović passed away in the meantime, the embassy conveys its condolences on behalf of the Hungarian Academy of Sciences and on its own behalf."

1968    (posthumously) the October Award of the City of Belgrade for the urban planning conceptions according to which New Belgrade is built.

1971    He is posthumously awarded the Serbian Academy of Sciences and Arts Charter on the occasion of his election as a full member.

1975    On the occasion of the 20th anniversary of his work, the Plaque of the Faculty of Architecture of the University of Belgrade is awarded posthumously to Nikola Dobrović.

1979    He is posthumously awarded the Certificate of Appreciation by the Institute of Architecture and Urban Planning of the Socialist Republic of Serbia.

1988    A decision is made to rename the road 2a-2a, stretching from the road T3-T3 to Tošin Bunar Street in the neighborhood of Bežanijska kosa within the municipality of New Belgrade, to Nikola Dobrović Street.

1995    Ivanka Dobrović, wife of Nikola Dobrović, dies.

1996    A bust of architect Nikola Dobrović, the work of sculptor Vava Stanković from 1995, is installed in the hall of the Faculty of Architecture in Belgrade.

## *Honorary Titles, Public Offices and Social Recognition Awards*

1933    Order of Saint Sava, 3rd Class, the Kingdom of Yugoslavia

1948    President of the Union of Engineers and Technicians of Yugoslavia

1948    The Award of the Presidency of the Government of the Federal People's Republic of Yugoslavia for the work on the Urban Regulatory Plan of Greater Belgrade

1948    Councilor of the City of Belgrade

1955    President of the Association of Urban Planners of the People's Republic of Serbia

1957    Member of the Urban Planning Council of the People's Committee of the City of Belgrade

1959    Honorary Corresponding Member of The Royal Institute of British Architecture (RIBA), London

1961    Corresponding Member of the Serbian Academy of Sciences and Arts (SASA) in Belgrade

1961    Honorary Member of the Club of Young Architects of the Faculty of Architecture in Belgrade

1962    The October Award of the City of Belgrade for the building of the State Secretariat of People's Defence (SSPD)

1963    Corresponding Member of the Yugoslav Academy of Sciences and Arts (JAZU) in Zagreb

1963    Golden Badge of the Yugoslav Association of Urban Planners

1963    Honorary Member of the Association of Architects of Belgrade

1964    The 7th July Award of the Socialist Republic of Serbia for Lifetime Achievement

1964    Permanent Honorary Member of the Association of Architects of the Socialist Republic of Serbia

1965   Order of Labor with the Red Banner of the Socialist Federal Republic of Yugoslavia

1965   Full Member of the Serbian Academy of Sciences and Arts (SASA) in Belgrade

1968   The October Award of the City of Belgrade for the conceptual and urban plan according to which New Belgrade is built (posthumous)

1971   The Serbian Academy of Sciences and Arts (SASA) Charter on the occasion of Nikola Dobrović's full membership election (posthumous)

1975   Plaque of the Faculty of Architecture of the University of Belgrade (posthumous)

1979   Certificate of Appreciation of the Institute of Architecture and Urban Planning of the Socialist Republic of Serbia (IAUS) (posthumous)

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Осврт на изложбу *Никола Добровић:*
*под заставама модерних покрета*
(Галерија Српске академије наука и уметности,
Београд, 24. 5. 2022 – 2. 10. 2022)[23]

Р е з и м е

Српска академија наука и уметности посветила је 2022. годину академику Николи Добровићу (Печуј, 12. 2. 1897 – Београд, 11. 1. 1967) и обележавању јубилеја поводом 125 година од рођења овог истакнутог југословенског и српског архитекте модерног доба.

Изложба „Никола Добровић – под заставама модерних покрета“ аутора проф. др Марте Вукотић Лазар и мр Бојана Ковачевића (отворена у Галерији

Српске академије наука и уметности, 24. маја 2022. године, а трајаће до 2. октобра 2022) заузима централно место у Програму обележавања јубилеја.

Прикупљена и обрађена обимна грађа определила је ауторе изложбе да целокупан Добровићев опус поделе у три периода: Прашки (1919–1934), Дубровачки (1934–1943) и Београдски (1945–1967), чије су границе отворене за међусобна прожимања и слободно проистицање свих утицаја из једног периода у други. У том контексту се дизајнерка поставке изложбе, архитекта Марина Докмановић, у договору са ауторима изложбе, определила да ову мултидисциплинарну изложбу презентује у оквиру галеријског простора у осам целина, као најсврсисходнији начин да се посетиоцима први пут стави на увид, досад неизлагани обимни материјал обједињен из разних институција и на једном месту, а који се бави животом и делом, као и периодом коме је припадао архитекта Никола Добровић, редовни члан Српске академије наука и уметности, редовни професор Универзитета у Београду, носилац бројних почасних титула, друштвених и јавних признања итд.

Изложбу прати луксузни каталог, обима 204 стране, са бројним црно-белим и илустрацијама у боји, међу којима је велики број публикован први пут. Поред издања на српском језику, каталог је објављен као посебно издање и на енглеском језику. Издавачка делатност Српске академије наука и уметности припрема још три публикације које ће бити доступне стручној јавности до краја јубиларне 2022. године, и то: монографију *Никола Добровић: живот, дело, време* на српском и на енглеском језику, као и зборник радова на српском језику који ће бити резултат излагања са међународног научног скупа који носи назив *125 година од рођења архитекте Николе Добровића (1897–2022)* у организацији Српске академије наука и уметности, Архитектонског и Филозофског факултета Универзитета у Београду, а који ће бити одржан 17. и 18. новембра 2022. године у просторијама Српске академије наука и уметности и Архитектонског факултета у Београду.

Око изложбе, која је централни догађај, окупили су се бројни, такође важни догађаји са мноштвом учесника и активностима које су се одржавале на више места у Београду. Под окриљем Удружења архитеката Србије и Академије архитектуре Србије одржана је „17. Београдска интернационална недеља архитектуре" (БИНА, 26. 5. 2022 – 7. 6. 2022), док су на Архитектонском факултету у Београду и зимски и летњи семестар школске 2021/2022. године умногоме били посвећени овом јубилеју кроз низ наставних целина и активности везаних за редовну, изборну и постдипломску наставу, уз организацију пратећих догађаја као што су отворене радионице, разговори, гостујућа експертска предавања, реализација студентског конкурса за идејно архитектонско-урбанистичко решење реконструкције зграда Добровићевог Генералштаба (ДСНО), са изложбом конкурсних решења у Кнез Михаиловој улици у Београду у непосредној близини Галерије Српске академије наука и уметности (27. 5. 2022 – 10. 6. 2022) у реализацији БИНА и Архитектонског факултета у Београду итд. Библиотека Српске академије наука и уметности (БСАНУ) организовала је, такође, у новим витринама пријемног хола, камерну, изложбену поставку од грађе из фонда Библиотеке Српске академије

наука и уметности, уз биографске и друге податке. На иницијативу председника Одбора за припрему и обележавање овог јубилеја, академика архитекте Милана Лојанице, у организацији Српске академије наука и уметности, Архитектонског и Филозофског факултета Универзитета у Београду, одржаће се и међународни научни скуп *125 година од рођења архитекте Николе Добровића (1897–2022)* у Београду, 17. и 18. новембра 2022. године. Радио телевизија Србије (РТС), као национална медијска кућа, дала је подршку овом јубилеју реализацијом документарног филма о животу и раду Николе Добровића, под називом „Урбаниста мора бити архитекта“, кроз призму архивске грађе, аудио и видео материјала, као и кроз сведочења и тумачења Добровићевог живота, дела и доба коме је припадао, његових некадашњих студената, данас угледних српских архитеката: Александра Стјепановића, Живојина Бате Крапешића, Драгољуба Бакића и Ђорђа Бобића, сродника, Весне Пешић, сестричине Иванке Добровић, социолога и политичарке, којој је Никола Добровић био теча, као и аутора изложбе, у продукцији Образовно-научног програма, на челу са главним и одговорним уредником Илијом Церовићем, уредницом емисије Мирјаном Бјелогрлић-Николов и редитељком Иваном Стивенс.[24]

Изложба је, са једна стране, посвећена архитекти Николи Добровићу, концептима и феноменима, личностима и делима који су утабали његове путеве, одредили усмерења, изоштрили стваралачке видике и довели га до Београда, његовог животног и професионалног одредишта. Њено друго посвећење усмерено је ка заоставштинама од којих започиње свако темељито истраживање опуса појединих градитеља.

*Кључне речи*: Никола Добровић; архитектура; урбанизам; изложбе; градитељско наслеђе; вредновање и тумачење; Петар Добровић.

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[24] Документарни филм доступан је на: https://www.youtube.com/watch?v=HW2TgcPtNm4