



Nastava i vaspitanje

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Obaveštenje za čitaoce časopisa Nastava i vaspitanje

Obaveštavamo uvažene čitaoce časopisa Nastava i vaspitanje da će počevši od 2026. godine časopis biti objavljivan dvojezično, na srpskom i na engleskom jeziku, u skladu sa odredbama Pravilnika o kategorizaciji i rangiranju naučnih časopisa. Uz to, ova odluka je doneta u želji da obezbedimo što veću vidljivost radova objavljenih u časopisu svim zainteresovanim kako u našoj sredini, tako i van Srbije, a da istovremeno čuvamo i razvijamo pedagošku naučnu terminologiju na srpskom jeziku.

Uredništvo časopisa Nastava i vaspitanje koristi priliku i da se najiskrenije zahvali prof. dr Živki Krnjaja, dugogodišnjoj članici uredništva i donedavnoj glavnoj i odgovornoj urednici časopisa, na posvećenom radu i značajnom doprinosu koji je pružila razvoju kvaliteta časopisa i njegovoj vidljivosti.

Uredništvo časopisa

Information for readers of the journal Studies in Teaching and Education

We would like to inform the esteemed readers of the journal Studies in Teaching and Education that starting in 2026 the journal will be published bilingually, in Serbian and English, in accordance with the provisions of the Rulebook on the Categorization and Ranking of Scientific Journals. In addition, this decision was made in order to ensure the greater visibility of the articles published in the journal to all interested parties both in our environment and outside Serbia, while nurturing and further developing scientific terminology of pedagogy in the Serbian language.

The editorial board of the journal Studies in Teaching and Education would also like to take this opportunity to express sincere gratitude to Prof. Živka Krnjaja, PhD, a long-time member of the Editorial board and until recently the Editor-in-chief of the journal, for her dedicated work and significant contribution to the development of the quality of the journal and its visibility.

The Editorial board of the journal

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Percepcija terminalnih vrednosti učenika srednjih škola

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Apstrakt

U teorijskom delu rada je data analiza relevantnih teorijskih klasifikacija vrednosti, sa posebnim osvrtom na Rokičevu listu vrednosti. Predstavljeno istraživanje je realizovano sa ciljem da se utvrdi kako učenici završnih razreda srednjih škola procenjuju vlastite aktuelne krajnje životne ciljeve (terminalne vrednosti) u smislu njihovog hijerarhijskog poretka. Istraživanje je realizovano na prigodnom i stratificiranom uzorku učenika četvrtih razreda srednjih škola (N = 420), u Republici Srbiji – region Zapadna Srbija, u školskoj 2023/2024. godini. Korišćenjem Rokičeve liste vrednosti i primenom deskriptivne i inferencijalne statistike (izračunavanje aritmetičke sredine, standardne devijacije, MANOVA, F-test, test homogenosti kovarijacija, Cohen's d), utvrđene su i analizirane rang-pozicije vrednosti na manifestnom nivou. Rezultati pokazuju usmerenost maturanata prvenstveno prema krajnjim ličnim životnim ciljevima (porodična sigurnost, sreća, sloboda), dok su društveni ciljevi (mir u svetu, jednakost, nacionalna sigurnost, socijalno uvažavanje) na začelju liste. Varijable školskog usmerenja značajno su odredile razlike u pozicioniranju vrednosti, dok je pol ispitanika uticao u nešto manjoj meri. U uslovima intenzivnih društveno-ekonomskih i tehnoloških promena, dobijeni nalazi ukazuju na potrebu stalnog preispitivanja strukture vrednosnog sistema iz perspektive učenika koji su izloženi intenzivnim tehničko-tehnološkim, demografskim, globalizacijskim i drugim promenama. Imajući u vidu složenost i raznovrsne kontekste u kojima se odvija pedagoška praksa, dobijeni rezultati mogu poslužiti kao značajna polazna osnova za buduća dugoročna istraživanja usmerena na praćenje razvoja i transformacija vrednosnih stavova mladih u okviru obrazovnog procesa. Nalazi ukazuju na značaj kreiranja prilagođenih vaspitno-obrazovnih metoda koje će uvažiti različitost vrednosnih orijentacija mladih generacija.

Ključne reči: vrednosti, životni ciljevi, adolescenti, srednjoškolci, globalizacija.

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Uvod

Savremeni društveni kontekst obeležen je intenzivnim socioekonomskim, tehničko-tehnološkim i duhovnim transformacijama, koje utiču na strukturu i dinamiku vrednosnih sistema pojedinca kako na individualnom tako i na kolektivnom nivou (Inglehart, 1997; Zinkina et al., 2022). Vrednosni sistem se menja kroz desakralizaciju tradicionalnih vrednosti, pojavu novih globalnih obrazaca i reaktualizaciju nekada marginalizovanih vrednosti (Gavrilović, 2012; Lavrič i sar., 2019). U uslovima u kojima promena postaje permanentna kategorija, vrednosti se više ne posmatraju kao stabilne i trajne, već podložne kontinuiranoj rekonfiguraciji (Bauman, 2001; Schwartz, 1992), što zahteva njihovo sistemsko i interdisciplinarno istraživanje radi boljeg razumevanja transformacije vrednosnog polja, kao i njihovog uticaja na ponašanje i identitet pojedinaca i društvenih grupa (Inglehart, 1997; Schwartz, 1992). Transformacija vrednosti može imati dvodimenzionalni efekat: s jedne strane predstavlja podsticaj za društveni napredak i lični razvoj pojedinca, otvarajući prostor za pojavu novih vrednosnih paradigmi (Inglehart, 1997), dok s druge strane može postati izvor nestabilnosti, dovodeći do vrednosnih kolizija, posebno u kontekstu brzih i neusaglašenih promena društvenih potreba i individualnih interesa (Bauman, 2001; Lavrič i sar., 2019).

Društvene promene često se posmatraju kroz prizmu generacijskih razlika, pri čemu mladi zauzimaju centralno mesto kao nosioci, kreatori budućnosti i potencijalni pokretači promena. Otuda ispitivanje vrednosnog sistema mladih, posebno u periodu srednjoškolskog uzrasta, dobija izuzetan značaj. Obrazovno usmerenje i školsko okruženje predstavljaju ključne činioce u procesu socijalizacije i formiranja vrednosnih stavova mladih, što otvara prostor za promišljeno kreiranje adekvatnih pedagoških strategija. Srednjoškolski period mladih, koji okvirno, obuhvata uzrast od 14. do 18. godine, predstavlja osetljivu fazu razvoja tokom koje se pojačano formira moralni identitet. Upravo u ovom razvojnom intervalu mladi postaju prijemčiviji za različite uticaje iz neposrednog i šireg okruženja, dok proces internalizacije vrednosti dobija na intenzitetu. U pedagoškom smislu, škola ima ključnu ulogu u oblikovanju vrednosti, ali i mogućnost da utiče na mlade kroz nastavu, vršnjačke interakcije i vaspitne aktivnosti, podstičući razvoj lične odgovornosti i moralnog rasuđivanja. Zato je razumevanje vrednosnih stavova srednjoškolaca, u svetlu obrazovnog usmerenja, od suštinske važnosti za kreiranje vaspitnih pristupa koji odgovaraju savremenim društvenim potrebama i izazovima. Različite oblasti interesovanja i profesionalne perspektive učenika prirodno-matematičkog i društveno-humanističkog polja oblikuju specifične vrednosti, što utiče na njihove životne ciljeve. Prirodno-matematičko srednjoškolsko usmerenje često apostrofiraju tehničku stručnost i praktičnost, dok se društveno-humanističko polje fokusira na društvenu svest i moralne vrednosti (Schwartz, 2012). Pol, kao biološki i socijalni konstrukt, takođe utiče na vrednosne preferencije – zbog različitih društvenih uloga i očekivanja. Ispitivanje ovih faktora omogućava prilagođavanje pedagoških pristupa i bolje razumevanje dinamike vrednosnih promena u doba globalizacije (Inglehart & Welzel, 2005).

U kontekstu vrednosnog formiranja mladih, elementi globalizacije (kulturna globalizacija, tehnološki napredak, ekonomski uticaji, institucionalne promene i dinamika

identiteta) deluju kao snažni pokretači transformacije vrednosnih orijentacija, stavljajući vaspitno-obrazovni sistem pred nove, kompleksne izazove. U evropskim istraživanjima i strateškim dokumentima (European Commission, 2021; European Values Study, 2008; World Values Survey, 2022) ukazuje se na značajne promene u vrednosnim stavovima mladih, koje pojedini autori tumače kao posledicu odstupanja od tradicionalnih, stabilnijih vrednosnih obrazaca, što rezultira polarizacijom vrednosti – tradicionalne vrednosti gube snagu, dok su globalni vrednosni obrasci sve uticajniji i od pojedinca zahtevaju kontinuirano prilagođavanje brzim društvenim i kulturnim transformacijama (Jackson & Medvedev, 2024; Schäfer, 2025). Istovremeno se u okviru savremenih teorijskih pristupa pojavljuje koncept izgradnje vrednosnog sistema koji počiva na osećaju zajedničke pripadnosti, pri čemu globalizacijske vrednosti podstiču formiranje jednog proširenog, transnacionalnog identiteta (Musek, 2015); one se sve češće udaljavaju od tradicionalnih obrazaca okrećući se ka individualizmu i novim stilovima života (Budimir-Ninković, 2002). Vukadinović (Vukadinović, 2012) smatra da je univerzalni sistem vrednosti prilično urušen u uslovima globalizacije, ističući da globalizacija ima svoje lice i naličje u kojem kulminira sistem (ne)vrednosti, koji prepoznajemo po površnosti, deregulaciji svih odnosa u društvu, forsiranju konzumerizma, veličanju bizarnosti, pridavanju važnosti kvantitetu, kao i relativizaciji i banalizaciji krucijalnih problema savremenog doba. Živimo u potrošačkom društvu u kojem smo sve više oblikovani kao potrošači, a sve manje kao građani, gde globalna ekonomija insistira na proizvodnji novih potreba i stalnom izazivanju iskušenja, što podstiče plitke vrednosti i nestabilne identitete, čime pojedinca stavlja u položaj nesigurnosti i društvene rascepanosti (Bauman, 2000). Otuda se nameće pitanje: koje su to vrednosti ključne za opstanak i kvalitetno funkcionisanje u savremenim uslovima života?

Pojmovno određenje vrednosti i srodnih pojmova

Teorijska razmatranja o pojmovnom određenju *vrednosti* i njoj srodnih pojmova, kao što su *vrednosne orijentacije* i *životni stil*, često su ograničena nedostatkom jedinstvene koncepcije sadržaja i strukture vrednosnih odnosa, kao i nepostojanjem pouzdanih kvalitativnih i kvantitativnih parametara za njihovo merenje. Dodatnu teorijsku nejasnoću unosi činjenica da se dati pojmovi u brojnim tekstovima koriste kao sinonimi, iako imaju različite analitičke funkcije i domete (Hitlin & Piliavin, 2004; Rohan, 2000).

Koncipiranje opšteprihvatljive definicije vrednosti zahtevalo je odgovor na pitanje: ko određuje univerzalne ljudske vrednosti? Pojavila se i potreba stvaranja „globalnog etičkog koda“ kao okvira postojanja opšteg skupa univerzalnih vrednosti koji transcendiraju granice nekoga društva, zajednice, kulture ili religije (Rakić i Vukušić, 2010, str. 781). Brze promene u ponašanju stvaraju neusaglašenost između stvarnosti i ideala, ugrožavajući univerzalne vrednosti i dovodeći do krize vrednosti (Gvozdenović, 2021), što je posledica dominacije vrednosti „novog svetskog poretka“ nad univerzalnim normama poput slobode, jednakosti i mira (Baudrillard, 2007, str. 62). Stoga je neosporno da je kompleksnost koncipiranja opšteprihvaćene definicije vrednosti posledica spleta različitih faktora kao što su: terminološka neusklađenost između različitih kulturnih i jezičkih sredina, teorij-

ski okvir i istraživački interes različitih nauka, gde svaka nauka polazi od svog predmeta izučavanja i u tom kontekstu operacionalizuje pojam vrednosti (Bojović, 2017). Uvidom u relevantnu literaturu, moguće je identifikovati preko četiri stotine različitih definicija pojma vrednosti, što svedoči o njenoj izuzetnoj teorijskoj složenosti i konceptualnoj fluidnosti (Pantić, 1977; 1981; 1990). Raznolikost proističe ne samo iz interdisciplinarnog pristupa (sociologija, psihologija, antropologija, pedagogija, filozofija), nego i iz činjenice da pojedini autori smatraju da su vrednosti, kao dinamičan i istorijski promenljiv fenomen, u suštini otporne na jedinstveno i trajno definisanje. Klakhon (Kluckhohn, 1951) je među prvima ukazao na nemogućnost stvaranja univerzalne definicije vrednosti. dok Rokič (Rokeach, 1973) podseća da vrednosti deluju kao internalizovani standardi koji se ispoljavaju u ponašanju, ali ne moraju uvek biti racionalno artikulisani. Švarc (Schwartz, 1992) upozorava da se vrednosti moraju posmatrati kao socijalno i kulturno uslovljene motivacione konstrukcije, te da njihovo značenje varira u zavisnosti od konteksta. U tom smislu, vrednosti se mogu razumeti kao hijerarhijski organizovan sistem, koji se definiše kao skup stečenih, relativno stabilnih kognitivno-motivacionih struktura, usmerenih na regulisanje ponašanja pojedinca u odnosu na širok spektar socijalnih i iskustvenih objekata. Istovremeno, one postaju procesni i kontekstualno zavisni orijentiri, čije konkretno značenje nastaje tek unutar određenih društvenih, kulturnih ili individualnih situacija, što ukazuje na njihovu dinamičnost i adaptivni karakter u savremenom društvenom okruženju (Havelka, 1995; Hitlin & Piliavin, 2004; Inglehart, 1997; Janković, 2017; Lazić & Pešić, 2024; Schwartz, 1992; 1994).

Vrednosti se razvijaju kroz složenu interakciju ličnih osobina, iskustava i uticaja socijalizacijskih agenasa (Knafo et al., 2011; Maio, 2017; Roccas et al., 2002; Rokeach, 1973; Schwartz, 1992), a u uslovima globalizacije, ti uticaji prodiru u vaspitno-obrazovne institucije, koje postaju prostori hibridne socijalizacije mladih, oblikovanja identiteta i transformacije vrednosti, čime vaspitanje i obrazovanje dobijaju ključnu ulogu u rešavanju savremenih društvenih izazova (Bojović i sar., 2022; Čičkarić, 2011). Savremena kriza školskog sistema, koja se manifestuje kroz marginalizaciju vaspitno-obrazovne funkcije, ukazuje na ograničenu efikasnost vaspitno-obrazovnih institucija u ostvarivanju ključnih ekonomskih, kulturnih i društvenih ciljeva. Ovakvo stanje posebno iziskuje neophodnost kritičke revizije i adaptacije obrazovnih politika i praksi, u skladu sa kompleksnim izazovima 21. veka (Bojović i sar., 2022; Parsons, 2012; UNICEF, 2020).

Gledano u celini, može se formulisati sledeća polazna perspektiva u razumevanju vrednosti: a) vrednosti služe kao normativni okvir za tumačenje društvenih fenomena u promenljivim društvenim uslovima; b) vrednosti postaju mehanizam samoregulacije koji usmerava izbore, ponašanje, ciljeve, povezujući individualne strukture sa kulturološkim i sociodemografskim kontekstom tako da utiču na formiranje identiteta i socijalne integracije (Corey et al., 2003; Knafo et al., 2011; Miliša i Bagarić, 2012; Miliša i sar., 2015; Visković, 2013; Zokirova, 2020). Navedeno predstavlja našu polaznu platformu razumevanja vrednosti.

Iako su teorijska razmatranja o suštini vrednosti patila zbog nepostojanja dogovorene koncepcije sadržaja i strukture odnosa među vrednostima – kao pouzdanih, kvalitativnih i kvantitativnih parametara kojima je moguće izmeriti njihovu snagu – sre-

dinom 20. veka teoretičari postižu konsenzus o sadržaju osnovnih vrednosti, među kojima se ističu dve teorije: Švarcova (Schwartz) tipologija vrednosti i Rokičeva (Rokeach) podela vrednosti. Prema Švarcovoј teoriji, vrednosti su uverenja povezana sa osećajem lične nezavisnosti, odražavaju poželjne ciljeve koji motivišu pojedinca i hijerarhijski su poređana u skladu s individualnim prioritetima, a njihov uticaj na ponašanje zavisi od značaja koji imaju za pojedinca i društvo (Schwartz, 1996; 2012). Švarc definiše deset univerzalnih tipova vrednosti: samousmeravanje, postignuće, moć, hedonizam, bezbednost, tradicija, konformizam, dobronamernost, univerzalizam i stimulacija. Vrednosti su dimenzionirane kroz suprotne kategorije: 1) otvorenost za promene – konzervativizam; i 2) samouvećanje – samoprevazilaženje. Švarcov model pokazuje kako neke vrednosti prirodno idu zajedno (npr. hedonizam i stimulacija), dok su druge u unutrašnjem konfliktu (npr. moć i univerzalizam).

Jedan od najistaknutijih teoretičara u oblasti proučavanja vrednosti, Milton Rokič (Milton Rokeach), ističe da su vrednosti internalizovana uverenja koja služe kao stabilni standardi za procenu ponašanja, izbora i društvenih pojava, predstavljajući duboko ukorenjene orijentire koji oblikuju načine mišljenja i delovanja pojedinca, pri čemu se vrednost shvata kao trajno preskriptivno ili proskriptivno uverenje da je određen način ponašanja ili krajnje stanje postojanja poželjnije od njemu suprotnog (Rokeach, 1973, str. 25). Polazeći od postavljenog teorijskog okvira, Rokič deli vrednosti na dve osnovne grupe: 1) terminalne vrednosti (krajnja životna stanja) određuju ciljeve i ideale ka kojima pojedinac teži tokom života (npr. sreća, sloboda, mir) i 2) instrumentalne vrednosti (sredstva ostvarenja vrednosnog cilja) obuhvataju specifična ponašanja i karakterne osobine potrebne za postizanje tih ciljeva (npr. iskrenost, upornost, ambicioznost), (Rokeach, 1973). Rokič je ovakvom podelom vrednosti istakao njihov normativni karakter naglašavajući da one služe kao unutrašnji standardi za regulaciju ponašanja pojedinca (Bojović i sar., 2015; Hooper, 2003; Kuzmanović, 1995; Mladenović i Knebl, 2000). Značaj Rokičevog pristupa leži u omogućavanju kvantitativne analize složenih i često apstraktnih vrednosnih koncepata.

Bolje razumevanje suštine vrednosti može biti potpomognuto određenjem pojmova „vrednosna orijentacija“ i „životni stil“, koji se neretko koriste kao sinonimi, iako se ne odnose na isto. Vrednosne orijentacije predstavljaju skup trajnih vrednosti i načina ponašanja usmerenih na rešavanje egzistencijalnih pitanja (Havelka, 1975), te otkrivaju posvećenost pojedinca ili grupe univerzalnim vrednostima, ciljevima i ponašanjima, utičući na ponašanje kroz verovanja, stavove i načela određena specifičnostima ličnosti i duhovnim, kulturnim, tehnološkim i ideološkim obeležjima društva (Botalova et al., 2016; Rokeach, 1973; Valerian & Elvira Olga, 2016). S druge strane, životni stilovi predstavljaju praktičnu artikulaciju tih vrednosti kroz ponašanje, ispoljavajući se u potrošačkim navikama, oblicima slobodnog vremena, odnosu prema radu, obrazovanju i društvenom angažovanju (Giddens, 1991; Inglehart, 1997; Lazić & Pešić, 2024). Odnos između vrednosti, vrednosnih orijentacija i životnih stilova predstavlja značajan analitički okvir za razumevanje savremenih društvenih procesa, budući da od suštinske važnosti nije jedino istraživanje samih vrednosti, već i analiza načina na koje se one konkretizuju u svakodnevnom životu, bilo da je reč o izborima, ponašanju ili stilu života.

Kratak pregled dostupnih istraživanja o vrednostima

Istraživanje vrednosti ima dugu tradiciju u okviru društvenih i humanističkih nauka, pri čemu se vrednosti posmatraju kao temeljni orijentiri u ponašanju, rasuđivanju i društvenoj interakciji. Savremeni pristupi proučavanju vrednosti obuhvataju različite metodološke i teorijske okvire. U nastavku će biti predstavljeni istraživački pristupi i nalazi koji se tiču strukture, funkcije i promenljivosti vrednosti mladih u savremenom društvu.

Brojne studije koje se bave mladima ukazuju na značaj izgradnje identiteta, pri čemu vrednosti predstavljaju jedan od ključnih elemenata tog procesa (Furlong & Cartmel, 1997; Giacomino et al., 2011; Kehily, 2007; Lindh & Korhonen, 2010; Wyn & White, 1997). Istraživanja pokazuju da se kod mladih, u poređenju sa prethodnim generacijama, sve više ističu utilitarističke orijentacije, dok hedonističke vrednosti gube na značaju. Ipak, kao najznačajnije vrednosti uočavaju se prijateljstvo, ljubav, razonoda i porodični život (Antonijević i sar., 2020; Bojović i sar., 2015; Bojović i sar., 2022; Franc i sar., 2002; Koirkikivi et al., 2023; Kuzmanović i Petrović, 2009; Lazarević i Janjetović, 2003; Radoman, 2012; Zokirova, 2020). Promene u vrednosnim stavovima srednjoškola najviše pogađaju profesiju, obrazovanje, porodicu i materijalne vrednosti, što je izraženije kod devojčica nego kod dečaka (Antoci, 2020; Davydova, 2018; Ilišin, 2011; Radovanović i sar., 2022). Istraživanja tokom pandemije *Covid-19* pokazala su da je kriza podstakla jačanje porodičnih, moralnih, životnih i ličnih vrednosti kod mladih (Antoci, 2021). U strukturi vrednosnih orijentacija učenika srednjih muzičkih škola dominiraju: estetska, materijalistička, i sazajna orijentacija, kao i samoaktualizacija, (Bogunović i sar., 2012). Učenici prvog razreda srednjih škola u Srbiji pokazala su da većina ispitanih prihvata utilitarni stil života, dok manji broj prihvata hedonistički i aktivistički stil (Joksimović i Maksić, 2006). Istraživanja uticaja medija ukazala su na jasno uočljivu razliku između vrednosti koje mladi zaista neguju i onih koje mediji često promovišu. Dok mladi pokazuju sklonost ka porodičnim, moralnim i ličnim vrednostima, medijski sadržaji neretko ističu materijalne, površne i hedonističke vrednosti, što može dovesti do vrednosnog konflikta i unutrašnjih dilema kod mladih u procesu izgradnje sopstvenog identiteta (Čikoš, 2021). Pilot studija o vrednosnoj hijerarhiji kod učenika gradske i seoske sredine u Rigi pokazala je da nema značajnih razlika između adolescenata gradskih i seoskih područja. Ljubav, vedrinu i obrazovanje preferiraju učenici iz urbane sredine, dok seoski đaci preferiraju odgovornost, poslušnost, sposobnost (Mihailova et al., 2019). Istraživanja vrednosti u Srbiji ukazuju na postojanje složenog spoja tradicionalnih i modernih vrednosti, pri čemu se uočava postepen pomak ka individualizmu, materijalizmu i samopotvrđivanju, ali i kontinuiranu prisutnost kolektivističkih i patrijarhalnih elemenata. U društvu koje prolazi kroz dugotrajne socijalne i ekonomske transformacije, vrednosti često imaju ambivalentan karakter, odražavajući nestabilnost identiteta i nesigurnost budućnosti (Jablanov Maksimović, 2012) krećući se na liniji između pragmatičnog prilagođavanja uslovima tržišne ekonomije i potrebe za samoizražavanjem, što se ogleda u kulturnim praksama, načinima komunikacije i potrošačkim modelima (Milivojević, 2015).

Metodologija istraživanja

Istraživanja pokazuju sve učestaliju pojavu dvojnog, hibridnog ili multidimenzionalnog identiteta, naročito u nezapadnim društvima, gde su pojedinci sa jedne strane izloženi složenom uticaju lokalnog kulturnog ambijenta, koji uključuje tradicionalne običaje, vrednosti i socijalne norme, a sa druge strane globalnim kulturnim modelima, koji donose nove ideje, stilove života, vrednosti individualizma i univerzalizma. Dvostruki pritisak stvara dinamično polje unutrašnjeg konflikta i promenljivih identitetskih formi, gde pojedinci neguju i održavaju lokalnu pripadnost, ali istovremeno integrišu elemente globalne kulture kao način adaptacije i samoizražavanja u savremenom svetu (Akaliyski et al, 2023; Engel & Fritzsche, 2019; Genest, 2023). Vrednosna dihotomija otkriva dubinske razlike u prioritetima koje pojedinci i društva zastupaju: između individualizma i kolektivism, tradicije i modernosti, stabilnosti i samoizražavanja (Akaliyski et al, 2023; Zinkina et al, 2022). Sukob navedenih prioriteta može biti snažan prediktor društvenih kriza i budućih transformacija vrednosnih sistema (Kim & Kim, 2025; Schäfer, 2025). U društvenom kontekstu ubrzanih promena, analiza modernosti dobija posebnu relevantnost. Gidens (Giddens, 1990) modernost opisuje kao raskid sa tradicijom, obeležen refleksivnošću, institucionalnom racionalizacijom i rastućom egzistencijalnom nesigurnošću; moderno društvo je visokorizično društvo u kojem pojedinac neprestano preispituje svoj identitet i vrednosti. Iako on u ovoj definiciji ne koristi izraz „moloh modernosti“, pojam koji metaforički odražava destruktivne efekte modernizacije, gubitak stabilnosti, dehumanizaciju i eroziju tradicionalnih vrednosti, taj izraz je srodan njegovom opisu modernog društva (Giddens, 1990). U takvom ambijentu vrednosti postaju nestabilne i često instrumentalizovane; više se ne nasleđuju, već se konstruišu u uslovima hiperizbora. Rastući jaz između ličnih uverenja i društvenih očekivanja dovodi do vrednosne dezorijentacije i krize smisla.

Imajući u vidu da navedene društvene promene daju svojevrsan pečat vrednosnom sistemu mladih u srednjoškolskom uzrastu, problem istraživanja definisan je kroz pitanje: *Kakva je hijerarhija terminalnih vrednosti srednjoškolaca u Republici Srbiji – region Zapadna Srbija?* Centralni fokus istraživanja jeste utvrditi hijerarhiju terminalnih vrednosti (krajnjih životnih ciljeva), sa posebnim akcentom na razlike u vrednosnim preferencama u odnosu na naučno polje (prirodno-matematičko i društveno-humanističko) i pol učenika. Operacionalizacijom problema i cilja istraživanja definisani su sledeći zadaci:

- (1) Identifikovati sveobuhvatnu rang-listu preferiranih terminalnih vrednosti;
- (2) Utvrditi poziciju terminalnih vrednosti u odnosu na pripadnost ispitanika prirodno-matematičkom ili društveno-humanističkom polju, kao i statistički značajne razlike između poduzoraka;
- (3) Utvrditi položaj terminalnih vrednosti u odnosu na pol ispitanika, zatim utvrditi statistički značajne razlike.

Uzorak ispitanika čine učenici završnih razreda srednjih škola iz Užica ($N = 420$), starosti 18-19 godina. Nezavisne varijable su definisane prema naučnom polju (prirodno-matematičko i društveno-humanističko) i polu ispitanika (Tabela 1). Zavisne varijable su terminalne vrednosti koje su predmet analize.

Tabela 1

Struktura uzorka učenika četvrtih razreda srednje škole (N=420)

Nezavisne varijable	Modaliteti	f	%
Naučno polje	Društveno-humanističko	161	38.3
	Priridno-matematičko	259	61.7
	Gimnazija	88	21.0
	Ekonomska	65	15.5
Škola	Saobraćajna	62	14.8
	Tehnička	72	17.1
	Medicinska	133	31.7
Pol	Muški	164	39.0
	Ženski	256	61.0

Istraživanje je transversalnog karaktera i realizovano je krajem drugog polugodišta školske 2023/2024. godine, uz pribavljenu relevantnu saglasnost svih aktera. Istraživanje je sprovedeno na prigodnom i stratificiranom uzorku učenika.

Opis istraživačkog instrumenta

Okvir prikupljanja podataka, kao i analize rezultata istraživanja vrednosti i vrednosnih orijentacija, jeste naučno priznata i potvrđena Rokičeva klasifikacija vrednosti, za koju sam autor kaže da je mera „osjetljiva na razliku među kulturama, institucijama, pripadništvu grupi i osobnom iskustvu“ (Rejk & Edkok, 1978, str. 24). Rokičev Upitnik (*Rokeach Value Survey* – RVS) i koja obuhvata 36 vrednosti – po 18 terminalnih i 18 instrumentalnih. Za potrebe ovog istraživanja korišćen je deo Upitnika koji se odnosi na terminalne vrednosti (Tabela 2).

Tabela 2

Terminalne vrednosti po Rokiču (Rokeach)

Terminalne vrednosti (krajnji životni ciljevi)
Udoban život (prosperitetan život)
Uzbudljiv (stimulativan, aktivan život)
Porodična sigurnost (briga o bližnjima)
Sloboda (nezavisnost, sloboda izbora)
Sreća (povezanost)
Unutrašnja harmonija (bez unutrašnjih konflikata)
Zrela ljubav (seksualna i duhovna intimnost)
Nacionalna bezbednost (zaštita od napada)

Mir u svetu (bez sukoba i konflikata)
 Jednakost (bratstvo, jednake mogućnosti za sve)
 Zadovoljstvo (život pun zadovoljstava, opuštenost)
 Spasenje duše (večni život)
 Samopoštovanje (samouvažavanje, dignitet)
 Iskreno prijateljstvo (bliski prijateljski odnosi)
 Mudrost (zrelo razumevanje života)
 Osećanje ostvarenosti (trajni doprinos)
 Svet lepote (lepota prirode i umetnosti)

Prema: Robbins, 2003, str. 64.

Rokič je izvršio više provera svog instrumenta; pažljivo birana metodologija je pokazala da ima zadovoljavajuću pouzdanost i vrlo dobru osetljivost, o čemu svedoči i primena u istraživanjima kod nas i u svetu (Alfirević i Brčić Kuljiš, 2016; Bojović i sar., 2015; Gavrilović, 2017; Giacomino et al., 2011; Musil & Jurčec, 2004; Nikolić i sar., 2017). Rokičeva (Rokeach) lista predstavlja teorijski temelj analize hijerarhije vrednosti u okviru našeg istraživanja, s fokusom na terminalne vrednosti srednjoškolaca.

Ispitanici koji su prisustvovali nastavi u terminu zakazanog ispitivanja dobili su Upitnik u papirnoj formi, uz detaljna uputstva ispitivača o načinu popunjavanja. Prvi deo Upitnika bio je posvećen prikupljanju sociodemografskih podataka, uključujući mesto prebivališta, tip smeštaja učenika, smer, vrstu škole i razred. Nijedan ispitanik iz uzorka nije odbio učestvovati, niti je Upitnik vraćen neadekvatno popunjen. Na temelju relativnog poretka vrednosnih očekivanja, prikazanih kroz dobijene aritmetičke sredine, utvrđena je rang-pozicija za svaku vrednost, a potom i odnos između poduzoraka kroz razlike u pozicioniranju pojedinačnih vrednosti. Ispitanici iz uzorka su rangirali vrednosti shodno personalnim preferencijama od 1 do 18, pri čemu rang 1 zauzima vrednost koja za ispitanika ima najveću važnost, a rang 18 vrednost koja je ispitaniku najmanje važna.

Statistička obrada podataka izvršena je na nivou izračunavanja aritmetičke sredine, standardne devijacije i multivarijantne analize varijanse (MANOVA), uz utvrđivanje *F*-vrednosti, proveru homogenosti kovarijacija na nivou .01 i .05 i Cohen's *d* statističke mere veličine efekta.

Rezultati istraživanja

Prikaz rezultata započet je analizom opšte hijerarhije terminalnih vrednosti, koje su ispitanici slobodno ocenjivali na osnovu ličnih uverenja. U Tabeli 3 je prikazana rang-lista vrednosti, poređana prema visini aritmetičke sredine za celokupan uzorak. Što je aritmetička sredina (*M*) manja, to je pojedinačna vrednost, odnosno vrednosna orijentacija uzorku ispitanika, važnija. Dobijene prosečne vrednosti, poređane po veličini, pokazuju da učenici najviše preferiraju *porodičnu sigurnost, sreću i slobodu* kao najpoželjnija krajnja životna stanja kojima teže (Tabela 3).

Učenici srednjih škola visoko preferiraju vrednost *sreća* (2. rang), dok je vrednost *sloboda*, koju pojedinac doživljava kroz osećaj vlastite vrednosti, na 3. mestu po važnosti. Na 4. rangulazi se *zrela ljubav*, što ukazuje da srednjoškolci idealistički teže pronalaženju iskrene i stabilne emotivne veze. Pozicija vrednosti *iskreno prijateljstvo* (5. rang) pokazuje stepen preferencije vršnjačkih interakcija i stvaranja kvalitetnih prijateljstava (u realnom ili virtuelnom svetu), što je u sprezi sa značajem koji se pridaje vršnjacima kao nosiocima socijalizacije (Tabela 3). Učenici srednjih škola postavljaju vrednost *udoban život* na 9. rang poziciju, a *uzbudljiv život* na 13. rang poziciju, ispred vrednosti *nacionalna bezbednost* (14. rang) i *jednakost* (15. rang).

Tabela 3

Preferiranje terminalnih vrednosti učenika četvrtih razreda srednje škole (N = 420)

Terminalne vrednosti (krajnji životni ciljevi)	M	SD	Rang
Porodična sigurnost	3.93	3.526	1
Sreća	4.60	3.537	2
Sloboda	6.67	4.412	3
Zrela ljubav	7.21	4.368	4
Iskreno prijateljstvo	8.30	4.087	5
Samopoštovanje	8.34	4.576	6
Spasenje duše	8.40	5.394	7
Unutrašnja harmonija	8.48	4.553	8
Udoban život	8.50	4.744	9
Mudrost	9.60	4.174	10
Zadovoljstvo	10.10	4.475	11
Mir u svetu	10.13	5.041	12
Uzbudljiv život	10.51	4.635	13
Nacionalna bezbednost	11.50	4.273	14
Jednakost	11.58	4.296	15
Osećanje ostvarenosti	12.41	4.145	16
Socijalno uvažavanje	14.91	3.689	17
Svet lepote	14.98	3.435	18

Preferiranje terminalnih vrednosti srednjoškolaca – prirodno-matematičko i društveno-humanističko polje

Kako bi se proverile statističke pretpostavke za validnu primenu analize varijanse, sproveden je test homogenosti kovarijacionih matrica. Rezultati ($F = 1.317$; $p = .003$) na nivou značajnosti $p < .05$ potvrđuju ispunjenost pretpostavke homogenosti, čime su omogućena validna međugrupna poređenja terminalnih vrednosti. Analiza pokazuje statistički značajne

razlike u preferencijama vrednosti između učenika prirodno-matematičkog i društveno-humanističkog usmerenja ($p < .05$), što je prikazano u Tabeli 4. Minimalna varijabilnost u rangiranju vrednosnih orijentacija srednjoškolaca usmerila je dalju analizu ka komparativnom ispitivanju ranga vrednosti, u zavisnosti od tipa naučnog usmerenja. U koloni „rang razlika“ prikazane su vrednosti koje odražavaju pomeranja na rang-listi u pozitivnom (+) ili negativnom (–) smeru, kao rezultat uporedne analize s ciljem prikaza promena u pozicioniranju pojedinih vrednosti (Tabela 4). Poredak preostalih vrednosti ukazuje na statistički značajne razlike u vrednosnim orijentacijama između učenika prirodno-matematičkog i društveno-humanističkog polja: *spasenje duše*, *udoban život*, *samopoštovanje* i *uzbudljiv život* ($p < .05$), dok za ostale vrednosti razlike nisu statistički značajne ($p > .05$). U kontekstu školskog usmerenja, najveća rang-razlika u pozicioniranju je uočena kod vrednosti *samopoštovanje* (+4), kojoj znatno veću poziciju daju srednjoškolci društveno-humanističkog polja ($M = 7.61$).

Tabela 4
Preferiranje terminalnih vrednosti u zavisnosti od obrazovnog polja učenika

Terminalne vrednosti (krajnji životni ciljevi)	Prirodno-matematičko polje (N=259)			Društveno-humanističko polje (N=161)			Rang (+,-)	F	P	Cohen's d
	M	SD	R	M	SD	R				
Porodična sigurnost	3.83	3.407	1	4.09	3.715	1	0	.567	.452	.072
Sreća	4.80	3.521	2	4.29	3.553	2	0	1.847	.175	.144
Sloboda	6.83	4.455	3	6.41	4.342	3	0	1.006	.316	.095
Zrela ljubav	7.27	4.421	4	7.13	4.294	4	0	.094	.759	.032
Spasenje duše	7.95	5.314	5	9.12	5.459	8	-3	4.392	.037*	.217
Udoban život	8.05	4.928	6	9.24	4.346	9	-3	6.175	.013*	.256
Iskreno prijateljstvo	8.53	4.118	7	7.92	4.014	6	+1	2.093	.149	.150
Unutrašnja harmonija	8.53	4.482	8	8.42	4.678	7	+1	.023	.881	.024
Samopoštovanje	8.78	4.723	9	7.61	4.244	5	+4	6.347	.012*	.260
Mudrost	9.75	4.348	10	9.35	3.867	10	0	.876	.350	.097
Zadovoljstvo	10.07	4.361	11	10.16	4.000	12	-1	.005	.942	.021
Mir u svetu	10.38	5.061	13	9.73	5.000	11	+2	1.616	.204	.129
Uzbudljiv život	10.14	4.750	12	11.12	4.390	13	-1	4.217	.041*	.214
Nacionalna bezbednost	11.25	4.180	14	11.89	4.401	15	-1	2.074	.151	.149
Jednakost	11.73	4.280	15	11.34	4.326	14	+1	.771	.381	.090
Osećanje ostvarenosti	12.48	4.171	16	12.29	4.112	16	0	.106	.745	.045
Svet lepote	14.87	3.597	17	15.16	3.161	18	-1	.721	.396	.085
Socijalno uvažavanje	14.92	3.759	18	14.88	3.585	17	+1	.006	.938	.010

Napomena: M – aritmetička sredina; SD – standardna devijacija; R – rang; R (+,-) – rang razlika; F – vrednost; ($p < .05^*$).

Vrednost *samopoštovanja* učenici prirodno-matematičkog polja rangiraju na relativno visoko 9. mesto ($M = 8.78$), dok polja vrednost *spasenja duše*, koja se odnosi na domen duhovnosti, postavljaju na 5. mesto ($M = 7.95$). Učenici društveno-humanističkog polja ovu vrednost pozicioniraju na 8. mesto ($M = 9.12$), sa razlikom u rang-u od (-3) . Uprkos fokusu na prirodne i tehničke nauke, učenici prirodno-matematičko polja pridaju važnost duhovnim aspektima života. Sličan trend primećuje se i kod vrednosti *udoban život*, koja se povezuje sa hedonističkim aspiracijama i orijentacijom ka materijalnom blagostanju. Učenici prirodno-matematičkog polja ovu vrednost pozicioniraju na 6. mesto ($M = 8.05$), dok je učenici društveno-humanističkog polja rangiraju na 9. mesto ($M = 9.24$), takođe uz razliku od (-3) u rang-u.

S druge strane, učenici društveno-humanističkog polja iskazuju veću sklonost ka humanističkim vrednostima, uključujući iskrenost, unutrašnji mir i duhovnost. Razlike u ostalim vrednostima kreću se u okviru (± 1) rang-pozicije, što ukazuje na relativnu vrednosnu usklađenost srednjoškolaca.

Preferiranje terminalnih vrednosti (životnih ciljeva) i pol ispitanika

Homogenost kovarijacionih matrica, prema parametrima ($F = 1,547$), uz statističku značajnost na nivou $p = .000$ i $p \leq .05$, delimično je ispunjena. Nalazi veličine efekta ukazuju da pol nije dominantan faktor u formiranju vrednosnih orijentacija učenika, pri čemu vrednosti *mir u svetu* (Cohen's $d = .73$; $p = .001$) i *iskreno prijateljstvo* (Cohen's $d = .67$; $p = .096$) pokazuju umerenu statističku značajnost.

Devojke visoko pozicioniraju *mir u svetu* (4. rang) uz visoku statističku značajnost ($M = 7.09$; $p = .000$). Pozicioniranjem *zrele ljubavi* (5. rang; $M = 7.21$; $p < .05$), i *unutrašnje harmonije* (6. rang; $M = 7.84$; $p = .000$) devojke pokazuju da cene lični mir i doslednost u svojim stavovima dok materijalnu dobit smatraju manje važnom, za razliku od mladića, koji visoko vrednuju *udoban život* (5. mesto; $M = 7.37$; $p = .000$), a odmah zatim i *uzbudljiv život* (7. mesto; $M = 8.69$; $p = .000$). Najveća razlika je kod vrednosti *iskreno prijateljstvo* koju mladići postavljaju na 7. rang ($M = 8.69$; $p < .05$) a devojke na 15. rang; ($M = 11.68$; $p < .05$), s razlikom u rang-u od osam mesta (Tabela 5.) Vrednost *samopoštovanje* mladići i devojke pozicioniraju u središnjem delu rang liste. Devojke pozicioniraju *samopoštovanje* na 7. mesto ($M = 8.06$; $p = .000$), a mladići na 9. mesto ($M = 8.92$; $p = .000$), razlika u rang-u je $+2$. Ista rang-razlika javlja se kod vrednosti *uzbudljiv život*. *Zadovoljstvo* i *udoban život* više cene mladići (-4) , dok devojke više vrednuju *unutrašnju harmoniju* $(+4)$, koju mladići svrstavaju tek na 10. mesto ($p = .000$). Statistički značajne razlike između mladića i devojaka uočene su kod vrednosti: *sreća*, *udoban* i *uzbudljiv život*, *mir u svetu*, *zadovoljstvo*, *unutrašnja harmonija*, *samopoštovanje*, *osećanje ostvarenosti*, *svet lepote* i *socijalno uvažavanje* (Tabela 5).

Tabela 5

Preferiranje terminalnih vrednosti s obzirom na pol srednjoškolaca

Terminalne vrednosti (krajnji životni ciljevi)	Pol						Rang (+/-)	F	P	Cohen's d
	Muški (N=164)			Ženski (N=256)						
	M	SD	R	M	SD	R				
Porodična sigurnost	4.04	3.743	1	3.86	3.386	1	0	0.253	.616	.05
Sreća	5.09	3.878	2	4.29	3.270	2	0	5.020	.026*	.697
Sloboda	6.98	4.654	3	6.46	4.246	3	0	1.467	.226	.1167
Zrela ljubav	7.21	4.491	4	7.21	4.296	5	-1	.000	.996	.0
Spasenje duše	7.37	5.117	5	9.23	4.344	9	-4	2.704	.101	.3919
Udoban život	7.88	4.245	6	8.55	3.964	8	-2	15.832	.000**	.1631
Iskreno prijateljstvo	8.69	4.698	7	11.68	4.205	15	-8	2.779	.096*	.6707
Unutrašnja harmonija	8.82	4.166	8	10.93	4.479	12	-4	13,117	.000**	.4878
Samopoštovanje	8.92	5.204	9	8.06	5.496	7	+2	54.379	.000**	.1607
Mudrost	9.49	4.561	10	7.84	4.438	6	+4	1.313	.253	.3667
Zadovoljstvo	9.89	4.479	11	9.41	3.957	10	+1	22.921	.000**	.1136
Mir u svetu	10.28	4.503	12	7.09	4.178	4	+8	11.897	.001*	.7344
Uzbudljiv život	11.18	5.104	13	9.46	4.893	11	+2	45.561	.000**	.3440
Nacionalna bezbednost	11.45	4.534	14	11.53	4.105	14	0	.019	.891	.0185
Jednakost	11.76	4.474	15	12.82	3.871	15	0	1.416	.235	.2534
Osećanje ostvarenosti	11.90	4.591	16	11.38	4.093	13	+3	7.225	.007*	.2534
Svet lepote	14.30	4.085	17	15.41	2.870	17	0	10.851	.001*	.3144
Socijalno uvažavanje	14.40	3.779	18	15.23	3.601	16	+2	5.176	.023*	.2249

Napomena: M – aritmetička sredina; SD – standardna devijacija; R – rang; R (+,-) – rang razlika; F – vrednost; (p = .000**; p < .05*).

Diskusija

Dobijeni parametri pokazuju da se porodica, kao i sigurnost koju porodica pruža, prepoznaje kao ključna podrška u odrastanju i sazrevanju, od koje mladi očekuju razumevanje, zaštitu i finansijsku potporu, što potvrđuje i prva pozicija na rang-listi vrednosti. Visok položaj vrednosti *porodična sigurnost* na lestvici vrednosti karakterističan je za istočnoevropske, mediteranske i južnoevropske kulture, što potvrđuju rezultati brojnih istraži-

vanja, u kojima porodica predstavlja centralnu komponentu i osnovni izvor emocionalne, socijalne i ekonomske podrške tokom adolescencije i rane zrelosti (Bojović i sar., 2015; Bojović i sar., 2022; Čičkarić, 2011; Livazović i sar., 2015; Pešić Jenačković & Marković Krstić, 2021; Popadić i sar., 2019; Pratt et al, 2003; Zaborskis et al., 2022.). Ne treba zanemariti činjenicu da intenzivni vršnjački kontakti mogu umanjiti uticaj porodice na vrednosne prioritete, pri čemu vršnjačko isticanje moralnih vrednosti dovodi do izraženijeg vrednovanja moralnog selfa (Pratt et al, 2003). Činjenica da mladi visoko vrednuju kvalitetne vršnjačke odnose jeste u skladu sa sociološkim teorijama, koje ističu vršnjake kao ključne agense socijalizacije u adolescenciji. Istovremeno, uticaj intenzivnih vršnjačkih kontakata može da smanji relativni značaj porodičnih vrednosti, što je u skladu sa rezultatima koji pokazuju pomeranje vrednosnih prioriteta u pravcu moralnih i socijalnih aspekata, koje podržavaju vršnjaci. Dakle, ova tvrdnja obrazlaže i dodatno osnažuje razumevanje dobijenih podataka, ukazujući na kompleksnu dinamiku između porodičnog i vršnjačkog uticaja u formiranju vrednosnih orijentacija mladih (Brown & Larson, 2009).

Viši rang hedonističko-materijalističkih vrednosti, kao što su *udoban i uzbudljiv život*, ukazuje na dominaciju individualističkih i potrošačkih orijentacija u vrednosnom sistemu srednjoškolaca, što odražava širi proces preoblikovanja identiteta mladih pod uticajem medija, digitalne kulture i globalnih vrednosnih obrazaca, čime se potvrđuje snažan uticaj globalizacije na njihovo vrednosno formiranje. U tom kontekstu, niži rang vrednosti, kao što su *nacionalna bezbednost* i *jednakost*, ne mora nužno da označava njihovo odbacivanje, već pre ukazuje na njihovu transformaciju i promenu značenja u novim društvenim uslovima. Novonastali vrednosni obrasci i promene u sistemu prioriteta mladih, pri čemu vrednosti poput *nacionalne bezbednosti* i *jednakosti* zauzimaju sve manje značajno mesto, postavljaju ozbiljne izazove pred obrazovne i društvene institucije. U tom kontekstu, vaspitno-obrazovne ustanove moraju usmeravati svoje delovanje ka osnaživanju vrednosne osetljivosti mladih na teme značajne za društvenu koheziju, građansku solidarnost i očuvanje kulturnog i nacionalnog identiteta – kao preduslova za aktivno, odgovorno i svesno učešće u savremenom društvu (Bojović, 2017; Inglehart & Welzel, 2005; Ilišin, 2011; Zajda, 2009).

Ispitivanje preferencije terminalnih vrednosti sa aspekta obrazovnog usmerenja ukazuje na neujednačeno preferiranje vrednosti među učenicima različitih obrazovnih usmerenja, iako parametri efekta ukazuju na niske razlike u izboru terminalnih životnih vrednosti između učenika različitih obrazovnih usmerenja, što znači da nisu značajne u praktičnom smislu. Identičan položaj prve četiri vrednosti u oba poduzorka upućuje na postojanje zajedničkog vrednosnog jezgra. Rezultati sugerišu da obrazovno usmerenje utiče na pojedine aspekte vrednosne hijerarhije, naročito u egzistencijalnom, moralnom i hedonističkom domenu.

Učenici prirodno-matematičkog polja vrednost *samopoštovanje* rangiraju na relativno visokoj poziciji, što ukazuje na prisutnost individualističke orijentacije i tendenciju prihvatanja vrednosti povezanih sa konceptom „kulture narcizma“ (Petrović i Zotović, 2012). Pored trendova koji ukazuju na sve veću dominaciju individualističkih vrednosti, novija istraživanja u Srbiji pokazuju da *samopoštovanje* kod srednjoškolaca ne znači

isključivo orijentaciju ka „kulturi narcizma“, već ima i pozitivne razvojne implikacije, u smislu visoke korelacije nacionalnog identiteta sa *samopoštovanjem*. Dobijeni nalazi upotpunjuju sliku teorijske interpretacije *samopoštovanja* kao vrednosti – služi i kao razvojni resurs, a ne isključivo kao simbol individualističkih stremljenja (Randelović i sar. 2022). Vrednost *spasenja duše*, koja se odnosi na domen duhovnosti, učenici prirodno-matematičko polja bolje pozicioniraju u odnosu na učenike društveno-humanističkog polja. Uprkos fokusu na prirodne i tehničke nauke, učenici prirodno-matematičko polja pridaju važnost duhovnim aspektima života. Sličan trend primećuje se i kod vrednosti *udoban život*, koja se povezuje sa hedonističkim aspiracijama i orijentacijom ka materijalnom blagostanju. Rezultati se mogu tumačiti kao orijentacija ka ekonomskoj sigurnosti i očuvanje duhovne i egzistencijalne smislenosti, što predstavlja adaptivni odgovor na globalne socioekonomske i kulturne izazove, u skladu sa globalnim trendovima na tržištu rada koji favorizuju zanimanja u „STEM“ oblastima (Budziński et al, 2018; Vaziri et al, 2019). Učenici društveno-humanističkog polja skloniji su ka humanističkim vrednostima, što je u skladu sa vrednosnim profilima karakterističnim za ovaj obrazovni domen. Gledano u celini, uočena je relativna vrednosna usklađenost učenika srednjih škola različitog obrazovnog usmerenja.

Varijabla *pol* se iskazala kao moderatorska varijabla, koja ima uticaja na hijerarhijski poredak pojedinih terminalnih vrednosti (Gouveia et al, 2015; Vecchione et al, 2016). Rezultat hi-kvadrat testa ($\chi^2 = 22.128$; $p = .000$) ukazuje na statistički značajnu povezanost između obrazovnog polja škole koju učenici pohađaju (prirodno-matematičko i društveno-humanističko) i pola ispitanika. Dobijena vrednost ($p = .000$) manja je od unapred definisanog nivoa značajnosti ($\alpha = .05$). Drugim rečima, izbor škole u izvesnoj meri je uslovljen i polnom pripadnošću učenika srednjih škola. Nalaz može ukazivati na prisustvo društveno utemeljenih rodni stereotipa, odnosno očekivanja koja doprinose tome da se devojke češće opredeljuju za društveno-humanistička područja, a mladići za prirodno-matematičke programe. Slični zaključci proističu i iz drugih istraživanja (Eccles, 2011; Legewie & Di Prete, 2014), koja pokazuju da na obrazovne izbore i kulturno ukorenjene predstave o „tipično muškim“ i „tipično ženskim“ zanimanjima. Bez obzira na pol, učenici i učenice završnih razreda srednjih škola identično visoko pozicioniraju *porodičnu sigurnost*, *sreću* i *slobodu*, stavljajući ih na sam vrh rang-lestvice, što ukazuje na centralno mesto porodice i prisustvo univerzalnih vrednosti. Društvene vrednosti (*mir*, *bezbednost* i *jednakost*) nalaze se na dnu rang-liste, što govori u prilog njihovoj slabijoj relevantnosti u vrednosnom sistemu mladih.

Zaključak

U savremenom društvenom kontekstu, vrednosno formiranje mladih sve više rezultira relativizacijom tradicionalnih vrednosti, kao što su porodica, zajedništvo i disciplina, u korist individualističkih orijentacija, usmerenih ka ličnoj slobodi, uspehu i digitalnoj samoafirmaciji. Učenici srednjih škola usvajaju hibridne vrednosne obrasce, koji objedinjuju elemente lokalne kulturne matrice i globalizovanih trendova, gde vrednosti poput inklu-

zivnosti i digitalne kompetentnosti sve češće dobijaju primat nad tradicionalnim vrednosnim hijerarhijama (McKenzie & Jensen, 2024). Ovi procesi ukazuju na potrebu da se uloga obrazovanja preispita i unapredi u pravcu razvijanja kritičkog odnosa mladih prema vrednosnim uticajima savremenog društva. Polazeći od postavljenog cilja i od zadataka istraživanja vrednosnih preferencija srednjoškolaca u regionu Zapadne Srbije, a na osnovu rezultata dobijenih primenom kvantitativne i kvalitativne analize, formulisani su sledeći zaključci:

1. Sveobuhvatna hijerarhija terminalnih vrednosti pokazuje ujednačenu vrednosnu orijentaciju srednjoškolaca prema krajnjim životnim ciljevima. Od 18 vrednosti, snažno se ističu važnost *porodične sigurnosti*, *sreće* i *slobode*, zauzimajući prva tri mesta. Orijentacija prema uskom socijalnom miljeu, kao što je porodica, i težnja za srećom i slobodom, može se tumačiti u svetlu opšte društvene krize i društvenog položaja mladih, čija je participacija u donošenju društveno bitnih odluka marginalizovana. Mladi visoko preferiraju *iskreno prijateljstvo* i *unutrašnju harmoniju*, svesni da promene u društvenom miljeu izazivaju frustracije koje utiču na ličnost pojedinca, te osećaju potrebu za zbližavanjem sa drugim ljudima u smislu potrage za pravim, iskrenim prijateljstvom. *Samopoštovanje* izdvajaju kao posebno važnu vrednost, jer odražava vrednosnu procenu sopstvene ličnosti; odnosi se na to koliko osoba sebe ceni, prihvata i poštuje. Društvene vrednosti zauzimaju najniže pozicije (*nacionalna bezbednost*, *jednakost*), dok vrednosti poput *ostvarenosti*, *socijalnog uvažavanja* ili *lepote* imaju manji značaj u ovoj životnoj fazi, usled ograničenog životnog i profesionalnog iskustva.

2. Preferiranje terminalnih vrednosti srednjoškolaca društveno-humanističkog i prirodno-matematičkog polja je relativno ujednačeno. Identičan rang prve četiri vrednosti upućuje na postojanje zajedničkog vrednosnog jezgra, dok su statistički značajne razlike najizraženije u pogledu *samopoštovanja*, *udobnog života* i *spasenja duše*. Učenici društveno-humanističkog polja smatraju da kroz *samopoštovanje* grade i čuvaju svoju individualnost, zasnovanu na ličnoj proceni svojih kvaliteta, dok najmanje prihvataju konformističke vrednosne orijentacije. Učenici prirodno-matematičkog polja u većoj meri preferiraju *udoban život*, što je karakteristično za hedonistički pristup životu. Odsustvo uređenog sistema i nedostatak osećaja sigurnosti svakako ne podstiču mlade na dugoročno planiranje, već podstiču društveno destruktivnu filozofiju *udobnog života*, koja podrazumeva prepuštanje trenutnim uživanjima (Petrović i Zotović, 2012). Preferiranje hedonističkih vrednosti je potvrđeno i u drugim istraživanjima (Ajduković, 1989; Chernoff & Davison, 1999; Goff, 1999; Nagel et al., 1995; Romero et al., 2001; Ule et al., 2000). Razlika u rang-poziciji vrednosti *spasenje duše* može se tumačiti kao kompenzacioni mehanizam, karakterističan za društva u krizi, koja traže stabilnost kroz povratak proverenim i kulturološki ukorenjenim vrednosnim obrascima.

3. Učenici završnih razreda, bez obzira na pol, najviše vrednuju *porodičnu sigurnost*, *sreću* i *slobodu*, što svedoči o centralnom značaju porodice i prisutnosti univerzalnih vrednosti u njihovom vrednosnom sistemu. Statistički značajne razlike između mladića i devojaka uočene su u prefeiranju vrednosti: *sreća*, *udoban* i *uzbudljiv život*, *mir u svetu*, *zadovoljstvo*, *unutrašnja harmonija*, *samopoštovanje*, *osećanje ostvare-*

nosti, svet lepote i socijalno uvažavanje. Muški ispitanici pokazuju veću sklonost ka materijalističkim i hedonističkim ciljevima, dok ženski ispitanici više vrednuju lične i vrednosti usmerene ka međuljudskim odnosima. Društvene vrednosti *mir u svetu, jednakost i nacionalna bezbednost* nalaze se nisko na rang-listi kod oba pola, što upućuje na nisku društvenu angažovanost mladih (bez obzira na pol) i osećaj ograničenog uticaja. Pol se pokazao kao značajan, ali ne presudan faktor u oblikovanju vrednosnog sistema učenika.

Pedagoške implikacije

Na osnovu dobijenih rezultata, mogu se izvesti značajne pedagoške implikacije koje ukazuju na potrebu preispitivanja i unapređenja vaspitno-obrazovnih pristupa u radu sa mladima u srednjoškolskom uzrastu. Zapažena orijentacija učenika završnih razreda srednjih škola ka individualnim i hedonističkim vrednostima, u kombinaciji sa niskom društvenom angažovanošću i slabo izraženom sklonošću ka kolektivnim i socijalno odgovornim ciljevima, aktualizuje potrebu za osmišljenim i ciljanim vaspitno-obrazovnim strategijama usmerenim ka razvoju celovite ličnosti, moralne autentičnosti i društvene odgovornosti. U tom kontekstu, škola preuzima aktivnu vaspitnu ulogu u podsticanju kritičkog vrednosnog rasuđivanja, samosvesti i emocionalne zrelosti mladih. Vaspitanje više ne može biti svedeno na prenos unapred definisanih normi, već mora težiti podsticanju autentičnog sazrevanja, empatije i solidarnosti. Uloga nastavnika se transformiše – od prenosioca znanja ka mentoru, fasilitatoru i koordinatoru u procesu razvoja ličnosti, koji mladima omogućava da preispituju i prilagođavaju vrednosti u skladu sa savremenim izazovima (Bojović, 2017; Bojović i sar., 2022). Dobijeni nalazi upućuju na potrebu za kontekstualizovanim, fleksibilnim i interdisciplinarno zasnovanim pedagoškim pristupima, koji uvažavaju raznovrsnost vrednosnih sistema mladih i podstiču njihovu sposobnost za aktivno, kritičko i društveno odgovorno delovanje u složenim strukturama globalizovanog sveta.

Realizovano istraživanje pruža osnovu za buduća longitudinalna istraživanja, koja bi pratila vrednosne promene kod mladih prelaskom na akademski i profesionalni život, čime bi se dodatno unapredile pedagoške politike i modeli usmereni na integralni razvoj mladih kao zrelih, moralno odgovornih i društveno angažovanih ličnosti.

Literatura

- Ajduković, M. (1989). *Vrednosne orijentacije maloletnih delikvenata: Uzrok i poslednice delikvencije?* Pravni fakultet u Zagrebu.
- Akaliyski, P., Taniguchi, H., Park, J., Gehrig, S., & Tormos, R. (2023). Values in crisis: Societal value change under existential insecurity. *Social Indicators Research*, 171, 1-21. <https://doi.org/10.1007/s11205-023-03226-2>

- Alfirević, N., i Brčić Kuljiš, M. (2016). Vrednosne orijentacije i percepcije socijalne pravde studenata društvenih nauka i biznisa u Hrvatskoj. *The International Journal of Interdisciplinary Educational Studies*, 11(1), 1-14. <https://doi.org/10.18848/2327-011X/CGP>
- Antoci, D. (2020). Value orientations of adolescents and youth: review and current situation. *Homo et Societas*, (5), 150-162. <https://doi.org/10.4467/25436104HS.20.011.13244>
- Antoci, D. (2021). Values and value orientations of adolescents and young people in pre-pandemic and pandemic situations. *Postmodern Openings*, 12(3), 288-310. <https://doi.org/10.18662/po/12.3/341>
- Antonijević, D., Rašić, M., i Grubišić Banić, A. (2020). Šta mladi u Srbiji i dijaspori ne znaju o nematerijalnom kulturnom nasleđu Srbije? *Etnoantropološki problemi*, 15(4), 1037-1058. <https://doi.org/10.21301/eap.v15i4.4>
- Baudrillard, J. (2007). *Duh terorizma*. Arhipelag.
- Bauman, Z. (2001). *Liquid Modernity*. Polity Press.
- Bogunović, B., Dubljević, J., Dubljević, L., Mirović, T. (2012). Vrednosne orijentacije mladih muzičara. *Nastava i vaspitanje*, 61(2), 317-332.
- Bojović, Ž. (2017a). Terminalne vrednosti – životni ciljevi: perspektiva studenata budućih učitelja i vaspitača. *Inovacije u nastavi*, 30(4), 35-48. <https://doi.org/10.5937/inovacije1704035B>
- Bojović, Ž. (2017b). Kulturni identitet mladih pod uticajem globalizacije. U U. Šuvaković, O. Marković-Savić, V. Čolović (Ur.), *Globalizacija i glocalizacija* (pp. 101-113). Filozofski fakultet Univerziteta u Prištini.
- Bojović, Ž., Vasilijević, D., i Sudžilovski, D. (2015). Vrijednosti i vrijednosne orijentacije studenata, budućih učitelja i vaspitača. *Hrvatski časopis za odgoj i obrazovanje*, 17(4). <https://doi.org/10.15516/cje.v17i0.1339>
- Bojović, Ž., Vasilijević, D., i Sudžilovski, D. (2022). Realno pozicioniranje vrijednosnih opredjeljenja učitelja. *Hrvatski časopis za odgoj i obrazovanje*, 24(1), 9-36. <https://doi.org/10.15516/cje.v24i1.4162>
- Botalova, O. B., Osipova, S. V., Asenova, N. S., Kenenbaeva, M. A., Kuderina, A. Y., Zholtaeva, G., Boribekova, F., Zhanatbekova, N., Vedilina, E. A., & Azanbekova, G. (2016). Value orientations of future teachers-researchers. *International Journal of Environmental & Science Education*, 11(17), 10279-10288.
- Budziński, W., Majkowicz, M., & Charkiewicz, A. (2018). Value preferences among students of various fields of study. *Psychiatria Polska*, 52(3), 497-509.
- Budimir-Ninković, G. (2002). Vrednosne orijentacije mladih i odraslih. *Nastava i vaspitanje*, 51(5), 471-480.
- Brown, B. B., & Larson, J. (2009). Peer relationships in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 74-103). Wiley.
- Corey, G., Corey, M. S., & Callahan, P. (2003). *Issues and ethics in the helping professions* (6th ed.). Brooks/Cole.
- Chernoff, R., & Davison, M. (1999). A study of values among adolescents: Assessing terminal and instrumental value systems and orientations. *Journal of Youth and Adolescence*, 28(6), 747-762. <https://doi.org/10.1023/A:1021668501459>
- Čičkarić, L. (2011). *Globalne promene - lokalne interpretacije. Identitet mladih u rizičnom društvu*. Institut društvenih nauka.
- Čikoš, K. (2021). Kritički stav mladih prema sadržajima i vrednostima koje ističu mediji i društvene mreže. U: Z. Paunović, Ž. Milanović (Ur.), *Šesti međunarodni interdisciplinarni skup mladih naučnika*

- društvenih i humanističkih nauka, Zbornik radova* (pp. 321-335). Univerzitet u Novom Sadu – Filozofski fakultet.
- Eccles, J. S. (2011). Gendered educational and occupational choices: Applying the Eccles et al. model of achievement-related choices. *International Journal of Behavioral Development*, 35(3), 195–201. <https://doi.org/10.1177/0165025411398185>
- Engel, J., & Fritzsche, B. (2019). Cultural identity in multilocal spaces. *Diaspora, Indigenous, and Minority Education*, 13(1), 1–12. <https://doi.org/10.1080/15595692.2018.1553551>
- European Values Study. (2008). About EVS. Retrieved June 1, 2025, from <https://europeanvaluesstudy.eu/about-evs/>
- European Commission. (2021). *Values for the future: The role of ethics in European and global governance*. <https://op.europa.eu/en/publication-detail/-/publication/849e7ec4-cf13-11eb-ac72-01aa75ed71a1>
- Franc, R., Šakić, V., i Ivičić, I. (2002). Vrijednosti i vrijednosne orijentacije adolescenata: hijerarhija i veza sa stavovima i ponašanjima. *Društvena istraživanja*, 11(2-3), 215-238.
- Furlong, A., & Cartmel, F. (1997). *Young people and social change*. Open University Press.
- Gavrilović, D. (2012). Tradicionalne i moderne vrednosti u tranzicionoj Srbiji. *Teme*, 36(3), 1121–1138.
- Gavrilović, D. (2017). Vrednosne orijentacije mladih u Srbiji. *Stanovništvo*, 55(2), 57–76. <https://doi.org/10.2298/STNV1702057G>
- Genest, S. (2023). Identity negotiation and conflict resolution in contemporary multicultural settings: The contribution of intercultural mediators. *Social Sciences*, 9(1), 18. <https://doi.org/10.3390/socsci9010018>
- Giacomino, D. E., Brown, J., & Akers, M. D. (2011). Generational differences of personal values of business students. *American Journal of Business Education*, 4(9), 19-30. <https://doi.org/10.19030/ajbe.v4i9.5616>
- Giddens, A. (1990). *The Consequences of Modernity*. Stanford University Press.
- Goff, B. G. (1999). Terminal core values associated with adolescent problem behaviours. *Adolescence*, 34(133), 47-60.
- Gouveia, V. V., Vione, K. C., Milfont, T. L., & Fischer, R. (2015). Patterns of value change during the life span: Some evidence from a functional approach to values. *Personality and Social Psychology Bulletin*, 41(9), 1276-1290. <https://doi.org/10.1177/0146167215594189>
- Gvozdenović, S. (2021). Identitet i vrednosti u dobu konformizma. *Vaspitanje i obrazovanje*, 46(4), 63-77.
- Havelka, N. (1975). Istraživanje vrednosti u našoj zemlji. *Psihologija*, 8(3-4), 139-149.
- Havelka, N. (1995). Vrednosne orijentacije studenata i njihova očekivanja od buduće profesije. *Psihološka istraživanja*, 47(7), 89-125.
- Hooper, C. (2003). Values education study: Literature review. In V. Zbar, D. Brown, & B. Bereznicki (Eds.), *Values education study - Final report* (pp. 168-212). Curriculum Corporation.
- Hitlin, S. & Piliavin, J. A. (2004). Values: Reviving a dormant concept. *Annual Review of Sociology*, 30, (pp. 359-393). <https://doi.org/10.1146/annurev.soc.30.012703.110640>
- Ilišin, V. (2011). Vrednosti mladih u Hrvatskoj. *Politička misao*, 48(3), 82-122.

- Inglehart, R. (1997). *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton University Press.
- Inglehart, R., & Welzel, C. (2005). *Modernization, culture change, and democracy: The human development sequence*. Cambridge University Press.
- Jackson, J. C., & Medvedev, D. (2024). Worldwide divergence of values. *Proceedings of the National Academy of Sciences*, 121(12), 1-15. <https://doi.org/10.1038/s41467-024-46581-5>
- Janković, A. (2017). Društvena stvarnost posmatrana iz perspektive vrednosti, *Sociološka luča*, 11(2), 75-89.
- Joksimović, S. i Maksić, S. (2006). Vrednosne orijentacije adolescenata: usmerenost prema sopstvenoj dobrobiti i dobrobiti drugih. *Zbornik Instituta za pedagoška istraživanja*, 38(2), 415-429.
- Jablanov Maksimović, R. (2012). *Vrednosti i društvene promene u Srbiji*. Etnografski institut SANU.
- Kehily, J. (2007). *Understanding youth: Perspectives and practices*. Sage Publications.
- Kim, J., & Kim, H.-R. (2025). Values, intercultural sensitivity, and uncertainty management: A cross-cultural investigation of motivational profiles. *Frontiers in Psychology*, 16, 1-15. <https://doi.org/10.3389/fpsyg.2025.1623929>
- Koirikivi, P., Benjamin, S., Kuusisto, A., & Gearon, L. (2023). Values, lifestyles, and narratives of prejudices amongst Finnish youth. *Journal of Beliefs & Values*, 44(3), 1-15. <https://doi.org/10.1080/13617672.2021.2010266>
- Knafo, A., Roccas, S., & Sagiv, L. (2011). The value of values in cross-cultural research: A special issue in honor of Shalom Schwartz. *Journal of Cross-Cultural Psychology*, 42(2), 178-185. <https://doi.org/10.1177/0022022110396863>
- Kuzmanović, B. (1995). Društvene promene i promene u vrednosnim orijentacijama studenata. *Psihološka istraživanja*, 7, 17-47.
- Kuzmanović, B. i Petrović, N. (2009). Preferencije ličnih i društvenih ciljeva srednjoškolaca Srbije. *Sociološki pregled*, 43(4), 503-523. <https://doi.org/10.5937/socpreg0904503K>
- Lazarević, D., i Janjetović, D. (2003). Vrednosne orijentacije studenata budućih vaspitača predškolske dece. *Zbornik Instituta za pedagoška istraživanja*, 35, 289-307.
- Lazić, M., & Pešić, J. (2024). Values, norms and social dynamics. *Filozofija i društvo*, 35(1), 35-51. <https://doi.org/10.2298/FID2403703L>
- Lavrič, M., Gavrilović, D., Pužić, S., & Klanjšek, R. (2019). Values and Value Shifts in Four Countries of South-East Europe: Retraditionalization, Erosion of Trust and the Decline in Public Morality. *Facta Universitatis, Series: Philosophy, Sociology, Psychology and History*, 18(2), 55-66. <https://doi.org/10.22190/FUPSPH1902055L>
- Legewie, J., & DiPrete, T. A. (2014). The High School Environment and the Gender Gap in Science and Engineering. *Sociology of Education*, 87(4), 259-280. <https://doi.org/10.1177/0038040714547770>
- Livazović, G., Jukić, R., & Buljubašić-Kuzmanović, V. (2015). Vrijednosni sustav mladih – putokaz pedagoškoj znanosti i pedagoškoj praksi. In M. Orel (Ed.), *EDUvision 2015: Modern Approaches to Teaching Coming Generation / Sodobni pristopi poučevanja prihajajočih generacij* (pp. 84-97). EDUvision.
- Lindh, K., & Korhonen, V. (2010). Youth values and value changes from cultural and transnational perspectives. In V. Korhonen (Ed.), *Cross-cultural lifelong learning* (pp. 135-166). Tampere University Press.
- Maio, G. R. (2017). *The psychology of human values*. Psychology Press.

- McKenzie, J., & Jensen, L. A. (2024). The globalization and localization of moral values: A cultural-developmental study of adolescents and their parents. *International Journal of Behavioral Development*, 48(2), 179-189. <https://doi.org/10.1177/01650254231222418>
- Mihailova, S., Martinsone, K., & Pipcane, A. (2019). Comparison of adolescent's values: Riga and Vidzeme region. *SHS Web of Conferences*, 68, 1-12. <https://doi.org/10.1051/shsconf/20196801006>
- Miliša, Z., i Bagarić, M. (2012). Stilovi ponašanja i vrednosne orijentacije. *Medianali*, 6(12), 68-104.
- Miliša, Z., Dević, J., i Perić, I. (2015). Kriza vrednosti kao kriza vaspitanja. *Mostariensia: časopis za humanističke znanosti*, 19(2), 7-20.
- Milivojević, M. (2015). Životni stilovi mladih u Srbiji: između tradicije i modernosti. *Sociološki pregled*, 49(3), 371-390.
- Mladenović, U., i Knebl, J. (2000). Vrednosne orijentacije i preferencije životnog stila adolescenata. *Psihologija*, 33(3-4), 435-454.
- Musek, J. (2015). *Personality, values and psychological well-being*. Znanstveno raziskovalni inštitut Filozofske fakultete Univerze v Ljubljani.
- Musil, B., & Jurčec, L. (2004). Value orientations of Japanese and Slovenian students: A cross-cultural study using the Rokeach Value Survey. *Studia Psychologica*, 46(2), 135-144.
- Nagel, L., Mayton, D. M., & Walner, T. (1995). Value differences across 235 tobacco use levels. *Health Values*, 19(6), 39-44.
- Nikolić, M., Čockalo, D., Terek, E., Božić, S., i Nastasić, A. (2017). Uticaj životnih vrednosti na preduzetničke namere kod studenata u Srbiji. *Journal of Engineering Management and Competitiveness (JEMC)*, 7(1), 28-34. <https://doi.org/10.5937/jemc1701028N>
- Pantić D. (1977). Vrednosti i ideološke orijentacije društvenih slojeva. U M. Popović, S. Bolčić, V. Pešić, M. Janićijević & D. Pantić (Ur.), *Društveni slojevi i društvena svest* (pp. 269-406). Centar za sociološka istraživanja Instituta društvenih nauka.
- Pantić D. (1981). *Vrednosne orijentacije mladih u Srbiji*. Izdavačko-istraživački centar SSO Srbije.
- Pantić, D. (1990). *Promene vrednosnih orijentacija mladih u Srbiji*. Institut društvenih nauka, Centar za politikološka istraživanja i javno mnjenje.
- Parsons, T. (2012). *The structure of social action*. Free Press.
- Petrović, J., i Zotović, M. (2012). Adolescenti u Srbiji: U traganju za novim vrednostima. *Teme*, 36(1), 47-66.
- Pešić Jenačković, D., & Marković Krstić, S. (2021). Traditional family values as a determinant of the marital and reproductive behaviour of young people: The case of Southern and Eastern Serbia. *Stanovništvo*, 59(2), 23-41. <https://doi.org/10.2298/STNV210420004P>
- Popadić, D., Pavlović, Z., i Mihailović, S. (2019). *YouthStudySerbia 2018/2019*. FriedrichEbertStiftung. <https://ssrn.com/abstract=3514181>
- Pratt, M. W., Hunsberger, B., Pancer, S. M., & Alisat, S. (2003). A longitudinal analysis of personal values socialization: Correlates of a moral self-ideal in late adolescence. *Social Development*, 12(4), 563-585. <https://doi.org/10.1111/1467-9507.00249>
- Radoman, M. (2012). Stavovi i vrednosne orijentacije srednjoškolaca u Srbiji. *Sociološki pregled*, 46(2), 247-268. <https://doi.org/10.5937/socpreg1202247R>

- Radovanović, I. D., Spasić, D. V., i Radovanović, D. M. (2022). Promene u vrednosnim orijentacijama adolescenata u periodu od 1972. do 2018. godine. *Sociološki pregled*, 56(3), 929-953. <https://doi.org/10.5937/socpreg56-39829>
- Ranđelović, D. J., Minić, J. J., & Ranđelović, K. Ž. (2021). National identity of secondary school students in the Republic of Serbia. *Sociološki pregled*, 55(4), 1018–1054. <https://doi.org/10.5937/socpreg55-32338>
- Rokeach, B., & Edcock, K. (1978). *Values, attitudes and behavior change*. Nolit.
- Rakić, V., i Vukušić, S. (2010). Odgoj i obrazovanje za vrijednosti, *Društvena istraživanja*, 19 (4-5), 771-795.
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality and Social Psychology Bulletin*, 28(6), 789-801. <https://doi.org/10.1177/0146167202289008>
- Rokeach, M. (1973). *The nature of human values*. The Free Press.
- Robbins, S. (2003). *Organizational behavior*. Prentice Hall.
- Rohan, M. J. (2000). A rose by any name? The values construct. *Personality and Social Psychology Review*, 4(3), 255-277. https://doi.org/10.1207/S15327957PSPR0403_4
- Romero, E., Jorge, S., Angeles, L. M., & Jose, M. J. (2001). Values and antisocial behaviour among Spanish adolescents. *Journal of Genetic Psychology*, 162(1), 20-41. <https://doi.org/10.1080/00221320109597879>
- Schäfer, A. (2025). Groups of individual attitudes towards cultural issues in Europe: A unidimensional conflict? *Politics*, 23(3), 841-859. <https://doi.org/10.1177/14789299241311760>
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 1-65). Academic Press.
- Schwartz, S. H. (1996). Value priorities and behavior: Applying a theory of integrated value systems. In C. Seligman, J. M. Olson, & M. P. Zanna (Eds.), *The psychology of values. The Ontario Symposium* (pp. 1-24). Lawrence Erlbaum Associates.
- Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, 2(1), 1-20. <https://doi.org/10.9707/2307-0919.1116>
- Ule, M., Renner, T., Čeplak, M. M., & Tivadar, B. (2000). *Social vulnerability of youth*. Ministarstvo za školstvo in šport.
- UNICEF. (2020). *Education crisis and global challenges*. UNICEF.
- Valerian, F. G., Elvira, G. G., & Olga, V. Y. (2016). The use of problem-based technologies in multicultural education of future teachers. *IEJME - Mathematics Education*, 11(4), 755-766.
- Vaziri, D., Tay, L., Parrigon, S., Bradburn, N. M. & Pawelski, J.O. (2019). STEM or Humanities? Toward a Balance of Interest Fit. *Frontiers in Education*, 4, 1-7. <https://doi.org/10.3389/feduc.2019.00143>
- Vecchione, M., Schwartz, S. H., Alessandri, G., Döring, A. K., Castellani, V., & Caprara, M. G. (2016). Stability and change of basic personal values in early adulthood: An 8-year longitudinal study. *Journal of Research in Personality*, 63, 111–122. <https://doi.org/10.1016/j.jrp.2016.06.002>
- Visković, N. (2013). *Vrednosti i identitet u savremenom društvu*. Filozofski fakultet.
- Vukadinović, D. (2012). *Globalizacija i sistem vrednosti*. Institut za političke studije.

- Zaborskis, A., Kavaliauskienė, A., Eriksson, C., Dimitrova, E., & Makari, J. (2022). Family structure through the adolescent eyes: A comparative study of current status and time trends over three decades of HBSC study. *Societies*, 12(3), 88-104. <https://doi.org/10.3390/soc12030088>
- Zajda, J. (2009). *Globalization, education and social justice*. Springer.
- Zokirova, N. (2020). *Vrednosti i socijalna adaptacija u savremenom društvu*. Filozofski fakultet.
- Zinkina, J., Ustiuzhanin, V., & Shulgin, S. (2022). Social Macroevolution and Changes in the Human Value Systems. *Social Evolution & History*, 21(2), 91-105. <https://doi.org/10.30884/seh/2022.02.06>
- World Values Survey. (2022). *Documentation for download*. <https://www.worldvaluessurvey.org/WVSContents.jsp>
- Wyn, J., White, R. (1997). *Rethinking youth*. SAGE Publications.

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Prediktori opšte samoefikasnosti studenata

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Apstrakt

Kako je samoefikasnost složena konstrukcija, koja uključuje motivaciju, emocije, misli i ponašanje u određenoj situaciji, ona u velikoj meri utiče na kvalitet života i dobrobit učenika. Cilj istraživanja bio je utvrditi prediktore opšte samoefikasnosti studenata. U okviru istraživanja ispitani smo korelaciju opšte samoefikasnosti sa optimizmom, pesimizmom i zadovoljstvom akademskim životom, kao i razlike u pojedinim socio-demografskim karakteristikama. U istraživanju je učestvovalo 237 studenata Univerziteta u Novom Sadu. Rezultati istraživanja pokazuju da su studenti postigli umereno visok rezultat na opštoj skali samoefikasnosti. Dodatno, rezultati istraživanja su pokazali statistički značajnu negativnu korelaciju između opšte samoefikasnosti i pesimizma, kao i statistički značajnu pozitivnu korelaciju sa optimizmom i zadovoljstvom akademskim životom. Percepcija zadovoljstva studenata finansijskom situacijom pokazala se kao važna sociodemografska karakteristika. Štaviše, rezultati ističu značajan uticaj optimizma na opštu samoefikasnost, dok akademsko zadovoljstvo životom i pesimizam igraju manju ulogu. Navedeni rezultati mogu pomoći u boljem razumevanju ovog problema, kao i dalje razmatranje i razvoj programa podrške koji efikasno zadovoljavaju potrebe studenata, doprinoseći na taj način njihovom uspehu i blagostanju tokom studija. Integrisanje programa podrške u institucionalnu praksu može doprineti stvaranju podsticajnog okruženja koje omogućava studentima da ostvare svoj puni potencijal.

Ključne reči: samoefikasnost, studenti, optimizam, pesimizam, zadovoljstvo akademskim životom.

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Uvod

Samoeфикаsnost studenata može se definisati kao specifično verovanje u lične sposobnosti (Schunk & Mullen, 2012), koje značajno utiče na to kako se studenti motivišu, kako se osećaju, razmišljaju i ponašaju u datom kontekstu (Maksimović & Janković, 2016). Koncept samoeфикаsnosti je široko primenjiv i koristi se u mnogim psihološkim studijama, budući da može objasniti brojne determinante ljudskog ponašanja. On predstavlja pojedinačnu procenu sopstvene sposobnosti da organizuje i sprovede akcije kako bi postigao specifičan cilj (Ivanišević & Vlašić, 2022). Samoeфикаsnost studenata bila je predmet brojnih istraživanja (Bartimote-Aufflick et al., 2016; Ivanišević & Vlašić, 2022; Olivier et al., 2019; van Dinther et al., 2011). Samoeфикаsnost je značajna varijabla u učenju jer utiče na motivaciju studenata (van Dinther et al., 2011).

U literaturi se pravi razlika između opšte i specifične samoeфикаsnosti (Luszczynska et al., 2005). Opšta samoeфикаsnost se tumači kao uverenje u sposobnost uspešnog rešavanja novih zadataka, dok se specifična samoeфикаsnost odnosi na uverenje u sopstvene kapacitete u različitim aspektima života pojedinca (Ivanišević & Vlašić, 2022). Lična ефикаsnost zasnovana je na ličnom iskustvu, vikarijskom (posrednom) iskustvu, verbalnom ubeđivanju i psihofiziološkom stanju (Milanović Dobrota & Radić Šestić, 2012). Studenti sa niskom samoeфикасношću često opažaju zadatke kao složenije nego što oni zapravo jesu (Bandura, 1997). Ovakva percepcija može dovesti do depresije, беспомоћности i napetosti. Nasuprot tome, visoki nivoi samoeфикаsnosti mogu povećati spremnost studenata da se suoče sa izazovima. Stoga samoeфикаsnost igra ključnu ulogu u ljudskom ponašanju (Pajares, 2006). Malčić (Malčić, 2018) predstavlja samoeфикаsnost kao lično iskustvo sopstvenih kompetencija povezanih sa ефективношću izvršavanja specifičnih zadataka. Dodatno, samoeфикаsnost se može razumeti kao multidimenzionalni skup uverenja koja variraju u pogledu nivoa, opštosti i snage (Marić Jurišin & Malčić, 2022).

Pitanje zadovoljstva akademskim životom studenata bilo je predmet brojnih studija (Chang, 1996; García-Martínez et al., 2023; Nogueira et al., 2019; Pavićević, 2019; Pavićević & Stoševski, 2019; Piper, 2022). Prilikom definisanja zadovoljstva akademskim životom, autori napominju da je to složen konstrukt koji uključuje iskustva studenata u okviru univerziteta (Almeida et al., 2012; Santos et al., 2013). Definirano na ovaj način, zadovoljstvo akademskim životom zapravo odražava kvalitet adaptacije studenata na akademsko okruženje. Isti autori navode da se studenti suočavaju sa različitim razvojnim zadacima, koji mogu biti akademski (uključujući adaptaciju na nove strategije učenja, sisteme nastave, ocenjivanje), lični (razvoj identiteta, samopoštovanja, samosvesti), socijalni (zreli međuljudski odnosi sa vršnjacima, nastavnicima) i profesionalni (profesionalno istraživanje i identitet) (Almeida et al., 2012; Santos et al., 2013). Postoje četiri grupe faktora koji mogu uticati na zadovoljstvo studenata: institucionalni faktori, vannastavni faktori, očekivanja studenata i demografija studenata. Institucionalni faktori se odnose na akademske (kvalitet obrazovanja, komunikacija sa profesorima u nastavi i van nje, literatura) i administrativne (praksa i filozofija fakulteta u administraciji) faktore. Vannastavni faktori uključuju društvene, zdravstvene, kulturne i sportske aktivnosti. Očekivanja studenata obuhvataju izbor fakulteta i mogućnost zaposlenja nakon

završetka studija. Demografski faktori uključuju starost, pol, prisustvo nastavi i drugo (Aldemir & Gulcan, 2004, prema: Machado et al., 2011).

Korelati samoeфикаsnosti studenata

S obzirom na značaj ovih konstrukata, mnogi autori su istraživali samoeфикаsnost studenata i njihovo zadovoljstvo akademskim životom. Istraživanju koje su sproveli Ivanišević i Vlašić (Ivanišević i Vlašić, 2022) cilj je bio da ispita opštu samoeфикаsnost u odnosu na pojedine socio-demografske varijable i zadovoljstvo životom. Rezultati njihove studije su pokazali da se ispitanici nisu razlikovali u proceni opšte samoeфикаsnosti prema polu, nivou obrazovanja i bračnom statusu. Nadalje je utvrđena pozitivna statistički značajna korelacija između opšte samoeфикаsnosti i zadovoljstva životom. Dakle, kako raste samopouzdanje pojedinca u izvršavanje zadatka, tako raste i njegov nivo zadovoljstva životom (Ivanišević i Vlašić, 2022).

Studija o prediktorima zadovoljstva akademskim životom, akademske samoeфикаsnosti i postignuća (Wilcox & Nordstokke, 2019) imala je za cilj ispitivanje studenata prve godine na ovim konstruktima. Rezultati su pokazali da akademsko zadovoljstvo i povezanost sa školom predviđaju zadovoljstvo životom, ali akademska samoeфикаsnost ne predviđa. Prema tome, akademska samoeфикаsnost ne mora nužno biti u pozitivnoj korelaciji sa zadovoljstvom životom (Wilcox & Nordstokke, 2019).

Vasić (Vasić, 2015) je sproveo istraživanje kako bi ispitao odnose između samoeфикаsnosti i akademske motivacije u adolescenciji. Uzorak je obuhvatio 976 ispitanika uzrasta od 15 do 19 godina. Aspekti samoeфикаsnosti, odnosno akademska samoeфикаsnost, značajno i pozitivno su korelirali sa intrinzičnom, ekstrinzičnom i, u manjoj meri, sa introjektovanom motivacijom, dok su pokazali očekivanu negativnu vezu sa amotivacijom. Dakle, adolescenti sa višim nivoima samoeфикаsnosti često su intrinzično motivisani (Vasić, 2015).

Studija o kvalitetu akademskog života među studentima iz Turske, koju su sproveli Arslan i Akas (Arslan & Akkas, 2014), obuhvatila je 1260 ispitanika. Rezultati su otkrili pozitivnu korelaciju između zadovoljstva životom i zadovoljstva akademskim životom. Studija je naglasila da bi univerziteti trebalo da unaprede socijalno zadovoljstvo studenata i da osiguraju poboljšanje objekata i usluga unutar univerziteta kako bi se podigao nivo akademskog zadovoljstva (Arslan & Akkas, 2014).

Penezić, Ivanov i Proroković (Penezić i sar., 1998) istraživali su odnos između opšte samoeфикаsnosti, namere planiranja budućnosti, razmatranja budućih posledica i ukupnog zadovoljstva životom. Uzorak je obuhvatio 242 studenta uzrasta od 16 do 31 godine. Rezultati su pokazali značajnu povezanost između opšte samoeфикаsnosti, zadovoljstva uspehom, procene zdravlja i zadovoljstva životom. Odnos između samoeфикаsnosti i zadovoljstva životom ogleda se u značajnim pozitivnim korelacijama. Perfekcionizam je pokazao negativne korelacije sa skoro svim varijablama, posebno sa samoeфикаsnošću i zadovoljstvom životom. Naime, pojedinci sa perfekcionistačkim težnjama veruju da ne mogu u potpunosti zadovoljiti sve svoje obaveze, što dovodi do nezadovoljstva životom ili osećaja niže samoeфикаsnosti (Penezić i sar., 1998).

Svi prethodni rezultati istraživanja sugerišu da ispitivanje nivoa zadovoljstva studenata pruža dublji uvid u celokupni obrazovni sistem (Arslan & Akkas, 2014; Ivanišević i Vlašić, 2022; Penezić i sar., 1998; Vasić, 2015; Wilcox & Nordstokke, 2019). Dodatno, evidentno je da zadovoljni studenti češće nastavljaju i uspešno završavaju svoje studijske programe, ulažu više truda u svoje obrazovanje, redovno pohađaju nastavu i češće se angažuju u različitim vannastavnim aktivnostima u poređenju sa nezadovoljnim studentima (Čeko, 2014).

Važan faktor blagostanja, samopouzdanja i zadovoljstva studenata povezan je i sa subjektivnim iskustvom postizanja važnih akademskih i drugih životnih ciljeva; preciznije, sa idejom studenata o očekivanim ishodima – optimizmom i pesimizmom.

Optimizam se može predstaviti kao relativno stabilna opšta tendencija verovanja u pozitivne ishode (Tatalović-Vorkapić & Jelić-Puhalo, 2015). Za optimiste je karakteristično da nikada ne odustaju od svojih ciljeva, bez obzira na prepreke (Pavićević, 2019). Optimizam je često u pozitivnoj korelaciji sa subjektivnim osećajem blagostanja, boljim zdravljem i uspehom u radu i karijeri (Forgeard & Seligman, 2012). Takođe, primetno je da optimizam može pozitivno korelirati sa dominantnim osećajem samopouzdanja. Optimizam se može tumačiti kao povoljan stav očekivanja pojedinca o svojoj budućnosti, dok se stav koji na budućnost gleda na suprotan način može tumačiti kao pesimizam (García-Martínez et al., 2023). Pesimiste karakterišu anksiozno ponašanje i kontinuirano preispitivanje ličnih uverenja, ali i odustajanje od postavljenih ciljeva (Pavićević, 2019). Kada se govori o odnosu optimizma i pesimizma, treba ih posmatrati kao dve nezavisne dimenzije, jer sve dok se navode kao očekivanja pozitivnih i negativnih rezultata iste radnje, koncept optimizma i pesimizma treba doživljavati kao dvodimenzionalan (Penezić, 2002).

Istraživanje Šulmana (Schulman, 1995) pokazalo je da su optimistična objašnjenja povezana sa boljim akademskim postignućem i povećanom produktivnošću na poslu. Takođe, u drugom istraživanju (Peterson & Barrett, 1987) cilj je bio da se proverí da li je moguće predvideti akademsko postignuće studenata na osnovu njihovog eksplanatornog stila. Na početku istraživanja, studenti su ocenjivali negativne događaje prema atribucionim dimenzijama. Utvrđeno je da studenti sa optimističnim eksplanatornim stilom dobijaju bolje ocene od studenata sa pesimističnim eksplanatornim stilom, kao i da imaju specifičnije ciljeve i aktivno traže više akademskog savetovanja.

Metodologija

Cilj i zadaci istraživanja

Cilj istraživanja bio je utvrđivanje prediktora opšte samoeфикаsnosti studenata. Na osnovu formulisanoг cilja, postavljeni su sledeći istraživački zadaci:

1. ispitati opštu samoeфикаsnost studenata i utvrditi da li postoje razlike u odnosu na merene socio-demografske karakteristike;

2. ispitati korelaciju između zadovoljstva akademskim životom i opšte samoefikasnosti studenata;
3. ispitati korelaciju između optimizma/pesimizma i opšte samoefikasnosti studenata;
4. ispitati u kojoj meri zadovoljstvo akademskim životom i optimizam/pesimizam objašnjavaju opštu samoefikasnost studenata.

Instrumenti istraživanja

Za potrebe ispitivanja postavljenog cilja i zadataka istraživanja korišćeni su sledeći instrumenti:

- *Upitnik socio-demografskih karakteristika*, koji je kreiran za potrebe istraživanja i sadrži sledeća pitanja: pol, mesto stanovanja, stambeni status, subjektivno zadovoljstvo finansijskom situacijom, godina studija, prosečna ocena tokom studija.
- *Skala opšte samoefikasnosti (General Self-Efficacy Scale, GSE)* – Autori skale su Švarcer i Jerusalem (Schwarzer & Jerusalem, 1995). Instrument je preveden i adaptiran na 33 jezika, uključujući i srpski (Gavrilov Jerković i sar., 2014). Reč je o četvorostepenoj skali od 10 tvrdnji (1 – potpuno netačno, 2 – delimično netačno, 3 – delimično tačno, 4 – potpuno tačno). Skala je pokazala adekvatan nivo pouzdanosti (Kronbahova alfa .896).
- *Skala zadovoljstva akademskim životom (Academic Life Satisfaction Scale, ALSS)* – Originalnu skalu kreirala je grupa autora (Nogueira et al., 2019). U pitanju je petostepena skala Likertovog tipa od 8 tvrdnji (od 1 – uopšte se ne slažem do 5 – u potpunosti se slažem) koja je pokazala adekvatan nivo pouzdanosti (Kronbahova alfa je .851) i sastoji se od dve subskale: *lično zadovoljstvo*, koje uključuje percepciju studenata o njihovom akademskom uspehu i odnosu sa kolegama i nastavnicima (4 stavke, Kronbahova alfa .746) i *zadovoljstvo akademskim uslovima*, tačnije fizičkim i pedagoškim okruženjem, interesovanjem i posvećenošću studijskom programu, vannastavnim aktivnostima i uslovima studiranja (4 stavke, Kronbahova alfa .825). Skala je pokazala gotovo normalnu distribuciju (skjunis -.565 i kurtosis .095), što je indikovano aritmetičkom sredinom od 29.6920 sa standardnom greškom od .42352. Podaci ukazuju na to da su rezultati usko grupisani oko proseka, sa varijansom od 42.511 i standardnom devijacijom od 6.52002, što dodatno upućuje na relativno stabilnu distribuciju.
- *Skala optimizma/pesimizma (O-P skala)* – originalnu skalu kreirao je Čang (Chang, 1996), a za naše podneblje preveo i adaptirao Penezić (2002). To je petostepena skala Likertovog tipa od 14 tvrdnji (1 – uopšte se ne odnosi na mene do 5 – u potpunosti se odnosi na mene) i sastoji se od dve dimenzije: *optimizam* (6 stavki, Kronbahova alfa .831) i *pesimizam* (8 stavki, Kronbahova alfa .898). Skala optimizma ima prosečan rezultat 22.09 ($SE = .31$) i pokazala je blagi negativni skjunis

(*skjunis* = -.616), što ukazuje na to da su ispitanici generalno prijavili visoke nivoe optimizma uz umerenu varijabilnost ($SD = 4.74$). Distribucija je relativno simetrična oko proseka, sa rasponom od 6 do 30 i kurtozismom od .333, što sugerise nešto izraženiji vrh distribucije u odnosu na normalnu. Skala pesimizma ima prosečan rezultat 18.95 ($SE = .49$) i pokazala je pozitivan *skjunis* (*skjunis* = .583), što odražava veću varijabilnost ($SD = 7.60$) i širi raspon rezultata od 8 do 40. Distribucija je nešto ravnija od normalne (*kurtozis* = -.355), što ukazuje na to da mali broj ispitanika prijavljuje veoma visoke nivoe pesimizma, što doprinosi pozitivno asimetričnoj distribuciji.

Uzorak i tok istraživanja

U istraživanju je učestvovalo 237 ispitanika. Istraživanje je sprovedeno onlajn, putem platforme Gugl Forms (engl. Google Forms), u periodu od juna do avgusta 2023. godine. Distribucija uzorka na osnovu ispitanih socio-demografskih karakteristika prikazana je u Tabeli 1.

Podaci prikupljeni ovim istraživanjem obrađeni su statističkim programom (IBM SPSS za Windows, verzija 26), a statističke procedure korišćene u analizi uključivale su deskriptivnu statistiku, analizu varijanse (ANOVA) sa Tukey post-hoc testovima, Pirsonovu korelaciju i regresionu analizu.

Tabela 1
Uzorak ispitanika

	N	%
Pol		
Muški	41	17,3%
Ženski	196	82,7%
Mesto stanovanja		
Grad	174	73,4%
Predgrađe/selo	53	26,6%
Percipirana finansijska situacija		
Veoma nezadovoljavajuća	4	1,7%
Nezadovoljavajuća	49	20,7%
Zadovoljavajuća	158	66,7%
Veoma zadovoljavajuća	26	11%

	<i>N</i>	%
Godina studija		
Prva godina	55	23,2%
Druga godina	32	13,5%
Treća godina	44	18,6%
Četvrta godina	84	35,4%
Master studije	22	9,3%
Akademsko postignuće		
6,50 – 7,49	19	8%
7,50 – 8,49	87	36,7%
8,50 – 9,49	99	41,8%
9,50 – 10,00	32	13,5%
Fakultet		
Filozofski fakultet	129	54,43%
Prirodno-matematički fakultet	18	7,59%
Fakultet tehničkih nauka	24	10,13%
Medicinski fakultet	11	4,64%
Poljoprivredni fakultet	24	10,13%
Ekonomski fakultet	31	13,08%
Ukupno	237	100%

Rezultati

Opšta samoeфикаsnost studenata

Prvi zadatak odnosio se na ispitivanje opšte samoeфикаsnosti studenata i utvrđivanje postojanja razlika u odnosu na merene socio-demografske karakteristike. Tabela 2 prikazuje deskriptivne pokazatelje skale opšte samoeфикаsnosti i njenih tvrdnji.

Tabela 2

Deskriptivni indikatori Skale opšte ефикаsnosti

	Min	Max	AS	SD	skewness	kurtosis
Uvek uspem da rešim teške probleme ako se dovoljno potrudim.	1	4	3.48	.674		
Ako mi se neko suprotstavi, mogu naći načina i sredstava da dobijem ono što želim.	1	4	3.03	.786		
Lako mi je da se držim svojih namera i da ostvarim svoje ciljeve.	1	4	2.79	.796		
Uveren sam da bih mogao ефикасно da izađem na kraj sa neočekivanim događajima.	1	4	2.91	.839		
Zahvaljujući svojoj snalažljivosti, znam kako da se snađem u nepredviđenim situacijama.	1	4	3.06	.811	-.740	.430
Mogu da rešim većinu problema ako uložim neophodan trud.	1	4	3.43	.713		
Mogu ostati pribran kada se suočim sa teškoćama jer se mogu osloniti na svoje sposobnosti prevladavanja.	1	4	3.00	.821		
Kada se suočim sa problemom, obično mogu da nađem nekoliko rešenja.	1	4	2.96	.827		
Ako sam u nevolji, obično mogu da smislim neko rešenje.	1	4	3.14	.745		
Obično mogu da izađem na kraj sa svim što mi se nađe na putu.	1	4	3.04	.752		
Ukupno	10	40	30.82	5.59		

Na osnovu Tabele 2, vidimo da su na nivou cele skale ispitanici ostvarili umereno visok rezultat na skali opšte samoeфикаsnosti. Distribucija rezultata na skali je normalna sa negativnim skjunisom, što ukazuje na to da je veliki broj studenata ostvario visoke rezultate na ovoj skali. Tvrdnje sa najvišim rezultatom ukazuju na to da studenti smatraju da mogu rešiti većinu svojih problema ako ulože dovoljno truda, odnosno, veruju u ulaganje napora kako bi nešto postigli.

Ispitivanjem razlika u opštoj samoeфикаsnosti studenata u odnosu na socio-demografske karakteristike, pronađena je statistički značajna razlika samo u pogledu subjektivnog zadovoljstva studenata finansijskom situacijom (Tabela 3). Studenti koji su zadovoljniji svojom finansijskom situacijom ostvarili su značajno viši rezultat na skali opšte samoeфикаsnosti. Pojedinci koji se suočavaju sa ekonomskim ograničenjima mogu doživeti pojačan stres i smanjeno samopouzdanje, što narušava njihov osećaj samoeфикаsnosti.

Ostale socio-demografske karakteristike (pol, mesto stanovanja, stambeni status, godina studija, prosečna ocena tokom studija) nisu pokazale statistički značajnu poveza-

nost. Ovi rezultati sugerišu da individualne razlike povezane sa socio-demografskim faktorima mogu da variraju u svom uticaju u kontekstu samoeфикаsnosti.

Tabela 3

Opšta samoeфикаsnost i subjektivno zadovoljstvo studenata finansijskom situacijom

	<i>N</i>	<i>AS</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Veoma nezadovoljavajuća	5	26.40	9.94		
Nezadovoljavajuća	48	28.27	6.25		
Zadovoljavajuća	158	31.49	5.08	6.11	.001
Veoma zadovoljavajuća	26	32.31	4.73		

Tukey HSD post hoc test otkrio je značajne razlike u rezultatima opšte samoeфикаsnosti studenata između različitih nivoa zadovoljstva finansijskom situacijom. Ispitanici koji su prijavili izrazito nezadovoljavajuću finansijsku situaciju imali su značajno niže rezultate opšte samoeфикаsnosti ($AS = 26.40$) u poređenju sa onima koji su bili zadovoljni ($AS = 31.49$) i veoma zadovoljni ($AS = 32.31$), u oba slučaja uz vrednost p manju od 0.001. Slično tome, oni koji su bili nezadovoljni imali su niže rezultate ($AS = 28.27$) od onih koji su se izjasnili kao zadovoljni i veoma zadovoljni, takođe sa p -vrednostima manjim od .001. Međutim, razlika između izrazito nezadovoljavajuće i nezadovoljavajuće finansijske situacije nije bila značajna ($p = .051$), kao ni razlika između zadovoljavajuće i veoma zadovoljavajuće situacije ($p = .175$). Ovi rezultati ukazuju na to da je veće finansijsko zadovoljstvo generalno povezano sa višom opštom samoeфикасношću. Usled nejednakih veličina grupa, za robusna poređenja korišćena je harmonijska sredina veličina grupa.

Opšta samoeфикаsnost i zadovoljstvo akademskim životom

Drugi zadatak odnosio se na ispitivanje korelacije između opšte samoeфикаsnosti studenata i zadovoljstva akademskim životom (Tabela 4). Utvrđena je statistički značajna pozitivna korelacija između opšte samoeфикаsnosti i zadovoljstva akademskim životom (Tabela 4).

Tabela 4

Opšta samoeфикаsnost i zadovoljstvo akademskim životom

	Opšta samoeфикаsnost	Zadovoljstvo akademskim životom	<i>p</i>
Opšta samoeфикаsnost	1	.372**	
Zadovoljstvo akademskim životom	.372**	1	.00

Ovakav rezultat sugerіše da su viši rezultati opšte samoeфикаsnosti povezani sa većim zadovolјstvom akademskim životom; osim toga, on podržava ideју da studenti koji veruju u svoje sposobnosti teže da budu zadovolјniji svojim akademskim životom.

Opšta samoeфикаsnost i optimizam/pesimizam

Treći zadatak odnosio se na ispitivanje korelacije između opšte samoeфикаsnosti studenata i optimizma i pesimizma. Pronađena je statistički značajna pozitivna korelacija između samoeфикаsnosti i optimizma, kao i statistički značajna negativna korelacija između samoeфикаsnosti i pesimizma (Tabela 5). Ovaj rezultat ukazuje na to da sa porastom optimizma raste i opšta samoeфикаsnost studenata. Nasuprot tome, sa porastom pesimizma, opšta samoeфикаsnost studenata se smanjuje.

Tabela 5

Opšta samoeфикаsnost i optimizam/pesimizam

	Opšta samoeфикаsnost	Optimizam	Pesimizam	<i>p</i>
Opšta samoeфикаsnost	1	.700**	-	.00
Optimizam	.700**	1		
Opšta samoeфикаsnost	1	-	-.420**	.00
Pesimizam	-.420**		1	

Regresiona analiza

Četvrti zadatak istraživanja bio je da se ispita u kojoj meri zadovolјstvo akademskim životom i pesimizam/optimizam objašnjavaju opštu samoeфикаsnost studenata. Regresiona analiza pokazuje da model objašnjava 50% varijanse opšte samoeфикаsnosti (Tabela 6). Prediktori uključeni u model bili su pesimizam, zadovolјstvo akademskim životom i optimizam, sa značajnim ukupnim efektom ($F(3, 233) = 77.577, p < .001$).

Tabela 6

Rezime regresionog modela – prediktori: (Konstanta), pesimizam, zadovolјstvo, optimizam

Model	<i>R</i>	<i>R</i> ²	Korigovani <i>R</i> ²	Standardna greška procene
	.707	.500	.493	3.98302

Nestandardizovani koeficijent za optimizam iznosi .826 ($\beta = .700, p < .001$), što ukazuje na to da je optimizam značajan pozitivan prediktor samoeфикаsnosti. Nasuprot tome, zadovolјstvo akademskim životom ima manji i marginalno statistički neznаčajan efekat na samoeфикаsnost ($B = .082, \beta = .096, p = .063$). Pesimizam, iako uključen u model, ne predviđa značajno opštu samoeфикаsnost ($B = .046, \beta = .062, p = .310$). Konstanta u modelu iznosi

9.267 ($p < .001$), što odražava nivo opšte samoefikasnosti. Sveukupno, rezultati su pokazali da je optimizam značajan prediktor samoefikasnosti, dok zadovoljstvo akademskim životom i pesimizam nisu pokazali značajnu prediktivnu vrednost.

Diskusija

Rezultati sprovedenog istraživanja pokazali su da studenti poseduju umereno visok nivo opšte samoefikasnosti, što ukazuje na njihovo uverenje u sopstvene sposobnosti da prevaziđu prepreke i reše probleme kada ulože trud. Štaviše, rezultati su ukazali na razlike u nivou samoefikasnosti u odnosu na subjektivnu percepciju finansijske situacije studenta. Finansijski problemi takođe mogu dovesti do zanemarivanja ili napuštanja studija (Joo et al., 2008), negativne slike o sebi i opšteg nezadovoljstva (Lange & Byrd, 1998). Dalja istraživanja bi mogla biti usmerena na ispitivanje nekih dodatnih varijabli kako bi se dodatno razjasnio međuodnos između socio-demografskih karakteristika i uverenja o samoefikasnosti.

Uočena pozitivna korelacija između samoefikasnosti i zadovoljstva akademskim životom u skladu je sa teorijskim okvirom Bandurine socijalno-kognitivne teorije, koja tvrdi da pojedinci sa višom samoefikasnošću češće postavljaju izazovne ciljeve i istražavaju pred preprekama (Bandura, 1997). Posledično, studenti koji poseduju snažan osećaj opšte samoefikasnosti mogu pristupiti akademskim zadacima sa većim samopouzdanjem i entuzijazmom, čime povećavaju svoje ukupno zadovoljstvo procesom učenja i akademskim postignućem.

Visoki nivoi opšte samoefikasnosti mogu doprineti povećanom akademskom zadovoljstvu, dok pozitivna akademska iskustva i uspesi mogu, zauzvrat, ojačati poverenje studenata u sopstvene sposobnosti, podstičući osećaj akademske ispunjenosti. Ovaj ciklični proces naglašava interakciju između uverenja o samoefikasnosti i subjektivne percepcije akademskog blagostanja, ističući važnost negovanja pozitivnih uverenja o sebi radi podsticanja holističkog razvoja studenata.

Optimizam, definisan kao manje ili više stabilan skup pozitivnih očekivanja u vezi sa budućim iskustvima, važna je varijabla za samopercepciju u različitim kontekstima (Carver & Scheier, 2014). Optimizam je dispozicija koja utiče na to kako donosimo odluke, delujući kao medijator između naše interpretacije spoljašnjeg sveta i nas samih. Manje optimistični ljudi su manje sposobni da reaguju na negativne, kritične, pa čak i traumatične situacije. S druge strane, optimistični ljudi radije reaguju pozitivno na neprijatne okolnosti, tako što ih savladavaju. S obzirom na to, kada je reč o veri u sopstvene sposobnosti i snalažljivost u rešavanju različitih problema i prevazilaženju teškoća, manje optimistični studenti sebe doživljavaju kao manje efikasne. Kada su vreme, trud i resursi neizvesni, optimizam je jedina strategija koja može generisati dovoljno samoefikasnosti za izvršenje zadatka.

Ovo usklađivanje između uverenja o sebi i optimističnih pogleda naglašava motivacione i adaptivne funkcije samoefikasnosti, kao što je utvrđeno Bandurinom socijalno-kognitivnom teorijom (Bandura, 1997).

Uočena pozitivna korelacija između samoeфикаsnosti i optimizma sugerіše da intervencije usmerene na povećanje samoeфикаsnosti studenata mogu takođe doprineti negovanju pozitivnijeg načina razmišljanja. Štaviše, optimizam se pokazao kao značajan prediktor samoeфикаsnosti studenata. Osnаživanjem studenata da razviju samopouzdanje u svoje sposobnosti i rezilijentnost pred nedaćama, nastavnici mogu olakšati razvoj optimistićnih perspektiva, promovіšući tako psihološko blagostanje i akademski uspeh. Inverzni odnos između samoeфикаsnosti i pesimizma naglašava protektivnu ulogu uverenja o sebi u ublažavanju negativnih kognitivnih pristrasnosti. Ulivanjem samopouzdanja u sposobnosti studenata i podsticanjem načina razmišljanja orijentisanog na rast, nastavnici mogu pomoći u ublažavanju štetnih efekata pesimizma na akademsku motivaciju i postignuće.

Zaključak

Utvrđena je statistićki znaćajna pozitivna korelacija između opšte samoeфикаsnosti i optimizma, kao i između opšte samoeфикаsnosti i zadovoljstva akademskim životom, dok je negativna korelacija pronađena sa pesimizmom. Ovi rezultati su u skladu sa prethodnim istraživanjima razlićitih autora (Ćeko, 2014; Ivanišević i Vlašić, 2022; Penezić i sar., 1998). Ipak, optimizam se izdvaja kao znaćajna prediktor u poređenju sa pesimizmom i zadovoljstvom akademskim životom.

Dobijeni rezultati ukazuju na to da se studenti razlikuju u nivou opšte samoeфикаsnosti u odnosu na njihovo subjektivno zadovoljstvo finansijskom situacijom. Studenti koji su zadovoljniji svojom finansijskom situacijom ostvarili su više rezultate na skali samoeфикаsnosti, što naglašava važnost finansijske stabilnosti u podršci samopouzdanju studenata i njihovoj sposobnosti da se nose sa akademskim izazovima. Ovi nalazi istiću važnost pružanja podrške studentima kako bi se povećala njihova samoeфикаsnost, a time poboljšao njihov akademski uspeh i blagostanje. Strategije koje ukljućuju negovanje optimistićnih stavova, pružanje finansijske podrške i promovisanje samopouzdanja mogu biti ključne u ovom procesu.

Budući da samoeфикаsnost nije nešto što neki ljudi imaju, a drugi nemaju, na nju može da se utiće i ona može da se razvija. Bez obzira na trenutnu situaciju pojedinca ili prošla iskustva, svako ima priliku da ojaća samoeфикаsnost (Malćić, 2018). Ovo istraživanje može poslućiti kao osnova za dalje razmatranje i razvoj programa podrške koji efikasno odgovaraju na potrebe studenata, doprinoseći tako njihovom uspehu i dobrobiti tokom studija. Programi bi mogli ukljućivati obuke, vršnjaćko mentorstvo ili individualno savetovanje kako bi se studentima pomoglo da razviju strategije za postizanje ciljeva. S obzirom na znaćaj finansijske stabilnosti za samoeфикаsnost studenata, univerziteti bi trebalo da obezbede resurse i podršku kako bi pomogli studentima da upravljaju finansijskim izazovima. To može ukljućivati pružanje informacija o dostupnim stipendijama i studentskim kreditima ili ponuđene savete o upravljanju finansijama. Nadalje, fakulteti bi trebalo da kreiraju podržavajuću i ohrabrujuću atmosferu koja omogućava studentima da razviju samoeфикаsnost. Ovo može ukljućivati mentorstvo, vršnjaćku podršku i mo-

gućnosti za angažovanje u aktivnostima koje podržavaju razvoj samopouzdanja (Arslan & Akkas, 2014).

Dodatno, pedagoške implikacije našeg istraživanja naglašavaju važnost pružanja podrške i resursa kako bi se studentima omogućilo da razviju samoeфикаsnost i postignu akademski uspeh. Integrisanje programa podrške u institucionalne prakse može doprineti stvaranju stimulativnog okruženja, koje studentima omogućava da ostvare svoj puni potencijal (Arslan & Akkas, 2014). Nadalje, budući istraživački naporbi mogli bi istražiti ključne mehanizme koji pokreću uočene korelacije između samoeфикаsnosti i optimizma/pesimizma. Longitudinalne studije mogle bi pružiti uvid u vremensku dinamiku ovih odnosa, osvetljavajući recipročni uticaj između uverenja o sebi i kognitivnih stavova tokom vremena.

Uzimajući u obzir sve navedeno, ključno je naglasiti da razvoj samopouzdanja i samoeфикаsnosti kod studenata nije samo pitanje individualnih karakteristika, već i rezultat konteksta u kojem se nalaze. Stoga je važno da institucije visokog obrazovanja prepoznaju ulogu koju mogu imati u podršci razvoju ovih važnih kompetencija kod studenata. Ovo istraživanje pruža osnovu za dalja istraživanja i razvoj prilagođenih intervencija i programa podrške usmerenih na povećanje samoeфикаsnosti studenata.

S obzirom na specifične potrebe svake obrazovne institucije, ovi programi mogu biti kreirani tako da pruže različite oblike podrške, uključujući obrazovne, emocionalne i finansijske resurse. Na kraju, nadamo se da će naše istraživanje i zaključci doprineti sveobuhvatnijem razumevanju odnosa između samoeфикаsnosti studenata, njihovog akademskog uspeha i blagostanja. Integrisanje ovih nalaza u praksu može imati pozitivan uticaj na eфикаsnost obrazovnih sistema u podršci uspehu i zadovoljstvu svih studenata.

Pozitivna korelacija između samoeфикаsnosti i zadovoljstva akademskim životom naglašava suštinsku vezu između uverenja studenata u svoje sposobnosti i njihove subjektivne percepcije akademskog blagostanja (van Dinther et al., 2011). Negovanjem samoeфикаsnosti i stvaranjem podržavajućeg okruženja za učenje, obrazovne institucije mogu osnažiti studente da postignu svoj puni akademski potencijal i razviju osećaj ispunjenosti na svom obrazovnom putu.

Kada se govori o prednostima ove studije, jedna od ključnih prednosti je njena praktična primena. Njeni nalazi nude važne implikacije za razvoj programa podrške usmerenih na studente, posebno kroz obrazovne i savetodavne inicijative. Istraživanje naglašava važnost negovanja optimizma i osiguranja finansijske stabilnosti radi poboljšanja samoeфикаsnosti, što može poslužiti kao osnova za kreiranje sveobuhvatnih programa podrške. Na primer, univerziteti bi mogli izdvojiti resurse za finansijsku pomoć, psihološko savetovanje i radionice koje se fokusiraju na izgradnju optimizma i samopouzdanja.

Nadalje, studija postavlja osnovu za buduće istraživačke projekte, naročito longitudinalne studije, koje bi mogle pružiti nijansiranije razumevanje toga kako se samoeфикаsnost i kognitivni stavovi razvijaju tokom vremena. Ovo otvara mogućnosti za dugoročne programe podrške koji bi mogli da prate i procenjuju uticaj ovih intervencija na akademski uspeh studenata.

Uprkos ovim prednostima, postoje određena ograničenja koja treba istaći. Prvo ograničenje odnosi se na uzorak i mogućnost generalizacije rezultata. Kada se uzme u obzir da je istraživanje sprovedeno sa studentima iz ograničenog geografskog područja, rezultati možda neće biti u potpunosti reprezentativni za širu studentsku populaciju. Ovo ograničenje nalaže oprez prilikom primene zaključaka na različite akademske i kulturne kontekste. Takođe postoji značajna neusaglašenost u pogledu broja muških i ženskih ispitanika. Na kraju, istraživanje se u većoj meri oslanja na samoprocene ispitanika nego na objektivne situacije.

Literatura

- Almeida, L. S., Guisande, M. A., & Paisana, J. (2012). Extra-curricular involvement, academic adjustment and achievement in higher education: A study of Portuguese students. *Anales de Psicología / Annals of Psychology*, 28(3), 860–865. <https://doi.org/10.6018/ANALESPS.28.3.156111>
- Arslan, S., & Akkas, O. A. (2014). Quality of College Life (QCL) of Students in Turkey: Students' Life Satisfaction and Identification. *Springer*, 115(2), 869–884. <https://doi.org/10.1007/s11205-013-0235-9>
- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. Freeman & Company.
- Bartimote-Aufflick, K., Bridgeman, A., Walker, R., Sharma, M., & Smith, L. (2016). The study, evaluation, and improvement of university self-efficacy. *Studies in Higher Education*, 41(11), 1918–1942. <https://doi.org/10.1080/03075079.2014.999319>
- van Dinther, M., Dochy, F., & Segers, M. (2011). Factors affecting students' self-efficacy in higher education. *Educational Research Review*, 6(2), 95–108. <https://doi.org/10.1016/j.edurev.2010.10.003>
- Vasić, A. (2015). Relacije samoeфикаsnosti i akademske motivacije u adolescenciji. *Časopis za humanističke i društvene nauke*, 2(22), 1–17. <https://doi.org/10.7251/RAD1622014V>
- Forgeard, M. J. C., & Seligman, M. E. P. (2012). Seeing the glass half full: A review of the causes and consequences of optimism. *Pratiques Psychologiques*, 18(2), 107–120. <https://doi.org/10.1016/j.prps.2012.02.002>
- García-Martínez, I., Gavín-Chocano, Ó., Molero, D., & León, S. P. (2023). Analysing university students' life satisfaction through their socioemotional factors. *Revista de Investigación Educativa*, 41(1), 107–124. <https://doi.org/10.6018/rie.496341>
- Gavrilov Jerković, V., Jovanović, V., Žuljević, D., & Brdarić, D. (2014). When Less is More: A Short version of the Personal Optimism Scale and the Self-Efficacy Optimism Scale. *Journal of Happiness Studies*, 15, 455–474. <https://doi.org/10.1007/s10902-013-9432-0>
- Ivanišević, D., i Vlašić, I. (2022). Relacija opće samoeфикаsnosti s nekim sociodemografskim varijablama i zadovoljstvom životom. *Educa*, 15(5), 109–113.
- Joo, S. H., Durband, D. B., & Grable, J. (2008). The academic impact of financial stress on college students. *Journal of College Student Retention: Research, Theory and Practice*, 10(3), 287–305. <https://doi.org/10.2190/CS.10.3.c>
- Carver, C. S., & Scheier, M. F. (2014). Dispositional optimism. *Trends Cog. Sci*, 18, 293–299. <https://doi.org/10.1016/j.tics.2014.02.003>
- Lange, C., & Byrd, M. (1998). The Relationship Between Perceptions of Financial Distress and Feelings of Psychological Well-being in New Zealand University Students. *International Journal of Adolescence and Youth*, 7(3), 193–209. <https://doi.org/10.1080/02673843.1998.9747824>

- Luszczynska, A., Gutiérrez-Dona, B., & Schwarzer, R. (2005). General self-efficacy in various domains of human functioning: Evidence from five countries. *International Journal of Psychology, 40*(2), 80–89. <https://doi.org/10.1080/00207590444000041>
- Machado, M. L., Brites, R., Magalhaes, A., & Sa, M. J. (2011). Satisfaction with Higher Education: critical data for student development. *European Journal of Education, 46*(3), 415–432. <https://doi.org/10.1111/j.1465-3435.2011.01489.x>
- Maksimović, J., i Janković, Lj. (2016). Inkluzivna praksa i samoeфикаsnost budućih učitelja. *Zbornik radova Učiteljskog fakulteta u Užicu, 19*(18), 261–272.
- Malčić, B. (2018). Teorijske osnove samorazvoja i samoeфикаsnosti odraslih u kontekstu njihovih interesovanja za fizičke aktivnosti. *Zbornik Odseka za pedagogiju, 27*, 85–104. <https://doi.org/10.19090/zop.2018.27.85-104>
- Marić Jurišin, S., i Malčić, B. (2022). *Samoprocena nastavničke profesije u savremenom obrazovnom kontekstu*. Filozofski fakultet Univerziteta u Novom Sadu.
- Milanović Dobrota, B., i Radić Šestić, M. (2012). Značaj modela samoeфикаsnosti u vaspitno-obrazovnom radu sa adolescentima. *Specijalna edukacija i rehabilitacija, 11*(4), 637–654. <https://doi.org/10.5937/specedreh11-3104>
- Nogueira, M. J., Antunes, J. P., & Sequeira, C. (2019). Development and Psychometric Study of the Academic Life Satisfaction Scale (ALSS) in a Higher Education Students Sample. *Nursing & Healthcare International Journal, 3*(2), 1–8. <https://doi.org/10.23880/nhij-16000183>
- Olivier, E., Archambault, I., De Clercq, M., & Galand, B. (2019). Student Self-Efficacy, Classroom Engagement and Academic Achievement: Comparing Three Theoretical Frameworks. *Journal of Youth and Adolescence, 48*, 326–340. <https://doi.org/10.1007/s10964-018-0952-0>
- Pajares, F. (2006). Self-efficacy during childhood and adolescence: Implications for teachers and parents. *Self-efficacy beliefs of adolescents, 5*, 339–367. <https://doi.org/10.1108/978-1-60752-837-720251016>
- Pavičević, M. S. (2019). Korelati optimizma-pesimizma kod adolescenata. *Zbornik radova Učiteljskog fakulteta Prizren Leposavić, 14*, 315–324. <http://doi.org/10.5937/zrufpl2014315P>
- Pavičević, M. S., i Stoševski, A. Z. (2019). Povezanost optimizma-pesimizma, nade i zadovoljstva životom kod studenata. U G. Đigić, L. Milošević Radulović (Ur.), *Savremeno društvo i nauka, Tematski zbornik radova, knjiga 1* (str. 51–68). Filozofski fakultet Univerziteta u Nišu.
- Penezić, Z. (2002). Skala optimizma-pesimizma (O-P skala). U K. Lacković-Grgin, A. Proroković, V. Čubela & Z. Penezić (Ur.) *Zbirka psiholoških skala i upitnika* (str. 15–17). Filozofski fakultet u Zadru.
- Penezić, Z., Ivanov, L., i Proroković, A. (1998). Samoeфикаsnost i perfekcionizam kod studenata: Pokušaj psihometrijske provjere korištenih skala. *Radovi-Razdio FPSP, 37*(14), 67–80.
- Peterson, C., & Barrett, L. C. (1987). Explanatory style and academic performance among university freshman. *Journal of Personality and Social Psychology, 53*(3), 603–607. <https://doi.org/10.1037/0022-3514.53.3.603>
- Piper, A. (2022). Optimism, pessimism and life satisfaction: an empirical investigation. *International Review of Economics, 69*(2), 177–208. <http://doi.org/10.1007/s12232-022-00390-8>
- Santos, A., Polydoro, S., Scortegagna, S., & Linden, M. (2013). Integration to Higher Education and Academic Satisfaction in University Students. *Psychology: Science and Profession, 33*(4), 780–793. <https://doi.org/10.1590/S1414-98932013000400002>
- Tatalović-Vorkapić, S., & Jelić-Puhalo, J. (2015). Povezanost osobina ličnosti, nade, optimizma i zadovoljstva životom odgojitelja predškolske dece. *Napredak, 157*(1–2), 205–220.
- Chang, E. C. (1996). Distinguishing Between Optimism and Pessimism: A Second Look at the “Optimism-Neuroticism Hypothesis”. In R. R. Hoffman, M. F. Sherrik & J. S. Warm (Eds.), *Psychology beyond the threshold* (pp. 415–432). American Psychological Association.

- Čeko, J. (2014). *Zadovoljstvo studijem i percepcija profesionalnih perspektiva studenata zdravstvenih studija*. (Nepublikovana doktorska disertacija). Sveučilište u Splitu.
- Schulman, P. (1995). Explanatory Style and Achievement in School and Work. In G. M. Buchanan, M. E. P. Seligman (Eds.), *Explanatory Style* (pp. 159-171). Routledge.
- Schunk, D. H., & Mullen, C. A. (2012). Self-efficacy as an engaged learner. In S. L. Christenson, A. L. Reschly, C. Wylie, (Eds.) *Handbook of research on student engagement* (pp. 219-236). Springer. http://doi.org/10.1007/978-1-4614-2018-7_10
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). NFER-NELSON.
- Wilcox, G., & Nordstokke, D. (2019). Predictors of university student satisfaction with life, academic self-efficacy, and achievement in the first year. *Canadian Journal of Higher Education*, 49(1), 104-124. <https://doi.org/10.7202/1060826ar>

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Percepcije nastavnika mentora o izazovima u radu sa nastavnicima pripravnici¹

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Apstrakt

Profesionalni razvoj nastavnika, posebno na početku njihove karijere, često je praćen brojnim nesigurnostima i izazovima. Cilj programa uvođenja u posao nastavnika i samog perioda pripravnništva jeste osposobljavanje nastavnika početnika za samostalan obrazovno-vaspitni i stručni rad. Uloga nastavnika mentora u ovom za pripravnika osjetljivom periodu je veoma važna. Kompetentnost mentora može značajno odrediti kvalitet profesionalnog iskustva nastavnika pripravnika. Kako je kvalitet budućih nastavnika zajednički interes svih aktera u obrazovnom sistemu, cilj istraživanja bio je sticanje uvida u percepcije nastavnika mentora o izazovima i problemima sa kojim se susreću u radu sa pripravnici. U istraživanju je učestvovalo 98 nastavnika biologije iz osnovnih i srednjih škola u Srbiji, koji poseduju mentorsko iskustvo. Za prikupljanje podataka korišćena je tehnika anketiranja. U radu su analizirane percepcije nastavnika mentora o karakteristikama nastavnika pripravnika, najčešćim problemima sa kojim se susreću nastavnici pripravnici i izvorima stresa u radu sa nastavnicima pripravnici. Sagledani su i stavovi ispitanika po pitanju značaja i oblasti dodatne obuke za uspešan rad samih mentora. Rezultati ukazuju da nastavnicima pripravnici često nedostaju znanja i kompetencije iz različitih oblasti kako bi uspešno obavljali ulogu nastavnika. Problemi nastaju prilikom planiranja, pripreme i realizacije časa, pedagoškog vođenja nastave, komunikacije, ocenjivanja učenika. Jačanje kompetencija potrebno je i nastavnicima mentorima. Prema nalazima istraživanja, 85% ispitanika je iskazalo potrebu za dodatnom podrškom u radu sa pripravnici. Praktične implikacije istraživanja pronalazimo u rezultatima koji se mogu iskoristiti kao smernice u planiranju programa obuke nastavnika, kako tokom inicijalnog obrazovanja tako i tokom stalnog stručnog usavršavanja.

Ključne reči: nastavnik biologije, mentorstvo, profesionalni razvoj, kompetencije.

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Uvod

Jedna od najvažnijih oblasti modernizacije obrazovanja svakako je stručno usavršavanje nastavnika kao faktor unapređenja kvaliteta obrazovanja (Shibankova et al., 2019). Profesionalni razvoj je kontinuiran napor u cilju nastanka profesionalca i odnosi se na sistem vrednosti, etički kodeks, znanje, veštine i odgovornost koje usmeravaju razmišljanja i delovanje. Inicijalno obrazovanje nije ni prva ni poslednja tačka profesionalnog razvoja učitelja i nastavnika (Vujisić Živković i Vranješević, 2019). Svaka promena u obrazovnom sistemu zahteva da nastavnici i učitelji naprave značajan iskorak iz dotadašnje prakse, nadograde i prošire svoja profesionalna znanja, veštine, stavove i vrednosti kako bi efikasno izašli u susret obrazovnim reformama (Radulović et al., 2019). Period pripravnništva i program uvođenja u posao nastavnika imaju za cilj osposobljavanje nastavnika početnika za samostalan obrazovno-vaspitni i stručni rad i, kao takvi, najčešće predstavljaju prvi iskorak u profesionalnu praksu nakon sticanja formalnog obrazovanja. Mladim nastavnicima je ovo prilika za upoznavanje sa školom kao radnom sredinom i sagledavanje brojnih uloga nastavnika kroz praksu. Ovaj period može biti veoma dinamičan za još uvek neiskusne nastavnike i mogu ga pratiti brojne nesigurnosti u lična znanja i veštine. Za snalaženje u širokoj lepezi novih uloga i odnosa potrebne su kompetencije iz različitih oblasti, koje pripravniku mogu nedostajati na početku. Nesnalaženje u novim zadacima ili neuklapanje u novu sredinu i kolektiv mogu biti razlozi razočaranja i frustracije, pa čak i napuštanje profesije. Zbog toga je u ovom periodu, osetljivom za pripravnika, uloga mentora izuzetno važna. U ovoj fazi, mentorske strategije utiču na uverenja početnika o nastavnim praksama i posledično na njihove postupke (Achinstein & Barrett, 2004). Tradicionalne forme mentorstva obično se fokusiraju na jedan od najčešćih, ustaljenih i najrasprostranjenijih načina razumevanja mentorstva – oblik profesionalnog razvoja u kojem osoba sa više iskustva i znanja pomaže i osobi sa manje znanja ili iskustva i predvodi je. Ovakav odnos svodi mentorstvo na jednosmernu razmenu iz pravca iskusnijeg (mentor), ka manje iskusnom (pripravnik), iako to vrlo često nije slučaj, budući da odnosi između ljudi uvek imaju dvosmerni karakter (Miškeljin, 2016).

Tokom poslednjih decenija razvili su se modeli mentorstva koji su mnogo više usmereni na kolaboraciju nego na hijerarhiju odnosa. Međusobna saradnja, kolaborativno ponašanje, grupno učenje – sve to čini kontekst koji se polako izdvaja u obrazovnoj praksi kao promena tradicionalnog uređenja mentorstva (Mullen, 2005). Higin i Kram (Higgins & Kram, 2001) kao odgovor na pitanje alternative tradicionalnom konceptu mentorstva, jedan mentor jedan pripravnik, razmatraju koncept individualne razvojne mreže u oblasti mentorstva, u kom se mentorstvo prepoznaje kao višestruko razvojni fenomen koji prirodno podrazumeva uključivanje većeg broja različitih aktera. Prema istraživanju Vilegema i saradnika (Willegems et al., 2017), uključivanje više aktera (edukatora, nastavnika, socijalnih radnika) na nehijerarhijskom nivou jeste jedan od najperspektivnijih modela za učenje nastavnika početnika. U takvom partnerstvu je ponovna konceptualizacija uloge mentora od posebnog značaja. Autori Piters i Vandenbruk (Peeters, 2008; Peeters & Vandenbroeck, 2011) koncept mentorstva kao refleksivnog i kolaborativnog profesionalizma razmatraju u okvirima kompetentnosti da se traže rešenja u kontekstu „neslaganja“.

Novi koncept mentorstva podrazumeva uzajamni odnos pojedinaca (ne samo početnika i iskusnih pojedinaca), grupa, institucija i šireg socio-političkog konteksta, kompetentnost tima u zajedničkom procesu učenja i refleksivnog preispitivanja sopstvene prakse, saradnju sa drugim institucijama, ustanovama, stručnjacima i porodicama dece obuhvaćene sistemom i van njega, umrežavanje sa istraživačima i institucijama inicijalnog obrazovanja, kao i koherentan sistem podrške (Pavlović Breneselović, 2009).

Često se postavlja pitanje da li tokom mentorske prakse treba dati prednost predmetnim znanjima ili pak znanjima iz oblasti pedagogije, psihologije, metodike rada. Svakako je potrebno naći balans između ovih oblasti. Programi po kojima se odvija mentorska praksa treba da budu orijentisani razvojno. Hargrivs i Fulan (Hargreaves & Fullan, 2000) identifikovali su tri odrednice mentorskih programa koji imaju potencijal da utiču na dugoročne promene u školi i na profesionalni razvoj zaposlenih. Na prvom mestu je koncepcija obrazovanja koja prepoznaje nastavnike kao glavne nosioce promena, a ne samo ponavljače isprobanih obrazaca ponašanja. Da bi mentorstvo moglo da pomera profesionalnu praksu ka željenoj viziji, ono mora biti povezano sa drugim komponentama transformisanja nastavničke profesije. Nije dovoljno da su samo mentorski programi razvojno orjentisani, nego je potrebno da se i inicijalno obrazovanje i postojeći sistemi usavršavanja razvijaju i napreduju. Pored toga, neophodno je i da svi akteri uključeni u mentorski program u njemu prepoznaju mogućnosti za unapređivanje profesije.

Period mentorskog rada nastavnika sa pripravnikom takođe predstavlja i značajan period u profesionalnom razvoju nastavnika mentora. Ovakav vid rada nosi sa sobom drugačije izazove i od nastavnika zahteva drugačiji set kompetencija od onih potrebnih za obrazovno-vaspiti rad sa učenicima, zbog čega se nastavnici različito snalaze u ovoj ulozi. Prema istraživanju određenih autora (D'Abate & Eddy, 2008) i na osnovu analize relevantne literature, autori zaključuju da se u najvećem broju stručnih radova pojavljuje nekoliko zajedničkih preduslova uspešnog mentorstva: odgovarajući izbor mentora i pripravnika, priprema mentora i pripravnika i kvalitet ostvarene interakcije između mentora i pripravnika. Abel i saradnici (Abell et al., 1995) navode da je mentorstvo uspešnije kada se karakteristike pripravnika uzimaju u obzir prilikom odluke o izboru mentora. Prema nalazima Hobsona i saradnici (Hobson et al., 2009), osim što je ustanovljeno da nisu svi dobri nastavnici nužno i dobri mentori, ističe se da ni svi uspešni mentori ne ostvaruju jednako povoljne rezultate u radu sa svakim pripravnikom. Autori Li i Feng (Lee & Feng, 2007) ukazuju na to da je mentorstvo uspešnije kada u školama postoji saradnička klima, kao i kultura učenja u kojoj mentori pronalaze podršku u drugim nastavnicima u školi. Koliko je pitanje podrške za mentorski rad značajno i potrebno ističu i Gordon i Brobekova (Gordon & Brobeck, 2010), koji u svom istraživanju navode da je mentorima, pored početne pripreme i obuke, potrebna kontinuirana podrška tokom čitavog perioda rada sa pripravnikom.

S obzirom na poziciju na kojoj se trenutno nalazi mentorska praksa u Srbiji, savremeni zahtevi mentorstva čine se previše avangardnim. Potencijal kolaborativnog istraživanja nastavnika, kao načina učenja i razvoja škole, stoga ne dobija uporište u većini škola. Iako se profesionalni razvoj nastavnika smatra jednim od ključeva za poboljšanje kvaliteta ob-

razovanja, malo je empirijski validnih istraživanja na ovu temu. Prema istraživanju koje je sprovedla Šijaković (Šijaković, 2018), u čijem fokusu je bila refleksija mentora i pripravnika o praksi koju zajedno realizuju, došlo se do tri modela mentorskog rada u našem obrazovanju. Mentorstvo u hodu (ad hoc mentorstvo) jeste model koji, najkraće rečeno, podrazumeva reprodukciju mentorove prakse koja se posmatra kao uzor. U ovakvom pristupu često izostaju brojne zajedničke aktivnosti, poput pripreme, planiranja i evaluacije nastave, što se negativno odražava na mogućnost obostranog razvoja. Forma mentorstvo je drugi model u kom, takođe, često potpuno izostaje složeniji rad i saradnja mentora i pripravnika, budući da mentor prvenstveno vodi računa o formalnim zahtevima i svojim obavezama. Ovakav pristup često proističe iz nesigurnosti mentora. Treći model okarakterisan je kao razvojno mentorstvo, i odlikuje ga motivisan mentor, koji je spreman za rad, saradnju i pružanje pune podrške profesionalnom usavršavanju i razvoju pripravnika, kao i spremnost za preispitivanje sopstvene prakse i lični razvoj. Ovaj model je svakako najpoželjniji i koristan i za pripravnika i za mentora.

U obrazovnom sistemu Srbije, procedura za izbor mentora bliže je regulisana Pravilnikom o dozvoli za rad nastavnika, vaspitača i stručnih saradnika (2022). Prema pravilniku, za mentora se bira istaknuti nastavnik sa najmanje pet godina radnog iskustva u oblasti obrazovanja i vaspitanja. Mentora određuje direktor ustanove, uz prethodno obezbeđeno mišljenje stručnog organa, u slučaju predmetnog nastavnika - mišljenje stručnog veća za oblast predmeta. Kada govorimo o formalnim i sistemskim obukama za pripremu mentora, u našoj zemlji, predviđena je obuka za mentore u trajanju od 40 sati. U praksi je, međutim, često jedini kriterijum za izbor mentora obavezni minimum od pet godina radnog iskustva, a kvalitet mentorskog rada se svodi na pretpostavku da će uspešan nastavnik biti i dobar mentor. Rezultat takve situacije može biti neuspešan, čineći proces mentorstva suviše formalizovanim. Kada je nastavnik u situaciji da bude mentor odrasloj osobi, znanja i veštine koje praktikuje u radu sa učenicima moraju se dopuniti novim kompetencijama, te je neophodna dodatna obuka za mentorski rad (Ušćumlić, 2012). Iako se neretko veruje da svaki iskusan nastavnik može usmeravati i voditi neiskusnog nastavnika, praksa to ne dokazuje uvek. Radulović i saradnici (Radulović et al., 2022a) ukazuju na to da problem neadekvatne obuke nastavnika za ulogu mentora ne postoji samo u našoj zemlji, već i u zemljama poput Slovačke, Češke i Mađarske. Da bi postali dobri mentori, nastavnicima koje interesuje ovaj posao treba posebna podrška, kao i smernice koje često izostaju. Prema važećoj zakonskoj regulativi nije predviđeno ni praćenje ni ocenjivanje rada mentora. Kako bi se ovaj problem prevazišao, OECD predlaže da se prosvetni savetnici uključe u evaluaciju savladanosti programa uvođenja u posao pripravnika kako bi se obezbedila pravična i objektivna procena prakse nastavnika.

Nastavnička profesija sigurno je jedna od najlepših i najznačajnijih profesija u društvu. Uprkos tome, profesionalni razvoj nastavnika često je praćen brojnim izazovima. U ovom radu predstavljene su prepreke i izazovi u radu nastavnika mentora i pripravnika u Republici Srbiji, do kojih se došlo analizom podataka dobijenih u empirijskom istraživanju.

Metodologija istraživanja

Jedna od oblasti profesionalnog razvoja nastavnika kojoj se poklanja sve više pažnje jeste mentorski rad iskusnih nastavnika sa nastavnicima početnicima. U našoj zemlji se tokom perioda pripravnništva oni uvode u posao nastavnika i pripremaju za polaganje ispita za licencu. Uspešnost ovog procesa u velikoj meri zavisi upravo od kvaliteta međuljudskih odnosa i komunikacije između nastavnika mentora i pripravnika. Na razvoj ovog odnosa veliki uticaj imaju nastavnikove percepcije ličnosti i potencijala pripravnika, kao i njihov pristup radu. Značaj ove teme prepoznat je i u našem obrazovnom sistemu, zbog čega je predmet ovog istraživanja sagledavanje izazova na polju mentorskog rada sa nastavnicima pripravnici- ma u školama u Srbiji. Opšti cilj istraživanja je sticanje uvida u percepcije nastavnika mentora o izazovima i problemima sa kojim se susreću u radu sa pripravnici- ma. U fokusu istraživanja bile su kompetencije koje nedostaju nastavnicima pripravnici- ma na početku profesionalnog rada, kao i u kojim oblastima je potrebno pružiti podršku i osnažiti nastavnike mentore. Cilj istraživanja operacionalizovan je kroz sledeće istraživač- ke zadatke:

1. ispitati percepcije nastavnika mentora o karakteristikama nastavnika pripravnika,
2. sagledati sa kojim se problemima u radu, prema mišljenju nastavnika mentora, susreću pripravnici,
3. identifikovati stresore i problematične odnose koji remete uspešno odvijanje procesa mentorstva iz ugla nastavnika mentora,
4. analizirati samoprocenu nastavnika mentora o kompetencijama za mentorski rad,
5. analizirati percepcije mentora o oblastima dodatne obuke potrebne za osnaživa- nje kompetencija za uspešno mentorsko vođenje pripravnika,
6. ispitati da li postoji statistički značajna razlika u odgovorima nastavnika mentora s obzirom na, s jedne strane, godine radnog iskustva i, s druge strane, njihove percepcije karakteristika pripravnika, izvora stresa i značaja različitih oblasti obu- ke za rad.

U istraživanju je učestvovalo 98 nastavnika biologije iz osnovnih i srednjih škola i gimnazija iz čitave Srbije. Kriterijum pri izboru ispitanika bio je iskustvo u mentorskom radu sa nastavnicima pripravnici- ma. Većina ispitanika je upitnik popunila u štampanom formatu tokom održavanja Republičkog takmičenja iz biologije za učenike srednjih škola. Deo ispitanika je upitnik popunio onlajn (korišćena je Google aplikacija Upitnik, a nastav- nici su upitniku pristupali preko sajta Bioblog). Prema polnoj strukturi uzorak je činilo 84 ispitanika ženskog pola (85.7%) i 14 ispitanika muškog pola (14.3%). Nejednak odnos po- lova u uzorku odraz je realne polne strukture zaposlenih nastavnika biologije u školama u Republici Srbiji. Prema podacima Republičkog zavoda za statistiku iz 2019. godine više od dve trećine nastavnika u osnovnim i srednjim školama su žene. U pogledu strukture

uzorka prema instituciji u kojoj su zaposleni najviše ispitanika radi u gimnaziji (72.4%), zatim u srednjoj školi (14.3%), a najmanje ispitanika radi u osnovnoj školi (13.3%). Struktura uzorka u pogledu radnog staža ispitanika je takva da najveći broj ispitanika (64.3%) ima preko 10 godina radnog iskustva, zatim od 6 do 10 godina staža (14.3%) i preko 31 godine (13.3%). Najmanje ispitanika ima do 5 godina radnog iskustva (8.1%). U analizi podataka su uvaženi odgovori svih ispitanika, jer su nastavnici koji imaju do 5 godina radnog staža imali određeni vid iskustva u mentorskom radu.

Za prikupljanje podataka u istraživanju je korišćena tehnika anketiranja. Instrument istraživanja, upitnik, kreiran je kao deo aktivnosti tokom realizacije međunarodnog projekta Mentor Training (akronim projekta MENTRA), finansiranog uz podršku programa Erasmus +, KA2. Na projektu je učestvovalo šest visokoškolskih ustanova iz četiri zemlje, uključujući i Srbiju. Prvi deo upitnika čine stavke koje se odnose na socio-demografski profil ispitanika. Drugi deo upitnika je nakon revidiranja za potrebe ovog istraživanja obuhvatio osam pitanja, od čega tri pitanja po modelu petostepene Likertove skale, dva pitanja otvorenog tipa i tri pitanja zatvorenog tipa sa ponuđenim odgovorima. Za odgovore na pitanja po modelu petostepene Likertove skale korišćene su dve skale. Prva sa odgovorima: 1-uopšte se ne slažem, 2- ne slažem se, 3-neutralno, 4-slažem se, 5-potpuno se slažem. Druga sa odgovorima: 1-potpuno nevažno, 2-nevažno, 3-ne mogu da se odlučim, 4-važno, 5-veoma važno. Na pitanja otvorenog tipa se od ispitanika tražilo da daju sažete i konkretne odgovore. Tekstualni podaci analizirani su posredstvom identifikovanja određenih tema ili obrazaca i razvrstavanjem odgovora u kategorije (proces kodiranja). Za procenu pouzdanosti korišćenog instrumenta izračunata je Kronbah alfa vrednost i ona iznosi .72. Imajući u vidu da se koeficijenti pouzdanosti veći od .7 smatraju zadovoljavajućim, korišćeni upitnik ima prihvatljivu pouzdanost (Mišćević-Kadijević, 2009). Ispitanici su obavešteni o opštoj svrsi studije i da je učešće anonimno i dobrovoljno. Anketa je sprovedena tokom 2022. godine.

Podaci iz upitnika statistički su obrađeni u programu SPSS. U obradi su korišćeni srednja vrednost, frekvencija odgovora, procentualna zastupljenost i Hi-kvadrat test. Osnovni razlog izbora neparametarske analize bio je odstupanje pojedinih ajtema od normalne raspodele (vrednosti skjunisa i kurtosisa su prelazile +/- 1), takođe, vrednosti za svaki ajtem u okviru primenjene Likertove skale su posmatrane kao diskretne vrednosti, dok su godine radnog staža grupisane u četiri celine kako bi se mogle posmatrati diskretno.

Rezultati i diskusija

Rezultati analize percepcija ispitanika o karakteristikama nastavnika pripravnika (Tabela 1) pokazali su da su u najvećoj meri saglasni sa tim da se pripravnici temeljno pripremaju za časove nastave ($M = 4.25$). Ispitanici su visoko ocenili i stavke koje se odnose na rad pripravnika sa mentorom: prihvataju kritiku konstruktivno ($M = 4.17$), traže i i cene pomoć mentora u svom radu ($M = 4.17$). Ovakav nalaz ukazuje na ozbiljnost i posvećenost

pripravnika, kao i na njihovu spremnost za saradnju sa mentorom. Najniže vrednovana karakteristika je da nastavnici pripravnici tokom konsultacija sa mentorima vode beleške ($M = 3.47$). Osvrnuli bismo se i na percepciju ispitanika o samorefleksiji nastavnika pripravnika. Ova stavka se našla u tri najniže ocenjene karakteristike ($M = 3.65$). Značajno je naglasiti da je uloga mentora iz perspektive refleksivne prakse da stvara uslove u kojima će pripravnik moći da preispituje svoj način rada i svoje poglede na praksu. Zbog toga je važno istaći da će od uspešnosti mentora u stvaranju ovakvih uslova zavisiti i stepen razvoja sposobnosti samorefleksije pripravnika u ovom periodu. Prema Brukfildu (Brookfield, 1995) bez navike da promišljaju sopstvenu praksu, kontekst u kome se odvija, nastavnici su u stalnom riziku da donose loše odluke i pogrešne procene.

Hi-kvadrat test nije pokazao statistički značajnu razliku između percepcije ispitanika o karakteristikama nastavnika pripravnika i iskustva ispitanika ($r > .05$). Nastavnici biologije su bez obzira na dužinu radnog iskustva visoko ocenili karakteristike i odnos prema radu budućih nastavnika biologije.

Tabela 1

Percepcije nastavnika mentora o karakteristikama nastavnika pripravnika

Iskazi	<i>M</i>
1. Zainteresovani su za karijeru nastavnika.	4.08
2. Temeljno se pripremaju za časove nastave.	4.25
3. Imaju realističnu samorefleksiju.	3.65
4. Zainteresovani su za evaluaciju njihovog rada od strane mentora.	4.05
5. Prihvataju kritiku konstruktivno.	4.17
6. Traže i cene pomoć mentora u svom radu.	4.17
7. Žele da se konsultuju sa mentorom pri izradi priprema za časove.	4.13
8. Zainteresovani su za dešavanja u školi.	3.80
9. Imaju poteškoće pri didaktičkoj transformaciji kurikuluma.	3.60
10. Tokom konsultacija sa mentorima vode beleške.	3.47

Tabela 2

Percepcije nastavnika mentora o najčešćim problemima u radu nastavnika pripravnika

Oblast	Odgovor ispitanika	Frekvencija odgovora	n (%)
I	- pisanje pripreme za čas	14	47.8%
	- organizacija časa	4	
	- realizacija časa	4	
	- didaktička transformacija kurikulumu	3	
	- prilagođavanje nivoa znanja i količine gradiva	3	
	- koordinacija vremena na času	3	
	- nastavni programi, godišnji i operativni planovi rada	2	
	- nedostatak samopouzdanja	2	
	- preterana samouverenost	1	
	- uključivanje učenika u diskusiju	1	
	- uspostavljanje vertikalne korelacije	1	
	- razvijanje kritičkog stava	1	
	- realizacija vannastavnih aktivnosti	1	
	- unošenje sopstvenih ideja u kreiranje časa	1	
	- organizovanje aktivnosti van klasičnog tipa nastave	1	
	- okrenuti su ka onome šta oni rade, a ne koliko učenici rade i uče na času	1	
II	- administrativne obaveze i poslovi	3	5.5%
	- vođenje pedagoške dokumentacije	2	
III	- održavanje discipline na času i u odeljenju	6	15.6%
	- održavanje pažnje učenika na času	3	
	- komunikacija sa učenicima	3	
	- nedostatak distance prema učenicima	1	
	- problem autoriteta	1	
IV	- ocenjivanje učenika	7	8.9%
	- ostvarivanje ishoda i standarda postignuća	1	
V	- znanja iz oblasti genetike	6	18.9%
	- poznavanje metodike i didaktike	4	
	- znanja iz oblasti molekularne biologije	3	
	- znanja iz oblasti evolucije	2	
	- znanja iz oblasti fiziologije biljaka i životinja	2	
VI	- problem u prihvatanju saveta mentora	1	3.3%
	- pripravnici nemaju problema u radu	1	
	- pripravnici sami smatraju da nemaju problema u radu	1	
Ukupno:		90	100%

Na pitanje u kojim oblastima nastavnici pripravnici najčešće imaju problema 90 nastavnika mentora dalo je konkretan odgovor. Ovi odgovori grupisani su u šest oblasti: (I) planiranje, priprema i realizacija časova nastave; (II) administrativni poslovi i vođenje

pedagoške dokumentacije; (III) pedagoško vođenje odeljenja i komunikacija sa učenicima; (IV) ocenjivanje učenika i (V) stručna znanja. U oblast VI svrstani su odgovori koji nisu pripali prethodno navedenim oblastima. Rezultati analize odgovora po oblastima (Tabela 2) izdvojili su oblast planiranja, pripreme i realizacije časova nastave kao izvor najčešćih problema u radu pripravnika ($n = 47.8\%$). Nastavnici pripravnici najčešće imaju problema sa pisanjem pripreme za čas i organizacijom i realizacijom samog časa. Prepoznat je i problem didaktičke transformacije kurikuluma, dimenzioniranja gradiva i koordinacije vremena na čas. S obzirom na to da su u pitanju nastavnici koji imaju veoma malo praktičnog iskustva ili se prvi put susreću sa nastavnom praksom, zbog čega im često nedostaje i samopouzdanja, ovakvi rezultati nisu neočekivani. Ipak, oni ukazuju da je buduće nastavnike potrebno kroz inicijalno obrazovanje dodatno osnažiti kompetencijama za nastavni rad. U prilog tome ide i činjenica da je značajan broj odgovora ($n = 18.9\%$) ukazao i na problem nedovoljnog poznavanja gradiva, odnosno nedostatak stručnog znanja iz oblasti kao što su genetika i molekularna biologija, ali i metodika i didaktika. Kada je reč o pedagoškom vođenju odeljenja i komunikaciji sa učenicima, pripravnici i početnici u ovoj oblasti najčešće imaju problem održavanja discipline na času.

Ovakvi nalazi su u određenoj meri saglasni sa rezultatima do kojih je došla Simić (Simić, 2014) koja je ispitivala koje su to najčešće brige sa kojima se suočavaju nastavnici početnici. Prema nalazima ovog istraživanja najčešće brige nastavnika početnika se odnose na pedagoško vođenje odeljenja (kako održati disciplinu na času, izaći na kraj sa problematičnim ponašanjem učenika), zatim pitanje efikasne realizacije nastave i motivisanja učenika. Kao jednu od najčešćih briga početnici su istakli i pitanje uklapanja u kolektiv i saradnje sa kolegama. Prema nalazima ovog istraživanja ispitanici ne opažaju ovo pitanje kao problem u radu pripravnika.

U Tabeli 3 dati su rezultati analize odgovora o izvorima neprijatnosti i stresa nastavnika mentora u radu sa pripravniciima.

Tabela 3

Percepcije nastavnika mentora o izvorima neprijatnosti i stresa u radu sa nastavnicima pripravniciima

Iskazi	M
1. Neosposobljenost za podučavanje (nepripremljenost za nastavnički poziv).	3.37
2. Visoko samopouzdanje pripravnika po pitanju njihovih kompetencija i profesionalnog rada.	3.75
3. Kada ne prate moje instrukcije.	3.50
4. Kada se ne slažu sa mojim stavovima o analiziranoj situaciji ili problemu.	2.86
5. Kada zastupaju svoje stavove.	2.65
6. Način na koji komuniciraju sa mentorom.	2.93
7. Nesposobnost da se nose sa problematičnim situacijama u učionici.	3.40
8. Nesposobnost komunikacije sa kolegama.	3.54
9. Kada očekuju da dobiju gotove pripreme za čas i nastavne materijale.	3.83
10. Neuspeh u obavljanju administrativnih poslova i ispunjavanju obaveza.	3.32

Najviše ispitanika istaklo je da neprijatna osećanja i stres u radu i komunikaciji sa nastavnicima pripravnici izaziva prvenstveno očekivanje mladih kolega da dobiju gotove pripreme za čas i nastavne materijale ($M = 3.83$). Ispitanici su takođe kao izvor problema u radu i komunikaciji istakli visoko samopouzdanje pripravnika po pitanju njihovih kompetencija i profesionalnog rada ($M = 3.75$), a često i nesposobnost komunikacije sa kolegama ($M = 3.54$). Iako se visoko samopouzdanje može smatrati pozitivnom karakteristikom u konkretnoj situaciji u kojoj je pripravnici period pripravnništva često prvi iskorak u nastavnu praksu i kojima prema rezultatima i ovog istraživanja često nedostaju različite kompetencije koje se i stiču kroz rad i iskustvo, nerealna samorefleksija o sopstvenim kompetencijama može predstavljati problem u radu i komunikaciji sa mentorom. Najslabije ocenjene stavke u vezi sa razlozima neprijatnosti odnose se na zastupanje sopstvenih stavova ($M = 2.65$) i neslaganje sa stavovima mentora o analiziranoj situaciji ili problemu ($M = 2.86$). Dobijeni rezultat pokazuje da nastavnici mentori razumeju potrebu mladih nastavnika da zastupaju sopstvene stavove.

Hi-kvadrat test nije pokazao da postoji statistički značajna razlika u odgovorima mentora različitih godina radnog iskustva kada su u pitanju razlozi za stres i neprijatnosti u radu sa nastavnicima pripravnici ($r > .05$). Nastavnici biologije su bez obzira na dužinu radnog iskustva pokazali slične stavove po pitanju faktora kvalitetne saradnje i izvora stresa u radu sa pripravnici.

Rezultati istraživanja su pokazali da oko 90% ispitanika tokom inicijalnog obrazovanja nije imalo nikakav kurs ili drugi vid obuke vezan za mentorski rad. Preko 80% njih nije pohađalo ni obuku iz ove oblasti u okviru stalnog stručnog usavršavanja. Uprkos tome, ispitanici su veoma visoko ocenili sve oblasti obuke mentora. U Tabeli 4 dati su rezultati analize odgovora. Oblasti obuke mentora koje su ispitanici ocenili kao najvažnije su: komunikacija između mentora i pripravnika ($M = 4.65$), izgradnja pozitivnog odnosa sa pripravnici ($M = 4.54$), poznavanje uloge i obaveza mentora ($M = 4.49$), upravljanje konfliktima i kontrola stresa ($M = 4.44$).

Tabela 4

Percepcije nastavnika mentora o značaju obuke mentora po oblastima

Iskazi	<i>M</i>
1. Poznavanje uloge i obaveza mentora.	4.49
2. Izgradnja pozitivnog odnosa sa pripravnici.	4.54
3. Komunikacija između mentora i pripravnika.	4.65
4. Individualni pristup i savetodavni rad.	4.36
5. Razvoj kompetencija za praćenje i evaluaciju.	4.36
6. Formiranje kritičke samorefleksije i samoevaluacije.	4.36
7. Formiranje svesti o karijernom razvoju.	4.04
8. Upravljanje konfliktima i kontrola stresa.	4.44

Analizom odgovora ispitanika na pitanje iz kojih oblasti smatraju da im je potrebna dodatna obuka za uspešan mentorski rad prepoznato je šest oblasti. Na prvom mestu našle su se metodičke kompetencije. Najfrekventniji odgovori odnosili su se na obuku za realizaciju praktične nastave i terenskog rada i primenu novih metodičkih pristupa radu. Na drugom mestu našle su se kompetencije i znanja iz predmetne oblasti, gde se izdvojila oblast genetike, i oblast poznavanja prava, uloga i obaveza mentora. Na trećem mestu našla se veoma značajna oblast upravljanja konfliktima, kontrola stresa i razvoj veštine komunikacije. Preostale dve oblasti koje je izdvojio manji broj ispitanika su oblast digitalnih kompetencija i oblast kompetencija za obavljanje administrativnih poslova. Ovakav rezultat ukazuje na potrebu preispitivanja obuke budućih nastavnika iz ovih oblasti tokom inicijalnog obrazovanja.

Oko 85% ispitanika smatra da je nastavnicima prirodnih nauka potrebna dodatna podrška u cilju uspešnog ostvarivanja uloge mentora i profesionalnog razvoja. Dobijeni visok procenat ukazuje na potrebu za promenom u pristupu obrazovanja budućih nastavnika, ali i uvođenja dodatnih obuka za usavršavanje nastavnika.

Zaključak

Istraživanje je pokazalo da nastavnici mentori smatraju da nastavnicima pripravnici za uspešno ostvarivanje obrazovno-vaspitne uloge nastavničke profesije nedostaju znanja i kompetencije iz različitih oblasti. Problemi se javljaju pri planiranju, pripremi i realizaciji časova, pedagoškom vođenju odeljenja, komunikaciji, ocenjivanju učenika. Jedna od teorijskih postavki kojom se vode tvorci mentorsko-pripravnčkih programa jeste da se potrebna profesionalna znanja i veštine ne mogu razviti tokom inicijalnog obrazovanja, već je za njihovo uobličavanje i dalje razvijanje neophodna praksa uz učenje i rad. Za razvoj veština koje odlikuju dobrog i uspešnog nastavnika, kao i u svakoj profesiji, potrebno je vreme, ali i posvećenost, motivacija, iskustvo. Profesionalna odgovornost, takođe, ne nastaje sama po sebi i ne dolazi automatski sa sticanjem fakultetske diplome. To je individualni put ličnog i profesionalnog sazrevanja, praćen pozitivnim i negativnim izazovima. Zbog toga je obaveza mentora da pruži pomoć i podršku nastavniku pripravniku u svim ovim situacijama. Ta pomoć može biti usmerena ka bržoj orijentaciji nastavnika pripravnika u njihovoj nastavničkoj profesiji, ka rešavanju problema sa kojima se susreću i postepenom sticanju profesionalnog samopouzdanja, kroz iskustveno znanje (Radulović i sar., 2022).

Istraživanja ukazuju da je stres izrazito prisutan i u nastavničkoj profesiji dok nasuprot tome nastavnici često imaju nedovoljno znanja o prevenciji, prepoznavanju i načinu prevazilaženja stresnih situacija (Telebec, 2014). Nedostatak adekvatnih veština upravljanja stresom može biti izvor frustracija i nezadovoljstva koje se može negativno odraziti na sve aspekte rada i lično blagostanje nastavnika. U prikazanom istraživanju se došlo do nalaza da među izvorima stresa u radu mentora sa pripravnici prednjače očekivanja nastavnika pripravnika za gotovim nastavnim materijalima i visoko samopouzdanje po pitanju profesionalnih kompetencija, koje kako smo ranije istakli često nedostaju nastavnicima na početku karijere. Značajnim smatramo i nalaz da i sami nastavnici prepoznaju potrebu razvijanja veština kontrole stresa u radnom okruženju. Prema mišljenju ispitanika,

u četiri najznačajnije oblasti dodatne obuke mentora našle su se oblasti: komunikacija između mentora i pripravnika, izgradnja pozitivnog odnosa i upravljanje konfliktima i kontrola stresa. Podatak da su sve oblasti obuke visoko i pozitivno ocenjene ukazuju i na to da nastavnici mentori prepoznaju period mentorskog rada kao razvojni period u kom se otvara novi prostor za lični profesionalni razvoj.

Prema dobijenim nalazima, 85% nastavnika biologije iskazalo je potrebu za dodatnom podrškom u radu sa pripravnicima. Jedna od preporuka OECD-a (Maghnouj et al., 2020) jeste uvođenje obavezne obuke za sve postavljene mentore, kao i formiranje mreže nastavnika mentora koji rade u različitim ustanovama. U zemljama u regionu koje su prepoznale značaj kvalitetne obuke mentora institucije visokog obrazovanja se sve više uključuju u pružanje podrške nastavnicima. Jedan od načina su seminari i obuke iz različitih oblasti realizovane kroz projektno finansiranje. Ovakav vid podrške prepoznat je i u našoj zemlji. U prethodnih nekoliko godina na Prirodno matematičkom fakultetu Univerziteta u Novom Sadu realizovana su dva ovakva projekta, namenjena upravo nastavnicima mentorima, Mentor Training i Mentor Vademecum.

Ukoliko nam je u cilju da mentorska praksa postane deo profesionalnog razvoja nastavnika, ona mora obuhvatiti veći broj zaposlenih i biti podržana dobro osmišljenim konceptom mentorstva. Takav koncept zasnivao bi se na iskustvenom, partnerskom i refleksivnom učenju, kao i na programima koji bi podsticali napredovanje škole. To bi omogućilo školi da podrži učenje u kom pripravnik razvija sopstveni stil rada, integrišući znanja i iskustva koje je stekao tokom inicijalnog obrazovanja i nova znanja i stavove koje je stekao tokom rada sa mentorom. Mentoru bi bilo omogućeno da kroz ovaj program testira svoj stil rada i sopstvenu praksu.

Praktične implikacije istraživanja pronalazimo u nalazima koji se mogu iskoristiti kao smernice u planiranju programa obuke nastavnika, kako tokom inicijalnog obrazovanja, tako i u okviru stalnog stručnog usavršavanja. Ograničenja ovog istraživanja pronalazimo u načinu uzorkovanja. S obzirom na to da u Srbiji ne postoji evidencija ili baza nastavnika mentora teško je doći do većeg uzorka ciljane grupe ispitanika zbog čega smatramo da aktuelna studija predstavlja značajan doprinos ovoj oblasti i može se smatrati pozivom za dalja istraživanja na ovu temu.

Literatura

- Abell, S. K., Dillon, D. R., Hopkins, C. J., McInerney, W. D., & O'Brien, D. G. (1995). "Somebody to count on": Mentor/intern relationships in a beginning teacher internship program. *Teaching and teacher education*, 11(2), 173-188. [https://doi.org/10.1016/0742-051X\(94\)00025-2](https://doi.org/10.1016/0742-051X(94)00025-2)
- Achinstein, B., & Barrett, A. (2004). (Re)Framing classroom contexts: how new teachers and mentors view diverse learners and challenges of practice. *Teachers College Record*, 106(4), 716-746. <https://doi.org/10.1111/j.1467-9620.2004.00356.x>
- Brookfield, S. (1995). *Becoming a critically reflective teacher*. Wiley.
- D'Abate, C. P., & Eddy, E. R. (2008). Mentoring as a learning tool: Enhancing the effectiveness of an undergraduate business mentoring program. *Mentoring & tutoring: partnership in learning*, 16(4), 363-378. <https://doi.org/10.1080/13611260802433692>

- Gordon, S. P., & Brobeck, S. R. (2010). Coaching the mentor: Facilitating reflection and change. *Mentoring & Tutoring: Partnership in Learning*, 18(4), 427-447. <https://doi.org/10.1080/13611267.2010.511851>
- Hargreaves, A., & Fullan, M. (2000). Mentoring in the new millennium. *Theory into practice*, 39(1), 50-56.
- Higgins, M. C., & Kram, K. E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of management review*, 26(2), 264-288.
- Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and teacher education*, 25(1), 207-216. <https://doi.org/10.1016/j.tate.2008.09.001>
- Lee, J. C. K., & Feng, S. (2007). Mentoring support and the professional development of beginning teachers: A Chinese perspective. *Mentoring & Tutoring*, 15(3), 243-262. <https://doi.org/10.1080/13611260701201760>. <https://doi.org/10.1080/13611260701201760>
- Maghnouj, S., Salinas, D., Kitchen, H., Guthrie, C., Bethell, G., & Fordham, E. (2020). *OECD Reviews of Evaluation and Assessment in Education: Serbia*. OECD Publishing.
- Miščević-Kadijević, G. (2009). The Construction of Test on Declarative and Procedural Knowledge. *Psychology*, 42(4), 535-547. <https://doi.org/10.2298/PSI0904535M>
- Miškeljin, L. (2016). Mentorship as practitioner collaboration: Mentors' perspective. *Nastava i vaspitanje*, 65(2), 395-410. <https://doi.org/10.5937/nasvas1602395M>
- Mullen, C. A. (2005). *Mentorship primer*. Peter Lang.
- Pavlović Breneselović, D. (2009). Promene u vaspitnoj praksi - Izvodljivost i/ili kompatibilnost. *Pedagogija*, 64(2), 319-324.
- Peeters, J. (2008). *The Construction of a New Profession: a European perspective on professionalism in early childhood education and care*. SWP publishers.
- Peeters, J., & Vandenbroeck, M. (2011). Childcare practitioners and the process of professionalization. In L. Miller & C. Cable (Eds.), *Professionalization, leadership and management in the early years* (pp. 62-76). Routledge.
- Pravilnik o dozvoli za rad nastavnika, vaspitača i stručnih saradnika* (2022). Službeni glasnik Republike Srbije br. 9/2022.
- Radulović, B., Gajić, O., Španović, S., & Lungulov, B. (2019). Challenges of initial teacher education in the context of higher education reform in Serbia. *Education and Self Development*, 14(3), 34-39. <https://doi.org/10.26907/esd14.3.04>
- Radulović, B. i sar. (2022). *OBUKA mentora: materijali i zadaci*. Univerzitet u Novom Sadu.
- Radulović, B., Jovanović, T., Gadušová, Z., Hašková, A. & Pavera, L. (2022a). Mentor's perception of the future science teacher's teaching practice. *Journal of Education Culture and Society*, 13(1), 145-155.
- Shibankova, L. A., Ignatieva, A. V., Belokon, I. A., Kargapol'tsev, S. M., Ganaeva, E. A., Beroeva, E. A., & Kozlova, E. B. (2019). Institutional mechanisms of university teacher professional development. *Humanities & Social Sciences Reviews*, 7(4), 1061-1068. <https://doi.org/10.18510/hssr.2019.74145>
- Simić, N. (2014). *Nastavničke brige i načini njihovog prevazilaženja* (doktorska disertacija). NaRDuS (123456789/3364)
- Šijaković, T. (2018). Mentorski rad u Srbiji-konture jedne tipologizacije. *Teme*, 42(3), 877-897. <https://doi.org/10.22190/TEME1803877S>
- Telebec, K. (2014). Stres na radu-zašto, što i kako djelovati. *Sigurnost: časopis za sigurnost u radnoj i životnoj okolini*, 56(4), 381-384.

- Uščumlić, Š. (2012). *MENTOR i pripravnik: vodič za nastavnike, vaspitače i stručne saradnike*. Zavod za unapređivanje obrazovanja i vaspitanja i Centar za profesionalni razvoj zaposlenih u obrazovanju.
- Vujisić Živković, N. i Vranješević, J. (2019). Konceptualizacija i istraživanje profesionalnog razvoja nastavnika. *Inovacije u nastavi*, 32(3), 13-23.
- Willegems, V., Consuegra, E., Struyven, K., & Engels, N. (2017). Teachers and pre-service teachers as partners in collaborative teacher research: A systematic literature review. *Teaching and teacher education*, 64, 230-245.

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Humor nastavnika u učionici: bibliometrijska analiza naučne literature

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Apstrakt

Humor nastavnika, kao i humor u nastavi uopšte, predstavlja važan pedagoški resurs koji doprinosi stvaranju podsticajne atmosfere u učionici, olakšava komunikaciju i unapređuje proces učenja kod učenika. Cilj ovog rada je analiza savremenih naučnih tokova u oblasti istraživanja nastavničkog humora u učionici, sa posebnim osvrtom na analizu mreža bibliografskih jedinica. Rad je zasnovan na korištenju bibliometrijske analize naučnih publikacija. Istraživanje je realizovano na uzorku od 421 naučnog članka koji istražuju temu humora nastavnika u kontekstu nastavnog procesa u učionici. Podaci su obrađeni u softverskom programu Vosviewer 1.6.20, sa ciljem konstrukcije i vizualizacije bibliometrijskih mreža, te identifikacije istraživačkih pravaca u oblasti istraživanja nastavničkog humora. Podaci pokazuju rastuću zastupljenost ove teme u naučnoj literaturi tokom posljednje dvije decenije. Takođe, ukazuje se na postojanje različitih međusobno povezanih klastera ključnih termina koji se javljaju u bibliografskim jedinicama, kao i najzastupljenije istraživačke oblasti koje se bave humorom nastavnika u učionici. Identifikovani su najproduktivniji autori i naučni časopisi u ovoj oblasti istraživanja. Dobijeni rezultati mogu da budu od koristi istraživačima u akademskoj zajednici, poslužiti kao temelj za buduća istraživanja, te da pruže smjernice istraživačima o ovoj relativno zapostavljenoj temi. Studija pruža pomoć u prikupljanju adekvatnih primarnih i sekundarnih izvora, relevantne sistematizovane informacije, kao i osnove za teorijsku razradu na kojima se grade metodološki okviri.

Ključne reči: bibliometrijska analiza, humor, nastavnik, učionica, Vosviewer.

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Uvod

Bibliometrijska analiza naučnih radova poprima sve širu primjenu, ali nije veoma zastupljena u akademskim zajednicama, dijelom zbog svog opisnog karaktera koji ne odgovara istraživačkoj orijentaciji ka objašnjavanju i tumačenju fenomena dubljih kontekstualnih značenja. To se naručito odnosi na društvene i humanističke nauke. Ipak, njena vrijednost ogleda se u mogućnosti sistematskog uvida u razvoj naučne produkcije, zbog čega bibliometrijska analiza doprinosi strateškom usmjeravanju budućih naučnih istraživanja. Ekspanzija informaciono-komunikacionih tehnologija dovela je do toga da broj citata i različiti indeksi postanu ključni pokazatelji u brojnim namjenama, a bibliometrijske analize važni argumenti akademskih zajednica (Moslavac, 2022; Weingart, 2005). Bibliometrijska analiza je značajna u praksi akademskih zajednica, a temelji se na međudjelovanju kvalitativnih i kvantitativnih pokazatelja (Wouters, 2020). U skladu sa društvenom uslovljenošću, broj programa i softvera raste, a bibliometrijska analiza pruža značajne prednosti istraživačima. Njome se izvode objektivni pokazatelji određene teme koja je predmet interesovanja, zatim bibliometrijska mreža naučnih članaka i njihovih citata, te i procjena produktivnosti i uticaj pojedinačnih autora. Inicijalno pomaže u prikupljanju podataka i sticanju uvida o datoj istraživačkoj temi, kao i vidljivosti tog pregleda, široj akademskoj javnosti. Bibliometrijska analiza se definiše kao kvantitativna procjena akademske literature putem metrika objavljivanja i citiranja. Njome se prepoznaju ključni pravci razvoja i doprinosa u određenoj oblasti (Rulijana et al., 2025). Takođe, značajna prednost bibliometrijskih analiza putem *Vosviewer* programa jeste veliki obuhvat jedinica analize (Van Eck & Waltman, 2010).

Pojedinačne jedinice analize, odnosno, naučni radovi u časopisima, osnovna su i početna sredstva u proučavanju i istraživanju određenih tema, a bibliometrijske analize su vrijedni argumenti za sistematizaciju naučno-istraživačkih pitanja. To se posebno odnosi za oblasti u kojima se očekuje porast empirijskih dokaza (Bryant et al., 1980), kao što je humor.

Teorijske osnove istraživanja

Humor i obrazovni kontekst

Složenost ljudskog jezika i mašta omogućavaju čovjeku da stvara humor u beskrajnoj raznolikosti oblika. U razvojnom smislu, smijeh je, pored plača, jedna od prvih vokalizacija kod čovjeka. Sposobnost da se uživa u humoru i da se izrazi kroz smijeh suštinski je dio onoga što znači biti čovjek u pravom smislu te riječi. Iskusi humor znači iskusi prijatna osjećanja emocionalnog blagostanja i veselja. To je razigrana aktivnost koja služi mnogim društvenim, emocionalnim i kognitivnim funkcijama, što ga čini interesantnim za naučna istraživanja (Rod, 2007). Pojedini autori ističu da svi pojedinci imaju smisao za humor (Kolenović-Đapo, 2012), samo na različite načine u njemu uživaju. Stoga naglašavaju da se razlike među ljudima u razvijenosti smisla za humor očitavaju na nivou slabijeg

i boljeg razvijenog smisla za humor. Smisao za humor jeste dimenzija na kojoj su svi pojedinci različito pozicionirani.

Tokom dvadesetog veka humor počinje da se ozbiljnije proučava kao dio nastavnih strategija. Ranije se njegovo uključivanje u obrazovanje smatralo nenaučnim (Korobkin, 1989). Pojedini autori ističu da je uloga humora u školi nedovoljno zastupljena, iako može doprineti efikasnijem podučavanju, kvalitetnijim odnosima nastavnika i učenika, boljem radnom učinku i pozitivnijem doživljaju učenja (Dramac i Lazzarich, 2016; Lazzarich, 2013; Mrazovac, 2021; Rod, 2007; Tong & Tsung, 2020).

Humor, u širem smislu, odnosi se na sve što pojedinac kaže ili uradi, a da to ima zabavni podsticaj (Rod, 2007). Humor se može definisati kao kvalitet ili sposobnost pojedinca da bude duhovit i nasmije drugu osobu (Lovorn & Holaway, 2015), ali i kao vid ljudske komunikacije sa svrhom da ljude učini srećnim (Stupar i sar., 2023). Bel (Bell, 2011) ističe da je humor teško definisati, ali on predstavlja specifičan način komunikacije, kojim se nešto izgovara s ciljem zabave.

U kontekstu učionice, humor je jedna od komponenti šireg skupa ponašanja nastavnika, koja doprinosi osjećaju neposrednosti u učionici, a rezultira pozitivnim evaluacijama od strane učenika, te efikasnijim učenjem (Rod, 2007). Obrazovanje koje je usmjereno na usvajanje znanja i tradicionalni pristup poučavanja zanemaruje terapijsku ulogu smijeha u školskom prostoru. Obrazovanje stalno teži ispunjavanju temeljnih vrijednosti u čovjekovom životu, no često je frustrirajuće i bez radosti, u „sivilu“ zabrana i pravila. Humor utiče na ugodnu atmosferu u nastavi, pa je međusobni odnos radosti i zdravlja bitan čimbenik u razvoju mlade osobe, a podsticajne didaktičke mogućnosti smijeha u nastavi nisu u potpunosti iskorištene (Lazzarich, 2013). Prema pojedinim autorima, humor u učionici predstavlja čin koji može biti izveden lingvističkim ili nelingvističkim sredstvima. Njega mogu ostvariti svi učesnici nastavnog procesa, bilo da je riječ o učenicima ili nastavnicima (Wagner & Urios-Aparisi, 2011). Humor je važan dio svakodnevnog života, a posebno mjesto zauzima u nastavnom procesu, gdje je njegovo prisustvo često podsticaj za opušteniju atmosferu i bolje međuljudske odnose.

Kroz svoje polivalentne uloge, nastavnik motiviše učenike, podstiče saradničke odnose, unapređuje razrednu atmosferu, te unapređuje i dinamiku artikulacije časa. Sve navedene stavke moguće je podsticati i kroz adekvatnu primjenu humora. Osim toga, humor može biti koristan za ublažavanje kritike i stvaranje grupne kohezije (Keltner et al., 2001). Na ranim uzrastima humor treba koristiti odmjereno i prilagođeno. U suprotnom, može stvoriti konfuziju i usvajanje pogrešnih informacija (Banas et al., 2011). Dodatno, humor može da smanji stres i osjećaj anksioznosti pri učenju, kao i da učini nastavu dinamičnijom, što pomaže u održavanju motivacije i angažovanosti učenika. Ipak, važno je da humor bude prikladan i da ne bude na štetu nikoga u učionici. Nastavnici koji koriste humor obično lakše skreću pažnju učenicima na gradivo, te na taj način doprinose pozitivnoj atmosferi u učionici. Međutim, humor ne smije biti previše dominantan, niti da se upotrebljava kao sredstvo za izbjegavanje ozbiljnih tema. Kompetentni nastavnici znaju ravnotežu i koriste humor kao strategiju za olakšavanje komunikacije i pozitivnog stava prema učenju. Stoga treba biti in-

kluzivan u pravom smislu te riječi, te poštovati i različite kulturne, etničke i socijalne razlike među učenicima. Takođe, raznovrsne anegdote mogu nastavnicima olakšati tumačenje nastavnog sadržaja. Nekonzistentnost rezultata istraživanja potvrđuje da humor kao područje nudi značajan potencijal za dalja istraživanja i dodatne provjere u tom smislu. Dok različiti istraživači potvrđuju pozitivan efekat humora u nastavnom procesu (Askildson, 2005; Bieg et al., 2017; Neff & Rucynski, 2017; Pexman & Olineck, 2002), postoje i ona istraživanja koja su pokazala da humor, kao i primjena šaljivih primjera u učionici, utiče na lošija postignuća na testovima (Bolkan et al., 2018).

Humor i pozitivne emocije koje ga prate povezani su sa ukupnim iskustvom učenja, dajući učenicima pozitivan stav prema obrazovanju uopšte i povećavajući motivaciju za učenje, što rezultira i boljim školskim postignućem. Novina i doživljene emocije prilikom primjene humora mogu pomoći da se privuče i održi pažnja učenika, čime se olakšava i proces usvajanja novih informacija. Neskladne mentalne asocijacije, koje su inherentna karakteristika humora, olakšavaju kognitivne procese, a posebno elaboraciju (Rod, 2007). Mnogo je lakše prisetiti se prethodno naučenog gradiva i povezati ga s novim ako je to gradivo prožeto humorom nego kada je predstavljeno na ozbiljan način.

Matijević ističe značaj humora u životu pojedinca i naglašava njegovu ulogu u nastavi. On takođe postavlja pitanje da li razlog slabe zastupljenosti humora u naučnim studijama leži u jazu između ozbiljnosti naučnika i (ne)ozbiljne prirode teme (Matijević, 1994). Humor doprinosi smanjenju tjeskobe, povećava motivaciju i efikasnost međuljudskih odnosa, a vaspitanje i nastava su prije svega obilježeni upravo međuljudskim odnosima. Kulturološki posmatrano, učenje i igra su često razgraničeni. To može biti jedan od razloga zašto nedostaju zapaženi radovi o fenomenu humora. Stupar i saradnici (Stupar i sar., 2023) upozoravaju da je neophodno adekvatno koristiti humor u nastavi, analogno pištaljci na času fizičkog vaspitanja: ni premalo ni previše, tačno kada i koliko treba, i to isključivo u vezi sa gradivom ili na sopstveni račun.

Teorijska polazišta humora

U pokušajima da se objasni uslovljenost i način javljanja humora, nastale su različite teorije ili teorijska polazišta humora. Neka od njih su: teorija superiornosti, teorija obrade instrukcionog humora, teorija nesklada, teorija iznenađenja, teorija opuštanja i teorija oscilacija. Neke od njih nisu još uvijek dovoljno razjašnjene, a često su i međusobno povezane.

Teorija superiornosti tumači humor kao oblik iskazivanja nadmoći i mehanizam odbrane od opasnosti u realnosti. Prema ovoj teoriji, humor proizlazi iz osjećaja nadmoći jednog pojedinca nad drugim koji se nalazi u inferiornoj poziciji, pa prema tome izražava superiornost ili podsmijeh (Matijević, 1994; Carrell, 2008, prema: Šahin, 2021). Ova teorija posebne implikacije ima kada se govori o vrstama neprikladnog humora.

U literaturi se takođe govori o teoriji obrade instrukcionog humora. Ova teorija nalazi se u suprotnosti sa teorijom superiornosti. Naime, teorija obrade predviđa da humor

vodi ka boljoj obradi informacija, a kao rezultat pozitivnih emocija koje se doživljavaju u humorističnim situacijama. Ova teorija sugerise da humor, u bilo kojoj oblasti, stvara pozitivan efekat, motiviše na elaboraciju i dublje pristupe u obradi informacija (Bolkan et al., 2018). Kada se humor koristi na prosocijalan način, on ima pozitivne efekte. Suprotno tome, kada se humor koristi kako bi se drugi pojedinac ponizio ili uvrijedio, onda ima negativne efekte (Wanzer et al., 2010).

Teorija nesklada humor vidi, kao što sama riječ kaže, kao rezultat suprotnosti ili razlika između ideja, očekivanja i stvarnosti. To su situacije koje se završavaju suprotno od očekivanog, te na taj način izazivaju smijeh, odnosno, situacije čiji je ishod u neskladu s očekivanim razrješenjem. Da bi poruka bila duhovita, primalac mora u njoj uočiti nesklad u odnosu na očekivani ishod unutar postojećeg konteksta poruke. Primalac poruke, prema ovoj teoriji, identifikuje pojavu koja nije u skladu sa njegovim očekivanjima za konkretni komunikacioni kontekst (Mrazovac, 2021; Wanzer et al., 2010). Berk smatra da je nesklad ili kontrast ključni element humora, i opisuje ga kao spoj očekivanog sadržaja i neočekivanog obrta (Berk, 2002). U kontekstu učionice, ili obrazovnom kontekstu, kada nastavnik koristi humor aktivira se pažnja kod učenika, jer humor sam po sebi često uključuje neku vrstu nesklada. To utiče na povećanu razradu sadržaja i efikasnije učenje (Frymier et al., 2008; Wanzer et al., 2010).

Pored pomenutih teorija, u literaturi se govori i o teoriji iznenađenja, koja ističe nagli prekid toka stvari kao glavni izvor humora, te naglašava važnost humora kao stimulansa. Takođe se pominje i teorija opuštanja, koja humor posmatra kao nusproizvod opuštanja od nervoze, te i teorija oscilacija, prema kojoj duhovito nastaje kada čovjek u isto vrijeme ima nespojive, oscilirajuće emocije (Matijević, 1994).

Navedena teorijska polazišta mogu biti korisna za teorijsku razradu budućih istraživačkih radova, budući da bi predstavljala temelje na kojima se grade metodološki okviri i time pomogla u analizi i objašnjenju dobijenih podataka.

Metod

Analizom relevantne literature nismo pronašli bibliometrijsku analizu u oblasti humora u nastavnom kontekstu. Stoga je cilj ovog rada ispitati naučne trendove u oblasti istraživanja nastavnčkog humora u učionici. Cilj je operacionalizovan kroz nekoliko istraživačkih zadataka, i to:

1. Analizirati hronološki razvoj interesovanja za istraživanje nastavnčkog humora u učionici, sa ciljem utvrđivanja dominantnih perioda;
2. Utvrditi najrelevantnije autore, časopise, najuticajnije tekstove objavljene u naučnim časopisima, te zemlje koje su se bavile nastavnčkim humorom.
3. Izvršiti ekstrakciju ključnih pojmova i njihovih veza iz uzorka relevantne literature.

Rad je zasnovan na korištenju bibliometrijske analize naučnih publikacija. Tehnika koja je korišćena jeste analiza sadržaja, pri čemu je jedinica analize naučni članak. S obzirom na to da je u pitanju bibliometrijska analiza naučne literature, korišten je softverski program *Vosviewer 1.6.20*, a cilj mu je konstruisanje i vizualizacija bibliometrijskih mreža; ovaj program funkcioniše na osnovu tehnika mapiranja i izdvajanja klastera, odnosno ekstrakcovanja veza iz bibliografskih jedinica. Program nudi kvantitativne podatke, ali dijelom i kvalitativne, izdvajajući najrelevantnije časopise, autore, naučne članke, te klaster najfrekventnijih termina u ukupnom broju naučnih članaka. Uzorak čini 421 naučni članak, a za pretragu je korišćena baza podataka *Dimensions*. Dakle, uzorak čine naučni članci objavljeni u bilo kom časopisu koji je indeksiran u navedenoj bazi podataka, a obuhvaćeni pretragom ključnih riječi. Podaci su prikupljeni putem softverskog programa *Vosviewer 1.6.20*, algoritmom koji uključuje sledeće ključne riječi u međusobnoj povezanosti: *humor and teacher and classroom*. *Vosviewer* program je dizajniran da se koristi algoritmima za detekciju i klasterisanje riječi, jer na taj način vizualizuje povezanost pojmova i tematsku strukturu podataka. Drugačiji pristup u programu nije tehnički podržan. Uključene su studije ograničene na englesko govorno područje, koje u naslovu ili apstraktu sadrže algoritam navedenih ključnih riječi. Pretraga je vršena u decembru 2024. godine.

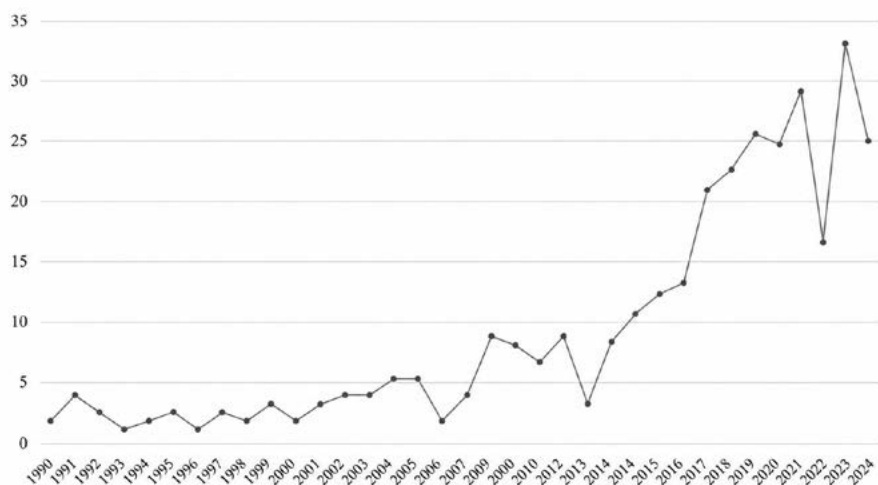
U naučnim zajednicama se za obradu podataka uobičajno koristi SPSS softverski paket, koji se po svom pristupu i funkciji znatno razlikuje od pomenutog. Stoga bibliometrijska analiza nosi inovativnost u naučnom smislu, a posebno je primjenjiva kada su u pitanju neafirmirane ili nesvakidašnje teme.

Rezultati i diskusija

Razvoj naučnog mišljenja u ovoj oblasti datira još od prije skoro četiri decenije pa do danas. Grafikon 1 identifikuje tri perioda evolucije na ovu temu. Prvi od 1990–2006, drugi od 2006–2013 sa usponima i padovima, i treći od 2013 do danas, kada ipak raste broj publikacija (primjećuje se eksponencijalni rast na grafikonu).

Na osnovu provedene analize perioda evolucije naučne produkcije, u vezi sa istraživanjem humora u nastavi, možemo da primjetimo oscilaciju tokom perioda pandemije izazvane virusom *Covid-19*. Naime, Grafikon 1, prikazuje blagi pad objave naučnih radova približno sa početkom 2021. godine, koji opada do kraja 2022, a razloge za taj pad možemo dovesti u vezu sa ograničenjima koja su u tom periodu stupila na snagu. Terenski istraživački rad bio je relativno onemogućen ili ograničen tokom tog perioda.

Grafikon 1

Evolucija naučne produkcije

Iako su postojeće činjenice o razvoju humora nekonzistentne, ipak se mogu dovesti u vezu sa rezultatima našeg istraživanja. Naime, ima autora koji navode da se poslednjih tridesetak godina povećava interes za istraživanje humora u različitim oblastima pa i u obrazovanju (Ford & Martin, 2018), što je negdje približno prikazanoj krivulji naučne produkcije. Drugi autori ističu da se humor intenzivnije istražuje tek u drugoj polovini dvadesetog vijeka (Hrebac Hlobik & Pavlin-Bernardić, 2014), što je opet u skladu sa rezultatima najcitiranijih jedinica analize i njihovom godinom izdanja, koje prikazujemo tek Tabelom 2. Kako ističu Fortunato i sar. (Fortunato et al., 2018), kao i Bornman i sar. (Bornmann et al., 2021), broj aktivnih naučnika i institucija raste konstantno, a globalna naučna produkcija povećava se u proseku za oko 4.1% godišnje. U tom kontekstu, uočeni eksponencijalni rast publikacija o humoru u nastavi može biti dijelom odraz tog šireg trenda. Ipak, specifični pomaci u pojedinim vremenskim intervalima (npr. pad tokom pandemije ili intenziviranje interesa nakon 2013. godine) ukazuju da dinamika u ovoj oblasti nije isključivo posledica opšteg porasta produkcije, već i odraz posebnog naučnog i obrazovnog interesa.

Grafikon 2 govori o najzastupljenijim istraživačkim kategorijama kojima pripada najveći broj članaka na ovu temu, te najveća citiranost. Najveći broj članaka pripada oblasti obrazovanja, jezika, komunikacije i kulture, psihologije, kreativne umjetnosti, te oblasti sociologije. Važno je napomenuti da se jedna publikacija može pojaviti istovremeno u više istraživačkih oblasti, kao i to da je baza *Dimensions* sama po sebi prilagođena standardnoj istraživačkoj klasifikaciji Australije i Novog Zelanda (Australian and New Zealand Standard Research Classification, ANZSRC, 2000).

Grafikon 2

Najzastupljenije istraživačke kategorije



Pregledom istraživačkih oblasti možemo primjetiti da je većina publikacija nastala u društvenim naukama, i to u oblasti pedagoških nauka. S obzirom da su studije iz uzorka ograničene na englesko govorno područje, strani autori ne prave distinkciju između pojmova *vaspitanje* i *obrazovanje*. Rezultati pokazuju veoma mali broj publikacija o primjeni humora u oblasti geologije, ekologije, hidrologije, fizike, hemije, biologije, ili uopšte biomedicinskih nauka, matematike te tehničkih nauka. Razlog za to može da bude sama razlika u prirodi sadržaja različitih nauka. Društvene nauke se bave ljudskim ponašanjem, društvenim odnosima i kulturološkim fenomenima, što po prirodi uključuje emocije, interakciju i kontekst, pa humor lakše nalazi mjesto kao pedagoško sredstvo za ilustraciju. Za razliku od društvenih, prirodne nauke češće zahtijevaju striktnost i apstraktno razmišljanje, gdje je prostor za humor uži. Stoga, s pravom određeni autori ističu da je nepohodno poznavati specifičnosti metodologije različitih naučnih oblasti, koje, pored teorijskog, ima i aplikativnu vrijednost (Peličić i sar., 2016). Upravo te razlike u pristupu i predmetu istraživanja određuju i mogućnosti primjene pojava kao što je humor. U okviru društvenog života ljudi, humor ipak zauzima značajno mjesto.

U Tabeli 1 prikazano je pet najrelevantnijih časopisa iz oblasti istraživanja humora nastavnika. Najveći broj članaka iz ove oblasti, ali i broj citata, zastupljen je u časopisu *Communication education* ($n = 10$). Obzirom na to da je baza *Dimensions* ograničena na naučne radove sa engleskog govornog područja, te da smo već pomenuli terminološko nerazgraničenje termina *vaspitanje* i *obrazovanje*, ne čudi činjenica ni o rezultatima najistaknutijeg časopisa u ovoj oblasti (Tabela 1). Provjerom opisa ciljeva časopisa *Communication education*, u kojem je najveći broj članaka iz oblasti humora nastavnika, uočavamo

učestalost objave radova u oblasti komunikacije, i to povezane sa terminima: vaspitanje, obrazovanje, nastava, nastavnik i učenje. Procentualna stopa prihvatanja radova, impakt faktor, kao i baze u kojima je indeksiran časopis, ukazuje na visok kvalitet članaka koji se u njemu objavljuju. Najrelevantniji časopis izdaje Nacionalno udruženje za komunikaciju (National Communication Association, NCA), sa sjedištem u Vašingtonu (Washington), a ima misiju transformacije života kroz komunikaciju, te veliku pažnju pridaje humoru u obrazovanju.

Tabela 1
Najrelevantniji časopisi iz ove oblasti

Časopisi	Broj dokumenata	Broj citata
Communication education	10	1071
Teachers college record: the voice of scholarship in education	7	333
European Journal of humour research	7	62
Procedia, social and behavioral sciences	6	55
Educating the young child	6	42

U ovoj bibliometrijskoj analizi smo izdvojili sledeće: najproduktivnije autore koji su se bavili ovom temom (autore koji imaju najveći broj članaka u ovoj oblasti), jedinice analize (najcitiranije članke), i zemlje koje su se najviše bavile ovom oblašću. Vrijednost praga za najproduktivnije autore je minimalno 3 rada i minimalno 5 citata, tako da je program izdvojio 3 najproduktivnija autora (Tabela 2), od kojih je najcitiraniji autor Ann Bainbridge Frymier, sa 329 citata. Kada se radi o najproduktivnijim zemljama, dominira SAD, sa 77 radova i ukupno 2375 citatata. U Tabeli 2 se nalaze i tri najcitiranija rada u jedinici analize. Dakle, od 421 članka, koliko je sadržao uzorak, najcitiraniji rad je *Influences on classroom interest*, sa ukupno 335 citata.

Može se hipotetisati da broj objavljenih radova istraživača često korelira sa brojem njihovih citata. Prema rezultatima iz tabele 2, primjetno je da to nije apsolutno pravilo čak ni unutar iste teme. Ovakvo odstupanje može se hipotetički objasniti razlikama u kvalitetu i relevantnosti radova, ugledu časopisa u kojima su objavljeni, kao i njihovom doseg u akademskoj zajednici.

Tri najcitiranija članka, prikazana u tabeli br. 2, bave se istom problematikom – ulogom humora u odnosu na učenje i nastavni proces. Druga istraživanja potvrđuju isti obrazac, kao i značaj humora kao pedagoškog sredstva u nastavi. Ugodna subjektivna osjećanja, koja pruža humor, ispunjavaju niz kognitivnih i društvenih funkcija (Rod, 2007), kao što su: bolje rasuđivanje, bolja organizacija učenja, smanjenje fizioloških uzbuđenja i napetosti, efikasnije pamćenje (Isen, 2003), bolja pažnja i unapređivanje cjelokupnih intelektualnih resursa (Fredrickson, 2001), te i ublažavanje kritike i stvaranje grupne kohezije (Keltner et al., 2001).

Tabela 2

Najrelevantniji autori, najproduktivnije zemlje i najcitiranije jedinice analize

Autori	N	Broj citata
Ann Bainbridge Frymier	3	329
San Bolkan	3	84
Anne Pomerantz	4	56
Zemlje		
United States (SAD)	77	2375
Australia	11	257
Canada	11	79
Jedinice analize		
Bergin, A.D. (1999). Influences on classroom interest. <i>Educational Psychologist</i> , 34(2), 87-98. https://doi.org/10.1207/s15326985ep3402_2		335
Gorham, J. & Christophel, M.D. (1990). The relationship of teachers' use of humor in the classroom to immediacy and student learning. <i>Communication Education</i> , 39(1), 46-62. https://doi.org/10.1080/03634529009378786		239
Murray, G.H. (1983). Low-inference classroom teaching behaviors and student ratings of college teaching effectiveness. <i>Journal of Educational Psychology</i> , 75(1), 138-149. https://doi.org/10.1037/0022-0663.75.1.138		194

Rezultati pokazuju da se najcitiraniji autori istovremeno vezuju za univerzitete u zemljama koje imaju najveći broj objavljenih radova o humoru. Ovo ukazuje na postojanje korelacije između produktivnosti pojedinačnih istraživača i geografske raspodjele naučne aktivnosti u oblasti humora. Naime, riječ je o autorima, predstavnicima Univerziteta Zapadne Virdžinije (SAD), Misurija (SAD) te Univerziteta u Zapadnom Ontariju (Kanada). Kada su naučne publikacije u pitanju, najproduktivnije zemlje u oblasti istraživanja humora zauzimaju vodeću poziciju, što se može objasniti njihovim teritorijalnim obimom i brojnošću naučno-istraživačke zajednice. Zanimljivo je, takođe, da su Amerikanci kao nacija prvi doprinjeli „globalnom selu“, humorističnim, nama dobro poznatim TV serijama, „Prijatelji“, „Simpson“, i „Sajnfeld“. Nastanak ove humoristične produkcije potvrđuju i drugi autori (Takashi & Minako, 2021), dok ima autora koji ističu da su gorepomenute američke komedije oblikovale komične ukuse i izvan SAD, te podstakle mogućnost za maštu i u drugim oblastima (Buonanno, 2008). Zanimljiv je i podatak da je u centralnoj Kanadi, preciznije u Ontariju, nastao je i popularni humoristični crtani film Vini Pu (Milne, 1926). Navedeno, navodi na zaključak da se u ovim zemljama velika pažnja poklanja humoru uopšte, što ima implikacije i u kontekstu naučno-istraživačkog rada.

Iz ukupnog uzorka relevantne literature izdvojene su ključne riječi koje se najčešće pojavljuju. Na slici br 1. se takođe vidi i međusobna povezanost tih riječi. Od ukupno 12175 termina izdvojeno je njih 273, po kriterijumu minimalnog ponavljanja 10. Čvorovi iste boje prikazuju termine koji se najčešće koriste zajedno, a veličina čvora ukazuje na veći broj ponavljanja određene riječi. Klasteri se formiraju grupisanjem riječi koje se često javljaju zajedno u istim naučnim člancima, pri čemu algoritam grupisanja povezuje riječi sa jakim međusobnim vezama u tematske cjeline (klasterne). Na osnovu analize (Slika 1²) zaključujemo da se izdvajaju tri klastera: prvi, koji ima 65 termina, drugi 61 termin i treći sa 19 termina. U Tabeli 3 prikazujemo najfrekventnije termine po klasterima.

Tabela 3
Klasteri termina i repeticija

Klaster 1	R	Klaster 2	R	Klaster 3	R
intervju	60	godine/uzrast	40	dijete	56
percepcija	59	knjiga	39	igra	30
motivacija	55	život	37	zajednica	30
učenje	51	primjeri	36	komunikacija	20
engleski	50	mjesto	30	roditelji	17
upitnik	40	uspjeh	15	pol	15
šala	27	promjena	15		
humor nastavnika	11				
jezičke igre	11				

Veze između ključnih pojmova u klastiranju utvrđuju se analizom učestalosti njihovog zajedničkog pojavljivanja u istom kontekstu (na primjer, unutar istog članka, apstrakta). Tako zvana analiza kookurencije riječi (engl. word co-occurrence) omogućava identifikovanje pojmova koji se često javljaju zajedno, što ukazuje na njihovu tematsku ili konceptualnu povezanost. Klasteri predstavljaju grupe ključnih pojmova koji se međusobno češće povezuju, što odražava dominantne teme ili oblasti unutar analizirane literature. U praksi, termin iz jednog klastera koji je često u kookurenciji sa terminom iz drugog klastera, ukazuje na međusobnu povezanost tih tema ili pojmova. Ova vrsta veza omogućava bolje razumijevanje kako se različiti aspekti predmeta istraživanja integrišu i prepliću u dostupnoj literaturi.

Ekstrakcija ključnih pojmova i njihovih veza iz uzorka relevantne literature, navodi na nekoliko zaključaka. Naime, sva tri klastera su međusobno povezana. Tako, recimo, rezultati pokazuju da su termini upitnik i inteviju najviše povezani sa terminima *dijete*, *roditelji* i *pol* iz trećeg klastera, te terminima *život*, *uzrast*, *mjesto* i *tehnologija* iz drugog klastera. Termini iz istog klastera se najčešće pojavljuju zajedno. Tako je termin humor nastavnika povezan sa terminima *učenje*, *engleski jezik* i *fakultet*. Možemo da zaključimo

2 <https://doi.org/10.5281/zenodo.20099707>

da se navedeni rezultati ekstrakcije ključnih termina i njihovih veza podudaraju sa rezultatima istraživačkih kategorija (ili oblasti), prema kojima su oblast vaspitanja i obrazovanja, jezika i komunikacije, najzastupljenije istraživačke oblasti. S obzirom na to da je prvi klaster ujedno i najveći, zaključujemo da su to najbolje istražene veze i odnosi. To potvrđuje i analiza relevantne literature. Naime, autori sa hrvatskog područja ističu značaj humora, te niz jezičkih doprinosa i benefita u učenju stranog jezika (Leovac, 2017; Mrazovac, 2021). Takođe, kroz druga istraživanja se akcentuje uloga humora u motivaciji, odnosima sa nastavnicima, te međusobna povezanost humora i učenja (Askildson, 2005; Bratanić i Maršić, 2005; Fileš i Pavlin-Bernardić, 2021; Pavlović i Tošić-Rudić, 2009; Stupar i sar., 2023; Wanzer et al., 2010; Wanzer & Frymier, 1999). Takođe, kroz analizu ovih navedenih studija, a za potrebe diskusije, primjetna je njihova povezanost u teorijskom saopštavanju, citiranosti jedinica analize i autora, i istraživačkih oblasti, sa rezultatima koje smo dobili u ovoj studiji.

Postoje i istraživanja koja govore o tome da ipak raste naučna atraktivnost problematike humora u različitim istraživačkim oblastima. Istraživanja pokazuju da je humor ključni elemenat u komunikaciji, te efikasan metod za prevazilaženje sukoba i narušenih odnosa (Relja i Baturina, 2010). I druga istraživanja podržavaju ove nalaze, navodeći da je humor poželjna osobina važna za komunikaciju u unapređenje međuljudskih odnosa (Sprecher & Regan, 2002), a sve su to najfrekventniji termini klastera ponavljajućih riječi u našoj studiji. Humor, kao predmet naučnog interesovanja, prisutan je u gotovo svim područjima ljudskog života (Lang & Lee, 2010; Relja i Baturina, 2010). Ova činjenica ukazuje na njegov status važne ljudske karakteristike i naglašava njegov potencijal u okviru multidisciplinarnih istraživanja.

Završna razmatranja

Ova tema je nesumnjivo aktuelna među istraživačima, ali još uvijek nedovoljno istražena, i otvara neka nova pitanja koja tek mogu biti predmet istraživanja. Ovo istraživanje može biti polazna osnova za buduće istraživače, koji na bilo koji način planiraju da se bave humorom u učionici; osim toga, pruža presjek stanja i poznavanje glavnih pravaca u naučnoj literaturi ove oblasti. Završna generalizacija studije navodi na zaključak da se predviđa tendencija rasta ove istraživačke problematike.

Organičenja naše studije odnose se na pretraživanje jedne baze podataka. Program *Vosviewer* tehnički ne podržava veću raznolikost ključnih riječi, što predstavlja ograničenje studije. Međutim, iako *Vosviewer* program ograničava analizu na algoritme riječi, to istovremeno doprinosi preglednosti i fokusiranju teme bez pretjerane fragmentacije rezultata.

Sve bibliometrijske analize oslanjaju se na kvantitativne podatke kao što je broj publikacija, citata, autora, bez uvida u kvalitet publikacija, u kontekst istraživanja kao ni samu inovativnost istraživačkih ideja autora. Stoga nedostatak dublje analize predstavlja još jedno ograničenje.

Pored navedenih nedostataka, studija ima i prednosti. Naime, bibliometrijska studija prikazuje i integriše obimne vrste informacija, za koje bi u bilo kom drugom slučaju bilo potrebno mnogo vremena za sistematizaciju, kao i integrisani prikaz rezultata. U tom smislu, ova vrsta studija oslanja se na princip ekonomičnosti. Kroz bibliometrijske analize se podstiče kritičko mišljenje, jer sama struktura rezultata ne ostavlja mnogo mogućnosti za komparaciju rezultata, već naučne radnike obavezuje na domišljatost i kreativnost u diskutovanju. Najveći značaj se ogleda u razumijevanju strukture i dinamike naučnih istraživanja date problematike, zatim i sistematskog razumijevanja naučnog pejzaža kao prve etape u naučno-istraživačkom radu, te i „osluškivanju“ problema istraživanja i vaspitno-obrazovne prakse. Praktične implikacije ogledaju se identifikaciji ključnih istraživača, područja istraživanja, uvida u naučne trendove, te pomoć pri odabiru izvora znanja u nekim budućim naučnim poduhvatima istraživanja humora u učionici. Studija omogućava širem čitalačkom krugu, koji uključuje istraživače, stručnjake iz pedagoške prakse kao i iz drugih srodnih disciplina, uvid u naučne trendove iz oblasti ove problematike. Pored ovog diskursa, koji je više naučno usmeren, autori pozivaju na ispitivanje efekata humora u učionici, koji prepoznajemo kao značajan resurs u vaspitno-obrazovno procesu.

Literatura

- Askildson, L. (2005) Effects of humor in the language classroom: humor as a pedagogical tool in theory and practice. *Journal of Second Language Acquisition and Teaching*, 12, 45-61.
- Australian and New Zealand Standard Research Classification (ANZSRC), 2020, Australian Bureau Statistics. Retrieved from <https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-research-classification-anzsrc>
- Banas, J. A., Dunbar, N., Rodriguez, D., & Liu, S. J. (2011). A Review of Humor in Educational Settings: Four Decades of Research. *Communication Education*, 60(1), 115-144. <https://doi.org/10.1080/03634523.2010.496867>
- Bell, N. D. (2011). Humor Scholarship and Tesol: Applying Findings and Establishing a Research Agenda. *Tesol Quarterly*, 45(1), 134-159. <https://doi.org/10.5054/tq.2011.240857>
- Berk, R. A. (2002) *Humor as an instructional defibrillator: evidence-based techniques in teaching and assessment*. Sterling. Stylus Publishing, LLC.
- Bieg, S., Grassinger, R., & Dresel, M. (2017) Humor as a magic bullet? Associations of different teacher humor types with student emotions. *Learning and Individual Differences*, 56, 24-33. <https://doi.org/10.1016/j.lindif.2017.04.008>
- Bolkan, S., Griffin, D. J., & Goodboy, A. K. (2018). Humor in the classroom: The effects of integrated humor on student learning. *Communication Education*, 67(2), 144-164. <https://doi.org/10.1080/03634523.2017.1413199>
- Bratanić, M. i Maršić, T. (2005). Povezanost motivacije učenika s gledištima o nastavniku. *Napredak*, 146(3), 300-312.

- Bryant, J., Comisky, P. W., Crane, J. S., & Zillmann, D. (1980). Relationship between college teachers' use of humor in the classroom and students' evaluations of their teachers. *Journal of Educational Psychology*, 72(4), 511–519. <https://doi.org/10.1037/0022-0663.72.4.511>
- Bornmann, L., Haunschild, R., & Mutz, R. (2021). Growth rates of modern science: A latent piecewise growth curve approach to model publication numbers from established and new literature databases. *Humanities and Social Sciences Communications*, 8, 224. <https://doi.org/10.1057/s41599-021-00903-w>
- Buonanno, M. (2008). *The age of television: Experiences and theories*. Intellect Books.
- Dramac, I. i Lazzarich, M. (2016). Smiješna strana obrazovanja – humor u poučavanju. *Život i škola*, 62(3), 87–96.
- Fileš, T. i Pavlin-Bernardić, N. (2021). Stilovi humora sveučilišnih nastavnika kao prediktori evaluacije nastavnika i motivacijskih čimbenika u studenata. *Odgojno-obrazovne teme*, 4(1), 41–64. <https://doi.org/10.53577/ooot.4.1.3>
- Ford, T. E. & Martin R. A. (2018) *The psychology of humor: An integrative approach*. Second edition. Academic Press.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 55(3), 218–226. <https://doi.org/10.1037/0003-066X.56.3.218>
- Frymier, A. B., Wanzer, M. B., & Wojtaszczyk, A. M. (2008). Assessing students' perceptions of inappropriate and appropriate teacher humor. *Communication education*, 57(2), 266–288. <https://doi.org/10.1080/03634520701687183>
- Fortunato, S., Bergstrom, C. T., Börner, K., Evans, J. A., Helbing, D., Milojević, S., Petersen, A., Radicchi, F., Sinatra, R., Uzzi, B., Vespignani, A., Waltman, L., Wang, D., & Barabási, A. (2018). Science of science. *Science*, 359(6379), 1–7. <https://doi.org/10.1126/science.aao0185>
- Kolenović-Đapo, J. (2012). *Psihologija humora: teorije, metode i istraživanja*. Svjetlost.
- Hrebac Hlobik, M. i Pavlin-Bernardić, N. (2014). Utjecaj humora na učinak u rješavanju problemskih matematičkih zadataka i anksioznost. *Klinička psihologija*, 7(1-2), 23–38.
- Isen, A. M. (2003). Positive affect as a source of human strength. In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths: Fundamental questions and future directions for a positive psychology* (pp. 179–195). American Psychological Association.
- Keltner, D., Capps, L., Kring, A. M., Young, R. C., & Heerey, E. A. (2001). Just teasing: A conceptual analysis and empirical review. *Psychological Bulletin*, 127(2), 229–248. <https://doi.org/10.1037/0033-2909.127.2.229>
- Kolenović-Đapo, J. (2012). *Psihologija humora: teorije, metode i istraživanja*. Svjetlost.
- Lang, J. C. & Lee, C. H. (2010). Workplace humor and organizational creativity. *The International Journal of Human Resource Management*, 21(1), 46–60. <https://doi.org/10.1080/09585190903466855>
- Lazzarich, M. (2013). Comic Strip Humour and Empathy as Methodological Instruments in Teaching. *Croatian Journal of Education*, 15(1), 153–190. <https://doi.org/10.15516/cje.v15i1.342>
- Leovac, I. (2017). Humor u nastavi njemačkoga jezika i njemačkoga jezika struke: studeni se smiju smijati. U D. Omrčen, i M. Krakić (Ur.), *Zbornik radova međunarodne konferencije „Od teorije do prakse u jeziku struke“* (str. 134–144). Udruga nastavnika jezika struke na visokoškolskim ustanovama.

- Lovorn, M. & Holaway, C. (2015) Teachers' perceptions of humour as a classroom teaching, interaction, and management tool. *European Journal of Humour Research*, 3(4), 24-35. <https://doi.org/10.7592/EJHR2015.3.4.lovorn>
- Matijević, M. (1994). *Humor u nastavi, pedagoška i metodička analiza*. UNA-MTV
- Milne, A. (1926). *Winne the Pooh*. Methuen & Company.
- Moslavac, A. (2022). Bibliografska, bibliometrijska i scientometrijska analiza znanstvenih časopisa Filozofskog fakulteta Sveučilišta u Rijeci za razdoblje od 2010. do 2020. godine. *Bosniaca*, 27(27), 192-215. <https://doi.org/10.37083/bosn.2022.27.192>
- Mrazovac, M. (2021). Humor u nastavi stranoga jezika. *Strani jezici*, 50(2), 267-278. <https://doi.org/10.22210/strjz/50-2/5>
- Neff, P., & Rucynski, J. (2017). Japanese perceptions of humor in the English language classroom. *Humor*, 30(3), 279-301. <https://doi.org/10.1515/humor-2016-0066>
- Pavlović, J. i Tošić-Rudić, M. (2009). Mišljenje učenika o osobinama nastavnika. *Nastava i vaspitanje*, 58(3), 458-468.
- Pexman, P. M., & Olineck, K. M. (2002). Understanding irony: How do stereotypes cue speaker intent? *Journal of Language and Social Psychology*, 21(3), 245-274. <https://doi.org/10.1177/0261927X02021003003>
- Peličić, D., Bokan, D., Dobrović, D. i Bokan, D. (2016). Klasifikacija nauke. *Sestrinska reč*, 20(73), 18-21.
- Relja, R. i Baturina, D. (2010). Uloga i značaj humora u svakodnevnom životu mladih. *Školski vjesnik*, 59(3), 347-362.
- Rod, M. A. (2007). *The Psychology of Humor: An Integrative Approach*. University of Western Ontario.
- Rulijana, G., Siregar, E., & Kustandi, Č. (2025). Bibliometrijski i metaanalitički pregled uticaja masovnih otvorenih online kurseva na visoko obrazovanje. *Zbornik Instituta za pedagoška istraživanja*, 57(1), 119-146. <https://doi.org/10.2298/ZIPI2501119R>
- Şahin, A. (2021). Humor Use in School Settings: The Perceptions of Teachers. *Sage Open*, 11(2), 1-16. <https://doi.org/10.1177/21582440211022691>
- Sprecher, S., & Regan, P. C. (2002). Liking Some Things (in Some People) more than Others: Partner Preferences in Romantic Relationships and Friendships. *Journal of Social and Personal Relationships*, 19(4), 463-481. <https://doi.org/10.1177/0265407502019004048>
- Stupar, D., Aleksić, I., Romanov, R. i Beretić, I. (2023). Humor u nastavi. U S. Zuković (Ur.), *Zbornik radova međunarodne naučne konferencije „Pedagogija, juče, danas, sutra“* (str. 281-288). Filozofski fakultet Univerziteta u Novom Sadu.
- Takashi, Y., & Minako, I. (2021). Analysis of the Influence of Linguistic Characteristics on the "Laughter" Generation Process: Comparative Study of Comedy Programs in the US and China. *Bulletin of Japanese Society for the Science of Design*, 67(4), 33-42. https://doi.org/10.11247/jssdj.67.4_33
- Tong, P., & Tsung, L. (2020) Humour strategies in teaching Chinese as second language classrooms. *System*, 91(4-4), 1-15. <https://doi.org/10.1016/j.system.2020.102245>
- Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics* 84, 523-538. <https://doi.org/10.1007/s11192-009-0146-3>
- Wagner, M., & Urios-Aparisi, E. (2011). The use of humor in the foreign language classroom: Funny and effective? *International Journal of Humor Research*, 24(4), 399-434. <https://doi.org/10.1515/humr.2011.024>

- Wanzer, M. B., Frymier, A. B., & Irwin, J. (2010) An Explanation of the Relationship between Instructor Humor and Student Learning: Instructional Humor Processing Theory. *Communication Education*, 59(1), 1-18. <https://doi.org/10.1080/03634520903367238>
- Wanzer, M. B., & Frymier, A. B. (1999). The relationship between student perceptions of instructor humor and student's reports of learning. *Communication Education*, 48(1), 48-62. <https://doi.org/10.1080/03634529909379152>
- Weingart, P. (2005). Impact of bibliometrics upon the science system: Inadvertent consequences?. *Scientometrics*, 62(1), 117-131. <https://doi.org/10.1007/s11192-005-0007-7>
- Wouters, P. (2020). The Mismeasurement of Quality and Impact. In M. Biagioli & A. Lippman (Eds). *Gaming the Metrics: Misconduct and Manipulation in Academic Research* (pp. 67- 76). The MIT Press.

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Savremena poezija za decu kao podsticaj za dečje jezičko stvaralaštvo

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Apstrakt

Pesničke zbirke savremenih autora sporo ulaze u vaspitno-obrazovni proces. Pored toga, čak i kada se sagledavaju njihovi metodički potencijali, u fokusu su razumevanje i tumačenje stihova, a tek je sporadično reč o mogućnostima koje savremena poezija pruža za razvijanje jezičkih sposobnosti dece. Stoga, predmet istraživanja u ovom radu jeste pesnički opus za decu koji čine dela jedne savremene i afirmisane autorke, Dragane Mladenović, a cilj istraživanja je da se markiraju aspekti oblikovanja teksta koji mogu podstaći razvoj dečjih jezičkih sposobnosti. Korpus koji su činile sve četiri pesničke knjige za decu Dragane Mladenović podvrgnut je kvalitativnoj tematskoj analizi, prilikom koje su se izdvojile četiri ključne teme: 1) katalogizacija leksema, 2) tvorbeni modeli, 3) sintaksički modeli i 4) grafičko i idejno oblikovanje teksta. Uvidi na ovim ravnama usmerili su predloge koji se tiču podsticanja dečjeg jezičkog razvoja u susretu sa poezijom Mladenovićeve, a to su: 1) podsticanje leksičkog razvoja kroz usvajanje i tematsko umrežavanje leksema, 2) podsticanje leksičkog razvoja kroz usvajanje i uopštavanje tvorbenih modela, 3) podsticanje sintaksičkog razvoja kroz usvajanje modela i oneobičavanje sintaksičkih veza i 4) podsticanje rane pismenosti kroz uspostavljanje i negovanje kritičkog odnosa prema tekstu. Data analiza i metodičke implikacije koje se na nju naslanjaju u konačnici upućuju na to da savremena poezija za decu može biti inspirativna za negovanje referencijalne, imaginativne i ekspresivne funkcije govora, uz uvažavanje vrednosti dijaloga, igre i projektnog pristupa u radu sa predškolskom decom, pa se naš rad može razumeti i kao poziv za dalja istraživanja u ovom polju.

Ključne reči: savremena književnost za decu, metodika razvoja govora, leksikologija, sintaksa, rana pismenost.

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Uvod

Savremena metodika razvoja govora zasniva se na saznanjima predmetne nauke i iz njih proizlaze funkcionalna prožimanja sa saznanjima drugih disciplina (Milatović, 2009; Vukomanović Rastegorac, 2020). Ona, naime, polazi od činjenica nauke o jeziku i nauke o književnosti, a potom se ova znanja metodički adekvatno ukrštaju sa saznanjima iz oblasti razvojne psihologije (posebno psiholingvistike), kao i pedagoških i didaktičkih istraživanja, koja u svom središtu imaju vaspitno-obrazovni proces. Kada se tako stvari postave, jasno je da prilikom uvođenja književnog teksta u vrtićku sobu, kasnije i u učionicu, valja poći od njegovih jezičko-stilskih i poetičkih osobenosti, a potom prilagoditi interpretaciju detetovim saznavnim i emocionalnim karakteristikama. Pojedini aspekti dela, pritom, postaju fokus interpretacije, dok neki drugi čekaju trenutak u kojem je recipijent spreman i za njihovo sagledavanje. S obzirom na osobenost svakog estetski vrednog umetničkog teksta, povlačenje granice između sadržaja koji je u određenom trenutku (uzrasno ili na neki drugi način) prikladan i sadržaja koji se ne može smatrati prikladnim jeste u značajnoj meri stvar lične procene vaspitača i(li) učitelja, koja nastaje u neprekidnom isprobavanju horizonta detetovog očekivanja i izazivanju granica njegove recepcije teksta (Marković, 2025).

Pri svemu tome treba imati na umu da interpretacija književnog dela može biti usmerena u različitim pravcima, pa i da ne mora uključiti jedino razumevanje onoga što tekst poručuje, već može obuhvatati i njegovu stvaralačku nadogradnju (posebno ako je reč o otvorenom umetničkom delu) (Eco, 1965), ili pak njegovu upotrebu u smeru jezičkog i govornog podsticanja deteta (Mičić, 2025). U potonjem slučaju, književni tekst postaje podsticaj za igru koja pokreće promišljanje jezika na različitim nivoima i u različitim formama njegove realizacije: od fonetskog, morfološkog i leksičkog do sintaksičkog i pragmatičkog, od ranog podsticanja govornih sposobnosti do ranog podsticanja različitih oblika pismenosti (Janković, 2019; Mičić, 2019; Vukomanović Rastegorac, 2023). U ovom pogledu, poseban izazov predstavlja uključivanje savremenih književnih dela u rad sa decom, uz valjanu procenu njihovih estetskih i vaspitnih i estetskih kvaliteta. Odgovaranje na taj izazov podrazumeva težnju da se uspostave produktivne spone između najvrednijih dela tekuće produkcije i prostora predškolskih ustanova, pri čemu naročitu ulogu zadobija rasvetljavanje metodičkih aspekata recepcije književnih tekstova, kao i njihovih širih potencijala u vaspitno-obrazovnim okvirima. Ovim radom ćemo pokušati da ukažemo upravo na neke od njih na primeru dela jedne istaknute savremene pesnikinje za decu.

Pre nego što to učinimo, čini se da je nužno napomenuti jednu stvar. Naime, u naprima ove vrste važno je posedovati svest o dvema perspektivama, koje se u polju vaspitno-obrazovnog rada ukrštaju. Prva zahvata strukturu i smisao pesničkog teksta, iz kojih se potom izdvajaju potencijali za njihovo aktualizovanje u vaspitno-obrazovnom prostoru; druga perspektiva, pak, u središtu nosi temeljne koncepte i usmerenja važećih osnova predškolskog programa (Godine uzleta, 2018; Mičić i Vukomanović Rastegorac, 2020), koje najpre afirmišu uvažavanje dečjih osećanja, potreba i odnosa, naklonosti i interesovanja.

U tom pogledu, predloge koji uslede u ovom tekstu ne treba razumeti kao inicijative koje vaspitač uvodi bez usaglašavanja sa decom i(li) sprovodi bez njihovog učešća, već kao polja koja čekaju da budu otkrivena i koja se mogu aktivirati ukoliko im se deca iz grupe kroz projektno istraživanje približe.

Metodologija

Predmet našeg istraživanja čine zbirke pesama za decu Dragane Mladenović, afirmisane autorke koja je tokom proteklih godina zauzela značajno mesto u polju dečje literature (Vukomanović Rastegorac, 2025). Pesnički deo njenog opusa za sada čine četiri objavljene zbirke: *Uljezi* (Mladenović, 2016), *Dar-mar* (Mladenović, 2019), *Kad stvari polju-de* (Mladenović, 2023a) i *Tri, četiri, sad!* (Mladenović, 2023b).

Cilj našeg istraživanja jeste da se na odabranom korpusu tekstova identifikuju oni aspekti oblikovanja stihova koji mogu biti podsticajni za rad na jezičkom razvoju predškolske dece. U skladu s tim, istraživačko pitanje na koje ćemo pokušati da odgovorimo glasi: Na kojim ravnama i na koji način stihovi za decu Dragane Mladenović mogu da učestvuju u podsticanju različitih aspekata dečjeg jezičkog razvoja u vaspitno-obrazovnom radu?

Na ovo pitanje pokušaćemo da odgovorimo kroz kvalitativnu tematsku analizu pesničkih knjiga, a shodno metodologiji, rezultati će biti prikazani tekstualno. Za teme koje su se izdvojile kao važne u kvalitativnoj analizi, predstavimo one aspekte koji su bitni sa stanovišta dečjeg jezičkog razvoja. Nakon toga, putem diskusije ćemo ukazati na metodčke implikacije i potencijale koji proishode iz kvalitativne obrade korpusa – pri čemu valja naglasiti kako naš cilj nije da pružimo zatvoren skup postupaka i inicijativa koje upoznavanje sa savremenom poezijom i(li) poezijom Dragane Mladenović može da pokrene, već da otvorimo mesto za funkcionalno slobodni prostor istraživanja u ovom polju.

Rezultati i njihova analiza

Kako bi prikaz analize svih aspekata pesničkog oblikovanja stihova koji mogu da podstaknu razvoj jezičkih sposobnosti dece u predškolskim ustanovama prevazišao zadate okvire rada, u nastavku ćemo predstaviti samo rezultate kvalitativne analize koji se tiču četiri ključne teme: 1) katalogizacija leksema, 2) tvorbeni modeli, 3) sintaksički modeli i 4) grafičko i idejno oblikovanje teksta. Prilikom navođenja stihova koji služe kao ilustracija za pružene uvide, podrazumeva se da su stihovi delo odabrane autorke, pa se u parentezama upućuje samo na godinu izdanja i stranicu (to jedino nije slučaj kad je reč o stihovima iz zbirke *Uljezi*, u kojoj izostaju brojevi stranica, pa ćemo uz njih upućivati na odgovarajući naslov pesme).

Katalogizacija leksema

Veoma zastupljen postupak u konstrukciji pesme Dragane Mladenović jeste katalogizacija, koja podrazumeva ređanje leksema sličnog tematskog kruga. Tako će u pe-

smama „Cica se kinduri“ stihovi biti ispunjeni nazivima odevnih predmeta (tu su: *šeširi, šnalice, kravate, sakoi, suknjice...*), „Marta vozi“ nazivima prevoznih sredstava (*automobil, brod, kabriolet, kamion, čamac...*), „Katarina planira“ nazivima zanimanja u ženskom rodu (*apotekarka, doktorka, montažerka, novinarka, policajka...*). Na ovoj osnovi nastale su pesme različitog tematskog usmerenja, koje je često vidljivo već iz njihovog naslova, kao što su „Čula“, „Meseci“ i „Planete“. Pritom, katalogizacija ne upućuje samo na imenice već nagoveštava i ređanje raznovrsnih prideva; pesme: „Boje“, „Ukusi“ i „Dodiri“ donose reči koje opisuju vizuelne (*žuto, zeleno, plavo...*), gustativne (*kiselo, slano, slatko...*) i taktilne senzacije (*mekano, oštro, tvrdo...*), a slično je i sa pesmama „Zemlja“ i „Vazduh“, čiju osnovu čine uobičajeni atributi koji idu uz ove imenice (*plodna, rastresita, tvrda, vlažan, svež, hladan, itd.*).

Ipak, izvesno je da bi ovakvi katalozi bili monotoni kada pesma ne bi sadržala princip karakterističan za poeziju Mladenovićeve – princip *uljeza*. Naime, na početku istoimene knjige, čitalac se susreće sa „Pismom pre svega / snega“, u kojem ga Uljez upozorava da se u svakoj pesmi nalaze po dva njegova drugara. Na taj način, čitanje pesme postaje svojevrsno traganje za onim što nizu *ne* pripada, čime se istovremeno utvrđuju i njegove značenjske granice (Mladenović, 2019, str. 4). U svim gorenavedenim pesmama pojavljuju se reči koje ne pripadaju eksplicitno ili implicitno zadatom skupu: među odevne predmete će „zalutati“ *kiseli krastavci* i *senke*, među nazive prevoznih sredstava *kornet* i *stativa*, među imena zanimanja *ptica* i *pelerina* – što je i jedan od postupaka kojima se u stihovima postiže humor. Pojava uljeza je, pritom, veoma često podržana delimičnim zvukovnim podudaranjem reči i(li) rimom: *čulo dodira : čulo leptira* („Čula“), *kiselo : veselo, slatko : glatko* („Ukusi“), *jun : žbun, start : mart* („Meseci“). Ovim primerima, koji su najzastupljeniji u zbirci *Uljezi*, valja pridodati i one prisutne u *Dar-maru* i zbirci *Tri, četiri, sad!*, gde se javlja još jedan vid ove igre. Njemu vrata otvaraju dvosmislene reči i izrazi, pa, primera radi, kada se u pesmi „Natikače“ ređaju nazivi obuće koja se najradije na nogama nosi po kući (*papuče, patofne, sobne patike* itd.), među uljezima su i reči koje označavaju nešto što se može *nositi* po sobi – ali ne *na nogama* (*savijače* i *tople čokolade*).

Tvorbeni modeli

Relacije među leksemama ne moraju da se zasnivaju samo na značenjskom, već i na tvorbenom odnosu. To u *Dar-maru* najbolje pokazuje pesma „Pogrdno“, koja je posvećena pejorativima (Mladenović, 2019 – „Pogrdno od mačke je mačketina / Pogrdno od surle je surletina“ i t. sl., 2019: str. 56), kao i pesma „Manje“, koja je posvećena deminutivima (Mladenović, 2019 – „Manje od kuće je kućica / Manje od ruke je ručica“, 2019: str. 58). Njima se pridružuje i pesma „Veće“, koja – suprotno očekivanjima – ne progovara o augmentativima, nego još jednom aktualizuje deminutive iz drugačije, obrnute perspektive („Veće od vrećice je vreća / Veće od kesice je kesa“, Mladenović, 2019, str. 59). I ovde autorka osvežava recepciju pesme ubacivanjem uljeza koji nalikuju ne-uljezima po glasovnom sastavu, ili je pak njihova pojava motivisana rimom (npr. „Manje od *kašike* je *kašica* / [...] Manje od bebe je *bebica* / Manje od babe je *dedica*“, Mladenović, 2019, str. 58). U ovom pogledu, zanimljivi su, iako retki, i primeri oscilovanja stihova oko istog ko-

rena reči ili tvorbenog formanta: „*ključ je zaključio* // lakše je *zaključati se* / nego *otključati se*“ (Mladenović, 2023a, str. 16); „*Zapevaj!* / Nemam *kišobran* // Hej, haj, haj! / Nemam ni *vetrobran*. // Sve liči na raj. / Ni *gromobran*. // A sada baj-baj! / Čak ni *blatobran!*“ (Mladenović, 2023b, str. 38-39).

U kontekstu razvoja govora najzanimljiviji su primeri tvorbenih neologizama, koji nisu brojni, ali se nalaze na istaknutim mestima u tekstu: u nazivu jedne od knjiga stoji „hajde da se *poezigramo*“ (Mladenović, 2023b), unutar nje četvrta poezigra nosi naslov „rimorint“ (Mladenović, 2023b, str. 36), a sedma „dominovina“ (Mladenović, 2023b) – što su slivenice dobijene od sintagme „*rimovani lavirint*“, odnosno nastale iz spoja reči *domina* i *domovina*; po sličnom principu u *Dar-maru* građen je i naziv ciklusa *emocije* (Mladenović, 2019, str. 12). Posebno su interesantni u ovom pogledu neologizmi koji nastaju analoškim uopštavanjima tvorbenih elemenata van očekivanog i standardom „dozvoljenog“ područja. Tako je u čitavom ciklusu „Uljez, on i ona i ono“ (Mladenović, 2019, str. 20-27), gde, primerice, čitamo pesmu „Ona i on“ (Mladenović, 2019, str. 24), koja se gradi uglavnom od naziva za stanovnike određenih zemalja (npr. *Grkinja* i *Grk*), ali će se među njima skriti i reči koje ne pripadaju ovom semantičkom krugu, kakve su *Brkinja* i *Brk*. Potonja reč, razume se, postoji u srpskom jeziku (no ne sa značenjem imena stanovnika), ali je *Brkinji* nesumnjivo kumovala preterana generalizacija mocionog sufiksa *-inja*. Sličnim poigravanjem nastaju i primeri *najmače*, *najlače* i *najkući* u pesmi „Najmače“ (Mladenović, 2019, str. 36): „Od jakog može jače (pa i najjače) / Od mačke može mače (pa i najmače) / Kao i od lakog lače (pa i najlače) / [...] Od vrućeg bude vrući (pa i najvrući) / Od kuće može kući (pa i najkući)“. U ovim stihovima pesnikinja najpre uvodi glasovno podudaranje reči (*jače : mače : lače; vrući : kući*), a onda na temelju uspostavljanja analogije u građenju superlativa izvodi novi primer koji predstavlja neologizam (*najjače : najmače : najlače; najvrući : najkući*).

Sintaksički modeli

Iz do sada navedenih primera moglo se naslutiti kako je sintaksička struktura stihova uglavnom jednostavna. To je možda najočiglednije u ciklusu „Samo subjekat, zebre i predikat“, gde su oni odista isključivo građeni po prozirnem modelu subjekat + predikat (SP). Primerice, pesma „Užasna buka“ počinje ovako: „Cveće cvrkuće / Vuk arlauće / Pčela zuji / Dete jauće / Sova mjaучe“ (Mladenović, 2019, str. 48; up. i pesmu „Vikend na selu“, 2019, str. 49). Ciklus „Pelene u modi“ konstruisan je na sličan način, pri čemu na početku preuzima formu poznate dečje igre „leti, leti“ („Leti, leti, leti sova, / leti bumbar, leti kljova, / leti, leti, leti soko, / leti muva previsoko“, Mladenović, 2019), a potom se isti model koristi uz modifikacije u odabranom glagolu (*trči, pliva, pada*) i, naravno, ponuđenim imenicama koje dopunjavaju rečeničnu šemu. Sintaksička uniformnost nije odlika samo pomenutih dvaju ciklusa koji pripadaju *Dar-maru*, već se ona u nešto drugačijem vidu može naći i u zbirci *Tri, četiri, sad!*. Primera radi, u prvoj poezigri čitamo „Zeka je u rupi / sova je u šupi / puma je u šumi / rezanac u supi“ (Mladenović, 2023b, str. 7; 2023b, str. 9), a u devetoj „Neko ovde nema balone, / neko ovde nosi pantalone, / neko ovde jede makarone, / neko ovde mrzi feferone“ (Mladenović, 2023b, str. 68) i sl. Pored ovakvih primera, valja pomenuti i slučaj u

kojem se paralelizam uspostavlja među ponuđenim poređenjima, pri čemu je onaj entitet sa kojim se poredi odvojen od ostatka konstrukcije, i to pauzom koju sugerše kraj stiha: „šunjaju se [patike] kao / dve pume / izviruju kao / dva jelena / skakuću kao / dva jareta / cvile kao / dve kuće” (Mladenović, 2023a, str. 8).

U poslednjem ciklusu *Dar-mara*, koji nosi naslov „Spiskovi, cedulje, agende, kadulje” (i takođe sadrži zvučno sličnog uljeza), intencionalno se narušavaju očekivane sintaksičke / sintagmatske veze i uspostavljaju se nove, komične i začudne. Pesma „Dobro jutro, dušice” doneće više neobičnih naloga: „Čim se razbudiš, molim te, / *navij papagaja* i / *nahrani sat*, / [...] uredno spakuj sendvič i / *doručuj krevet* / (gledaj da to uradiš do devet), / *očešljaj zubiće*, / *prušinu obuci*, / *prebriši zavese*, / *trenerku navuci*” (Mladenović, 2019, str. 92). Oni su, kao što se vidi, nastali permutacijom elemenata unutar uobičajenih spojeva (*navij sat* i *nahrani papagaja* → *navij papagaja* i *nahrani sat*) ili njihovom jednostavnom zamenom nekom drugom leksemom (*očešljaj kosu* → *očešljaj zubiće*). U potonjem slučaju nije reč samo o razbijanju ma kakve veze između dveju reči, već o razbijanju snažne kolokacije u kojoj se, uz glagol *češljati*, očekuje tek nekoliko imenica, poput *kosa*, *dlaka* ili sl. Srodna vrsta osvežavanja pesničkog izraza može se naći u pesmi „Superparket”, u kojoj se lirskom ti nalaže da kupi „litar hleba” i „kilogram mleka” (Mladenović, 2019, str. 88), ali se probijanje horizonta očekivanja ne temelji samo na ovim mehanizmima već i na imenovanju nepostojećih entiteta („četiri crno-bela luka”), kontradiktornim opisima („zelenu salatu narandžaste boje”) i permutacijama elemenata unutar iste sintagme („glavobolju protiv leka”), pri čemu ovaj poslednji slučaj približava tekstove Dragane Mladenović poetici čuvene „Izokrenute priče” Branka Ćopića (Klikovac, 1997, str. 174).

Grafičko i idejno oblikovanje teksta

U pesništvu za decu Dragane Mladenović, istaknuto mesto zauzima eksperimentisanje grafičkim oblikovanjem teksta. Jedna ravan tog eksperimenta zahvata smer(ove) čitanja: naime, prilikom upoznavanja sa *Uljezima*, deca se suočavaju sa naslovima koji su smešteni uspravno pored strofe (pesme „Zemlja”, „Vazduh” i sl.) ili se, zajedno s pesmom, mogu pročitati kad se knjiga okrene naopačke („Marta vozi”). Takođe, u procesu zajedničkog čitanja sa odraslom osobom, dete će primetiti da čitanje može da bude skokovito, kao u pesmama „Pravac u proleće, tutanj u jesen” (Mladenović, 2023b, str. 38-39) i „Čudovište iz potoka” (Mladenović, 2023b, str. 42-43). Druga ravan oneobičenja tiče se poigravanja tipografijom: tako su u *Dar-maru* pesme-spiskovi oblikovane kao da su pisane rukom (Mladenović, 2019, str. 88), a u šestoj poezigri zbirke *Tri, četiri, sad!* su reči poput „jako” (Mladenović, 2023b, str. 51) i „tufnama” (Mladenović, 2023b, str. 53) ispisane tako da izgled sugerše njihovo značenje – prva debelim crnim slovima, druga slovima koja imaju tufne po sebi. Konačno, na trećoj ravni je očevidna snažna integracija verbalnog i vizuelnog sadržaja – stihova i ilustracije – posebno u onim pesmama koje se čitaju sameravanjem značenja tekstualnog predloška i onoga što je predstavljeno na slici. Tako se u devetoj poezigri kaže: „Neko ovde nema uvo, / neko ovde nema torbu, / neko ovde ima tortu, / neko ovde nema loptu. / KO?” (Mladenović, 2023b, str. 67) – odgovor na ovo pitanje se može dati tek kad se pažljivo osmotri ilustracija uz pesmu.

Pesnikinja kroz stihove pokreće i društveno angažovane teme. Već u prvoj njenoj zbirci jasno je dotaknuto područje „(ne)prikladnih“ zanimanja za jednu devojčicu – ta vrsta ograničenja posredno se dovodi u pitanje kroz afirmaciju naziva zanimanja koji su građeni uz upotrebu odgovarajućih mocionih sufiksa: tu su *rediteljka* i *novinarka*, ali i *pilotkinja* ili *predsednica* (korišćenje imenica ženskog roda da se označe navedena zanimanja otvara posredno i temu rodno osetljivog jezika). S druge strane, ekološki angažman je najotvoreniji u pesmama iz zbirke *Kad stvari poljude*: tako, u stihovima „Ekološkog protesta“ lirsko ja poziva „sve svoje prijatelje / motorne testere / na protest zbog seče šuma / jer ako isećemo sva stabla / neće više biti ni gnezda / ni vazduha ni vode ni neba / i kome će onda / motorna testera da treba“ (2023a, str. 31; up. i pesmu „U poverenju“, 2023a, str. 68). U ovoj knjizi, jedna od najupečatljivijih transformacija predmeta je ona u kojoj bankomat odlučuje da potroši „sav novac / na sebe [...] napuniće kadu novčanicama / i plivaće u parama / jer može mu se“ (Mladenović, 2023a, str. 31) – i to je samo deo društvene kritike koji se može čitati na ovim stranicama (up. pesme „Gospođica sofa“, 2023a, str. 18; „Ustoličenje“, 2023a, str. 22; i dr.).

Diskusija i metodičke implikacije

Kao što smo pomenuli u uvodnim redovima našeg rada, kad je reč o pesničkom tekstu kao podsticaju za razvoj jezičkih sposobnosti deteta predškolskog uzrasta, logično je poći od aspekata njegovog poetičkog oblikovanja, a(li) potom i prilagoditi njegovo uvođenje u prostor vrtičke sobe saznajnim i emocionalnim karakteristikama dece, uz uvažavanje njihove različitosti i njihovih interesovanja. Uvidi u ustrojstvo stihova za decu Dragane Mladenović upućuju nas na to da potencijale za njihovo aktualizovanje u vaspitno-obrazovnom kontekstu možemo tražiti u: 1) podsticanju leksičkog razvoja kroz usvajanje i tematsko – a neretko i hijerarhijsko – umrežavanje leksema, 2) podsticanju leksičkog razvoja kroz usvajanje i analoško uopštavanje tvorbenih modela, 3) podsticanju sintaksičkog razvoja kroz usvajanje modela i oneobičavanje sintaksičkih veza i 4) podsticanju rane pismenosti kroz uspostavljanje i negovanje kritičkog odnosa prema tekstu.

Podsticanje leksičkog razvoja: usvajanje i tematsko umrežavanje leksema

Sa stanovišta razvoja govora, primetno je kako su grupe leksema koje su zastupljene u postupku katalogizovanja unutar poezije Dragane Mladenović tematski bliske ranom dečjem jezičkom i životnom iskustvu (Anđelković, 2012a; Kostić i Vladislavljević, 1995, str. 40-50). U tom pogledu, recepcija pesme koja ih – još jednom – objedinjuje može učestvovati u učvršćivanju njihovog značenja, kao što može i proširiti broj leksema sa kojima se dete susreće u onim slučajevima kada mu je, recimo, poznat tek manji broj leksema iz određene oblasti. Osim toga, usled ovakve konstrukcije pesme i poetskog „zadatka“, veoma je verovatno da će deca prilikom traženja uljeza u njima koristiti jedan od mehanizama

koje inače koriste prilikom usvajanja značenja reči – mehanizam međusobnog isključivanja (Tomasello, 2005, str. 72-75). To je, recimo, posebno očekivano u pesmi „Planete“, koja je postavljena kao igra „ili-ili“, u kojoj dete između ponuđenih *Jupitera* i *krepera*, *Sapuna* i *Saturna*, *Ćurana* i *Urana* treba da odabere naziv nebeskog tela – čak i da ne poznaju nazive planeta, deca poznaju značenje reči *kreker*, *sapun* i *ćuran*, pa im neće biti teško da zaključe šta tu pripada tematskoj grupi planeta, a šta ne. Razume se, recepcija ove i drugih pesama ne mora se zaustaviti na otkrivanju uljeza, već se može razviti dijalog kojim se rasvetljavaju kriterijumi zašto u određenom stihovanom katalogu izvesna leksema nije uljez, a neka druga jeste. To će, naravno, biti lakše kad je naslovom već sugerisan tematski krug, ali stihovi se mogu čitati i bez prethodećeg naslova, koji deca mogu otkriti na kraju, odnosno onda kada im se pesma pročita i kada pronađu zajednički semantički imenilac za najveći broj leksema u njoj. Ovde valja primetiti i to da deca putem recepcije ovih pesama spontano zahvataju paradigmatički odnos hiponimije u jeziku (Dragičević, 2007, str. 290 i dalje; u kontekstu predškolskog razvoja v. Anđelković, 2012a, str. 61; u kontekstu mladih razreda osnovne škole up.: Lazarević i Stevanović, 2015), a on je, između ostalog, važan u pogledu razvoja sposobnosti klasifikacije pojmova, kao i poimanja hijerarhijskih odnosa među njima. Osim toga, ne bi trebalo propustiti priliku da deca primete na koji način su uljezi slični onim pojmovima među kojima se kriju – tu, pre svega, mislimo na prisustvo rime kao značajnog tipa formalnog odnosa među leksemama (Dragičević, 2007, str. 306), a njeno primećivanje jedan je od pokazatelja razvoja metajezicke funkcije govora (Kodžopeljić, 1996; Tunmer et al., 1984).

Kroz bogaćenje rečnika – najpre pasivnog, a onda i aktivnog (Vasić, 2009) – novim leksemama se podstiče razvijanje referencijalne funkcije govora, ali tu se susret sa pesmom ne mora završiti, već se igra može postaviti i stvaralački. Stihovi se mogu shvatiti kao poziv na proširivanje kataloga novim rečima – tako što se mladi (pret)čitaoci misaono i verbalno angažuju da nastave pesmu rečima koje pripadaju određenom tematskom krugu, a takva akcija u kontekstu projekta može zauzimati različito mesto: ona može biti u funkciji provokacije za projekat, njegov periferni ili centralni deo i sl. Tako se zajednički stvaraju mali rečnički katalozi pojmova jedne vaspitne grupe, pri čemu u tome mogu učestvovati i roditelji, kao i šira zajednica u različitim fazama projektnog istraživanja. Ovakvo kataloško ili rečničko predstavljanje poseduje i jednu, uslovno rečeno, manu: reči su u njemu mahom lišene konteksta ili većeg njegovog dela. Ta se mana može preobraziti u vrlinu pozivom na razradu; na primer, to se može postići kroz tematsku eksplikaciju (*patofne* – *mekane*, *obuti/izuti* itd.) ili kroz vizuelno predstavljanje i reči-draži, i reči-reakcije (u tome posebno pomažu ili se s tim prožimaju ilustracije). U sličnom maniru kao u pesmama Mladenovićeve može se oblikovati igra „ili-ili“, koja je tematski oslonjena na fokus projektne teme. U sledećoj, zahtevnijoj fazi igre deca mogu da među pojmove iste kategorije ubacuju uljeze i podstiču drugare da ih potraže. Sakrivanje uljeza može biti sasvim slobodno, ali se može i usmeriti tako da se njihova „kamufliža“ intenzivira – npr. kada tražimo uljeze koji se rime sa rečima koje nisu uljezi ili, pak, tragamo za rečima koje su naizgled tematski bliske, ali po nečemu ne spadaju u odabrani tematski krug itd.

Podsticanje leksičkog razvoja: usvajanje i analoško uopštavanje tvorbenih modela

O metodičkim mogućnostima koje se tiču igrolikog pristupa tvorbi reči u okvirima jezičkog standarda – kako u predškolskom tako i u školskom kontekstu – već je temeljnije pisano, i to uglavnom sa posebnim osvrtom na stvaranje složenica (Janković, 2019; Mičić i Vukomanović Rastegorac, 2016; Vorkapić, 2023). Na osnovu navedenih članaka, nije teško da zamislimo pojedine pesme Dragane Mladenović kao podsticaj za igru okupljanja i grupisanja reči koje pripadaju istom tvorbeno-semantičkom jezgru ili, pak, za ukrštanje različitih leksema (preciznije: njihovih tvorbenih formanata) pomoću kojih se složenice dobijaju. Pomoću navedenih aktivnosti, dete stvara kontakt sa pojedinim gradivnim jedinicama leksikona i opažanjem veza koje između njih mogu da postoje (kao u pesmi u kojoj se pominju *kišobran*, *vetrobran*, *gromobran* i *blatobran*), zatim samostalno otkriva slične primere i proširuje broj reči sa kojima je ono u dodiru.

Ipak, to nije sve – odavno je dobro poznato da je kod dece predškolskog uzrasta prisutna tendencija uopštavanja tvorbenih formanata, pri čemu naročito „stradaju” izuzeci od pravila koja su odrasli govornici prihvatili kao deo jezičkog standarda (Vukomanović Rastegorac, 2021, str. 115-116). Građenju novih reči na temeljima analogije jasno su posvedočile i lingvističke studije (Anđelković & Mirić, 2017) i kod nas nedavno objavljeni *Rečnik detinjih reči i izraza* (Smiljanić Rangelov, 2024). Ukoliko se igra postavi otvorenije i kroz nju dobijaju neočekivani – još nepostojeći, ali mogući – spojevi, onda se time ispituje prostor koji jezik (još) ne obuhvata. Dakle, u predškolskom i školskom kontekstu može biti reči o uočavanju tvorbenih obrazaca (*bebica*, *kesica*, *kućica*), ali i analoškom preispitivanju njihovog opsega kroz uopštavanje postojećeg modela preko granice do koje važi. Primera radi, pomenuti nastavak *-ica* tipično se dodaje na imenice ženskog roda, kao u navedenim primerima, dok se na imenice muškog roda tipično dodaje *-(č)ić*, a na imenice srednjeg roda *-(en)ce*, pa otuda – iako teorijski mogući – nisu standardni oblici *telefonica* (za mali telefon) ili *pilica* (za malo pile); na pozadini ovakvog eksperimenta ocrtavaju se uobičajene lekseme (*telefončić* i *pilence*) i pruža materijal za promišljanje o prirodi raspodele ovih sufiksa. Ako bismo se strože vodili onim što nalazimo u pesničkom tekstu, mogli bismo da se oslonimo na pomenute primere *Brkinja* i *Brk*: očigledno je da je ime muškog „pripadnika nacije” zapravo naziv dela tela, a da je naziv ženskog građen uz upotrebu mocionog sufiksa *-inja*. Po sličnom modelu mogli bismo graditi nazive „stanovnika” i od imena drugih delova tela: *Nos* i *Nos(k)inja*, *Vrat* i *Vrat(k)inja*, *Prst* i *Prst(k)inja*, itd. Proces građenja može da ide i u obrnutom smeru, tako što od naziva delova tela koji su ženskog roda gradimo ime muškog stanovnika dodavanjem sufiksa *-ac*: *Kosa* i *Kosac*, *Ruka* i *Rukac*, *Noga* i *Nogac* itd. Pored toga, ako se u pesničkom jeziku Mladenovićeve primeni drugi model koji smo zabeležili, a koji se zasniva na postupku blendinga (spajanja prvog dela jedne i drugog dela druge reči), onda je moguće stvarati veliki broj spojeva koji ukrštaju raznolika jezička područja: možemo se zajedno sa decom pitati kako bi se nazvao lavirint koji je zelen ili koji se nalazi na Jupiteru (*zelirint*, *Jupirint?*), kako bismo nazvali domovinu usisivača, bundeva ili hrčaka (*usisomovina*, *bundomovina* ili *bundevina*, *hrčomovina* ili *hrčkovina?*) i sl.

Podsticanje sintaksičkog razvoja: usvajanje modela i oneobičavanje sintaksičkih veza

Kada se imaju u vidu faze razvoja rečenice kod deteta, kao i najfrekventniji rečenični modeli u pojedinim etapama toga razvoja (Anđelković, 2012b), čini se da su pesme Dragane Mladenović, koje odlikuju jednostavne rečenične konstrukcije, pogodne za čitanje, naročito sa najmlađom decom – kroz njihovu recepciju dete dobija primere gramatički tipičnih iskaza koji predstavljaju pouzdan jezički model u pogledu rasporeda elemenata i kongruencije među njima. Zanimljivo je to što se njihova konstrukcija u velikoj meri poklapa sa odlikama govora upućenog deci, koji, između ostalog, podrazumeva kratke iskaze, jasne pauze i ponavljanja (Saxton, 2017). Pesnički govor, međutim, ne ostaje samo u ovim okvirima – on katkad donosi i nešto složenije konstrukcije: primerice, gorepomenuto „neko ovde mrzi feferone” u sintaksičkom je smislu nesumnjivo složenije od „vuk arla-uče”. Ipak, recepciju stihova složenije strukture olakšavaju ponavljanje istovetnog modela i postojanje delimičnog ili potpunog sintaksičkog paralelizma. Izloženost takvim, znatno predvidljivim jezičkim odnosima ohrabruje dete da ovladava sve složenijim jezičkim strukturama, po principu podupiranja (Tutnjević i Savić, 2019, str. 91-92). Pritom, valja naglasiti kako u srpskoj književnosti za decu prilično nedostaju književni tekstovi zasnovani na uvažavanju ovog principa, pa u tom kontekstu stihovi Dragane Mladenović postaju još dragoceniji.

Kao što je to bio slučaj na leksičkoj ravni, pesme se mogu postaviti kao otvorene strukture i poziv na njihovo dopisivanje, pri čemu se ne mora insistirati na jednom rešenju, već se može podsticati mnoštvo njih. Time se dobijaju različite površinske strukture jedne iste dubinske strukture rečenice (Kristal, 1999, str. 76-77). U ovom domenu svoju punu funkcionalnost dobija interaktivna strategija čitanja sa prekidima (Mičić, 2020; Stanković, 2024), koja pokazuje lice i naličje našeg horizonta očekivanja: ona ukazuje na naše očekivanje i logiku tog očekivanja, ali istovremeno poseduje potencijal da nam isporuči saznanje kako to očekivanje može da bude iznevereno kroz alogična rešenja – u drugom navedenom slučaju obično nastaje humor u tekstu, a na licu čitaoca se pojavljuje osmeh (Perišić, 2010, str. 45-47). U ovakvim primerima možemo podsticajnim pitanjima motivisati decu da se zamisle nad nesvakidašnjim spojevima, potom nanovo izgrade narušene kolokacije i pojmove dovedu u logički red (da *litar hleba* i *kilogram mleka* „prevedu” u *litar mleka* i *kilogram hleba*) ili oneobičene spojeve učine običnim (*navij papagaja* i *nahrani sat* „prevedu” u *navij sat* i *nahrani papagaja*) – to može, dakle, da bude metodički korektan postupak, ali i ne mnogo više od toga. Ipak, ako sledimo autorkinu poetiku, možemo ići dalje i podsticati imaginativnu funkciju govora tako što ćemo pozvati decu na stvaranje (sintaksičko-)semantički neobičnih rešenja, u kojima humor nastaje upravo iz neočekivanosti sintagmatskog ili rečeničnog spoja i nesklada između upotrebljenih elemenata.

U ovom pogledu su naročito zanimljivi oksimoronski besmisleni spojevi, poput *na-randžaste zelene salate*, koji kao da parafraziraju *bezbojne zelene ideje* Čomskog (Čomski, 1984, str. 23) – oni sobom provociraju pitanje kako bi tako nešto izgledalo ako bi zaista

postojalo. Ovaj proces zamišljanja nezamislivog priziva ukrštanje sa vizuelnim umetnostima: ne samo da se neobični spojevi mogu stvarati u jeziku već se možemo okušati i u njegovom likovnom predstavljanju – kako bi to izgledao (tečni) litar hleba ili kako bismo jeli/pili (čvrsto) mleko? Kako bi izgledalo kada bismo hranili sat poput kućnog ljubimca ili za doručak pojeli jedan krevet? To su samo neka pitanja koja podstiču sposobnost zamišljanja nemogućeg i maštanja o njemu, a koja mogu da sugerišu odnose u našem svetu istovremeno kao samo neke od mogućih i kao jedine moguće. Konačno, može se ovde otvoriti i potencijal igrolikog uključenja i fizičkog delanja. Ako se u pesmama ciklusa „Pele-ne u modi” koristi forma pokretne igre „leti, leti” (zajedno sa varijacijama pomoću glagola *trči, skače, pliva*), najpre se može zamisliti njena interpretacija uz odgovarajuće pokrete. Potom je moguće proširenje stihova novim leksemama koje označavaju bića koja lete, trče, skaču ili plivaju, kao i odgovarajućim leksemama-uljezima u nizovima, a još jedan korak dalje otišla bi varijacija igre koja unosi i nove glagole (*gmiže, roni*), koji ne moraju biti samo glagoli kretanja (npr. *grebe, peva, čita*).

Podsticanje rane pismenosti: uspostavljanje i negovanje kritičkog odnosa prema tekstu

Iako u Srbiji sistemski vođeno ovladavanje čitanjem počinje u osnovnoj školi, veštine koje ovu aktivnost potpomažu se u velikoj meri razvijaju u predškolskom periodu (Browne, 2001; Merchant, 2008; Tafa, 2008; Ševa & Radišić, 2013). Dete se susreće sa mnogim zapisima i natpisima u različitim oblicima, a putem zajedničkih aktivnosti sa odraslim upoznaje elemente knjige i način njenog „korišćenja” – počinje da razumeva kako su zapisani znaci nosioci značenja, kako se (u našoj kulturi) čitaju sleva nadesno i odozgo nadole, kako knjiga obično na korici ima naslov i ime autora, kako se sadržajem upućuje na određene delove knjige (Nikolić i Milenković, 2019; Snow, 2006; Whitehurst & Lonigan, 1998). Kroz upoznavanje sa pojedinim pesmama Dragane Mladenović dete ima priliku da uoči i to kako je najveći broj navedenih odlika, zapravo, stvar konvencije, i kako se tekstom može poigravati na različite načine. To može otvoriti prostor za „kolažnu” igru – sasvim u duhu vizuelnog oblikovanja *Dar-mara* – u kojoj deca raspoređuju npr. isečene reči iz novina po površini stranice i potom ih povezuju strelicama po svom nahođenju, a onda ih prolaze sa vaspitačem kroz proces zajedničkog čitanja, koji je vanredno važan za različite aspekte jezičkog razvoja deteta (Vander Woude et al., 2009). Na ovaj način (najverovatnije) nastaje nonsensna tvorevina, koja može da izazove smeh i istovremeno pozove na „preuređivanje”, tj. na prevođenje besmislenog teksta u smislenu i maštovitu priču. Osim toga, kako bi se skrenula pažnja na ulogu oblikovanja zapisa, tj. na vrednost i sugestivnost odabranog tipografskog rešenja, deca se mogu podsticati da iznesu pretpostavke šta označava reč čija su slova – slova koja deca ne moraju poznavati – napisana tako da su im ivice izuzetno oštre ili veoma zaobljene, ako su tufnasta ili prugasta itd. Ukoliko postoji želja da se podstakne dodatno kritičko promišljanje odnosa forme i sadržaja, može se intencionalno napraviti raskorak među njima: recimo, reč *zeleno* se može ispisati plavom bojom, i obrnu-

to; reč koja ima pozitivne konotacije (npr. *drugarstvo*) može se predstaviti oštrim slovima, a ona koja ima negativne konotacije ukrašeno (npr. *nevaspitanje*) (Mičić, 2025). Na temelju (pogrešnih) pretpostavki može se diskutovati o odnosu forme i sadržaja, onda primetiti da nas ponekad šaroliki oblici zavode da pomislimo kako je ono što je njima predstavljeno zasigurno lepo premda tako ne mora biti. Konačno, kad je reč o snažnoj interakciji teksta i slike, pesme Dragane Mladenović mogu poslužiti za slična zagonetanja u kojima dete vizuelno predstavlja različite oblike i bića, a onda postavlja drugima pitanja da ih na crtežu pronađu.

Koncept kritičke pismenosti podrazumeva aktivan odnos čitaoca prema smislu teksta, koji se ispoljava kroz otvorenu diskusiju i razmenu argumenata (Mitrović, 2010, str. 139; O'Brien & Comber, 2000). Otvoreni dijalog o rodnim stereotipima i rodno osetljivom jeziku se u školskom kontekstu čini poželjnim, posebno s obzirom na predstave muških i ženskih likova u literaturi za decu (Radovanović, 2022), ili pak na rodnu (ne)osetljivost udžbenika (Stakić, 2017); nasuprot tome, u predškolskom periodu se ovakav razgovor može učiniti preuranjenim. Pa ipak, ako se pitanja adekvatno postave, pesnički svet Mladenovićeve može podstaći slobodniju verbalizaciju dečjih teorija o svetu u različitim pravcima: „Da li na svetu ima više reditelja ili rediteljki, predsednika ili predsednica? Šta je uzrok tome? Da li mora tako da bude i zašto? Da li su vam reči kao što su *vaspitačica*, *policajka* ili *pilotkinja* neobične? Ako jesu, zašto jesu; ako nisu, zašto nisu?” Ovakav dijalog uzima tekst pesme kao polazište, da bi se potom razvio u sučeljavanje i obrazlaganje stavova i pogleda na određenu temu. Pritom, nije, naravno, ovde akcenat na upoznavanju društveno-istorijskog konteksta, već na pokretanju zapitanosti nad životnom stvarnošću koja nas okružuje, jezičkim činjenicama u koje smo uronjeni i učenju da se sopstveni stav – bez obzira na to kakav on bio – obrazloži valjanim argumentima. Na sličan način, upoznavanje i tumačenje pesama ove autorke može da bude uvod u razgovore o – danas naročito važnim – temama očuvanja životne sredine, čime se podstiču ekološka svest i ekološka pismenost najmlađih, koja se potom dalje razvija u osnovnoj školi (Kalmar, 2022; Zejak, 2021). Konačno, razgovor o novcu, njegovoj vrednosti, ali i o ograničenjima njegove moći, može da kod najmlađih podstakne sasvim aktuelna životna pitanja o vrednostima kojima težimo i(li) koje su nam važne u životu. Osim toga, ovako fokusiran razgovor može da postane korak ka osvešćenju klasnih razlika, čiji je odraz neizbežan u svakoj vrtičkoj zajednici, a dijalog o tome bi mogao da stimuliše razvoj empatije i doprine stvaranju unutrašnje potrebe za konkretnim akcijama kojima bi se pomoglo onima koji su u teškoj materijalnoj situaciji.

Zaključak

Pesništvo za decu Dragane Mladenović ne samo da je izazovno za razumevanje i tumačenje već može postati višestruki podsticaj za razvoj govora predškolske dece na više jezičkih ravni: pre svega na leksičkoj i sintaksičkoj ravni, a onda i na ravni negovanja rane pismenosti. Na prvom nivou, reč je o usvajanju i razumevanju onoga što je jezički uobičajeno i(li) pojmovno skladno: od usvajanja tematskih grupa leksema do opažanja tvorbenih modela, od recepcije rečeničnih matrica do upoznavanja sa konvencijama

pisanih produkata kulture. Može se, međutim, ići i znatno dalje: u stvaralačko proširivanje kataloga reči koje pripadaju određenoj oblasti, preko stvaranja neologizama i semantički neobičnih rečeničnih konstrukcija, pa sve do ispitivanja – povremeno: izneveravanja – horizonta očekivanja kroz interaktivne strategije zajedničkog susreta sa tekstem, čime se akcenat premešta sa referencijalne na imaginativnu i ekspresivnu funkciju govora.

U svemu tome treba imati na umu vrednost otvorenog dijaloga koji podržava – posebno kad je reč o stvaralaštvu – različitost perspektiva i rešenja koje one nude. Dijalog je naročito važan kad su posredi tekstovi koji provociraju razvoj kritičke pismenosti kroz promišljanje tema poput rodni stereotipa i podsticanje ekološke pismenosti. S druge strane, neupitna je vrednost igrolikog oblikovanja raznovrsnih situacija učenja koje pristupaju jezičkim pojavama – u tom pogledu, poezija Dragane Mladenović je zahvalan vodič, budući da su njeni stihovi često već i sami konstruisani interaktivno i(li) u formi raznovolikih igara, poput traženja i sakrivanja uljeza u tkivu pesme.

U predškolskom okviru je posebno važno to što ludizam u knjigama ove savremene pesnikinje otvara mogućnost za podsticanje različitih aspekata dečjeg razvoja, koji uključuju doživljavanje i razumevanje teksta, ali i delanje u različitim poljima ljudskog iskustva. Ta vrsta iskoraka iz dimenzije teksta koji se (samo) izgovara ili sluša u druge ravni – vizuelnog izražavanja ili upošljavanja pokreta – takođe širi mogućnosti potencijalnih tačaka susreta sa različitim projektima u vrtičkom kontekstu, pri čemu i nagoveštava plodne ukrštaje u raznovrsnim situacijama učenja.

Na kraju valja reći i da ovaj tekst, uz sve navedeno, zahvata prostore metodičkog aktuelizovanja poezije Dragane Mladenović u predškolskim ustanovama u ograničenom obimu. Drugim rečima, verujemo da tek predstoje istraživanja koja će pokazati bogatstvo mogućih susreta najmlađih (pret)čitalaca sa njenim pesništvom, kao i sa savremenom srpskom poezijom za decu uopšte.

Literatura

- Anđelković, D. (2012a). Razvoj komunikacije, neverbalna komunikacija, govor i pismenost. U A. Baucal (ur.), *Standardi za razvoj i učenje dece ranih uzrasta u Srbiji* (str. 51-65). Institut za psihologiju Filozofskog fakulteta Univerziteta u Beogradu i Unicef.
- Anđelković, D. (2012b). *Glagoli i glagolske dopune u razvoju dečijeg govora* (doktorska disertacija). NaRDuS (123456789/3250).
- Anđelković, D., & Mirić, M. (2017). Distribution of verbal overgeneralizations in the Serbian Corpus of Early Child Language. *Psihološka istraživanja*, 20(2), 291-310. <https://doi.org/10.5937/Pslstra1702291A>
- Browne, A. (2001). *Developing Language and Literacy 3-8*. Paul Chapman Publishing.
- Čomski, N. (1984). *Sintaksičke strukture*. Dnevnik – KZ Novog Sada.
- Dragičević, R. (2007). *Leksikologija srpskog jezika*. Zavod za udžbenike.
- Eco, U. (1965). *Otvoreno djelo*. Veselin Masleša.

- Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja* (2018). Ministarstvo prosvete, nauke i tehnološkog razvoja.
- Janković, Đ. (2019). Razvijanje jezičkih kompetencija u duhu *Godina uzleta* – na primeru morfološkog sistema. *Metodička praksa*, 13(2), 319-340. <https://doi.org/10.5937/metpra1902319J>
- Kalmar, L. (2022). Uloga i značaj ekološkog obrazovanja u savremenoj školi. *Metodička teorija i praksa*, 25(1), 26-34. <https://doi.org/10.5937/metpra2201026K>
- Klikovac, D. (1997). *Izokrenuta priča* Branka Ćopića ili o iskustvenoj utemeljenosti leksičkih i gramatičkih kategorija. *Južnoslovenski filolog*, 53(1), 173-186.
- Kodžopeljić, J. (1996). Metalingvistički preduslovi uspešnog usvajanja čitanja. *Psihologija*, 29(1), 35-48.
- Kostić, Đ. i Vladislavljević, S. (1995). *Govor i jezik deteta u razvoju*. Zavod za udžbenike i nastavna sredstva.
- Kristal, D. (1999). *Enciklopedijski rečnik moderne lingvistike*. Nolit.
- Lazarević, E. i Stevanović, J. (2015). Razvijenost hiponimije u jeziku učenika mlađeg osnovnoškolskog uzrasta. *Nastava i vaspitanje*, 64(1), 39-54. <https://doi.org/10.5937/nasvas1501039L>
- Marković, B. (2025). *(Ne)moguće granice poezije za decu i mlade*. Fakultet za obrazovanje učitelja i vaspitača Univerziteta u Beogradu.
- Merchant, G. (2008). Early reading development. In J. Marsh, & E. Hallet (Eds.), *Desirable Literacies: Approaches to Language & Literacy in the Early Years* (pp. 81-102). Sage.
- Mićić, V. (2019). Podsticanje razvoja rane pismenosti. *Metodička praksa*, 13(1), 171-194. <https://doi.org/10.5937/metpra1901171M>
- Mićić, V. (2020). *Dete čitalac i hronologija čitanja*. Učiteljski fakultet Univerziteta u Beogradu.
- Mićić, V. (2025). *Negovanje govora u vrtiću*. Fakultet za obrazovanje učitelja i vaspitača Univerziteta u Beogradu.
- Mićić, V. i Vukomanović Rastegorac, V. (2016). Kako nastaju reči – igrokliki pristup tvorbi reči u predškolskoj ustanovi. U E. Kopas-Vukašinović i B. Stojanović (Ur.), *Savremeno predškolsko obrazovanje i vaspitanje: izazovi i dileme* (str. 195-208). Fakultet pedagoških nauka.
- Mićić, V. i Vukomanović Rastegorac, V. (2020). Nove programske tendencije u vaspitno-obrazovnom radu: predškolski program u Republici Srbiji. *Annales universitatis Paedagogicae Cracoviensis – Studia ad Didacticam Litterarum Polonarum et Linguae Polonae Pertinentia*, 11(315), 217-227. <https://doi.org/10.24917/20820909.11.17>
- Milatović, V. (2009). Metodika razvoja govora kao naučna i nastavna disciplina. U V. Milatović (Ur.), *Metodika razvoja govora* (str. 13-24). Učiteljski fakultet Univerziteta u Beogradu.
- Mitrović, M. (2010). *Pismenost i obrazovanje: perspektiva Novih studija pismenosti*. Filozofski fakultet Univerziteta u Beogradu.
- Mladenović, D. (2016). *Uljezi*. Fabrika knjiga.
- Mladenović, D. (2019). *Dar-mar*. Kreativni centar.
- Mladenović, D. (2023a). *Kad stvari poljude*. Kreativni centar.
- Mladenović, D. (2023b). *Tri, četiri, sad! Hajde da se poezigramo!* Kreativni centar.
- Nikolić, M. i Milenković, S. (2019). Predlog programa za podsticanje razvoja predveština čitanja u predškolskoj ustanovi. *Inovacije u nastavi*, 32(1), 125-138. <https://doi.org/10.5937/inovacije1901125N>

- O'Brien, J., & Comber, B. (2000). Negotiating Critical Literacies with Young Children. In C. B. Pugh, & M. Rohl (Eds.), *Literacy Learning in the Early Years* (pp. 152-171). Allen & Unwin.
- Perišić, I. (2010). *Uvod u teorije smeha*. Službeni glasnik.
- Radovanović, M. (2022). Karakteristike muških i ženskih likova u književnim tekstovima za decu. *Nastava i vaspitanje*, 71(2), 233-248. <https://doi.org/10.5937/nasvas2202233R>
- Saxton, M. (2017). *Child Language: Acquisition and Development*. Sage.
- Smiljanić Rangelov, V. (2024). *Srpskiričarska rečorčica: rečnik detinjih reči i izraza*. Službeni glasnik.
- Snow, C. E. (2006). What Counts as Literacy in Early Childhood. In K. McCartney, & D. Phillips (Eds.), *Blackwell Handbook of Early Childhood Development* (pp. 274-294). Blackwell Publishing.
- Stakić, M. (2017). Analiza istraživanja rodne osetljivosti udžbenika za srpski jezik. *Nastava i vaspitanje*, 66(3), 483-495. <https://doi.org/10.5937/nasvas1703483S>
- Stanković, S. (2024). *Uticaj interaktivnog pristupa čitanju slikovnica na njihovo razumevanje kod predškolskog deteta (na primerima slikovnica Džulije Donaldson)* (master rad). Fakultet za obrazovanje učitelja i vaspitača Univerziteta u Beogradu.
- Ševa, N., & Radišić, J. (2013). The Development of Emergent Literacy in Serbian Kindergartens: Basic Resources and Related Practices. *Psihološka istraživanja*, 16(2), 159-174. <https://doi.org/10.5937/PsIstra1302159S>
- Tafa, E. (2008). Kindergarten Reading and Writing Curricula in the European Union. *Literacy*, 42(3), 162-170. <https://doi.org/10.1111/j.1741-4369.2008.00492.x>
- Tomasello, M. (2005). *Constructing a Lanuage: A Usage-Based Theory of Language Acquisition*. Cambridge University Press.
- Tunmer, W. E., Pratt, S., & Heriman, M. L. (1984). *Metalinguistic Awareness in Children: Theory, Research and Implications*. Springer-Verlag.
- Tutnjević, S. i Savić, M. (2019). *Usvajanje jezika: uvod u razvoju psiholingvistik*. Filozofski fakultet Univerziteta u Banjoj Luci.
- Vander Woude, J., Van Kleeck, A., & Vander Veen, E. (2009). Book Sharing and the Development of Meaning. In P. M. Rhyner (Ed.), *Emergent Literacy and Language Development: Promoting Learning in Early Childhood* (pp. 36-77). The Guilford Press.
- Vasić, S. (2009). Razvijanje i bogaćenje dečjeg rečnika. U V. Milatović (ur.), *Metodika razvoja govora* (str. 217–223). Učiteljski fakultet Univerziteta u Beogradu.
- Vorkapić, M. (2023). Nastajanje složenica – igroliki pristup tvorbi reči. *Metodička teorija i praksa* 26(2), 23-35. <https://doi.org/10.5937/metpra2300023V>
- Vukomanović Rastegorac, V. (2020). Pogled Vuka Milatovića na metodiku razvoja govora: kontekst, koncept, perspektive. U Z. Cvetanović, V. Janićijević i V. Mičić (ur.), *Metodika i poetika Vuka Milatovića* (str. 193–203). Učiteljski fakultet Univerziteta u Beogradu.
- Vukomanović Rastegorac, V. (2021). *Uvod u metodiku razvoja govora*. Učiteljski fakultet Univerziteta u Beogradu.
- Vukomanović Rastegorac, V. (2023). Individualni neologizmi u pesništvu za decu Dejana Aleksića – jezički aspekti i metodički potencijali. *Novorečje*, 5(9), 126-143.

Vukomanović Rastegorac, V. (2025). Poezija za decu Dragane Mladenović i njeni metodički potencijali. [U štampi.]

Whitehurst, G. J., & Lonigan, C. J. (1998). Child Development and Emergent Literacy. *Child Development*, 69(3), 848-872. <https://doi.org/10.2307/1132208>

Zejak, S. (2021). Predškolska ustanova kao značajan faktor u razvoju ekološke svesti dece. *Metodička teorija i praksa*, 24(2), 200-211. <https://doi.org/10.5937/metpra2102200Z>

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Motivacija za učenje stranih jezika u kontekstu: preispitivanje modela motivacije kod profesionalno orijentisanih učenika engleskog jezika

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Apstrakt

Motivacija se smatra jednim od ključnih faktora u učenju stranih jezika jer pokreće proces učenja, održava angažovanost učenika i često određuje stepen uspeha ili neuspeha. U ovom istraživanju ispituje se koji teorijski okvir bolje objašnjava motivaciju za učenje engleskog jezika kod studenata engleskog jezika i književnosti: motivacioni self-sistem za učenje stranih jezika ili 2x2 model motivacije za učenje stranih jezika. Motivacioni self-sistem za učenje stranih jezika fokusira se na dva ključna elementa: idealno ja, koje predstavlja viziju učenika kao uspešnog korisnika jezika, i očekivano ja, koje odražava osećaj dužnosti ili spoljašnjeg pritiska za učenjem. Model 2x2, iako sličan, dodatno pravi razliku između interno ili eksterno regulisane motivacije unutar obeju dimenzija, idealnog ja i očekivanog ja. U istraživanju kvantitativnog tipa korišćen je upitnik za procenu dimenzija oba modela i motivacije za učenje engleskog jezika, a hijerarhijska regresiona analiza primenjena je u cilju ispitivanja prediktivne snage oba modela. Rezultati pokazuju da je idealno ja iz motivacionog self-sistema značajan prediktor motivacije, čime se potvrđuje važnost ove dimenzije. S druge strane, očekivano ja i dodatne dimenzije 2x2 modela nisu doprinele objašnjenju motivacije. Zaključuje se da je model motivacionog self-sistema primenljiviji kod studenata sa internalizovanim jezičkim ciljevima i razvijenim profesionalnim identitetom. Nalazi imaju značajne pedagoške implikacije, ukazujući na potrebu za podrškom u razvoju idealnog ja kroz povezivanje učenja engleskog jezika sa ličnim identitetom učenika, čime se doprinosi relevantnosti i motivaciji.

Ključne reči:

L2 motivacija za učenje stranog jezika, motivacioni self-sistem za učenje stranih jezika, 2x2 Model motivacije za učenje stranog jezika, idealno ja, očekivano ja.

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Uvod

Zbog složenosti motivacije za učenje stranih jezika, nijedna pojedinačna teorija nije pružila sveobuhvatno objašnjenje ovog konstrukta uprkos decenijama istraživanja. Različiti teorijski okviri bili su usmereni na određene aspekte motivacije – od njenog intenziteta i tipova do izvora i promena tokom vremena (Dörnyei, 1994; Gardner, 1985; Shoaib & Dörnyei, 2005). Ipak, među istraživačima postoji široko prihvaćeno stanovište da je motivacija jedan od najznačajnijih faktora u učenju stranih jezika, budući da pokreće proces učenja i predstavlja osnovnu pokretačku snagu koja u ovom procesu objašnjava kako uspeh tako i neuspeh (Dörnyei, 2005).

Nezadovoljstvo Gardnerovim pojmom integrativnosti (Gardner, 1985) – ključnim konceptom u okviru ranijih istraživanja motivacije – dovelo je do pojave brojnih reinterpretacija i preispitivanja ove dimenzije. Istraživači su sve češće dovodili u pitanje ideju da motivacija učenika prvenstveno proizilazi iz njihove težnje ka integraciji u ciljnu jezičku zajednicu. Kao odgovor na kritike zbog ograničene primene ovog koncepta, predloženi su različiti alternativni okviri. Jedan od najznačajnijih je model motivacionog self-sistema u učenju stranog jezika (engl. *L2 Motivational Self System*) (Dörnyei, 2005; 2009), koji rekonceptualizuje proces identifikacije, predstavljajući ga kao unutrašnji proces u okviru učenikovog koncepta selfa, a ne kao težnju ka integraciji u ciljnu jezičku zajednicu. Ključne komponente ovog modela čine idealno ja (engl. *Ideal L2 self*), očekivano ja (engl. *Ought-to L2 self*) i iskustvo u učenju stranog jezika, koje predstavljaju osnovne izvore motivacije za učenje stranog jezika u globalizovanom svetu, posebno u kontekstu učenja engleskog kao globalnog jezika. Iza motivacije učenika da uče određeni strani jezik stoji želja da smanje nesklad između svog stvarnog ja, s jedne strane, i idealne vizije sebe kao korisnika stranog jezika ili očekivanja koje postavlja okolina, s druge strane. Pored toga, motivi koji proizilaze iz neposrednog nastavnog konteksta i iskustva učenja (npr. nastavni plan, nastavnik, vršnjačka grupa, osećaj uspeha) mogu dodatno podstaći učenike da ulože napor u učenje engleskog jezika (Dörnyei & Ushioda, 2011, str. 86).

Prve dve dimenzije potiču iz teorije mogućih selfova, dok je treća komponenta uvedena kako bi predstavljala potencijalni uticaj okruženja učenika, što odražava novi trend u istraživanju motivacije tokom 1990-ih godina. Iako izvorni model obuhvata sve tri komponente, u ovom istraživanju je pažnja usmerena na dve dimenzije – idealno ja i očekivano ja, budući da cilj istraživanja jeste poređenje ovih komponenti sa dimenzijama u 2x2 modelu. Komponenta iskustva u učenju stranih jezika ne predstavlja sliku o sebi u budućnosti i stoga nema direktan ekvivalent u 2x2 modelu.

Iako su brojna empirijska istraživanja (Ryan, 2009; Taguchi et al., 2009) potvrdila primenljivost modela motivacionog self-sistema u različitim obrazovnim kontekstima, istraživači su nastavili da ga modifikuju i dodatno unapređuju. Jedan takav okvir je 2x2 model motivacije za učenje stranih jezika, koji preispituje motivaciju iz perspektive Higginsonove teorije self-diskrepance (Higgins, 1987) i teorije regulatornog fokusa (Higgins, 1997). Ovaj model nudi detaljniji uvid u motivaciju za učenje stranih jezika, budući da pravi razliku

između interno i eksterno regulisanih oblika motivacije, kao i između i idealnog, i očekivanog ja. Cilj ovog modela je da pojasni na koji način različiti oblici koncepta selfa utiču na motivaciju učenika u različitim kontekstima učenja.

Cilj ovog istraživanja je poređenje prediktivne snage motivacionog self-sistema i 2x2 modela u objašnjavanju motivacije za učenje stranih jezika kod studenata anglistike u Srbiji. Rad se bavi analizom ova dva teorijska modela u okviru ove specifične akademske grupe, s ciljem da se utvrdi koji model efikasnije odražava motivaciju studenata koji su odabrali engleski jezik kao profesionalni put.

Teorijski okvir

Iako je proisteklo iz opštih teorija motivacije za učenje, istraživanje motivacije za učenje stranih jezika razvilo se kao samostalna oblast, što potvrđuje da učenje stranih jezika uključuje specifične psihološke, društvene i kulturološke dimenzije. Istraživanje motivacije za učenje stranih jezika razvijalo se kroz više faza, pod uticajem opštih psiholoških pristupa i složenosti samog procesa učenja stranih jezika.

Dernjej i Ušioda (Dörnyei & Ushioda, 2011) ističu da se istorija istraživanja motivacije za učenje stranih jezika može podeliti na četiri perioda. U okviru socio-psihološkog perioda (1959-1990), oblikovanog radom Roberta Gardnera i njegovih saradnika u Kanadi, naglašavala se uloga stavova učenika prema određenoj jezičkoj zajednici. U osnovi ove teorije nalazi se koncept integrativnosti, koji Gardner definiše kao interesovanje učenika za društvenu interakciju sa govornicima ciljnog jezika.

Tokom kognitivno-situacionog perioda devedesetih godina, pažnja je usmerena na konkretne nastavne kontekste, oslanjajući se na kognitivne teorije iz obrazovne psihologije i naglašavajući značaj analize na mikro nivou, umesto opštih makropristupa.

Početkom dvadesetog veka, istraživanje motivacije za učenje stranih jezika obeležava procesno orijentisani period, koji karakteriše interesovanje za dinamičku i vremensku dimenziju motivacije. U ovoj fazi posebno se ističe značaj proučavanja razvoja motivacije tokom vremena, kao i uticaja neposrednog iskustva u učenju na njeno oblikovanje.

Savremenu socio-dinamičku fazu karakteriše holistički pristup, koji polazi od „kontekstualne složenosti motivacije za učenje stranih jezika i njenog razvoja u dinamičkoj interakciji sa različitim unutrašnjim, društvenim i kontekstualnim faktorima“ (Dörnyei & Ushioda, 2011, str. 72). U ovoj fazi naglašava se značaj ispitivanja pojedinca u kontekstu, s posebnim osvrtnom na interakciju između individualnih karakteristika učenika i šireg konteksta učenja.

Motivacioni self-sistem za učenje stranih jezika

U okviru socio-dinamičkog perioda istraživanja motivacije za učenje stranih jezika, Zoltan Dernjej (Dörnyei 2005; 2009) predložio je rekonceptualizaciju motivacije za učenje stranih jezika kroz prizmu teorija selfa i identiteta. Uvođenje motivacionog se-

lf-sistema za učenje stranih jezika bilo je podstaknuto trima ključnim zapažanjima. Prvo, usvajanje novog jezika značajno se razlikuje od učenja drugih akademskih predmeta, budući da podrazumeva ne samo ovladavanje novim jezičkim znanjem već i razvoj novog aspekta sopstvenog identiteta. Stoga, istraživanje motivacije za učenje stranih jezika zahteva holistički pristup, koji obuhvata kognitivne, emocionalne i lične faktore (Dörnyei & Ryan, 2015). Drugo, iako je koncept integrativnosti značajan u multikulturalnim i višejezičnim kontekstima (npr. u Kanadi), on je manje relevantan u sredinama u kojima učenici nemaju neposredan kontakt sa izvornim govornicima ciljnog jezika. Treće, globalno širenje engleskog jezika kao *lingva franke* doprinelo je slabljenju njegove veze sa određenim geografskim i kulturnim zajednicama. Stoga, motivaciju za učenje stranih jezika sve je manje opravdano posmatrati isključivo kroz stavove učenika prema zajednici govornika ciljnog jezika.

Motivacioni self-sistem za učenje stranih jezika reinterpretira tradicionalni Gardnerov koncept integrativnosti. U globalizovanom kontekstu, naročito u vezi sa učenjem engleskog jezika, proces identifikacije i integracije odvija se unutar koncepta selfa učenika, a ne kroz integraciju sa ciljnom jezičkom zajednicom (Dörnyei & Ryan, 2015). Istovremeno, ovaj model se oslanja Higinsovu teoriju self-diskrepance (Higgins, 1987), prema kojoj su pojedinci motivisani da smanje nesaglasnost između svoj aktuelnog selfa i internalizovanog self koncepta, odnosno idealnog i očekivanog ja.

Motivacioni self-sistem za učenje stranih jezika obuhvata tri ključne komponente: idealno ja, očekivano ja i iskustvo u učenju stranog jezika. Idealno ja odnosi se na osobine koje pojedinac želi da poseduje u vezi sa učenjem stranog jezika (Dörnyei & Ushioda, 2011, str. 82). Nesaglasnost između aktuelnog i idealnog ja može predstavljati snažan podsticaj za učenje jezika. Očekivano ja, s druge strane, odnosi se na osobine za koje učenici smatraju da bi trebalo da poseduju kako bi ispunili očekivanja značajnih ljudi iz svoje okoline, kao što su roditelji, nastavnici ili društvo. Iako i ova komponenta može podsticati učenje, ona se obično povezuje sa spoljašnjom motivacijom i težnjom da se izbegnu negativni ishodi. Treća komponenta, iskustvo u učenju stranih jezika, odnosi se na „izvršne“ motive povezane sa neposrednim iskustvom u procesu učenja.

Brojna istraživanja (Al-Shehri, 2009; Ryan, 2009) potvrdila su validnost ovog modela u različitim obrazovnim kontekstima, ispitujući njegovu povezanost sa varijablama kao što su jezička anksioznost, postignuće i spremnost na komunikaciju. Rezultati pokazuju da želi učenika da postanu kompetentni govornici određenog stranog jezika ima ključnu ulogu u procesu učenja (Dörnyei & Chan, 2013). Međutim, uprkos dvema decenijama intenzivnog interesovanja za teoriju motivacionog self-sistema za učenje stranih jezika, novije kritike (Al-Hoorie et al., 2024) ukazuju na izvesne nedostatke njegovih mernih instrumenata i potrebu za njegovom revizijom.

2x2 model motivacije za učenje stranih jezika

Polazeći od kritika teorije motivacionog self-sistema za učenje stranih jezika (npr. Dörnyei & Chan, 2013; Papi & Teimouri, 2012), naročito u pogledu zanemarivanja unutrašnjih i spoljašnjih regulatornih orijentacija, Papi i saradnici (Papi et al., 2019) predložili su

2x2 model motivacije za učenje stranih jezika. Ovaj model integriše koncepte teorije self-diskrepance (Higgins, 1987) i teorije regulatornog fokusa (Higgins, 1997), uvodeći precizniju klasifikaciju koncepta selfa na osnovu individualne perspektive učenika, za razliku od perspektive zasnovane na očekivanjima drugih.

Higinsova teorija samoregulacije (Higgins 1997; 1998) pruža značajan okvir za objašnjenje razlika u motivaciji među učenicima. Ona polazi od toga da varijacije u motivaciji proističu iz izvora samoregulacije pojedinca, te da učenici sa različitim samoregulatornim orijentacijama – promotivnom ili preventivnom – ispoljavaju različite oblike motivacije i ponašanja. Promotivna orijentacija usmerena je ka napredovanju i postignuću, dok je preventivna orijentacija povezana sa osećajem odgovornosti i izbegavanjem negativnih ishoda (Higgins, 1987; 1997). Ove orijentacije su tesno povezane sa konceptom selfa koji Dernjej (Dörnyei 2005) razvija u okviru teorije motivacionog self-sistema za učenje stranih jezika.

Iako i teorija self-diskrepance i teorija regulatornog fokusa analiziraju uticaj unutrašnjih standarda na motivaciju, one se fokusiraju na različite dimenzije. Teorija self-diskrepance (Higgins, 1987) naglašava tenziju koja nastaje usled nesaglasnosti između aktuelnog i internalizovanog selfa, koji uključuje idealno i očekivano ja. Nasuprot tome, teorija regulatornog fokusa analizira strategije koje pojedinac koristi u ostvarivanju ciljeva: promotivni fokus koji ističe postignuće, a preventivni fokus odgovornost i izbegavanje negativnih ishoda. Zajedno, ove teorije pružaju komplementarne uvide u motivaciju za učenje stranih jezika. Motivacioni self-sistem oslanja se na teoriju self-diskrepance, dok 2x2 model proširuje ovaj okvir uvođenjem različitih regulatornih fokusa.

Predloženi 2x2 model razlikuje tipove motivacije na osnovu dve ključne dimenzije: izvora koncepta selfa (sopstveni nasuprot spoljašnjem) i regulatornog fokusa (promotivni nasuprot preventivni). Preciznije, ovaj model dodatno razrađuje koncepte idealnog i očekivanog ja uvođenjem razlike između predstava o sebi koje proizilaze iz individualne perspektive učenika i onih koje su nametnute spoljnim akterima. Ovaj koncept omogućava dublje razumevanje motivacije, uzimajući u obzir kako unutrašnje težnje, tako i spolja nametnute obaveze (Papi et al., 2019).

Četiri koncepta selfa predložena u okviru 2x2 modela obuhvataju:

1. Idealno ja / sopstveno – osobine vezane za učenje stranih jezika koje učenik želi da poseduje u budućnosti (sopstvena perspektiva; promotivni fokus);
2. Idealno ja / očekivanja drugih – osobine vezane za učenje stranih jezika koje značajne osobe iz okoline učenika, poput porodice, očekuju da učenik razvije (perspektiva drugih; promotivni fokus);
3. Očekivano ja / sopstveno – osobine vezane za učenje stranih jezika koje učenik smatra da bi trebalo da poseduje (npr. obaveze, dužnosti, zahtevi) kako bi izbegao negativne posledice (sopstvena perspektiva; preventivni fokus);
4. Očekivano ja / očekivanja drugih – osobine vezane za učenje stranih jezika za koje učenik smatra da drugi očekuju da ih poseduje, takođe sa ciljem izbegavanja negativnih ishoda (perspektiva drugih; preventivni fokus).

Razlikovanjem težnji koje proizilaze iz individualne perspektive učenika od spolja nametnutih pritisaka, 2x2 model omogućava preciznije sagledavanje motivacije. Ovo je posebno značajno u kontekstima u kojima lični ciljevi i očekivanja drugih deluju u međusobnoj interakciji, kao što je slučaj kod studenata engleskog jezika. Sledeće poglavlje razmatra kako ove orijentacije oblikuju jezičko ponašanje učenika.

Metodologija istraživanja

Ciljevi istraživanja

Cilj ovog istraživanja je da se utvrdi koji model - motivacioni self-sistem za ili 2x2 model motivacije – pruža sveobuhvatnije objašnjenje motivacije za učenje stranih jezika, koja je operacionalizovana kroz napor uložen u učenje među studentima engleskog jezika i književnosti.

Specifični ciljevi istraživanja su:

1. Proceniti nivoe motivacionih komponenti predloženih u okviru oba modela među studentima engleskog jezika i književnosti;
2. Uporediti sposobnost predviđanja motivacije za učenje stranih jezika kod motivacionog self-sistema za učenje stranih jezika i 2x2 modela;
3. Identifikovati koje motivacione komponente (iz oba modela) predstavljaju naj-snažnije prediktore motivacije za učenje stranih jezika.

Uzorak

U istraživanju je učestvovalo 86 studenata Katedre za engleski jezik i književnost Filološko-umetničkog fakulteta Univerziteta u Kragujevcu. Većinu ispitanika činile su studentkinje (62.8%), a najveći broj ispitanika bio je na trećoj godini studija (46.5%). Do trenutka učešća u istraživanju, učesnici su u proseku učili engleski jezik oko 14 godina. Samo mali deo (14%) je posetio neku od zemalja engleskog govornog područja. Prosečna ocena postignuta u prethodnom semestru na predmetu Integrisane veštine engleskog jezika iznosila je 7.47 ($SD = 1.23$). Više od polovine učesnika ocenilo je svoje znanje engleskog jezika kao nivo C1 (Tabela 1).

Tabela 1

Osnovni podaci o učesnicima istraživanja

Pol	Godina studija	Dužina učenja engleskog jezika	Poseta zemljama engleskog govornog područja	Prosečna ocena na predmetu Integrisane veštine engleskog jezika	Samoprocenjeni nivo poznavanja engleskog jezika (CEFR)
Muški 31 (36%)	Druga 31 (36%)	$M = 14.40$ $SD = 1.56$	Da 12 (14%) Ne 74 (86%)	$M = 7.47$ ($SD = 1.23$)	C2 – 12 (14%) C1 – 49 (57%)
Ženski 54 (62.8%)	Treća 40 (46.5%)	$Min. = 10$ $Max. = 20$			B2 – 19 (22.1%) B1 – 6 (7%)
Drugo 1 (1.2%)	Četvrta 15 (17.4%)				

Instrumenti

U ovom istraživanju korišćen je upitnik koji se sastojao iz tri dela: demografskih podataka, dimenzija motivacionog self-sistema za učenje stranih jezika (Taguchi et al., 2009) i dimenzija 2x2 modela motivacije za učenje stranih jezika (Papi et al., 2019).

Prvim delom upitnika prikupljali su se demografski podaci, uključujući pol, godinu studija, dužinu učenja engleskog jezika, prethodne posete zemljama engleskog govornog područja, ocenu na predmetu Integrisane veštine engleskog jezika i samoprocenjeni nivo znanja engleskog jezika.

Drugi deo upitnika merio je komponente motivacionog self-sistema za učenje stranih jezika: idealno ja, očekivano ja i motivaciju za učenje stranih jezika, koja je operativno definisana kao samoprocenjeni trud i kognitivna posvećenost koju su učenici spremni da ulože u proces učenja.

Treći deo upitnika bio je namenjen 2x2 modelu motivacije za učenje stranih jezika, koji integriše orijentacije ka promociji i prevenciji, deleći motivaciju na četiri kategorije. Ove kategorije obuhvataju: idealno ja / sopstveno (lične težnje; orijentacija ka promociji); idealno ja / očekivanja drugih (težnje značajnih drugih ljudi; orijentacija ka promociji); očekivano ja / sopstveno (obaveze koje je učenik sam sebi postavio radi izbegavanja neuspeha; orijentacija ka prevenciji) i očekivano ja / očekivanja drugih (spolja nametnute obaveze i očekivanja; orijentacija ka prevenciji).

Sve tvrdnje ocenjivane su pomoću Likertove petostepene skale, sa rasponom odgovora od „uopšte se ne slažem“ do „slažem se u potpunosti“, što je omogućavalo učesnicima da izraze stepen saglasnosti sa svakom tvrdnjom.

Unutrašnja konzistentnost skala procenjena je pomoću Kronbahovog alfa koeficijenta. Svi koeficijenti podsekcija pokazali su nivo pouzdanosti od prihvatljivog do visokog: idealno ja ($\alpha = .81$), očekivano ja ($\alpha = .89$), motivacija za učenje engleskog jezika ($\alpha = .84$), idealno ja / sopstveno ($\alpha = .78$), idealno ja / očekivanja drugih ($\alpha = .87$), očekivano ja / sopstveno ($\alpha = .79$) i očekivano ja / očekivanja drugih ($\alpha = .85$) (De Vellis, 2003).

Prikupljanje i analiza podataka

Podaci su prikupljeni u oktobru 2024. godine putem anketnog ispitivanja koje je sprovedeno tokom redovne nastave. Učestvovanje je bilo dobrovoljno i anonimno, pri čemu su svi učesnici dali informisanu saglasnost pre popunjavanja upitnika.

Podaci su analizirani pomoću softvera SPSS (verzija 20.0). Primenjene su analiza pouzdanosti (Kronbahov alfa koeficijent), radi procene unutrašnje konzistentnosti skala, deskriptivna statistika, za ispitivanje nivoa analiziranih varijabli, kao i hijerarhijska regresiona analiza, kako bi se utvrdilo u kojoj meri ova dva modela objašnjavaju motivaciju za učenje stranih jezika.

Rezultati i diskusija

Deskriptivna statistika primenjena je kako bi se utvrdilo u kojoj meri su izražene komponente motivacionog self-sistema i 2x2 modela motivacije izražene kod ispitane grupe studenata (Tabela 2). Dobijeni rezultati ukazuju na izraženu orijentaciju ka motivaciji povezanoj sa idealnim ja, dok su dimenzije koje proizilaze iz osećaja obaveze znatno manje izražene.

U okviru motivacionog self-sistema za učenje stranih jezika, idealno ja beleži visoku prosečnu vrednost ($M = 4.51$) na petostepenoj Likertovoj skali (1 – uopšte se ne slažem, 5 – slažem se u potpunosti), što ukazuje na jasno formiranu i pozitivnu predstavu o sebi kao kompetentnom govorniku engleskog jezika. Nasuprot tome, očekivano ja ocenjeno je znatno niže ($M = 2.48$), što ukazuje na to da spoljašnje obaveze i očekivanja imaju slabiju motivacionu ulogu. Ovakvi nalazi potvrđuju značajniju ulogu unutrašnjih težnji učenika u odnosu na spoljašnje pritiske.

2x2 model motivacije otkriva sličan obrazac rezultata. Idealno ja / sopstveno ima najvišu prosečnu vrednost ($M = 4.52$), što potvrđuje da lične težnje predstavljaju najznačajniji izvore motivacije. Idealno ja / očekivanja drugih takođe je ocenjeno pozitivno ($M = 3.62$), što ukazuje na to da neke studente motivišu i ideali koje postavljaju značajni ljudi iz njihove okoline, ali u manjoj meri u odnosu na njihove sopstvene težnje. Očekivano ja / sopstveno umereno je izraženo ($M = 3.08$), što ukazuje na internalizovan osećaj dužnosti i odgovornosti kod dela ispitanika. Nasuprot tome, očekivano ja / očekivanja drugih beleži najnižu vrednost ($M = 2.27$), što potvrđuje da spolja nametnute obaveze i pritisci imaju najmanji uticaj među svim ispitivanim komponentama.

Prosečna vrednost motivacije za učenje engleskog jezika ($M = 3.42$) pokazuje da ispitanici u proseku pokazuju spremnost da ulože trud i kognitivni napor u učenje engleskog jezika.

Hijerarhijska višestruka regresiona analiza sprovedena je sa ciljem da se utvrdi koji model – motivacioni self-sistem za učenje stranih jezika ili 2x2 model motivacije – pouzdanije predviđa motivaciju ispitanika za učenje engleskog jezika.

Tabela 2

Deskriptivna statistika ispitivanih motivacionih komponenti

	Broj tvrdnji	Min.	Maks.	Aritmetička sredina (<i>M</i>)	Standardna devijacija (<i>SD</i>)	Zakrivljenost	Spljoštenost
Idealno ja	6	3.17	5.00	4.51	.49	-.82	-.36
Očekivano ja	5	1.00	5.00	2.48	1.09	.42	-.76
Motivacija za učenje engleskog jezika	5	1.60	5.00	3.42	.80	-.04	-.53
Idealno ja / sopstveno	4	3.00	5.00	4.52	.54	-1.09	.46
Idealno ja / očekivanja drugih	4	1.00	5.00	3.62	1.07	-.56	-.55
Očekivano ja / sopstveno	4	1.00	4.50	3.08	.93	-.28	-.74
Očekivano ja / očekivanja drugih	2	1.00	5.00	2.27	1.18	.64	-.71

Pre sprovođenja analize proverene su relevantne pretpostavke. Preliminarne dijagnostičke analize potvrdile su da su ispunjene pretpostavke linearnosti, odsustva multikolinearnosti, normalnosti, homoskedastičnosti i nezavisnosti reziduala, što ukazuje na opravdanost primene regresionog modela.

Tabela 3

Rezultati hijerarhijske regresione analize

Model	<i>R</i>	<i>R</i> ²	Korigovani <i>R</i> ²	Standardna greška	Change Statistics				
					Promena <i>R</i> ²	<i>F</i> promena	<i>df</i> 1	<i>df</i> 2	Značajnost <i>F</i> promene
1	.297	.088	.066	.77026	.088	4.023	2	83	.021
2	.341	.116	.049	.77728	.028	.626	4	79	.645

U prvom koraku hijerarhijske regresione analize, kao prediktori uključene su osnovne komponente motivacionog self-sistema za učenje stranih jezika: idealno i očekivano ja. Model je bio statistički značajan ($F(2, 83) = 4.023, p = .021$) i objašnjavao je 8.8% varijanse motivacije za učenje engleskog jezika ($R^2 = .088$). Iako je procenat objašnjene vari-

janse relativno nizak, on je značajan u kontekstu istraživanja motivacije, imajući u vidu da na ovu dimenziju utiče veliki broj individualnih i kontekstualnih faktora.

Od ova dva prediktora, samo je dimenzija idealnog ja pokazala značajan prediktivni efekat ($\beta = .276, p = .010$), dok očekivano ja nije dostiglo statističku značajnost ($\beta = -.102, p = .333$). Ovi rezultati u skladu su sa rezultatima prethodnih istraživanja (Dörnyei, 2009; Taguchi et al., 2009), koji ukazuju na značajniju prediktivnu vrednost idealnog ja u odnosu na očekivano ja u kontekstu motivacije za učenje stranih jezika. Značajan i pozitivan uticaj idealnog ja ukazuje na to da će učenici koji imaju jasnu predstavu o sebi kao uspešnim govornicima engleskog jezika verovatno ulagati veći napor u ostvarivanje te vizije. Nasuprot tome, neznatan doprinos očekivanog ja pokazuje da spoljašnje obaveze nametnute od strane društva ne predstavljaju važan izvor motivacije kod studenata koji su već internalizovani ciljeve učenja engleskog jezika, što je potvrđeno i u prethodnim istraživanjima sprovedenim među studentskom populacijom (Papi, 2010).

U drugom koraku, u model su dodata još četiri prediktora iz 2x2 modela motivacije. Procenat varijanse koji je model objasnio blago se povećao ($R^2 = .116$), ali taj porast nije bio statistički značajan ($\Delta R^2 = .028, F$ promena (4.79) = .626, $p = .645$). Pored toga, nijedan od prediktora u drugom modelu nije dostigao statističku značajnost (p – vrednosti za sve varijable $> .05$).

Dimenzija idealnog ja, koja je bila značajan prediktor u prvom koraku, izgubila je svoju prediktivnu vrednost ($\beta = .144, p = .464$) kada su uvedene dodatne promenljive. Ovaj pad značajnosti može se objasniti konceptualnim preklapanjem između idealnog ja u okviru motivacionog self-sistema i „sopstvenih“ orijentacija u 2x2 modelu – posebno idealnog ja / sopstveni. Ove promenljive verovatno odražavaju slične aspekte unutrašnje motivacije učenika, što dovodi do preklapanja varijanse kada su istovremeno uključene u regresioni model. Drugim rečima, idealno ja u motivacionom self-sistemu predstavlja holističku dimenziju koja obuhvata i lične („sopstvene“) i društvene („očekivanja drugih“) težnje, dok ih 2x2 model razdvaja u dve odvojene potkomponente. Kada se ovi preklapajući prediktori istovremeno uključe u regresioni model, zajednička varijansa umanjuje jedinstveni doprinos svakog od njih, što dovodi do gubitka statističke značajnosti. Ovo ukazuje na to da konstrukt idealnog ja kod ove specifične grupe ispitanika već integriše i lične težnje i one podstaknute društvenim očekivanjima, čime se umanjuje relevantnost njihovog dodatnog razdvajanja na „sopstveno“ i „očekivanja drugih“.

Ovi rezultati pružaju empirijsku potvrdu ključne uloge idealnog ja u predviđanju motivacije učenika da ulože napor u učenje engleskog jezika. Jedno od mogućih objašnjenja leži u profilu ispitanika – studenata engleskog jezika i književnosti – koji su svesno izabrali engleski kao svoje profesionalno usmerenje. Zbog toga je verovatno da poseduju snažnu unutrašnju motivaciju i stabilno izgrađen identitet povezan sa učenjem engleskog jezika. Za ovu grupu, engleski jezik predstavlja više od akademskog predmeta; on je integrisan u njihove lične ciljeve, vrednosti i identitet. Njihova motivacija prvenstveno je zasnovana na ličnim vizijama budućeg uspeha, a ne na spoljnim

obavezama i očekivanjima. Ovo ukazuje na činjenicu da je kod ovih učenika engleski jezik duboko ukorenjen u osećaj sopstva, a njihovo idealno ja je usklađeno sa akademskim i profesionalnim ciljevima.

Smanjena uloga očekivanog ja i 2x2 modela u celini ukazuje na to da spoljašnji motivacioni faktori imaju manji značaj kod učenika koji su već internalizovali svoje ciljeve u učenju jezika. Kod ovih studenata, koji se pripremaju za profesionalni rad, motivacija je stabilnija i manje podložna promenama usled kratkoročnih zahteva ili spoljašnjih obaveza. Ta internalizacija objašnjava ograničenu ulogu faktora povezanih sa očekivanim ja, kao i smanjenu relevantnost idealnog ja zasnovanog na očekivanjima drugih, u predviđanju motivacije za učenje stranih jezika.

Diferencijacija predložena 2x2 modelom može biti premenljivija u ranijim fazama učenja jezika ili u obrazovnim kontekstima gde se engleski uči kao obavezan predmet, a ne kao odabrani profesionalni put. Kod studenata koji se identifikuju sa ciljnim jezikom i na ličnom i na profesionalnom nivou, motivaciju prvenstveno oblikuju dimenzije zasnovane na identitetu i konceptu selfa. To umanjuje uticaj izvora motivacije povezanih sa očekivanjima drugih, kao što su društvene norme, osećaj obaveze ili očekivanja roditelja.

Ovi nalazi se ne mogu direktno generalizovati na učenike u drugim kontekstima. Na primer, studenti iz nefiloloških oblasti koji engleski izučavaju kao obavezan predmet mogu ispoljiti drugačiji motivacioni profil, pri čemu spoljašnji izvori motivacije – kao što su ocene ili društvena očekivanja – igraju značajniju ulogu. U takvim slučajevima, veći značaj mogu imati očekivano ja ili motivacione dimenzije usmerene ka očekivanjima drugih.

Tabela 4

Regresioni koeficijenti za predviđanje motivacije za učenje stranih jezika

Model	Nestandardizovani koeficijent		Standardizovani koeficijent	p-vrednost
	<i>B</i>	Standardna greška	<i>B</i>	
1 (Konstanta)	1.585	.802		.051
Idealno ja	.447	.170	.276	.010
Očekivano ja	-.075	.077	-.102	.333
2 (Konstanta)	1.900	.877		.033
Idealno ja	.233	.317	.144	.464
Očekivano ja	.022	.154	.030	.887
	.124	.286	.084	.666
Idealno ja / sopstveno	.114	.102	.153	.267
Idealno ja / očekivanja drugih	-.090	.121	-.104	.462
Očekivano ja / sopstveno	-.125	.159	-.186	.433
Očekivano ja / očekivanja drugih				

Jedno od mogućih objašnjenja može se tražiti u prirodi obrazovnog i kulturnog konteksta. U pojedinim kolektivističkim kulturama – kao što su Tajland, Kina ili Iran (Kim, 2009; Lanvers, 2016; Taguchi et al., 2009; Topalov & Radić Bojanić, 2021) – učenici češće ispoljavaju očekivano ja, budući da spoljašnja očekivanja imaju značajnu ulogu u oblikovanju obrazovnih izbora i motivacionih orijentacija. Nasuprot tome, u drugim kulturnim kontekstima, uticaj spoljašnjih pritisaka se smanjuje na univerzitetskom nivou, naročito u oblastima koje studenti samostalno biraju. U kontekstu visokog obrazovanja u Srbiji, izbor studija engleskog jezika i književnosti u značajnoj meri odražava autonomiju studenata i njihovo lično interesovanje. Ovim se može objasniti zašto spoljašnji izvori motivacije imaju manji uticaj u ovoj grupi. Takvi faktori su verovatno značajniji u ranijim fazama obrazovanja ili u drugim oblastima studija.

Na kraju, ovi nalazi potvrđuju kontekstualnu uslovljenost motivacije za učenje stranih jezika. Razvojna faza učenika, akademsko usmerenje i dugoročni ciljevi određuju značaj različitih motivacionih komponenti.

Zaključak

Cilj ovog istraživanja bio je da se ispita koji model – motivacioni self-sistem za učenje stranih jezika ili 2x2 model motivacije za učenje stranih jezika – predstavlja pouzdaniji prediktor motivacije za učenje stranih jezika kod studenata engleskog jezika i književnosti.

Rezultati pokazuju da studente koji su izabrali engleski jezik kao svoje profesionalno usmerenje prvenstveno motivirše dimenzija idealnog ja, onako kako je konceptualizovana u motivacionom self-sistemu. Motivacija ovih studenata nalazi se na relativno razvijenom nivou, pri čemu je engleski duboko integrisan u njihov akademski i profesionalni identitet. Njihova unutrašnja, identitetski utemeljena motivacija predstavlja primarnu snagu koja usmerava njihove napore u učenju. Shodno tome, kod ove grupe studenata orijentacije „sopstveni“ i „očekivanja drugih“ u velikoj meri su isprepletane, te njihovo razdvajanje u dve potkategorije, kako to predlaže 2x2 model, u ovom kontekstu nije relevantno. Drugim rečima, kod studenata kod kojih je engleski tesno povezan sa njihovim profesionalnim razvojem, idealno ja već integriše i lične i društveno uslovljene ciljeve.

Nasuprot tome, detaljnija struktura 2x2 modela, iako konceptualno razrađeniya, u ovom kontekstu, nije pružila bolje objašnjenje motivacije. Ovo ukazuje na to da za učenike koji su već internalizovali svoje ciljeve u učenju jezika, kao u ovom istraživanju, jednostavniji okvir motivacionog self-sistema za učenje stranih jezika može biti prikladniji i sasvim adekvatan. Ograničena prediktivna moć dimenzija usmerenih ka spoljašnjim izvorima motivacije u okviru 2x2 modela dodatno ukazuje na njihovu smanjenu relevantnost u kontekstu u kojem učenici pokazuju visok stepen autonomije i profesionalne identifikacije sa jezikom. Iako 2x2 model pravi razliku između unutrašnjih i spoljašnjih regulatornih aspekata dimenzija idealnog i očekivanog ja, njegova dodatna složenost u ovom kontekstu nije donela dodatnu analitičku vrednost za ovu grupu ispitanika.

Ove nalaze treba tumačiti kao kontekstualno uslovljene, a ne kao odbacivanje 2x2 modela u teorijskom smislu. Ograničena uloga dimenzija usmerenih ka spoljašnjim izvorima motivacije, koji su zapaženi u okruženjima u kojima učenici pokazuju visok stepen autonomije i profesionalne usmerenosti ka engleskom, jeziku ne znači da distinkcija između dimenzija usmerenih ka promociji i prevenciji nema teorijski značaj. Međutim, rezultati ukazuju na to da detaljnija razgraničenja, koja u ovom kontekstu predlaže 2x2 model, ne donose dodatnu prediktivnu vrednost, verovatno usled preklapanja komponenti i specifičnosti uzorka. Ipak, ovaj model može biti značajan za učenike koji još uvek nisu razvili stabilan identitet u učenju jezika ili za one koji engleski uče pre svega kao nastavnu obavezu, a ne iz ličnog interesovanja.

U budućim istraživanjima moglo bi se ispitivati da li se slični motivacioni obrasci javljaju i kod studenata u drugim akademskim kontekstima, na primer, kod učenika koji uče engleski kao obavezan predmet ili u nefilološkim disciplinama. Takva istraživanja mogla bi preciznije osvetliti kako akademska usmerenost studenata oblikuje formiranje motivacionih komponenti i da li bi 2x2 model bio primenljiviji u manje specijalizovanim oblastima učenja ili u ranijim fazama učenja jezika.

Na kraju, rezultati istraživanja nose važne pedagoške implikacije za nastavnike koji podučavaju studente engleskog jezika i književnosti. Nastavnici bi trebalo da podstiču razvoj dimenzije idealnog ja kod studenata tako što će im omogućiti da povežu učenje engleskog jezika sa sopstvenim identitetom, kao i da ih ohrabre da razviju viziju sebe kao kompetentnih govornika jezika u budućnosti. Povezivanjem nastavne prakse sa unutrašnjom, identitetski zasnovanom motivacijom, nastavnici mogu stvoriti podsticajnije okruženje za učenje i učiniti učenje jezika relevantnijim za studente. Dornjei (Dörnyei, 2009, str. 32) predlaže šest strategija za podsticanje i održavanje idealnog ja: *konstruisanje buduće slike sebe*, što uključuje podsticanje međukulturne komunikacije i susreta sa izvornim govornicima i njihovom kulturom; *jačavanje vizije*, što podrazumeva podsticanje detaljnijih i snažnijih mentalnih slika; *ostvarljivost idealnog ja*, koja se postiže podsticanjem studenata da razmotre moguće verzije selfa i povežu ih sa realnim očekivanjima; *aktiviranje idealnog ja* kroz održavanje vizije živom kroz učešće u kulturnim aktivnostima ili angažovanje uzora u učionici; *razvoj akcionog plana*, koji obuhvata postavljanje ciljeva, prilagođavanje zadataka i planova, kao i razmatranje očekivanja i potencijalnih prepreka; *podsticanje razmatranja posledica neuspeha u savladavanju stranog jezika*, pre svega u pogledu ograničenja koja proističu iz nemogućnosti efektivne komunikacije na tom jeziku.

Literatura

- Al-Hoorie, A.H., Hiver, P., & In'nami, Y. (2024). The validation crisis in the L2 motivational self system tradition. *Studies in Second Language Acquisition*, 46 (2), 307-329. <https://doi.org/10.1017/S0272263123000487>
- Al-Shehri, A.S. (2009). Motivation and vision: The relation between the ideal L2 self, imagination and visual style. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp.164-171). Multilingual Matters.
- De Vellis, R. F. (2003). *Scale Development: Theory and Applications*. Thousand Oaks. Sage Publications.
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *Modern Language Journal*, 78(3), 273–284.
- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Lawrence Erlbaum.
- Dörnyei, Z. (2009). The L2 Motivational Self System. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 1-42). Multilingual Matters.
- Dörnyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation*. Pearson Education.
- Dörnyei, Z., & Chan, L. (2013). Motivation and vision: An analysis of future L2 self images, sensory styles, and imagery capacity across two target languages. *Language Learning*, 63(3), 437–462.
- Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.
- Gardner, R.C. (1985). *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. Edward Arnold.
- Higgins, E.T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94(3), 319-340. <https://doi.org/10.1037/0033-295X.94.3.319>
- Higgins, E.T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280-1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (1-46). Academic Press.
- Kim, T.Y. (2009). The Sociocultural Interface between ideal self and ought-to self: A case study of two Korean students' ESL motivation. In Z. Dörnyei, & E. Ushioda (Eds.), *Motivation, Language Identity and the L2 Self* (pp. 274-294). Multilingual Matters.
- Lanvers, U. (2016). Lots of selves, some rebellious: developing the self-discrepancy model for language learners. *System*, 60, 79–92.
- Papi, M. (2010). The L2 motivational self-system, L2 anxiety, and motivated behavior: A structural equation modeling approach. *System*, 38 (3), 467-479. <https://doi.org/10.1016/j.system.2010.06.011>
- Papi, M., Bondarenko, A., Mansouri, S. Feng, L., & Jiang, C. (2019). Rethinking L2 motivation research: The 2x2 Model of L2 self-guides. *Studies in Second Language Acquisition*, 41(2), 337-361. <https://doi.org/10.1017/S0272263118000153>
- Papi, M., & Teimouri, Y. (2012). Dynamics of selves and motivation: A cross-sectional study in the EFL context of Iran. *International Journal of Applied Linguistics*, 22(3), 287-309.
- Ryan, S. (2009). Self and identity in L2 motivation in Japan: The ideal L2 self and Japanese learners of English. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 120-143). Multilingual Matters.

- Shoaib, A. & Dörnyei, Z. (2005). Affect in lifelong learning: Exploring L2 motivation as a dynamic process. In Nunan, D. (Ed.), *Learners' Stories: Difference and Diversity in Language Learning* (pp.22-41). Cambridge University Press.
- Taguchi, T., Magid, M., & Papi, M. (2009). The L2 motivational self system amongst Chinese, Japanese and Iranian learners of English: A comparative study. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 66-97). Multilingual Matters.
- Topalov, J. & Radić Bojanić, B. (2021). Thai and Serbian student L2 motivational selves: a contrastive study. *Issues in Ethnology and Anthropology*, 16(4), 1229–1255. <https://doi.org/10.21301/eap.v16i4.11>

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Privatnost podataka i upotreba veštačke inteligencije u osnovnom obrazovanju u Srbiji: svest učenika i podrška odraslih

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Apstrakt

Sve učestalija primena alata zasnovanih na veštačkoj inteligenciji (VI) u obrazovanju otvara važna pitanja u vezi sa zaštitom privatnosti podataka učenika, naročito najmlađih korisnika. Ova studija ispituje u kojoj meri učenici osnovnih škola u Srbiji razumeju principe zaštite podataka u kontekstu obrazovnih platformi koje koriste VI. Posebna pažnja posvećena je odnosu između svesti učenika o rizicima po privatnost, posredovanju odraslih – nastavnika i roditelja – kao i tome da li češća upotreba VI korelira sa smanjenim nadzorom odraslih. Strukturirani upitnik primenjen je na uzorku od 240 učenika od petog do osmog razreda. Na osnovu Likertove skale su formirane kompozitne varijable, a podaci su analizirani primenom neparametarskih statističkih metoda, uključujući Spirmanov koeficijent korelacije i Vilkoksonov test znakova. Rezultati ukazuju na to da komunikacija sa odraslima ima ograničen uticaj na razumevanje privatnosti kod učenika, pri čemu se roditeljska podrška pokazala uticajnijom od nastavničke. Rezultati ukazuju na hitnu potrebu za programima digitalne pismenosti koji su prilagođeni uzrastu, institucionalnom odgovornosti i ciljanim vidovima podrške, kako za nastavnike tako i za roditelje, budući da učenici često ne poseduju konkretno razumevanje apstraktnih pojmova privatnosti, te da zahtevaju strukturisanu podršku prilagođenu njihovom razvoju, a koja bi omogućila bezbedno korišćenje tehnologija zasnovanih na VI.

Ključne reči:

veštačka inteligencija u obrazovanju; privatnost podataka učenika; učenici osnovne škole; posredovanje odraslih; digitalna pismenost.

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Uvod

Prisustvo veštačke inteligencije (VI) u obrazovanju ne menja samo način na koji učenici uče, već i način na koji se oni prate i njihovo znanje procenjuje. Određeni alati, kao što su platforme za adaptivno učenje i sistemi za automatsko davanje povratnih informacija, danas rutinski prikupljaju i analiziraju detaljne podatke o ponašanju i postignućima učenika. Ova promena otvorila je ozbiljna pitanja o obimu prikupljanja podataka, nedostatku transparentnosti u vezi sa načinom njihove upotrebe, kao i o izostanku informisanog pristanka (Lupton & Williamson, 2017; Williamson, 2017). U mnogim slučajevima učenici nisu svesni da se njihove digitalne aktivnosti – kliktanje, davanje odgovora i vreme provedeno na zadacima – beleže i dele, ponekad i sa eksternim pružaocima usluga koji deluju van nadzora škole (Williamson, 2019).

Regulatorna tela i međunarodne organizacije počele su da donose konkretne smernice usmerene na zaštitu ljudskog dostojanstva i prava dece u kontekstu razvoja veštačke inteligencije. Na primer, kineska „Etička pravila za veštačku inteligenciju nove generacije“ (2021) naglašavaju da razvoj VI mora doprinositi dobrobiti čoveka (Huang, 2023, str. 2578). Slično tome, Uneskova *Preporuka o etici veštačke inteligencije* (2022) poziva na zaštitu ljudskih prava, slobode, dostojanstva i autonomije. Oba dokumenta ističu da se lični podaci nikada ne smeju prikupljati bez informisanog pristanka, te zagaravaju jasna pravila o tome kako se podaci o deci prikupljaju, čuvaju i koriste – naročito u školskom okruženju.

Kako škole počinju da koriste sve veći broj tehnologija zasnovanih na algoritmiima, učenici se često predstavljaju kroz svojevrsne podatkovne profile, koji utiču na način na koji se podučavaju i ocenjuju (Williamson, 2019). Ovi sistemi su retko transparentni, a njihov uticaj na proces učenja otvara važna pitanja o tome ko kontroliše podatke o učenicima i kako se donose odluke. Kao odgovor na to, istraživači ističu da digitalna pismenost mora prevazići osnovne računarske veštine. Ona bi takođe trebalo da pomogne učenicima da razumeju koji se lični podaci prikupljaju, kako se koriste i kakve to posledice ima po njihovo učenje i privatnost (Hillman et al., 2024; Yeşilyurt & Vezne, 2023).

Problem je posebno izražen u osnovnom i srednjem obrazovanju, gde učenici često nemaju razvijene kognitivne i jezičke kapacitete za razumevanje složenih koncepata digitalne privatnosti. Empirijska istraživanja pokazuju da deca imaju poteškoće da razumeju pojmove kao što su „deljenje podataka“, „lični podaci“ ili „praćenje“, osim ako se oni ne objasne na konkretan način, koji je primeren njihovom uzrastu. Iako je upotreba digitalnih platformi među decom u porastu, što potvrđuju i podaci zasnovani na algoritamskim analizama, učenici se retko podučavaju tome kako ovi sistemi funkcionišu, na koji način mogu biti pristrasni i koja prava imaju prilikom njihove upotrebe. Institucionalni mehanizmi zaštite su neujednačeni: istraživanja ukazuju na nedostatak obuke nastavnika u oblasti etike VI i zaštite podataka (CoSN, 2025; Kelly et al., 2023), dok je posredovanje roditelja često nedosledno i uslovljeno nedovoljnom informisanošću (Livingstone & Blum-Ross, 2020).

Ovo istraživanje u svom fokusu ima osnovno obrazovanje u Srbiji, gde su istraživanja o veštačkoj inteligenciji, zaštiti podataka i autonomiji učenika i dalje ograničena. U radu

se ispituje kako deca percipiraju rizike po privatnost, na koji način posredovanje odraslih (nastavnika i roditelja) utiče na to razumevanje i da li učestala upotreba VI smanjuje nivo nadzora. Takođe, rad pruža empirijske dokaze, koji doprinose međunarodnim debatama o digitalnim pravima dece, kao i ulozi škola u stvaranju bezbednih i podsticajnih obrazovnih okruženja posredovanih veštačkom inteligencijom.

Pregled literature

Međunarodna istraživanja dosledno ukazuju na povrede privatnosti, na ograničenu autonomiju učenika i na nedovoljnu regulisanost algoritamskih sistema kao ključne etičke izazove u primeni veštačke inteligencije u obrazovanju (Guo, 2021; Zhao et al., 2021). Ovi sistemi često prikupljaju podatke na netransparentan način i stvaraju neravnotežan odnos moći između korisnika i pružalaca tehnoloških usluga. Kao odgovor na to, istraživači predlažu etičke okvire usmerene na učenika (Hao et al., 2019; Liu et al., 2021), fleksibilnije i proaktivnije regulatorne pristupe (Xue & Zhao, 2019), kao i stroža pravila za upravljanje podacima u školama (Jia & Jiang, 2017). Ono što je zajedničko svim ovim pristupima jeste zahtev da sistemi veštačke inteligencije u obrazovanju funkcionišu transparentno i uz jasnu odgovornost kada je reč o načinu njihovog rada i posledicama njihove primene.

Savremeni razvoj tehnologija za obradu podataka dodatno je otežao jasno razgraničenje između korisnih obrazovnih alata i različitih oblika digitalnog nadzora. Pojedini sistemi veštačke inteligencije danas mogu donositi zaključke o ponašanju, emocionalnim stanjima ili obrascima mišljenja učenika na osnovu njihovih aktivnosti na internetu, čime granica između podrške učenju i nadzora postaje sve manje jasna (Huang, 2023, str. 2582). Regulatornim mehanizmima, poput Opšte uredbe o zaštiti podataka (GDPR) i tzv. „prava na zaborav“ (Hoofnagle et al., 2019; Shi & Zhou, 2022), jeste cilj da pojedincima obezbede veću kontrolu nad načinom korišćenja njihovih ličnih podataka. Druge strategije, kao što je ugrađivanje zaštite privatnosti već u fazi dizajna digitalnih alata (engl. *privacy by design*) (Zhao et al., 2016), nastoje da osiguraju da se o zaštiti podataka vodi računa od samog početka razvoja tehnologije. Institucionalni predlozi, poput Vangovog (Wang, 2016) modela upravljanja podacima na nivou škole, dodatno naglašavaju potrebu usklađivanja tehničkih rešenja sa pravnim i etičkim obavezama.

Empirijska istraživanja pokazuju da mnoga mlađa deca i dalje nemaju dovoljno razvijeno razumevanje digitalne privatnosti. Vang i saradnici (Wang et al, 2019) utvrdili su da deca uzrasta od 6 do 10 godina mogu prepoznati osnovne rizike, kao što je prekomerno deljenje ličnih informacija, ali imaju poteškoća da razumeju apstraktnije probleme, poput načina na koji platforme prate njihovo ponašanje ili predlažu sadržaje. Slično tome, Andriz i Robertson (Andries & Robertson, 2023) pokazali su da učenici osnovnih škola u Škotskoj ne razumeju način na koji funkcionišu sistemi veštačke inteligencije, što ukazuje na potrebu za uvođenjem sadržaja o digitalnim tehnologijama koji su prilagođeni uzrastu već u ranim fazama obrazovanja.

Klasične teorije dečjeg razvoja mogu dodatno objasniti zašto deca imaju poteškoća u razumevanju digitalne privatnosti, kao i koncepta povezanih sa veštačkom intelligen-

cijom. Prema Pijažeu, većina dece u osnovnoj školi nalazi se u fazi konkretnih operacija (najčešće između sedme i jedanaeste godine), tokom koje mogu logički da razmišljaju o konkretnim situacijama, ali i dalje imaju poteškoća sa razumevanjem apstraktnih pojmova. Iako mogu prepoznati očigledne rizike, kao što je deljenje ličnih podataka na internetu, teže razumeju manje vidljive opasnosti, poput praćenja putem aplikacija ili ciljanog prikazivanja sadržaja.

Teorija Zone narednog razvoja (ZNR) Vigotskog dodatno objašnjava kako deca mogu usvajati apstraktne pojmove uz adekvatnu podršku odraslih ili vršnjaka. Vigotski je isticao da je učenje najefikasnije kada dete ima podršku kompetentnijih osoba – nastavnika, roditelja ili vršnjaka – koji kroz zajedničku interakciju, postavljanje pitanja i podsticanje refleksije pomažu u razumevanju složenijih koncepata. U kontekstu veštačke inteligencije i digitalne privatnosti, to znači da deca verovatno neće usvojiti etičke principe niti prepoznati rizike digitalnog nadzora ukoliko im se ti fenomeni jasno ne objasne kroz proces podučavanja koji je u skladu sa njihovim uzrastom i nivoom razumevanja. I Pijaže i Vigotski ukazuju na to da su deci potrebni strukturisana podrška i njima bliski, konkretni primeri kako bi mogla da razumeju digitalne alate i potencijalne rizike koje oni nose.

Gao i saradnici (Gao et al., 2025) sarađivali su sa nastavnicima na zajedničkom osmišljavanju kratkih nastavnih jedinica za decu od vrtićkog uzrasta do učenika osmog razreda. Njihovi rezultati pokazuju da čak i kratke, ali dobro integrisane aktivnosti mogu unaprediti sposobnost dece da prepoznaju pretnje po privatnost i da adekvatno reaguju na njih. Do sličnih zaključaka došli su i Vartiainen i saradnici (Vartiainen et al., 2025), kroz nastavne intervencije zasnovane na upotrebi posebno razvijenih aplikacija, koje su dovele do merljivog napretka u razvoju tzv. podatkovne agencnosti (engl. data agency), odnosno sposobnosti učenika da kritički razumeju podatke. Njihovo istraživanje pokazalo je da su učenici postali svesniji načina na koji algoritmi društvenih mreža utiču na sadržaje koje vide na internetu i, pritom, uzrokuju da takvi sadržaji oblikuju njihovo ponašanje.

Jim i Su (Yim & Su, 2025) ukazuju na to da većina postojećih programa za razvoj pismenosti u oblasti VI previše naglašava tehničke veštine, dok zanemaruje kritičko promišljanje pitanja poput informisanog pristanka, digitalnog nadzora i algoritamske pristranosti. Oni predlažu višedimenzionalni model koji objedinjuje pravne, etičke i tehničke kompetencije. U sistematskom pregledu istraživanja o digitalnom građanstvu kod dece uzrasta od 0 do 8 godina, Li i saradnici (Lee et al., 2025) zaključuju da je ovakav vid obrazovanja i dalje nedovoljno zastupljen, ali da daje pozitivne rezultate kada se integriše u osnovne nastavne predmete kroz strategije učenja zasnovane na igri i saradnji. Njihova studija posebno naglašava značaj ranih i strukturisanih obrazovnih intervencija, koje decu ne posmatraju samo kao pasivne subjekte zaštite, već kao buduće digitalne građane sposobne da razumeju privatnost, pristanak i etičko učešće u digitalnom okruženju.

Mnogi obrazovni programi ne ostvaruju očekivane rezultate, što nije prouzrokovano loše osmišljenim nastavnim planovima, već time što nastavnici nisu u dovoljnoj meri osposobljeni za njihovu primenu. Koristeći validirani okvir *DigCompEdu*, Muamar i saradnici (Muammar et al., 2023) procenjivali su digitalne kompetencije nastavnika u više ključnih oblasti. Njihovi nalazi pokazuju da čak i univerzitetski profesori pokazuju neujednačen

nivo kompetencija u oblastima kao što su zaštita podataka i pedagoška integracija digitalne etike, što ukazuje na hitnu potrebu za sistematskom obukom nastavnika na svim nivoima obrazovanja. Bez adekvatne pripreme, nastavnici mogu da izbegavaju upotrebu digitalnih alata ili da se oslanjaju na restriktivne mere koje ograničavaju aktivno učešće učenika.

Istraživanja takođe pokazuju da se digitalna etika ne može uspešno razvijati kroz izdvojene činjenice ili apstraktna pravila. Umesto toga, potrebno ju je integrisati u svakodnevnu nastavu kroz diskusije koje su prilagođene uzrastu i smisleni interakciju. Kako ističe Ngujen (Nguyen, 2023), kritičko razumevanje zaštite podataka kod dece najefikasnije se razvija kroz razgovor, vršnjačku interakciju i simulacije situacija iz stvarnog života, a ne kroz izolovane nastavne jedinice. Oslanjajući se na konstruktivističke pristupe učenju, Solberg (Solberg, 2023) zagovara model digitalne pismenosti, u kojem učenici i nastavnici zajednički promišljaju realne digitalne situacije – kao što su korišćenje aplikacija, deljenje fotografija ili komunikacija sa četbotovima. Ovakvi pristupi izbegavaju jednosmerno prenošenje znanja i polaze od pretpostavke da su deca sposobna da razumeju etičke dileme. Na taj način deca razvijaju sopstveno razumevanje kroz iskustvo u stvarnom digitalnom okruženju.

Rezultati projekta KOALA (Wang et al. 2019) pokazuju da deca često mogu prepoznati očigledne rizike, kao što je deljenje pravog imena, ali imaju poteškoća sa uočavanjem skrivenijih ili apstraktnijih pretnji, poput praćenja njihovih aktivnosti na internetu ili prikazivanja sadržaja zasnovanih na njihovom ponašanju. Upravo iz tih razloga je važno da obrazovanje o privatnosti u školama prevaziđe puko nabranje pravila. Učenicima je potrebno pomoći da razumeju kako digitalni alati funkcionišu, kao i kako utiču na njihove izbore i iskustva koja stižu. Šuli i saradnici (Shouli, 2025) iznose sličan stav, naglašavajući da decu treba posmatrati kao aktivne učesnike digitalnog okruženja, a ne samo kao pasivne korisnike. Njihov model predlaže da škole u redovnu nastavu uključe sadržaje o pravima u vezi sa podacima, načinu donošenja odluka putem algoritama i značenju informisanog pristanka.

U Srbiji i dalje postoji veoma malo istraživanja i javnih politika koje se bave načinom na koji deca koriste veštačku inteligenciju, kao i pitanjem kako se njihovi podaci upotrebljavaju u obrazovnom kontekstu. Postojeći zakonski okvir – poput Zakona o zaštiti podataka o ličnosti (2019), Zakona o socijalnoj zaštiti (2011) i Zakona o maloletnim učiniocima krivičnih dela i krivičnopravnoj zaštiti maloletnih lica (2005) – ne prepoznaje specifične rizike koje sistemi veštačke inteligencije donose u školskom okruženju. Ni Nacrt zakona o pravima deteta, koji je u pripremi, ne sadrži odredbe koje se odnose na digitalna prava, etiku podataka ili uticaj algoritamskih sistema na obrazovni proces.

Strateški dokumenti, poput Strategije razvoja veštačke inteligencije Republike Srbije (2020–2025) i Etičkih smernica za razvoj, primenu i upotrebu pouzdane i odgovorne veštačke inteligencije (2022), prepoznaju opšte rizike, poput zloupotrebe podataka, ali ne predviđaju posebne mehanizme zaštite dece. Osnivanje Instituta za veštačku inteligenciju Srbije predstavlja pozitivan institucionalni korak, ali se ova institucija do sada nije sistematski bavila etičkim pitanjima primene veštačke inteligencije u nastavi, niti njenim uticajem na decu (Danaj et al., 2024).

Ignjatovićeva (Ignjatović, 2024) ukazuje da primena zakona o zaštiti podataka o ličnosti u školskom kontekstu ostaje neujednačena i u velikoj meri nedovoljno regulisana uprkos njegovoj formalnoj usklađenosti sa GDPR regulativom, što je naročito slučaj kada se alati VI koriste za svrhe kao što su biometrijska identifikacija ili praćenje ponašanja. Etičke smernice imaju savetodavni karakter i ne sadrže konkretne odredbe koje bi se odnosile na prava deteta. Takođe, ne postoji jasno određeno regulatorno telo nadležno za nadzor nad primenom sistema VI u obrazovanju, što školama ostavlja nedovoljno definisane mehanizme kontrole i odgovornosti. Takvo stanje povećava rizik od zloupotrebe podataka o deci, kao i mogućnost da budu izložena digitalnom nadzoru bez svog znanja. Danajeva i saradnice (Danaj et al., 2024) dodatno upozoravaju da nedostatak empirijskih istraživanja u ovoj oblasti otežava razvoj konkretnih i kontekstualno utemeljenih rešenja. Nastavnicima i donosiocima odluka je otežano da osmisle efikasne mehanizme zaštite ukoliko im takvi podaci nisu na raspolaganju.

Iako roditeljsko posredovanje ima ključnu ulogu u oblikovanju digitalnog ponašanja dece, ono se suočava i sa jasnim strukturnim ograničenjima. Najnoviji nalazi istraživanja koje su sprovedli Matovićeva i Žunić-Pavlovićeva (Matović i Žunić-Pavlović, 2020) pokazuju da se mnogi roditelji pretežno oslanjaju na restriktivne pristupe – poput ograničavanja vremena provedenog pred ekranom ili zahteva za pristup lozinkama svoje dece – umesto na razvoj otvorene komunikacije i dugoročne digitalne pismenosti. Iako ovakve strategije proizlaze iz namere da se deca zaštite, one su uglavnom reaktivnog karaktera umesto preventivnog i ne doprinose dovoljno razvoju dugoročne digitalne otpornosti. U medijskom intervjuu, Kuzmanovićeva naglašava da digitalna prava dece – kao što su pravo na privatnost, učešće i pristup sadržajima primerenim uzrastu – moraju biti u potpunosti priznata u digitalnom okruženju, a ne samo uređena kroz zabrane i ograničenja. Ona ističe da bi institucionalna odgovornost, a ne prekomerna roditeljska kontrola, trebalo da bude osnova za oblikovanje bezbednog digitalnog prostora (Andrić, 2025).

Nešićeva (Nešić, 2023) u svojoj analizi obrazovnih politika ukazuje da, iako je roditeljski dijalog važan mehanizam zaštite, mnoga deca izbegavaju da prijave rizična ili osetljiva iskustva sa interneta. Autorka ističe da otvorena komunikacija ostaje neophodna, ali da je treba dopuniti konkretnim merama, koje uključuju povremenu proveru istorije pretrage, upotrebu filtera na uređajima i alate za roditeljski nadzor. Međutim, efikasna primena ovih mera zahteva viši nivo digitalne pismenosti roditelja, kao i sistemsku podršku institucija. Iako restriktivni oblici roditeljskog nadzora i dalje dominiraju, oni mogu dovesti i do narušavanja digitalnih prava dece. Kuzmanovićeva upozorava da čak i postupci sa dobrim namerama, kao što je objavljivanje fotografija dece na internetu (engl. *sharenting*), mogu predstavljati povredu dečje privatnosti, te zagovara sveobuhvatno digitalno opismenjavanje i dece i odraslih (Andrić, 2025). Osim navedenog, institucionalna saradnja između roditelja i škola, kakvu predlažu Li i saradnici (Li et al., 2025) i Gao i saradnici (Gao et al., 2025), može ponuditi alternativni pristup, zasnovan na partnerstvu i podeljenoj odgovornosti, umesto prebacivanja celokupnog tereta na roditelje.

Ovo istraživanje nastoji da odgovori na nedostatak empirijskih podataka u Srbiji analizom načina na koji učenici osnovnih škola razumeju zaštitu podataka o ličnosti, kao i uticaja podrške odraslih na interakciju učenika sa obrazovnim alatima zasnovanim na veštačkoj inteligenciji.

Metodologija istraživanja

U cilju prevazilaženja nedostatka empirijskih istraživanja u ovoj oblasti, u radu je primenjeno kvantitativno istraživanje poprečnog tipa, da bi se ispitali načini na koje učenici osnovnih škola u Srbiji percipiraju i upravljaju zaštitom podataka o ličnosti, u kontekstu obrazovnih tehnologija zasnovanih na veštačkoj inteligenciji. Istraživanje se posebno usredsređuje na odnose između upoznatosti učenika sa sistemima VI, njihovog nivoa svesti o zaštiti podataka, kao i posredničke uloge podrške odraslih – pre svega, nastavnika i roditelja. Studija je vođena sledećim istraživačkim pitanjima:

1. U kojoj meri su učenici osnovnih škola upoznati sa pitanjima privatnosti i zaštite podataka u kontekstu korišćenja alata VI i aplikacija?
2. Na koji način komunikacija sa nastavnicima i roditeljima utiče na razumevanje zaštite podataka kod učenika u okruženju posredovanom veštačkom inteligencijom?
3. Da li postoji razlika u nivou podrške i nadzora koji pružaju roditelji u odnosu na nastavnike kada je reč o korišćenju aplikacija VI od strane učenika?
4. Da li je učestalost korišćenja aplikacija VI povezana sa nivoom roditeljskog nadzora u kućnom okruženju?

Uzorak

Istraživanje je sprovedeno na uzorku od 240 učenika osnovnih škola u Srbiji, od petog do osmog razreda. Raspodela po razredima bila je gotovo ujednačena: 25,0% učenika pohađalo je peti razred, 25,0% šesti, 25,4% sedmi, a 24,6% osmi razred. Prema polnoj strukturi, 53,3% ispitanika činili su dečaci, dok su 46,7% činile devojčice. Učenici su uključeni u istraživanje iz škola u urbanim i prigradskim sredinama, primenom prigodnog uzorka.

Prikupljanje podataka

Link ka upitniku distribuiran je putem profesionalnih nastavničkih mreža i grupa na društvenim mrežama. Aktivnost su sa svojim odeljenjima realizovali isključivo nastavnici koji su dobrovoljno iskazali interesovanje za učešće u istraživanju. Prema informacijama koje su dostavili nastavnici, roditelji su usmeno obavesteni na roditeljskim sastancima da će učenici učestvovati u probnoj upotrebi obrazovnog četbota, nakon čega će imati mogućnost da popune dobrovoljan i anoniman upitnik, uz mogućnost da odbiju učešće. Nije bilo prijavljenih primedbi. Svi upitnici popunjeni su u školskom okruženju, uz nadzor nastavnika.

Izjava o etičkom postupanju

Učešće u istraživanju bilo je u potpunosti dobrovoljno, a sadržaj upitnika bio je neutralan i procenjen kao istraživanje minimalnog rizika. Nisu prikupljeni lični podaci (kao

što su imena, podaci o školama ili IP adrese), niti su istraživači imali mogućnost naknadne identifikacije učesnika. Svi učesnici popunjavali su upitnik u školskom okruženju, uz nadzor nastavnika. U skladu sa uvodnom odredbom 26 Opšte uredbe EU o zaštiti podataka (GDPR) i Zakonom o zaštiti podataka o ličnosti Republike Srbije, potpuno anonimizovani podaci se ne smatraju ličnim podacima, te stoga formalna saglasnost roditelja i odobrenje etičkog odbora nisu bili obavezni. Istraživanje je sprovedeno u skladu sa principima Helsinške deklaracije i relevantnim nacionalnim propisima koji se odnose na zaštitu podataka i istraživanja u oblasti obrazovanja.

Hipoteze

Formulisane su sledeće hipoteze:

H1. Učenici koji češće koriste aplikacije VI ređe su pod roditeljskim nadzorom u kućnom okruženju.

H2. Komunikacija sa odraslima doprinosi boljem razumevanju zaštite podataka kod učenika. Učenici koji razgovaraju sa nastavnicima o veštačkoj inteligenciji i digitalnoj bezbednosti pokazaće viši nivo svesti o pitanjima privatnosti (H2.1). Učenici koji o digitalnoj privatnosti razgovaraju sa roditeljima pokazaće viši nivo svesti o zaštiti podataka (H2.2). Učenici koji dobijaju smernice i od roditelja i od nastavnika pokazaće najviši nivo razumevanja zaštite podataka (H2.3).

H3. Institucionalna podrška manje je razvijena u odnosu na porodičnu podršku. Veća je verovatnoća da će učenici dobiti dozvolu roditelja nego dozvolu nastavnika za korišćenje alata VI (H3.1). Učenici češće koriste aplikacije VI pod nadzorom roditelja nego pod nadzorom nastavnika (H3.2). Učenici doživljavaju roditelje kao informisanije od nastavnika kada je reč o bezbednosti alata VI (H3.3).

Istraživački instrument

Primarni instrument za prikupljanje podataka bio je upitnik samoprocene, posebno konstruisan za potrebe ovog istraživanja. Upitnik nije preuzet niti prilagođen iz postojećih validiranih skala, već je razvijen na osnovu pregleda relevantne literature i konsultacija sa stručnjacima iz oblasti obrazovne psihologije i informacionih tehnologija. Upitnik je sadržao 22 zatvorena pitanja merena petostepenom Likertovom skalom (1 uopšte se ne slažem, 5 u potpunosti se slažem) i bio je organizovan u pet tematskih celina: upoznatost i korišćenje aplikacija VI (pitanja 1 – 2), svest o zaštiti podataka (pitanja 3 – 10), iskustvo sa deljenjem podataka i nadzorom (pitanja 11 – 13), uključenost nastavnika i roditelja (pitanja 12 – 19) i motivacija i obrazovne potrebe (pitanja 20 – 22).

Pre glavnog prikupljanja podataka, sprovedena je pilot-studija na uzorku od 38 učenika osnovne škole (od petog do osmog razreda) iz jedne urbane sredine. Cilj pilot-studije bio je da se procene jasnoća pitanja, dužina upitnika i tehnička izvodljivost. Na osnovu povratnih informacija iz pilot faze, izvršene su manje jezičke korekcije u pitanjima 4, 13 i 20 kako bi se poboljšala razumljivost i smanjila mogućnost različitog tumačenja.

Za potrebe testiranja hipoteza i provere konstruktne validnosti formirano je pet kompozitnih (latentnih) varijabli, agregiranjem tematski povezanih pitanja. To su: (1) nivo samostalnosti u korišćenju alata VI, izveden iz pitanja 2 i 17 (uz obrnutu skalu kodiranja); (2) indeks svesti o privatnosti, zasnovan na pitanjima 3, 4 i 7; (3) komunikacija sa odraslima, formirana na osnovu pitanja 15 i 19; (4) indeks podrške nastavnika, formiran na osnovu pitanja 12, 13 i 14; i (5) indeks roditeljske podrške, zasnovan na pitanjima 16, 17 i 18.

Svaka kompozitna varijabla izračunata je kao prosečna vrednost pripadajućih pitanja. Ovi konstrukti korišćeni su za ispitivanje odnosa između varijabli i proveru postavljenih hipoteza. Grupisanje pitanja zasnovano je na teorijskim modelima digitalne pismenosti i posredovanja u oblasti privatnosti kod dece (Stoilova i sar., 2019) i odražava konceptualnu koherentnost posmatranih dimenzija.

Validnost razvijenog instrumenta potvrđena je na tri ključna osnova: (1) teorijskoj utemeljenosti konstrukata, zasnovanoj na relevantnim modelima digitalne pismenosti i posredovanja privatnosti kod dece; (2) zadovoljavajućoj internoj konzistentnosti, potvrđenoj koeficijentima pouzdanosti (Kronbahov $\alpha > .70$) za sve indekse; (3) empirijskoj potvrdi kroz međusobne korelacije kompozitnih varijabli u skladu sa postavljenim hipotezama.

Radi procene interne konzistentnosti ovih konstrukata, Kronbahov alfa koeficijent izračunat je na osnovu podataka celokupnog uzorka ($n = 240$). Rezultati su pokazali zadovoljavajući nivo pouzdanosti za svih pet indeksa: indeks samostalnosti u korišćenju alata VI imao je vrednost $\alpha = .72$; indeks svesti o privatnosti $\alpha = .81$; komunikacija sa odraslima $\alpha = .76$; indeks podrške nastavnika $\alpha = .79$; dok je indeks roditeljske podrške pokazao najvišu pouzdanost ($\alpha = .83$). Sve vrednosti premašuju uobičajeni prag od .70, što ukazuje na prihvatljivu internu konzistentnost svih konstrukata. Potrebno je napomenuti da procene pouzdanosti za skale sa samo dva pitanja, kao što su „Komunikacija sa odraslima“ i „Nivo samostalnosti u korišćenju alata VI“, treba tumačiti sa oprezom, jer je Kronbahov alfa u takvim slučajevima manje stabilan; ipak, obe skale su imale vrednosti iznad .70 i odražavale su konceptualno koherentne dimenzije (Eisinga i sar., 2013).

Ove kompozitne varijable su potom korišćene za ispitivanje odnosa između ključnih dimenzija istraživanja, kao i za proveru postavljenih hipoteza. Preliminarni dokazi konstruktne validnosti dobijeni su korelacionom analizom između kompozitnih varijabli, koja je pokazala statistički značajne veze u očekivanim smerovima.

Konstruktna validnost kompozitnih varijabli potvrđena je kako teorijskim utemeljenjem tako i empirijskim nalazima zasnovanim na njihovim međusobnim korelacijama. Indeks samostalnosti u korišćenju aplikacija VI bio je statistički značajno negativno povezan sa roditeljskim nadzorom ($\rho = -.189, p < .01$), dok je indeks roditeljske podrške takođe pokazao značajnu negativnu korelaciju sa nivoom svesti učenika o privatnosti ($\rho = -.163, p < .05$). Nasuprot tome, indeks komunikacije sa odraslima nije pokazao statistički značajnu povezanost sa razumevanjem privatnosti kod učenika ($\rho = .052, n.s.$), što ukazuje na tematsku diferenciranost ovih konstrukata. Dodatno, Vilkoksonov test potvrdio je statistički značajne razlike u percepciji podrške roditelja i nastavnika od strane učenika ($Z = -3.397, p < .01$), čime je dodatno potvrđena interna validnost definisanih indeksa.

Iako instrument nije zasnovan na postojećim validiranim skalama, njegova koherentna tematska struktura, jasno definisani indikatori i konzistentni empirijski obrasci pružaju

snažnu osnovu za procenu njegove adekvatnosti u ispitivanju stavova i iskustava učenika u vezi sa korišćenjem alata VI, razumevanjem zaštite podataka i ulogom podrške odraslih.

Analiza podataka

Svi odgovori iz upitnika su numerički kodirani (1 – 5) i agregirani radi formiranja kompozitnih skorova za svaku latentnu varijablu. Distribucija varijabli testirana je na normalnost primenom Kolmogorov–Smirnovljevog i Šapiro–Vilkovog testa. Kako nijedna od varijabli nije pratila normalnu distribuciju, primenjene su neparametrijske statističke metode, uključujući Spirmanov koeficijent rang-korelacije (za ispitivanje povezanosti između varijabli) i Vilkoksonov test rangova za zavisne uzorke (za poređenje povezanih odgovora, posebno u vezi sa indikatorima podrške nastavnika i roditelja).

Rezultati

Spirmanova rho korelacija (Tabela 1) pokazuje statistički značajnu negativnu povezanost između učestalosti korišćenja alata VI i nivoa roditeljskog nadzora u kućnom okruženju ($\rho = -.189, p < .01$), čime je potvrđena hipoteza (H1) da su učenici koji češće koriste alate VI ređe pod roditeljskim nadzorom. Takođe, roditeljski nadzor pokazuje negativnu povezanost sa nivoom svesti o privatnosti ($\rho = -.163, p < .05$), što ukazuje na to da učenici koji su pod većim roditeljskim nadzorom pokazuju niži nivo razumevanja pitanja privatnosti u kontekstu alata VI. Jedno od mogućih objašnjenja jeste da učenici pod strožim roditeljskim nadzorom imaju manje prilika za samostalno istraživanje alata VI i sticanje iskustva u razumevanju pitanja privatnosti. S druge strane, učestalost korišćenja alata VI nije pokazala statistički značajnu povezanost sa nivoom svesti o privatnosti ($\rho = .106$), niti sa nivoom komunikacije sa odraslima ($\rho = .013$), što ukazuje na to da samostalnost u digitalnom okruženju nije direktno povezana sa razumevanjem privatnosti, niti sa učestalošću razgovora sa odraslima o ovim temama. Rezultat da je veća učestalost korišćenja alata VI statistički značajno povezana sa nižim nivoom roditeljskog nadzora potvrđuje postavljenu hipotezu. Na osnovu toga može se zaključiti da je hipoteza H1 u potpunosti potvrđena.

Tabela 1

Povezanost učestalosti korišćenja alata VI, roditeljskog nadzora, svesti o zaštiti podataka i komunikacije sa odraslima (N 240)

Varijabla	Učestalost korišćenja VI	Roditeljski nadzor	Nivo svesti o privatnosti	Nivo komunikacije sa odraslima
Učestalost korišćenja VI	1.000	-.189**	.106	.013
Roditeljski nadzor		1.000	-.163*	.052
Nivo svesti o privatnosti			1.000	.052
Nivo komunikacije sa odraslima				1.000

Napomena. **Korelacija je statistički značajna na nivou .01 (2-tailed). *Korelacija je statistički značajna na nivou .05 (2-tailed).

Uticaj komunikacije učenika sa odraslima na njihovo razumevanje pitanja privatnosti u kontekstu alata VI (H2) ispitano je primenom Spirmanovog koeficijenta rang-korelacije. Kao što je prikazano u Tabeli 2, povezanost između komunikacije sa nastavnicima i svesti o privatnosti bila je slaba i statistički neznačajna ($p = .096, p \text{ n.s.}$). Komunikacija sa roditeljima pokazala je još slabiju, blago negativnu povezanost ($p = -.010, p \text{ n.s.}$). Nasuprot tome, ukupna komunikacija sa odraslima bila je snažno povezana i sa komunikacijom sa nastavnicima ($p = .739, p < .01$) i sa komunikacijom sa roditeljima ($p = .735, p < .01$), što ukazuje na to da učenici koji češće razgovaraju sa jednom grupom odraslih uglavnom češće komuniciraju i sa drugom. Međutim, ova ukupna komunikacija nije bila povezana sa značajnim porastom svesti o privatnosti, što sugerise da takve interakcije, čak i kada su učestale, verovatno ne obuhvataju pitanja zaštite podataka na dovoljno smislen ili strukturisan način.

U vezi sa hipotezom H2.1, utvrđena je slaba i statistički neznačajna povezanost između komunikacije sa nastavnicima i svesti o privatnosti ($p = .096, p \text{ n.s.}$). Ovaj rezultat pokazuje da razgovori između nastavnika i učenika imaju ograničen uticaj na razumevanje digitalne privatnosti. Neka od mogućih objašnjenja jesu da teme vezane za privatnost nisu dovoljno zastupljene u nastavnim programima ili da nastavnici nemaju dovoljno obuke za njihovu efikasnu obradu.

U vezi sa hipotezom H2.2, povezanost između komunikacije sa roditeljima i svesti o privatnosti bila je izuzetno slaba i blago negativna ($p = -.010, p \text{ n.s.}$), što ukazuje na odsustvo značajne veze. Ovaj rezultat može ukazivati na to da učenici ili ne dobijaju relevantne informacije od roditelja ili takve razgovore ne doživljavaju kao primenljive na sopstveno korišćenje alata VI. Jedno od mogućih objašnjenja jeste i nedovoljna informisanost roditelja o pitanjima privatnosti u kontekstu veštačke inteligencije, što može ograničiti kvalitet i obuhvat informacija koje prenose deci.

Hipoteza H2.3 ispitivala je da li je ukupna komunikacija sa odraslima (kombinovana komunikacija sa roditeljima i nastavnicima) snažniji prediktor razumevanja privatnosti. Iako su utvrđene snažne povezanosti između opšte komunikacije sa odraslima i komunikacije sa nastavnicima ($p = .739$) i roditeljima ($p = .735, p < .01$), direktna povezanost između ukupne komunikacije i svesti o privatnosti ostala je slaba i statistički neznačajna ($p = .052, p \text{ n.s.}$). Ovaj rezultat sugerise da, iako učenici razgovaraju i sa roditeljima i sa nastavnicima, ti razgovori verovatno češće obuhvataju opšta pitanja korišćenja tehnologije, a ređe konkretne teme koje se odnose na zaštitu podataka i privatnost.

Rezultati ukazuju da komunikacija sa nastavnicima i roditeljima nema značajan uticaj na nivo svesti učenika o zaštiti podataka. Iako postoji snažna i statistički značajna povezanost između komunikacije sa nastavnicima i roditeljima ($p = .739$ i $p = .735, p < .01$), takve interakcije se ne odražavaju na viši nivo razumevanja privatnosti kod učenika.

Hipoteze H2.1 i H2.2 nisu potvrđene, jer ni komunikacija sa nastavnicima ni komunikacija sa roditeljima ne pokazuju statistički značajan uticaj na svest o privatnosti. Hipoteza H2.3 je samo delimično potvrđena: iako je ukupna komunikacija sa odraslima snažno povezana sa njenim pojedinačnim komponentama, ona ne predstavlja značajan prediktor razumevanja privatnosti kod učenika. Ovi rezultati ukazuju na mogućnost da učenici najveći deo znanja o zaštiti podataka stiču kroz lično iskustvo, a ne kroz razgovore sa odraslima. U skladu s tim, opšta hipoteza H2 nije potvrđena. Ovakvi rezultati ukazuju na potrebu za jasnijim i sistematičnijim obrazovanjem o zaštiti podataka, kako u školskom, tako i u porodičnom okruženju.

Tabela 2

Povezanost nivoa svesti o privatnosti, komunikacije sa nastavnicima, roditeljima i ukupnog nivoa komunikacije sa odraslima (N 240)

Varijabla	Nivo svesti o privatnosti	Komunikacija sa nastavnicima	Komunikacija sa roditeljima	Nivo komunikacije sa odraslima
Nivo svesti o privatnosti	1.000	.096	-.010	.052
Komunikacija sa nastavnicima		1.000	.106	.739**
Komunikacija sa roditeljima			1.000	.735**
Nivo komunikacije sa odraslima				1.000

Napomena. **Korelacija je statistički značajna na nivou 0,01 (2-tailed).

Rezultati Vilkoksonovog testa rangova za zavisne uzorke (Tabela 3) podržavaju hipotezu H3 i ukazuju na to da učenici percipiraju roditeljsku podršku u korišćenju alata VI kao razvijeniju u odnosu na podršku nastavnika. Hipoteza H3.1 je potvrđena: učenici navode da roditelji češće daju dozvolu za korišćenje alata VI nego nastavnici ($Z = -2,579, p < .05$). Hipoteza H3.2 nije potvrđena: nije utvrđena statistički značajna razlika u nivou nadzora nad korišćenjem alata VI između roditelja i nastavnika ($Z = -1,072, p = .284$), što ukazuje na uporediv nivo nadzora u školskom i porodičnom okruženju. Hipoteza H3.3 je potvrđena: učenici percipiraju roditelje kao informisanije o bezbednosti podataka u odnosu na nastavnike ($Z = -1,901, p < .05$). Takođe, utvrđena je snažna i statistički značajna razlika u ukupnom nivou podrške u korist roditelja ($Z = -3,397, p < .01$). Ovi rezultati potvrđuju da je roditeljska podrška generalno razvijenija od školske podrške u usmeravanju učenika u korišćenju alata VI, čime je hipoteza H3 u celini potvrđena.

Rezultati ukazuju da roditelji imaju ključnu ulogu u pružanju podrške učenicima u korišćenju alata VI, dok je uticaj nastavnika ograničen, što se može dovesti u vezu sa nedovoljnom prilagođenošću nastavnih programa i pristupa ovoj temi.

Tabela 3

Rezultati Vilkoksonovog testa rangova za zavisne uzorke za podršku nastavnika i roditelja u korišćenju alata VI i aplikacija (N 240)

Podrška nastavnika i roditelja	Dozvola nastavnika u školi – roditelja kod kuće za korišćenje alata VI i aplikacija	Korišćenje alata VI samo uz nadzor nastavnika u školi – roditeljski nadzor kod kuće	Informisanost nastavnika – roditelja o bezbednosti podataka u alatima VI i aplikacijama	Nivo podrške nastavnika – nivo podrške roditelja
Z	-2.579	-1.072	-1.901	-3.397
Asymp. Sig. (2-tailed)	.010	.284	.039	.001

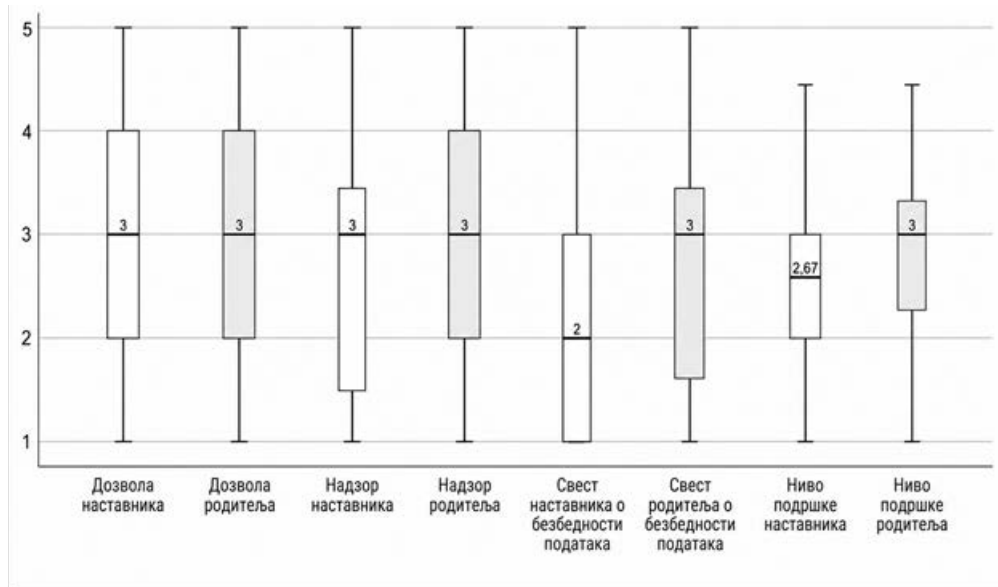
Napomena: Negativna Z-vrednost ukazuje na to da su sve vrednosti koje se odnose na roditelje više u odnosu na odgovarajuće vrednosti koje se odnose na nastavnike.

Grafikon 1 vizuelno potvrđuje prethodne nalaze, koji ukazuju da roditelji pružaju viši nivo podrške učenicima u gotovo svim aspektima korišćenja alata VI, uključujući davanje dozvole za njihovu upotrebu, nadzor nad korišćenjem alata VI, kao i nivo informisanosti o bezbednosti podataka. Prikazani rezultati pokazuju da su medijalne vrednosti podrške nastavnika niže u svim kategorijama, osim u segmentu nadzora, gde razlika nije statistički značajna. Posebno se izdvaja razlika u proceni informisanosti o bezbednosti podataka, gde učenici smatraju da su roditelji bolje upoznati sa pitanjima zaštite privatnosti od nastavnika. Najveća razlika uočava se u ukupnom nivou podrške, gde je roditeljska podrška izraženija u odnosu na podršku nastavnika (medijana 3 naspram 2,67).

Ovi rezultati potvrđuju da se učenici u većoj meri oslanjaju na podršku roditelja nego na podršku nastavnika prilikom korišćenja alata VI i aplikacija, što ukazuje na potrebu za snažnijim obrazovnim inicijativama i sistemskom podrškom u okviru školskog sistema.

Grafikon 1

Poređenje podrške nastavnika i roditelja u korišćenju alata VI



Diskusija

Rezultati ovog istraživanja pokazuju da posredovanje odraslih – bilo da je reč o roditeljima ili nastavnicima – ima samo ograničenu povezanost sa razumevanjem zaštite podataka kod učenika osnovnih škola. Uključenost roditelja pokazala je nešto jaču povezanost u odnosu na angažovanje nastavnika, ali su oba efekta bila slaba (npr. povezanost između roditeljskog nadzora i svesti o privatnosti ($p = -.163$, $p < .05$). Ovaj rezultat dovodi u pitanje uvreženo mišljenje da je samo prisustvo odraslih, bez odgovarajuće obuke ili institucionalne podrške, dovoljno da osigura bezbedne digitalne prakse.

Podrška odraslih u ovom kontekstu deluje ograničeno i po svom obliku i po sadržaju. Kako ističu Matovićeva i Žunić-Pavlovićeva (Matović i Žunić-Pavlović, 2020), mnogi roditelji u Srbiji oslanjaju se na restriktivne mere umesto na podsticanje otvorenog dijaloga. Takve strategije mogu razviti zavisnost umesto samostalnosti, što čini učenike nedovoljno pripremljenim za suočavanje sa rizicima po privatnost u radu sa alatima zasnovanim na veštačkoj inteligenciji. Naši rezultati takođe potvrđuju zapažanje Nešićeve (Nešić, 2023) da verbalna komunikacija, ukoliko nije praćena konkretnim alatima ili jasnim primerima, retko pomaže deci da prepoznaju i procene digitalne rizike. Čak i kada odrasli pokušavaju da intervenišu, objašnjenja su često apstraktna, primeri isuviše opšti, a efekti ograničeni.

Istovremeno, statistički značajna povezanost između roditeljskog nadzora i svesti o privatnosti mora se tumačiti sa oprezom. Podaci ukazuju na postojanje veze, ali ne i na njen smer. Jedno moguće objašnjenje jeste da restriktivne roditeljske strategije mogu ograničiti razvoj kritičkog promišljanja privatnosti kod dece, podstičući zavisnost umesto autonomije. Međutim, podjednako je moguće i da učenici koji već poseduju viši nivo svesti o zaštiti podataka teže većoj samostalnosti, pa su stoga manje izloženi roditeljskom nadzoru. Treći mogući faktor – kao što su digitalna pismenost roditelja ili njihov socioekonomski status – može istovremeno uticati i na roditeljski pristup i na razumevanje kod deteta. Za razjašnjenje ovih odnosa potrebna su longitudinalna istraživanja ili istraživanja zasnovana na kombinovanju kvantitativnih i kvalitativnih metoda.

Uprkos svojoj formalnoj obrazovnoj ulozi, nastavnici su pokazali ograničen uticaj na razvoj svesti učenika o zaštiti privatnosti. Ovaj rezultat je u skladu sa činjenicom da u Srbiji nedostaje obuka i alata koji bi nastavnicima omogućili da se sistematski bave pitanjima privatnosti i etike veštačke inteligencije u nastavi (Danaj et al., 2024; Ignjatović, 2024). Kako ističu Škobo i Šovićeva (Škobo i Šović, 2025), spremnost nastavnika da primene alate VI uslovljena je ne samo nedostatkom resursa već i kašnjenjem u razvoju obrazovnih politika, infrastrukturnim ograničenjima i slabom institucionalnom podrškom. Učenici koji su izloženi alatima VI u škola retko mogu da objasne na koji način se njihovi podaci mogu koristiti, što pokazuje da je njihova integracija u nastavu i dalje površna i nedovoljno razvijena sa etičkog stanovišta.

Ovi rezultati se delimično mogu objasniti i razvojnim karakteristikama učenika. Prema Pijaževom modelu kognitivnog razvoja, učenici uzrasta od 11 do 14 godina tek počinju da razvijaju sposobnost apstraktnog mišljenja (McLeod, 2009). Naši rezultati potvrđuju da učenici često daju formalno tačne odgovore, ali bez dubljeg razumevanja sadržaja. Ukoliko podrška odraslih nije usklađena sa razvojnim nivoom dece – bilo kroz upotrebu jednostavnog jezika, vizualnih prikaza ili primera iz svakodnevnog života, kako sugerise teorija Zona narednog razvoja Vigotskog – učenje verovatno neće imati stvarni obrazovni efekat. Učenici mogu popunjavati upitnike koji sadrže tehničke ili pravne termine, a da pritom ne razumeju u potpunosti njihovo značenje, što dodatno ukazuje na potrebu za obrazovnim materijalima koji su prilagođeni uzrastu i jasno strukturirani.

Rešavanje ovog problema zahteva promene kako na nivou porodice tako i na nivou škole. Povremeni časovi ili opšti razgovori o ovim temama nisu dovoljni za razvoj trajne podatkovne i digitalne pismenosti. Škole bi trebalo da pitanja privatnosti i digitalne etike integrišu u svakodnevnu nastavu. Na primer, apstraktne teme poput pristanka ili deljenja podataka mogu se približiti učenicima kroz aktivnosti kao što su simulacije digitalnih dilema (igre uloga), razgovori o svakodnevnim situacijama korišćenja alata VI ili praktični pri-

kazi podešavanja privatnosti u alatima koje učenici već koriste. Nastavnicima je potrebna obuka za osmišljavanje nastavnih aktivnosti koje ove teme čine razumljivim, relevantnim i prilagođenim uzrastu učenika. Takođe, potrebna im je podrška u vidu gotovih nastavnih materijala, primera scenarija i mogućnosti razmene materijala kroz školske mreže ili profesionalne onlajn zajednice.

Roditelji takođe imaju ključnu ulogu, ali često nemaju dovoljno sigurnosti ili znanja da pruže konstruktivnu podršku. Potrebna im je sistemska podrška škola, donosilaca obrazovnih politika i digitalnih platformi. Škole mogu ponuditi ilustrovane vodiče, kratke edukativne video-materijale, kao i predloge tema za razgovor koje bi pomogle porodicama da sa decom razgovaraju o pitanjima poput dozvola aplikacija, digitalnog pristanka ili rizika prekomernog deljenja ličnih informacija. Aktivnosti u porodičnom okruženju mogu uključivati zajedničko pregledanje podešavanja aplikacija, kreiranje porodičnih pravila o korišćenju digitalnih uređaja ili gledanje i razgovor o kratkim edukativnim sadržajima o bezbednosti na internetu. Takođe, škole bi mogle da deo roditeljskih sastanaka posvete praktičnim primerima kako voditi ovakve razgovore sa decom na konstruktivan način.

Ovo istraživanje ima nekoliko ograničenja. Prvo, uzorak je obuhvatio učenike iz ograničenog broja škola u urbanim i prigradskim sredinama u Srbiji, te se rezultati ne mogu u potpunosti generalizovati na ruralna ili etnički raznovrsnija okruženja, gde se pristup tehnologiji i podrška odraslih u vezi sa korišćenjem alata VI mogu razlikovati. Drugo, rezultati se zasnivaju na samoproceni učenika; iako su odgovori bili anonimni, moglo je doći do toga da mlađi ispitanici pogrešno razumeju pojedina pitanja, daju društveno poželjne odgovore ili imaju poteškoće da adekvatno izraze svoja iskustva. Treće, s obzirom na to da podaci nisu prikupljeni tokom dužeg vremenskog perioda, oni ne omogućuju uvid u to kako se razumevanje privatnosti kod dece menja tokom vremena ili sa učestalijom upotrebom alata VI. Na kraju, iako je upitnik pažljivo konstruisan i pokazao zadovoljavajuću internu konzistentnost, nije zasnovan na postojećim međunarodno validiranim skalama. Ovakav pristup bio je uslovljen potrebom za prilagođavanjem lokalnom kontekstu i jeziku, ali istovremeno ograničava mogućnost poređenja rezultata sa istraživanjima iz drugih zemalja.

Buduća istraživanja bi trebalo da koriste longitudinalne ili kombinovane (kvantitativno-kvalitativne) istraživačke pristupe kako bi se pratio razvoj stavova dece o privatnosti tokom vremena i ispitalo kako kontinuirana podrška odraslih utiče na taj proces. Kvalitativne metode, poput intervjua ili fokus grupa sa decom, mogle bi pružiti dublji uvid u to kako učenici razumeju savete odraslih i koje vrste smernica smatraju smislenim i primenljivim. Takođe bi bilo korisno ispitati efikasnost novih nastavnih materijala posebno osmišljenih za ovaj uzrast – poput kratkih animiranih video-materijala, jednostavnih interaktivnih igara ili ilustrovanih vodiča koji pojmove kao što su pristanak ili deljenje podataka objašnjavaju kroz svakodnevne situacije. Na primer, nastavnici bi mogli da koriste priče ili igre uloga za uvođenje pojmova kao što su digitalni tragovi ili bezbednost na internetu. Ove teme se mogu povezati sa svakodnevним nastavnim sadržajima kroz poznate likove ili situacije bliske učenicima – na primer kroz priču o animiranom liku koji nenamerno podeli previše informacija na internetu – umesto kroz apstraktne pravne formulacije. S tim u vezi, trebalo bi posebno podsticati saradnju između škole i porodice, koja se zasniva na prevođenju apstraktnih pojmova na primere koji su deci razumljivi i koji se svakodnevno koriste u govoru. Ukoliko se ovakav pristup dosledno razvija, on može doprineti poveziva-

nju digitalne pismenosti sa razvojem kritičkog mišljenja, odgovornog ponašanja u digitalnom okruženju i ranih oblika građanske svesti.

Zaključak

Rezultati ovog istraživanja potvrđuju da se bezbedna i smisleno osmišljena primena veštačke inteligencije u osnovnom obrazovanju ne može zasnivati na povremenim nastavnim aktivnostima i kratkoročnim inicijativama. Neophodan je dugoročniji i sistemski pristup, koji podrazumeva promišljene izmene nastavnih programa, konkretnu podršku nastavnicima i stvarnu saradnju sa porodicama. Iako mnogi učenici razgovaraju sa odraslima o digitalnim alatima i rizicima, takvi razgovori su često površni ili nedovoljno dosledni da bi kod njih razvili sigurnost u snalaženju u složenim pitanjima, posebno kada je reč o zaštiti podataka. Digitalna pismenost mora biti integrisana u redovni nastavni proces, a ne da se tretira kao izdvojena tema ili ograniči isključivo na nastavu informatike. Nastavni materijali moraju biti prilagođeni njihovom uzrastu učenika, njihovom jezičkom nivou i kognitivnom razvoju, naročito u slučaju mlađih učenika.

Na institucionalnom nivou, školama je potrebno više od tehničkih smernica. Nastavnici treba da imaju jasna i primenljiva uputstva za odgovoran izbor alata VI i bezbedno upravljanje podacima učenika. Istovremeno, škole bi trebalo da razvijaju zajedničko razumevanje odgovornog digitalnog ponašanja, kao i da takve vrednosti učine vidljivim u svakodnevnoj nastavnoj praksi, a ne samo na nivou formalnih dokumenata.

Uspešna integracija VI u obrazovanje podrazumeva i posmatranje dece kao aktivnih učesnika procesa učenja. Učenike treba podsticati da postavljaju pitanja, iznose svoje nedoumice i kritički promišljaju sopstveno digitalno ponašanje. Takvo digitalno osnaživanje, posebno kada je podržano i u porodici i u školi, predstavlja važan preduslov za razvoj dugoročne otpornosti – ne samo u tehničkom već i u kritičkom i odgovornom smislu.

Istovremeno, obrazovni sistem u Srbiji i dalje se suočava sa strukturnim ograničenjima. Zastareli nastavni programi, infrastrukturni nedostaci i nedovoljna obuka nastavnika u oblasti digitalne etike otežavaju pretvaranje dobrih ideja u svakodnevnu praksu. Nastavnici ne bi trebalo da snose ovu odgovornost sami – potrebno je da im se obezbedi sistem-ska podrška kroz kvalitetnu obuku, dostupne nastavne resurse i institucionalno poverenje koje će im omogućiti da preuzmu aktivnu ulogu u ovom procesu.

Literatura

- Andrić, V. (2025, June 29). Digitalna prava dece: Šta podrazumevaju i ko ih najčešće krši? *Danas*. <https://www.danas.rs/vesti/drustvo/digitalna-prava-dece-sta-podrazumevaju-i-ko-ih-najcesce-krsi/>
- Andries, V. & Robertson, J. (2023). Alexa doesn't have that many feelings: Children's understanding of AI through interactions with smart speakers in their homes. *Computers and Education: Artificial Intelligence*, 5, 1-17. <https://doi.org/10.1016/j.caeai.2023.100176>
- CoSN (2025). *2025 National Student Data Privacy Report*. Consortium for School Networking. <https://www.cosn.org/wp-content/uploads/2025/03/2025-CoSN-National-Student-Data-Privacy-Report-Part-1-Final-031825.pdf>

- Danaj, A., Škorić, J. & Galetin, M. (2024). Comparative analysis of the legal frameworks of the Republic of Serbia and Republic of Albania: The application of Artificial Intelligence and child protection. In M. Počuča (Ed.), *XXI međunarodni naučni skup „Pravnički dani-Prof. dr Slavko Carić“, Odgovori pravne nauke na izazove savremenog društva*, (Radovi) (pp. 413-425). Faculty of Law for Commerce and Judiciary, University of Novi Sad. <https://doi.org/10.5937/PDSC24413D>
- Eisinga, R., Grotenhuis, M.t. & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown?. *International Journal of Public Health*, 58, 637–642. <https://doi.org/10.1007/s00038-012-0416-3>
- Gao, L., Blinder, E. B., Barnes, A., Song, K., Clegg, T., Vitak, J. & Chetty, M. (2025). Creating and Evaluating Privacy and Security Micro-Lessons for Elementary School Children. *arXiv preprint arXiv:2503.07427*. <https://doi.org/10.48550/arXiv.2503.07427>
- Guo, Y. (2021). The Cultural Implications and Ethical Risks of Algorithm Society. *Chinese Book Review*, 9, 45-53. <https://doi.org/10.3969/j.issn.1002-235X.2021.09.006>
- Hao, X., Wang, F. & Qi, C. (2019). The current status and developmental trends of educational artificial intelligence. *Modern Educational Technology*, 2, 12-18.
- Hillman, V., Manolev, J., Johnston, S.K., Kumar, P.C., Martin, F., Zeide, E., Vladova, G. & Lai, R. (2024). Children, Education, and Technologies: Current Debates, Key Concerns, and Future Directions Around Data Privacy, Surveillance, and Datafication. In D. A. Christakis & L. Hale (Eds.), *Handbook of Children and Screens* (pp. 557-567). Springer. https://doi.org/10.1007/978-3-031-69362-5_76
- Hoofnagle, C. J., Van Der Sloot, B. & Borgesius, F. Z. (2019). The European Union general data protection regulation: what it is and what it means. *Information & Communications Technology Law*, 28(1), 65-98. <https://doi.org/10.1080/13600834.2019.1573501>
- Huang, L. (2023). Ethics of artificial intelligence in education: Student privacy and data protection. *Science Insights Education Frontiers*, 16(2), 2577-2587. <https://doi.org/10.15354/sief.23.re202>
- Ignjatović, G. (2024). AI TECHNOLOGIES IN EDUCATION: Regulatory frameworks at the international, regional and national level. *Zbornik radova Pravnog fakulteta u Nišu*, 63(103), 235-260. <https://doi.org/10.5937/zrpf1-55374>
- Jia, K. & Jiang, Y. (2017). Three basic issues of artificial intelligence governance: Technical logic, challenges, and public policy making. *Chinese Public Administration*, 10, 40-45. <https://doi.org/10.3782/j.issn.1006-0863.2017.10.07>
- Li, L., Valdez, J.P.M. & Du, Y. (2025). Digital citizenship education at the early childhood level: how is it implemented? A systematic review. *International Journal of Child Care and Education Policy*, 19, 13. <https://doi.org/10.1186/s40723-025-00153-2>
- Liu, S., Liu, S., Sun, J., Shen, X., & Liu, Z. (2021). Key issues in the development of intelligent education. *Distance Education in China*, 4, 69-76. <https://doi.org/10.13541/j.cnki.chinade.2021.04.001>
- Livingstone, S. M. & Blum-Ross, A. (2020). *Parenting for a digital future: How hopes and fears about technology shape children's lives*. Oxford University Press.
- Lupton, D. & Williamson, B. (2017). The datafied child: The dataveillance of children and implications for their rights. *New Media & Society*, 19(5), 780-794. <https://doi.org/10.1177/1461444816686328>
- Matović, M. & Žunić-Pavlović, V. (2020). Povezanost restriktivnih strategija roditeljskog nadzora i digitalnog nasilja u adolescenciji. *CM: Communication and Media*, 15(47), 35-56. <https://doi.org/10.5937/cm15-27100>
- McLeod, S. (2009). Piaget's Theory and Stages of Cognitive Development. *Simply Psychology*. <https://doi.org/10.5281/zenodo.15241970>

- Muammar, S., Hashim, K. F. B. & Panthakkan, A. (2023). Evaluation of digital competence level among educators in UAE Higher Education Institutions using Digital Competence of Educators (DigComEdu) framework. *Education and Information Technologies*, 28, 2485–2508. <https://doi.org/10.1007/s10639-022-11296-x>
- Nešić, A. (2023). Zaštita podataka o deci na internetu. *Savremene studije bezbednosti*, 16(1), 29-48. <https://doi.org/10.5937/ssb202301029N>
- Nguyen, A., Ngo, H. N., Hong, Y., Dang, B. & Nguyen, B. P. T. (2023). Ethical principles for artificial intelligence in education. *Education and Information Technologies*, 28(4), 4221-4241. <https://doi.org/10.1007/s10639-022-11316-w>
- Shi, Y. & Zhou, X. (2022). The debate on the “right to be forgotten” in the era of big data: To be remembered or forgotten? *Editorial Friends*, 12, 88-99. <https://doi.org/10.13786/j.cnki.cn14-1066/g2.2022.12.012>
- Shouli, A., Barthwal, A., Campbell, M. & Shrestha, A. K. (2025). Ethical AI for Young Digital Citizens: A Call to Action on Privacy Governance. *arXiv preprint arXiv:2503.11947*. <https://doi.org/10.48550/arXiv.2503.11947>
- Solberg, J. (2023). Privacy in Early Childhood Education and Care: The Management of Family Information in Parent–Teacher Conferences. *Human Studies* 47, 367–388. <https://doi.org/10.1007/s10746-023-09683-5>
- Stoilova, M., Livingstone, S. & Nandagiri, R. (2019). *Children's data and privacy online: Growing up in a digital age*. Research findings. London School of Economics and Political Science.
- Škobo, M. & Šović, M. (2025). Teachers' perspectives on Chatbots and AI agents in primary and secondary education. *International Journal on Studies in Education*, 7(2), 410-442. <https://doi.org/10.46328/ijonse.352>
- UNESCO. (2022). *Recommendation on the Ethics of Artificial Intelligence*. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000381137>
- Vartiainen, H., Pope, N., Kahila, J., López-Pernas, S. & Tedre, M. (2025). Classroom Activities and New Classroom Apps for Enhancing Children's Understanding of Social Media Mechanisms. *arXiv preprint arXiv:2501.16494*. <https://doi.org/10.48550/arXiv.2501.16494>
- Wang, Z. (2016). American student data privacy protection legislation and governance frameworks in the era of big data. *International and Comparative Education*, 11, 28-33. <https://doi.org/10.20013/j.cnki.ice.2016.11.005>
- Wang, G., Zhao, J. & Shadbolt, N. (2019). Are children fully aware of online privacy risks and how can we improve their coping ability? *arXiv preprint arXiv:1902.02635*. <https://doi.org/10.48550/arXiv.1902.02635>
- Williamson, B. (2017). *Big data in education: The digital future of learning, policy and practice*. SAGE.
- Williamson, B. (2019). Datafication of education: a critical approach to emerging analytics technologies and practices. In H. Beetham & R. Sharpe (Eds.), *Rethinking pedagogy for a digital age* (pp. 212-226). Routledge.
- Xue, L. & Zhao, J. (2019). Paths to agile governance: The development of emerging industries and regulatory models. *Chinese Public Administration*, 8, 28-34. <https://doi.org/10.19735/j.issn.1006-0863.2019.08.02>
- Yeşilyurt, E. & Vezne, R. (2023). Digital literacy, technological literacy, and internet literacy as predictors of attitude toward applying computer-supported education. *Education and Information Technologies*, 28(8), 9885-9911. <https://doi.org/10.1007/s10639-022-11311-1>

- Yim, I. H. Y. & Su, J. (2025). Artificial intelligence literacy education in primary schools: a review. *International Journal of Technology and Design Education*, 35, 2175-2204. <https://doi.org/10.1007/s10798-025-09979-w>
- Zhao, H., Jiang, Q. & Zhao, W. (2016). The security of big data-based learning analytics and privacy protection. *Modern Educational Technology*, 26(3), 5-11. <https://doi.org/10.3969/j.issn.1009-8097.2016.03.001>
- Zhao, Z., Xu, F., Gao, F., Li, F., Hou, H. & Li, M. (2021). An evaluation of ethical risks in artificial intelligence. *China Soft Science*, 6, 1-12.

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Apstrakt. Apstrakt treba da ima od 150 do 250 reči. Ukoliko je reč o radu koji predstavlja prikaz obavljenog istraživanja, apstrakt treba da sadrži sledeće elemente: značaj problema istraživanja, ciljeve istraživanja, metodologiju istraživanja, ključne rezultate istraživanja, zaključke i pedagoške implikacije. U slučaju preglednog rada ili rada koji predstavlja teorijsku analizu, apstrakt treba da sadrži: problem koji se u radu razmatra, prikaz strukture rada, ključne postavke koje se daju u radu i zaključke. Apstrakt treba da bude napisan u jednom pasusu, bez pozivanja na reference, veličina slova 11, obostrano poravnan.

Ključne reči. Uz apstrakt se navode ključne reči (do pet) na jeziku rada. Ključne reči treba da budu relevantne za problematiku kojom se rad bavi i pogodne za pretraživanje. Preporučujemo korišćenje tezaurusa, kao što je npr. ERIC: <https://eric.ed.gov/?ti=all>

Struktura rada. Rad je potrebno strukturirati na logički uređen način. Rad koji predstavlja prikaz obavljenih istraživanja treba da sadrži sledeće celine: uvod, predstavljanje teorijskih osnova istraživanja, opis metodologije istraživanja, prikaz rezultata istraživanja sa diskusijom (uz navođenje pedagoških implikacija obavljenog istraživanja) i zaključke. Pregledni rad ili rad koji predstavlja teorijsku analizu, pored uvoda i zaključaka treba da bude logički strukturiran u skladu sa osnovnom temom rada.

Naslovi i podnaslovi odeljaka. Naslovi i podnaslovi odeljaka ne označavaju se numerički, potrebno ih je jasno i precizno formulisati i formatirati prema uputstvu prikazanom u Tabeli 1.

Tabela 1

Način formatiranja naslova i podnaslova odeljaka prema nivoima

Nivo	Način formatiranja
1	Centrirano, bold, font 12
2	Levo poravnanje, bold, font 12
3	Levo poravnanje, bold i kurziv, font 12
4	Uvučeno, bold, font 12, tačka na kraju. (tekst u nastavku)
5	Uvučeno, bold i kurziv, font 12, tačka na kraju. (tekst u nastavku)

Napomena. Primeri formata dati su samo za naslove i podnaslove odeljaka i ne odnose se na naslov rada.

Tabele i grafikoni. Svaka tabela, odnosno grafikon označava se odgovarajućim brojem. Jasno i precizno formulisani naslov tabele ili grafikona daje se u novom redu, u kurzivu. Naslov tabele ili grafikona treba da bude pozicioniran iznad tabele ili grafikona (videti Tabelu 1 ovog uputstva). Sve skraćenice navedene u tabelama i grafikonima treba da budu objašnjene. U objašnjenju (legendi), ispod tabele ili grafikona reč napomena piše se kurzivom sa tačkom na kraju reči (*Napomena*. ili *Note*. u zavisnosti od jezika rada, videti primer u Tabeli 1). Tabele ne treba da sadrže vertikalne linije. Horizontalne linije treba koristiti samo između zaglavlja tabele i prikazanih podataka (kao na primeru u Tabeli 1) i na dnu tabele. Izuzetno, horizontalne linije dozvoljene su i u okviru samog zaglavlja ukoliko to doprinosi preglednosti

tabele.

Tabele i grafikone priložiti u Microsoft Word formatu, kreirati i dostaviti u programu koji omogućava njihovo dodatno uređivanje. Informacije na grafikonima se ne ističu bojama, već šrafitiranjem. Digitalne fotografije ili slike dostavljaju se u rezoluciji najmanje 300 dpi, grayscale color mode.

Oznake statističkih testova i mera. Sve oznake statističkih testova i mera pisati kurzivom u celom tekstu rada, uključujući i tabele (*M, SD, F, t, p*).

Fusnote i skraćenice. Fusnote i skraćenice trebalo bi izbegavati.

Reference u radu. Pozive na izvore u tekstu i spisak korišćene literature na kraju rada treba dati u skladu sa APA stilom (*APA Citation Style - American Psychological Association 7th Edition*, <https://apastyle.apa.org/instructional-aids/reference-examples.pdf>).

U spisku korišćene literature na kraju rada i u zagradama u tekstu sve reference, uključujući one na srpskom jeziku, navode se latinicom. Prezimana stranih autora u radu pisanom na srpskom jeziku se transkribuju – fonetskim pisanjem prezimena. U zagradi se obavezno navode u originalu, na primer: Skot (Scott, 2004).

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Cruse, D. A. (2002). Hyponymy and its varieties. In R. Green, C. A. Bean, & S. H. Myaeng (Eds.), *The semantics of relationships: An interdisciplinary perspective* (pp. 3-22). Kluwer Academic Publishers.

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Perception of Terminal Values among High School Students

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Abstract

The theoretical part of the paper presents an analysis of relevant theoretical classifications of values, particularly emphasizing Milton Rokeach's value system. The methodological section describes a study conducted with the aim of determining how senior high school students assess their current ultimate life goals (terminal values) in terms of their hierarchical ordering. The research was carried out at a convenience and stratified a sample of fourth-grade high school students (N = 420) in the Republic of Serbia – the Western Serbia region, during the 2023/2024 academic year. By using Milton Rokeach's Value Survey and applying descriptive and inferential statistical methods (calculation of arithmetic mean, standard deviation, MANOVA, F-test, test of homogeneity of covariances, Cohen's d), the rank positions of values at the manifest level were identified and analyzed. The results indicate that graduating students are primarily oriented toward personal ultimate life goals (family security, happiness, freedom), while social goals (world peace, equality, national security, social recognition) are at the bottom of the list. The variable of educational orientation significantly determined differences in the positioning of values, whereas gender had a somewhat smaller effect. In the context of intensive socio-economic and technological changes, the findings highlight the need for continuous re-examination of the structure of the value system, from the perspective of students who are exposed to rapid technological, demographic, globalization, and other changes. Considering the complexity and the diverse contexts of the pedagogical practice, the obtained results may serve as an important starting point for future longitudinal research aimed at monitoring the development and transformation of young people's value orientations within the educational process. The findings also highlight the importance of designing tailored educational methods that consider the diversity of value orientations among younger generations.

Keywords: values, life goals, adolescents, high school students, globalization.

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Introduction

The contemporary social context is marked by intensive socio-economic, technical-technological, and spiritual transformations that influence the structure and dynamics of individual and collective value systems (Inglehart, 1997; Zinkina et al., 2022). Value systems are changing through the desacralization of traditional values, the emergence of new global patterns, and the re-actualization of previously marginalized values (Gavrilović, 2012; Lavrič et al., 2019). In conditions where change becomes a permanent category, values are no longer viewed as stable and enduring, but as subject to continuous reconfiguration (Bauman, 2001; Schwartz, 1992). This calls for their systematic and interdisciplinary examination in order to better understand the transformation of the value field, as well as its impact on the behavior and identity of individuals and social groups (Inglehart, 1997; Schwartz, 1992). The transformation of values may have a two-dimensional effect: on the one hand, it can serve as an impetus for social progress and individual development, creating space for the emergence of new value paradigms (Inglehart, 1997); on the other hand, it may become a source of instability, leading to value conflicts, particularly in the context of rapid and misaligned changes in social needs and individual interests (Bauman, 2001; Lavrič et al., 2019).

Social changes are often viewed through the prism of generational differences, with young people occupying a central position as bearers and creators of the future, as well as potential drivers of change. Therefore, examining the value system of young people gains particular importance, especially during the high school period. Educational orientation and the school environment represent key factors in the process of socialization and the formation of young people's value attitudes, which opens space for the thoughtful design of appropriate pedagogical strategies. The high school period, which generally encompasses the ages of 14 to 18, represents a sensitive developmental stage, during which moral identity is intensively formed. It is precisely within this developmental interval that adolescents become more receptive to various influences from their immediate and broader environment, while the process of value internalization increases its intensity. In pedagogical terms, school plays a key role in shaping values and has the capacity to influence young people through instruction, peer interactions, and educational activities, thereby fostering the development of personal responsibility and moral reasoning. Therefore, understanding the value attitudes of high school students, particularly in light of their educational orientation, is essential for designing educational approaches that respond to contemporary social needs and challenges. Different areas of interest and professional perspectives of students in the field of natural sciences and mathematics and of those in the field of social sciences and humanities shape specific values, which in turn influence their life goals. The natural sciences–mathematics orientation often emphasizes technical expertise and practicality, whereas the social sciences–humanities orientation focuses more on social awareness and moral values (Schwartz, 2012). Gender, as both a biological and social construct, also affects value preferences due to differing social roles and expectations. Examining these factors enables the adaptation of pedagogical approaches and contributes to a better understanding of the dynamics of value change in the era of globalization (Inglehart & Welzel, 2005).

In the context of young people's value formation, elements of globalization (cultural globalization, technological advancement, economic influences, institutional changes, and identity dynamics) act as powerful drivers of the transformation of value orientations, placing the educational system before new and complex challenges. European research and strategic documents, such as those of the European Commission (2021), the European Values Study (2008), and the World Values Survey (2022), point to significant changes in value attitudes of young people. Some authors interpret these changes as a consequence of a departure from traditional, more stable value patterns, resulting in a polarization of values — traditional values are losing strength, whereas global value patterns are becoming increasingly influential, requiring individuals to continuously adapt to rapid social and cultural transformations (Jackson & Medvedev, 2024; Schäfer, 2025). At the same time, within contemporary theoretical approaches, the concept of constructing a value system grounded in a sense of shared belonging has emerged, whereby globalization-related values encourage the formation of an expanded, transnational identity (Musek, 2015). These values depart from traditional patterns increasingly, turning toward individualism and new sorts of a lifestyle (Budimir-Ninković, 2002). Vukadinović (Vukadinović, 2012) argues that under conditions of globalization, the universal system of values has been considerably undermined, emphasizing that globalization has both its face and its reverse side, in which a system of (non)values culminates — recognized through superficiality, the deregulation of social relations, the promotion of consumerism, the glorification of bizarreness, the prioritization of quantity, and the relativization and trivialization of crucial problems of the contemporary era. We live in a consumer society, in which individuals are increasingly shaped as consumers and less as citizens, and where the global economy insists on the production of new needs and the constant creation of temptations. This dynamic fosters shallow values and unstable identities, placing individuals in a position of insecurity and social fragmentation (Bauman, 2000). This raises the question: which values are essential for survival and high-quality functioning under contemporary living conditions?

Conceptual Definition of Values and Related Concepts

Theoretical considerations regarding the conceptual definition of *values* and related concepts, such as *value orientations* and *lifestyle*, are often limited by the lack of a unified conception of the content and the structure of value relationships, as well as the absence of reliable qualitative and quantitative parameters for their measurement. Additional theoretical ambiguity arises from the fact that these terms are frequently used as synonyms in various texts, despite having different analytical functions and scopes (Hitlin & Piliavin, 2004; Rohan, 2000).

Formulating a widely accepted definition of values has required addressing the question: who determines universal human values? There has also been a recognized need to create a "global ethical code" as a framework for the existence of a common set of universal values that transcends the boundaries of any particular society, community, culture, or religion (Rakić i Vukušić, 2010, p. 781). Rapid changes in behavior create a mismatch between reality and ideals, threatening universal values and leading to a value crisis

(Gvozdenović, 2021). This is a consequence of the dominance of the values of the “new world order” over universal norms, such as freedom, equality, and peace (Jean Baudrillard, 2007, p. 62). Undoubtedly, the complexity of formulating a universally accepted definition of values stems from a combination of factors, such as terminological inconsistencies across different cultural and linguistic contexts, theoretical frameworks, and the research interests of various disciplines, each of which approaches the study of values from its own perspective and operationalizes the concept accordingly (Bojović, 2017). A review of the relevant literature reveals more than four hundred different definitions of the concept of values, demonstrating its exceptional theoretical complexity and conceptual fluidity (Pantić, 1977; 1981; 1990). The diversity of definitions arises not only from an interdisciplinary approach (sociology, psychology, anthropology, pedagogy, philosophy) but also from the point of view held by certain authors, stating that values, as a dynamic and historically variable phenomenon, are inherently resistant to a single, enduring definition. Kluckhohn (Kluckhohn, 1951) was among the first to point out the impossibility of creating a universal definition of values, while Rokeach (Rokeach, 1973) emphasizes that values function as internalized standards manifested in behavior, but they are not always rationally articulated. Schwartz (Schwartz, 1992) cautions that values should be regarded as socially and culturally conditioned motivational constructs, and that their significance varies depending on the context. In this sense, values can be understood as a hierarchically organized system, defined as a set of acquired, relatively stable cognitive-motivational structures which are aimed at regulating an individual's behavior in relation to a broad range of social and experiential objects. At the same time, they function as processual and context-dependent guides, whose specific meaning emerges only within particular social, cultural, or individual situations, highlighting their dynamic and adaptive nature in the contemporary social environment (Havelka, 1995; Hitlin & Piliavin, 2004; Inglehart, 1997; Janković, 2017; Lazić & Pešić, 2024; Schwartz, 1992; 1994).

Values develop through a complex interaction of personal traits, experiences, and influences from socialization agents (Knafo et al., 2011; Maio, 2017; Roccas et al., 2002; Rokeach, 1973; Schwartz, 1992). In the context of globalization, these influences penetrate educational institutions, which become spaces for the hybrid socialization of young people, identity formation, and value transformation, thereby granting education a central role in addressing contemporary social challenges (Bojović i sar., 2022; Čičkarić, 2011). The current crisis in the school system, manifested through the marginalization of its educational function, indicates the limited effectiveness of educational institutions in achieving key economic, cultural, and social objectives. This situation particularly underscores the necessity for a critical review and adaptation of educational policies and practices in accordance with the complex challenges of the 21st century (Bojović i sar., 2022; Parsons, 2012; UNICEF, 2020).

Taken as a whole, the following foundational perspective on understanding values can be formulated: a) values serve as a normative framework for interpreting social phenomena in changing societal conditions; b) values function as a self-regulation mechanism that guides choices, behavior, and goals, linking individual structures with cultural and socio-demographic contexts, thereby influencing identity formation and

social integration (Corey et al., 2003; Knafo et al., 2011; Miliša i Bagarić, 2012; Miliša i sar., 2015; Visković, 2013; Zokirova, 2020). This serves as our foundational platform for understanding values.

Although theoretical considerations of the essence of values have historically suffered from the lack of an agreed-upon conception of the content and structure of relationships among values, as well as the lack of reliable qualitative and quantitative parameters to measure their strength, theorists reached a consensus on the content of core values by the mid-20th century. Two theories stand out in this regard: Schwartz's value typology and Rokeach's value classification.

According to Schwartz's theory, values are beliefs which are linked to a sense of personal autonomy and which reflect desirable goals that motivate the individual. They are hierarchically arranged according to individual priorities, and their influence on behavior depends on the importance they hold for both the individual and society (Schwartz, 1996; 2012). Schwartz defines ten universal value types: self-direction, achievement, power, hedonism, security, tradition, conformity, benevolence, universalism, and stimulation. These values are structured along opposing dimensions: 1) openness to change versus conservation, and 2) self-enhancement versus self-transcendence. Schwartz's model illustrates how certain values naturally align with each other (e.g., hedonism and stimulation), while others are in intrinsic conflict (e.g., power and universalism).

One of the most prominent theorists in the study of values, Milton Rokeach, emphasizes that values are internalized beliefs that serve as stable standards for evaluating behavior, choices, and social phenomena. They represent deeply rooted guides that shape an individual's ways of thinking and acting, in which a value is understood as a relatively enduring prescriptive or proscriptive belief that a particular mode of behavior or ultimate state of existence is preferable to its opposite (Rokeach, 1973, p. 25). Based on this theoretical framework, Rokeach divides values into two main groups: 1) Terminal values (ultimate life goals) determine the objectives and ideals toward which an individual strives throughout life (e.g., happiness, freedom, peace); 2) Instrumental values (means of achieving value goals) encompass specific behaviors and character traits necessary to attain these objectives (e.g., honesty, perseverance, ambition) (Rokeach, 1973). By this classification of values, Rokeach emphasized their normative character, highlighting that they serve as internal standards for regulating an individual's behavior (Bojović i sar., 2015; Hooper, 2003; Kuzmanović, 1995; Mladenović i Knebl, 2000). The significance of Rokeach's approach lies in the enablement of the quantitative analysis of complex and often abstract value concepts.

A better understanding of the essence of values can be supported by defining the concepts of "value orientation" and "lifestyle," which are often used interchangeably. While value orientations represent a set of enduring values and behavioral patterns directed toward resolving existential questions (Havelka, 1975), by revealing an individual's or group's commitment to universal values, goals, and behaviors, they influence behavior through beliefs, attitudes, and principles shaped by personal characteristics, as well as the spiritual, cultural, technological, and ideological features of society (Botalova et al., 2016; Rokeach, 1973; Valerian & Elvira Olga, 2016). In contrast, lifestyles are the practical

articulation of these values through behavior, manifesting in consumer habits, leisure activities, , education, social engagement, and attitudes toward work (Giddens, 1991; Inglehart, 1997; Lazić & Pešić, 2024). The relationship between values, value orientations, and lifestyles provides an important analytical framework for understanding contemporary social processes. It is essential not only to examine values themselves but also to analyze how they are concretely expressed in everyday life, whether through choices, behaviors, or patterns of living.

A Brief Review of Available Research on Values

The study of values has a long tradition within the social and humanistic sciences, in which values are viewed as fundamental guides for behavior, reasoning, and social interaction. Contemporary approaches to studying values encompass a variety of methodological and theoretical frameworks. The following section presents research approaches and findings concerning the structure, function, and variability of values among young people in contemporary society.

Numerous studies focusing on young people highlight the importance of identity formation, with values serving as one of the key elements in this process (Furlong & Cartmel, 1997; Giacomino et al., 2011; Kehily, 2007; Lindh & Korhonen, 2010; Wyn & White, 1997). Research indicates that, compared to previous generations, utilitarian orientations are increasingly prominent among youth, while hedonic values are diminishing in significance. Nevertheless, the most important values observed remain friendship, love, leisure, and family life (Antonijević i sar., 2020; Bojović i sar., 2015; Bojović i sar., 2022; Franc i sar., 2002; Koirkikivi et al., 2023; Kuzmanović i Petrović, 2009; Lazarević i Janjetović, 2003; Radoman, 2012; Zokirova, 2020). Changes in the value attitudes of high school students most strongly affect perceptions of profession, education, family, and material values, with these effects being more pronounced among girls than boys (Antoci, 2020; Davydova, 2018; Ilišin, 2011; Radovanović i sar., 2022). Research conducted during the Covid-19 pandemic showed that the crisis strengthened family, moral, life, and personal values among young people (Antoci, 2021). In the structure of value orientations among students in secondary music schools, the dominant ones are self-actualization, aesthetic, materialistic, and cognitive orientations (Bogunović et al., 2012). First-year high school students in Serbia demonstrated that most adopt a utilitarian lifestyle, while a smaller number embrace hedonistic or activist lifestyles (Joksimović & Maksić, 2006). Studies on the influence of media highlight a clear distinction between the values that young people genuinely embrace and those frequently promoted by media. While youth tend to prioritize family, moral values, and personal values, media content often emphasizes materialistic, superficial, and hedonistic values, which can lead to value conflicts and internal dilemmas during the process of identity formation (Čikoš, 2021). A pilot study on the value hierarchy of students from urban and rural areas in Riga showed no significant differences between adolescents from the two settings. Urban students tended to prefer love, cheerfulness, and education, whereas rural students emphasized responsibility, obedience, and competence (Mihailova et al., 2019). Research on values in Serbia indicates the presence of

a complex mixture of traditional and modern values, showing a gradual shift toward individualism, materialism, and self-assertion, while collective and patriarchal elements remain continuously present. In a society undergoing prolonged social and economic transformations, values often exhibit an ambivalent character, reflecting unstable identities and uncertainty about the future (Jablanov Maksimović, 2012). This ambivalence manifests along a spectrum between pragmatic adaptation to market economy conditions and the need for self-expression, as observed in cultural practices, communication styles, and consumption patterns (Milivojević, 2015).

Research Methodology

Research indicates an increasing occurrence of dual, hybrid, or multidimensional identities, especially in non-Western societies, where individuals are exposed, on one hand, to the complex influence of the local cultural environment — including traditional customs, values, and social norms — and, on the other hand, to global cultural models that introduce new ideas, lifestyles, and values of individualism and universalism. This dual pressure creates a dynamic field of internal conflict and shifting identity forms, where individuals maintain and nurture their local belonging while simultaneously integrating elements of global culture as a means of adaptation and self-expression in the contemporary world (Akaliyski et al., 2023; Engel & Fritzsche, 2019; Genest, 2023). The value dichotomy reveals deep differences in the priorities upheld by individuals and societies: between individualism and collectivism, tradition and modernity, stability and self-expression (Akaliyski et al., 2023; Zinkina et al., 2022). Conflicts among these priorities can serve as strong predictors of social crises and future transformations of value systems (Kim & Kim, 2025; Schäfer, 2025). In a societal context of accelerated change, the analysis of modernity becomes particularly relevant. Giddens (1990) describes modernity as a break from tradition, characterized by reflexivity, institutional rationalization, and increasing existential uncertainty. Modern society is a high-risk society in which the individual constantly re-examines their identity and values. Although he does not use the term “the modern Moloch,” this concept metaphorically reflects the destructive effects of modernization: loss of stability, dehumanization, and erosion of traditional values (Giddens, 1990). Within such an environment, values become unstable and often instrumentalized; they are no longer simply inherited, but are constructed under conditions of hyper-choice. The growing gap between personal beliefs and societal expectations leads to value disorientation and a crisis of meaning.

Considering that the aforementioned social changes leave a distinct mark on the value system of adolescents in the high school age, the research problem is defined by the question: *What is the hierarchy of terminal values among high school students in the Republic of Serbia – Western Serbia region?* The central focus of the study is to determine the hierarchy of terminal values (ultimate life goals), with particular emphasis on differences in value preferences according to: the students’ educational track (natural-mathematical vs. social-humanistic fields) and the students’ gender. By operationalizing the research problem and objectives, the following tasks were defined: 1) Identify a comprehensive

ranking of preferred terminal values; 2) Determine the position of terminal values in relation to students' affiliation with the natural-mathematical or social-humanistic track, and assess statistically significant differences between the subsamples; 3) Determine the position of terminal values in relation to students' gender and assess statistically significant differences.

Sample of participants consisted of final-year high school students from Užice ($N = 420$), aged 18–19 years. The independent variables were defined according to the academic track (natural-mathematical vs. social-humanistic) and the gender of the participants (Table 1). The dependent variables are the terminal values that are the subject of analysis.

Table 1
Structure of the Sample of Fourth-Year High School Students ($N = 420$)

Independent Variable	Modality	<i>f</i>	%
Academic Track	Social-Humanistic	161	38.3
	Natural-Mathematical	259	61.7
	Gymnasium	88	21.0
	Economic	65	15.5
School Type	Traffic	62	14.8
	Technical	72	17.1
	Medical	133	31.7
Gender	Male	164	39.0
	Female	256	61.0

The study has a cross-sectional design and was conducted at the end of the second semester of the 2023/2024 school year, with the necessary consent obtained from all relevant parties. The research was carried out on a convenience sample that was stratified to ensure representation across the defined subgroups of students.

Description of the Research Instrument

The framework for collecting data and analyzing the values and value orientations in this study is based on the scientifically recognized and validated Rokeach classification of values, which the author himself describes as a measure “sensitive to differences among cultures, institutions, group memberships, and personal experiences” (Rokeach & Elders, 1978, p. 24).

The Rokeach Value Survey (RVS) includes 36 values—18 terminal values and 18 instrumental values. For the purposes of this study, only the terminal values portion of the survey was used (Table 2).

Table 2***Terminal Values According to Rokeach (RVS)***

Terminal Values (Ultimate Life Goals)
Comfortable Life (prosperous and secure life)
Exciting Life (stimulating, active, and adventurous life)
Family Security (care and protection of loved ones)
Freedom (independence and freedom of choice)
Happiness (sense of well-being and connectedness)
Inner Harmony (freedom from internal conflicts)
Mature Love (sexual and spiritual intimacy)
National Security (protection from attack)
World Peace (absence of conflict and global harmony)
Equality (brotherhood and equal opportunities for all)
Pleasure (life full of enjoyment and relaxation)
Salvation of the Soul (eternal life or spiritual salvation)
Self-Respect (self-esteem and personal dignity)
Honest Friendship (close, sincere friendships)
Wisdom (mature understanding of life)
Sense of Accomplishment (lasting personal contribution)
World of Beauty (appreciation of nature and artistic beauty)

Source: Robbins, 2003, p. 64

Rokeach conducted multiple validations of his instrument, and careful methodological design has shown that it possesses satisfactory reliability and high sensitivity, as evidenced by its widespread application in research both domestically and internationally (Alfirević i Brčić Kuljiš, 2016; Bojović i sar., 2015; Gavrilović, 2017; Giacomino et al., 2011; Musil & Jurčec, 2004; Nikolić et al., 2017). The Rokeach Value Survey (RVS) thus provides the theoretical foundation for analyzing the hierarchy of values in this study, with a specific focus on the terminal values of high school students.

The participants, who attended classes during the scheduled survey session, were provided with the questionnaire in paper form, along with detailed instructions from the examiners on how to complete it. The first part of the questionnaire collected socio-demographic data, including place of residence, type of student accommodation, study track, type of school, and grade level. None of the participants refused to take part, and all questionnaires were returned properly completed. Based on the relative ranking of value

preferences, reflected through the calculated arithmetic means, a rank position was determined for each value. Subsequently, the relationships between subgroups were analyzed by comparing the positions of individual values. Participants ranked the values according to their personal preferences from 1 to 18, where rank 1 indicated the most important value for the participant, and rank 18 indicated the least important.

The statistical analysis of the data was performed using arithmetic means and standard deviations, followed by multivariate analysis of variance (MANOVA) with determination of F-values, testing for homogeneity of covariances at significance levels of 0.01 and 0.05, and calculation of Cohen's *d* to assess the effect size.

Research Results

The presentation of results begins with an analysis of the overall hierarchy of terminal values, which the respondents evaluated freely, based on their personal beliefs. Table 3 shows the ranking of values, arranged according to the arithmetic mean for the entire sample. The lower the arithmetic mean (*M*), the more important the individual value – or value orientation – is to the respondents. The obtained average values, ranked from lowest to highest, indicate that students most highly prioritize *family security*, *happiness*, and *freedom* as the most desirable ultimate life goals they strive for (Table 3).

Table 3

Preference of Terminal Values among Fourth-Year High School Students (N=420)

Terminal Values (Ultimate Life Goals)	<i>M</i>	<i>SD</i>	Rank
Family Security	3.93	3.526	1
Happiness	4.60	3.537	2
Freedom	6.67	4.412	3
Mature Love	7.21	4.368	4
Honest Friendship	8.30	4.087	5
Self-Respect	8.34	4.576	6
Salvation of the Soul	8.40	5.394	7
Inner Harmony	8.48	4.553	8
Comfortable Life	8.50	4.744	9
Wisdom	9.60	4.174	10
Pleasure	10.10	4.475	11
World Peace	10.13	5.041	12
Exciting Life	10.51	4.635	13

Terminal Values (Ultimate Life Goals)	<i>M</i>	<i>SD</i>	Rank
National Security	11.50	4.273	14
Equality	11.58	4.296	15
Sense of Accomplishment	12.41	4.145	16
Social Recognition	14.91	3.689	17
World of Beauty	14.98	3.435	18

High school students highly prioritize the value of *happiness* (ranked 2nd), while the value of *freedom*, experienced through a sense of personal autonomy and self-worth, ranks 3rd in importance. *Mature love* occupies the 4th rank, indicating that adolescents strive for sincere and stable emotional relationships idealistically. The position of *honest friendship* (5th rank) reflects the preference for peer interactions and formation of quality friendships (either in real life or virtually), which aligns with the significance attributed to peers as key agents of socialization (Table 3). High school students place the value of *comfortable life* at the 9th rank, and *exciting life* at the 13th rank, ahead of *national security* (14th rank) and *equality* (15th rank).

Preference of Terminal Values among High School Students – Natural Sciences/Mathematics vs. Social Sciences/Humanities

In order to verify the statistical assumptions for the valid application of analysis of variance, a test of homogeneity of covariance matrices was conducted. The results ($F = 1.317$; $p = .003$) at the significance level of $p < .05$ confirm that the homogeneity assumption is met, allowing valid between-group comparisons of terminal values. The analysis indicates statistically significant differences in value preferences between students in the natural sciences/mathematics and social sciences/humanities tracks ($p < .05$), as shown in Table 4. Minimal variability in the ranking of high school students' value orientations directed further analysis toward a comparative examination of value ranks depending on the type of academic track. The "rank difference" column displays values reflecting shifts in the ranking list in a positive (+) or negative (–) direction, resulting from the comparative analysis to illustrate changes in the positioning of individual values (Table 4). The ranking of the remaining values indicates statistically significant differences in value orientations between students in the natural sciences/mathematics and social sciences/humanities tracks for the values of salvation of the soul, comfortable life, self-respect, and an exciting life ($p < .05$), while differences for the other values are not statistically significant ($p > .05$). In the context of academic tracks, the largest rank difference is observed for the value of self-respect (+4), which is given a significantly higher position by students in the social sciences/humanities track ($M = 7.61$). Students in the natural sciences/mathematics track

rank self-respect relatively high in 9th place ($M = 8.78$). The value of salvation of the soul, associated with the spiritual domain, is ranked 5th by natural sciences/mathematics students ($M = 7.95$), whereas social sciences/humanities students place it 8th ($M = 9.12$), with a rank difference of (-3) . Despite their focus on natural and technical sciences, students in the natural sciences/mathematics track assign importance to the spiritual aspects of life. A similar trend is observed for the value of a comfortable life, which is linked to hedonic aspirations and orientation toward material well-being. Students in the natural sciences/mathematics track position this value in 6th place ($M = 8.05$), while students in the social sciences/humanities track rank it 9th ($M = 9.24$), also with a rank difference of (-3) .

Table 4
Preference of Terminal Values Depending on Students' Academic Track

Terminal Values (Ultimate Life Goals)	Natural-Scientific Track (N=259)			Humanities-Social Track (N=161)			Rank (+/-)	F	p	Cohen's d
	M	SD	R	M	SD	R				
Family Security	3.83	3.407	1	4.09	3.715	1	0	.567	.452	.072
Happiness	4.80	3.521	2	4.29	3.553	2	0	1.847	.175	.144
Freedom	6.83	4.455	3	6.41	4.342	3	0	1.006	.316	.095
Mature Love	7.27	4.421	4	7.13	4.294	4	0	.094	.759	.032
Salvation of the Soul	7.95	5.314	5	9.12	5.459	8	-3	4.392	.037*	.217
Comfortable Life	8.05	4.928	6	9.24	4.346	9	-3	6.175	.013*	.256
True Friendship	8.53	4.118	7	7.92	4.014	6	+1	2.093	.149	.150
Inner Harmony	8.53	4.482	8	8.42	4.678	7	+1	.023	.881	.024
Self-Respect	8.78	4.723	9	7.61	4.244	5	+4	6.347	.012*	.260
Wisdom	9.75	4.348	10	9.35	3.867	10	0	.876	.350	.097
Pleasure	10.07	4.361	11	10.16	4.000	12	-1	.005	.942	.021
World Peace	10.38	5.061	13	9.73	5.000	11	+2	1.616	.204	.129
Exciting Life	10.14	4.750	12	11.12	4.390	13	-1	4.217	.041*	.214
National Security	11.25	4.180	14	11.89	4.401	15	-1	2.074	.151	.149
Equality	11.73	4.280	15	11.34	4.326	14	+1	.771	.381	.090
Sense of Accomplishment	12.48	4.171	16	12.29	4.112	16	0	.106	.745	.045
World of Beauty	14.87	3.597	17	15.16	3.161	18	-1	.721	.396	.085
Social Recognition	14.92	3.759	18	14.88	3.585	17	+1	.006	.938	.010

Note: M – mean; SD – standard deviation; R – rank; R (+,-) – rank difference; F – F-value; ($p < .05^*$) – statistically significant.

On the other hand, students from the field of social sciences and humanities show a stronger inclination toward humanistic values, including honesty, inner harmony, and spirituality. Differences in the remaining values range within ± 1 rank position, indicating a relative alignment of values among high school students.

Preference of Terminal Values (Life Goals) and Respondent Gender

The homogeneity of covariance matrices is partially satisfied, based on the parameters ($F = 1.547$) with statistical significance at the level of $p = .000$ and $p \leq .05$. Effect size findings indicate that gender is not a dominant factor in shaping students' value orientations, although the values of *peace in the world* (Cohen's $d = .73$; $p = .001$) and *honest friendship* (Cohen's $d = .67$; $p = .096$) show moderate statistical significance.

Table 5
Preference of Terminal Values by Gender of High School Students

Terminal Values (Ultimate Life Goals)	Gender						Rank difference (<i>R</i> + / -)	<i>F</i>	<i>P</i>	<i>Cohen's d</i>
	Male (<i>N</i> =164)			Female (<i>N</i> =256)						
	<i>M</i>	<i>SD</i>	<i>R</i>	<i>M</i>	<i>SD</i>	<i>R</i>				
Family security	4.04	3.743	1	3.86	3.386	1	0	0.253	.616	.05
Happiness	5.09	3.878	2	4.29	3.270	2	0	5.020	.026*	.697
Freedom	6.98	4.654	3	6.46	4.246	3	0	1.467	.226	.1167
Mature love	7.21	4.491	4	7.21	4.296	5	-1	.000	.996	.0
Salvation of the soul	7.37	5.117	5	9.23	4.344	9	-4	2.704	.101	.3919
Comfortable life	7.88	4.245	6	8.55	3.964	8	-2	15.832	.000**	.1631
True Friendship	8.69	4.698	7	11.68	4.205	15	-8	2.779	.096*	.6707
Inner harmony	8.82	4.166	8	10.93	4.479	12	-4	13,117	.000**	.4878
Self-respect	8.92	5.204	9	8.06	5.496	7	+2	54.379	.000**	.1607
Wisdom	9.49	4.561	10	7.84	4.438	6	+4	1.313	.253	.3667
Pleasure	9.89	4.479	11	9.41	3.957	10	+1	22.921	.000**	.1136
Peace in the world	10.28	4.503	12	7.09	4.178	4	+8	11.897	.001*	.7344
Exciting life	11.18	5.104	13	9.46	4.893	11	+2	45.561	.000**	.3440
National security	11.45	4.534	14	11.53	4.105	14	0	.019	.891	.0185
Equality	11.76	4.474	15	12.82	3.871	15	0	1.416	.235	.2534
Sense of Accomplishment	11.90	4.591	16	11.38	4.093	13	+3	7.225	.007*	.2534
The world of beauty	14.30	4.085	17	15.41	2.870	17	0	10.851	.001*	.3144
Social recognition	14.40	3.779	18	15.23	3.601	16	+2	5.176	.023*	.2249

Note: M – mean; SD – standard deviation; R – rank; $R (+, -)$ – rank difference; F – F-value; ($p = .000$ **, $p < .05$ *).

Girls rank *peace in the world* highly (4th place) with strong statistical significance ($M = 7.09$; $p = .000$). By placing *mature love* (5th; $M = 7.21$; $p < .05$) and *inner harmony* (6th; $M = 7.84$; $p = .000$) highly, girls show that they value personal peace and consistency in their attitudes, while material gain is considered less important. In contrast, boys place greater importance on *comfortable life* (5th; $M = 7.37$; $p = .000$) and *exciting life* (7th; $M = 8.69$; $p = .000$). The largest difference is seen in *true friendship*, which boys rank 7th ($M = 8.69$; $p < .05$),

whereas girls rank it 15th ($M = 11.68$; $p < .05$), with a rank difference of eight positions (Table 5). Both boys and girls position *self-respect* near the middle of the ranking: girls rank it 7th ($M = 8.06$; $p = .000$) and boys 9th ($M = 8.92$; $p = .000$), a rank difference of +2. A similar rank difference occurs for *exciting life*. Boys value *pleasure* and *comfortable life* more (−4), while girls place higher value on *inner harmony* (+4), which boys rank only 10th ($p = .000$). Statistically significant gender differences were observed for the values of: *happiness*, *comfortable life*, *exciting life*, *peace in the world*, *pleasure*, *inner harmony*, *self-respect*, *sense of accomplishment*, *the world of beauty*, and *social recognition* (Table 5).

Discussion

The obtained parameters indicate that family and the security it provides are recognized as key support in the process of growing up and maturing, with adolescents expecting understanding, protection, and financial support from their families. This is confirmed by the top position of *family security* on the value ranking. A high position of family security in the value hierarchy is a characteristic of Eastern European, Mediterranean, and Southern European cultures, as numerous studies show that the family represents a central component and a primary source of emotional, social, and economic support during adolescence and early adulthood (Bojović et al., 2015; Bojović et al., 2022; Čičkarić, 2011; Livazović i sar., 2015; Pešić Jenačković & Marković Krstić, 2021; Popadić et al., 2019; Pratt et al., 2003; Zaborskis et al., 2022). It should not be overlooked that intensive peer interactions can reduce the influence of family on value priorities, where the emphasis on moral values among peers leads to a stronger valuation of the moral self (Pratt et al., 2003). The fact that adolescents highly value quality peer relationships aligns with sociological theories that highlight peers as key agents of socialization during adolescence. At the same time, the influence of intensive peer interactions can reduce the relative significance of family values, which corresponds with results showing a shift in value priorities toward moral and social aspects supported by peers. Thus, this observation further explains and reinforces the understanding of the obtained data, pointing to the complex dynamics between family and peer influence in shaping the value orientations of young people (Brown & Larson, 2009).

The higher ranking of hedonistic-materialistic values, such as a *comfortable* and *exciting life*, indicates the dominance of individualistic and consumer-oriented orientations in the value system of high school students. This reflects a broader process of identity reshaping among youth under the influence of media, digital culture, and global value patterns, confirming the strong impact of globalization on their value formation. In this context, the lower ranking of values such as *national security* and *equality* does not necessarily imply their rejection, but rather suggests their transformation and their change in meaning within new social conditions. Emerging value patterns and changes in the priority system of young people, where values like national security and equality occupy a progressively less significant position, pose serious challenges for educational and social institutions. In this regard, educational institutions must direct their efforts toward strengthening the value sensitivity of young people to issues important for social cohe-

sion, civic solidarity, and the preservation of cultural and national identity — prerequisites for active, responsible, and conscious participation in contemporary society (Bojović, 2017; Inglehart & Welzel, 2005; Ilišin, 2011; Zajda, 2009).

The examination of terminal value preferences from the perspective of educational orientation indicates an uneven prioritization of values among students of different educational tracks, although the effect size parameters suggest minimal differences in the selection of terminal life values between these groups, meaning the differences are not practically significant. The identical ranking of the top four values in both subsamples points to the existence of a shared core of values. The results suggest that educational orientation influences certain aspects of the hierarchy of values, particularly within the existential, moral, and hedonistic domains.

Students in the natural-sciences and mathematics track rank the value of *self-esteem* relatively high, indicating the presence of an individualistic orientation and a tendency to accept values associated with the concept of a “culture of narcissism” (Petrović i Zotović, 2012). Alongside trends showing the growing dominance of individualistic values, recent research in Serbia suggests that *self-esteem* among high school students does not exclusively reflect orientation toward a “culture of narcissism,” but also has positive developmental implications, evidenced by a strong correlation between national identity and *self-esteem*. These findings complement the theoretical interpretation of *self-esteem* as a value, highlighting that it functions not only as a marker of individualistic aspirations but also as a developmental resource (Randelović et al., 2022). The value of *salvation of the soul*, which pertains to the domain of spirituality, is ranked higher by students in the natural-sciences and mathematics track compared to students in the social-humanities track. Despite their focus on natural and technical sciences, these students attach importance to the spiritual aspects of life. A similar trend is observed for the value of a *comfortable life*, which is associated with hedonistic aspirations and an orientation toward material well-being. These results can be interpreted as an orientation toward economic security while preserving spiritual and existential meaningfulness, which represents an adaptive response to global socioeconomic and cultural challenges. This aligns with global labor market trends favoring careers in STEM fields (Budziński et al., 2018; Vaziri et al., 2019). Students in the social-humanities track are more inclined toward humanistic values, consistent with the value profiles typical for this educational domain. Overall, a relative alignment of value orientations is observed among high school students across different educational tracks.

The variable of gender emerged as a moderating variable influencing the hierarchical ranking of certain terminal values (Gouveia et al., 2015; Vecchione et al., 2016). The result of the chi-square test ($\chi^2 = 22.128$; $p = .000$) indicates a statistically significant association between the educational track attended by students (natural-sciences/mathematics vs. social-humanities) and the gender of the respondents. The obtained p -value (.000) is below the predefined significance level ($\alpha = .05$). In other words, school choice is conditioned by the student's gender to a certain extent. This finding may reflect the presence of socially rooted gender stereotypes and expectations, which contribute to girls more frequently choosing social-humanities fields, and boys opting for natural-sciences and

mathematics programs. Similar conclusions are reported in other studies (Eccles, 2011; Legewie & DiPrete, 2014), which show that educational choices are influenced by culturally embedded perceptions of “typically male” and “typically female” occupations.

Regardless of gender, students in the final years of high school similarly rank *family security*, *happiness*, and *freedom* at the very top, highlighting the central role of family and the presence of universal values. In contrast, social values (*peace*, *security*, and *equality*) are positioned at the bottom of the ranking, suggesting their lower relevance in the value system of adolescents.

Conclusion

In the contemporary social context, the value formation of young people increasingly leads to the relativization of traditional values such as family, community, and discipline, in favor of individualistic orientations focused on personal freedom, success, and digital self-assertion. High school students adopt hybrid value patterns that integrate elements of the local cultural matrix with globalized trends, where values such as inclusivity and digital competence are increasingly taking precedence over traditional value hierarchies (McKenzie & Jensen, 2024). These processes indicate the need to reassess and enhance the role of education when it comes to fostering a critical attitude among youth toward the value influences of contemporary society. Based on the research objectives and tasks regarding the value preferences of high school students in the Western Serbia region, as well as on drawing on results obtained through quantitative and qualitative analysis, the following conclusions were formulated:

1. The comprehensive hierarchy of terminal values demonstrates a consistent value orientation among high school students regarding ultimate life goals. Among the 18 values, *family security*, *happiness*, and *freedom* stand out prominently, occupying the top three positions. This orientation toward a close social milieu, such as family, and the pursuit of happiness and freedom, can be interpreted in the context of the broader social crisis and the societal position of youth, whose participation in socially significant decision-making is often marginalized. Students place high value on genuine *friendship* and *inner harmony*, recognizing that changes in the social environment can generate frustrations that affect the individual’s personality, and therefore feel a need to connect with others in the search for authentic, sincere friendships. *Self-esteem* is highlighted as particularly important, reflecting the personal evaluation of one’s own character: it pertains to how much a person values, accepts, and respects themselves. Social values occupy the lowest positions (*national security*, *equality*), while values such as sense of accomplishment, *social recognition*, or *beauty* hold lesser significance at this stage of life, due to limited personal and professional experience.

2. The preference for terminal values among high school students in the social-humanistic and natural-mathematical fields is relatively consistent. The identical ranking of the top four values suggests the existence of a common value core, while statistically significant differences are most pronounced regarding *self-esteem*, *comfortable life*, and *salvation of the soul*. Students in the social-humanistic field perceive *self-esteem* as a

means to build and preserve their individuality, based on a personal assessment of their own qualities, while they are least inclined to accept conformist value orientations. Students in the natural-mathematical field show a stronger preference for a *comfortable life*, which reflects a hedonistic approach to living. The absence of an organized system and a lack of security certainly do not encourage long-term planning but rather foster a socially destructive philosophy of the comfortable life, which emphasizes yielding to immediate pleasures (Petrović i Zotović, 2012). The preference for hedonistic values is supported by other research (Ajduković, 1989; Chernoff & Davison, 1999; Goff, 1999; Nagel et al., 1995; Romero et al., 2001; Ule et al., 2000). The difference in the ranking of the value *salvation of the soul* can be interpreted as a compensatory mechanism, characteristic of societies in crisis that seek stability through a return to established and culturally rooted value patterns.

3. Graduating high school students, regardless of gender, value *family security*, *happiness*, and *freedom* the most, highlighting the central role of the family and the presence of universal values in their value system. Statistically significant differences between male and female students were observed in the preference for the following values: *happiness*, *comfortable and exciting life*, *peace in the world*, *pleasure*, *inner harmony*, *self-esteem*, *sense of accomplishment*, *the world of beauty*, and *social recognition*. Male students demonstrate a greater inclination toward materialistic and hedonistic goals, whereas female students place more value on personal and interpersonal relationship-oriented values. Social values, such as *peace in the world*, *equality*, and *national security*, rank low for both genders, suggesting low social engagement among youth, regardless of gender, and a perceived limited ability to influence society. Gender was found to be a significant but not decisive factor in shaping the value system of students.

Pedagogical Implications

Based on the obtained results, we can draw significant pedagogical implications which highlight the need to reconsider and improve educational approaches when working with adolescents in high school. The observed orientation of graduating students toward individualistic and hedonistic values, combined with low social engagement and a weak inclination toward collective and socially responsible goals, underscores the necessity for deliberate and targeted educational strategies, aimed at developing a well-rounded personality, moral authenticity, and social responsibility. In this context, the school assumes an active educational role in fostering critical value-based reasoning, self-awareness, and emotional maturity in young people. Education can no longer be reduced to the mere transmission of predefined norms: instead, it must aim to encourage authentic personal growth, empathy, and solidarity. The role of the teacher transforms from a knowledge transmitter to a mentor, facilitator, and coordinator in the process of personality development, enabling students to reflect on and adapt their values in accordance with contemporary challenges (Bojović, 2017; Bojović et al., 2022). The obtained findings point to the need for contextualized, flexible, and interdisciplinary pedagogical approaches that respect the diversity of young people's value systems and foster their capacity for

active, critical, and socially responsible engagement within the complex structures of a globalized world.

The conducted research provides a foundation for future longitudinal studies that could track value changes in youth as they transition into academic and professional life, thereby further improving educational policies and models aimed at the integral development of young people as mature, morally responsible, and socially engaged individuals.

References

- Ajduković, M. (1989). *Vrednosne orijentacije maloletnih delikvenata: Uzrok i poslednice delikvencije?* Pravni fakultet u Zagrebu.
- Akaliyski, P., Taniguchi, H., Park, J., Gehrig, S., & Tormos, R. (2023). Values in crisis: Societal value change under existential insecurity. *Social Indicators Research*, 171, 1-21. <https://doi.org/10.1007/s11205-023-03226-2>
- Alfirević, N., i Brčić Kuljiš, M. (2016). Vrednosne orijentacije i percepcije socijalne pravde studenata društvenih nauka i biznisa u Hrvatskoj. *The International Journal of Interdisciplinary Educational Studies*, 11(1), 1–14. <https://doi.org/10.18848/2327-011X/CGP>
- Antoci, D. (2020). Value orientations of adolescents and youth: review and current situation. *Homo et Societas*, (5), 150-162. <https://doi.org/10.4467/25436104HS.20.011.13244>
- Antoci, D. (2021). Values and value orientations of adolescents and young people in pre-pandemic and pandemic situations. *Postmodern Openings*, 12(3), 288-310. <https://doi.org/10.18662/po/12.3/341>
- Antonijević, D., Rašić, M., i Grubišić Banić, A. (2020). Šta mladi u Srbiji i dijaspori ne znaju o nematerijalnom kulturnom nasleđu Srbije? *Etnoantropološki problemi*, 15(4), 1037-1058. <https://doi.org/10.21301/eap.v15i4.4>
- Baudrillard, J. (2007). Duh terorizma. Arhipelag.
- Bauman, Z. (2001). *Liquid Modernity*. Polity Press.
- Bogunović, B., Dubljević, J., Dubljević, L., i Mirović, T. (2012). Vrednosne orijentacije mladih muzičara. *Nastava i vaspitanje*, 61(2), 317-332.
- Bojović, Ž. (2017a). Terminalne vrednosti – životni ciljevi: perspektiva studenata budućih učitelja i vaspitača. *Inovacije u nastavi*, 30(4), 35-48. <https://doi.org/10.5937/inovacije1704035B>
- Bojović, Ž. (2017b). Kulturni identitet mladih pod uticajem globalizacije. U U. Šuvaković, O. Marković-Savić, V. Čolović (Ur.), *Globalizacija i globalizacija* (pp. 101-113). Filozofski fakultet Univerziteta u Prištini.
- Bojović, Ž., Vasilijević, D., i Sudzilovski, D. (2015). Vrijednosti i vrijednosne orijentacije studenata, budućih učitelja i vaspitača. *Hrvatski časopis za odgoj i obrazovanje*, 17(4). <https://doi.org/10.15516/cje.v17i0.1339>
- Bojović, Ž., Vasilijević, D., i Sudzilovski, D. (2022). Realno pozicioniranje vrijednosnih opredjeljenja učitelja. *Hrvatski časopis za odgoj i obrazovanje*, 24(1), 9-36. <https://doi.org/10.15516/cje.v24i1.4162>
- Botalova, O. B., Osipova, S. V., Asenova, N. S., Kenenbaeva, M. A., Kuderina, A. Y., Zholtaeva, G., Boribekova, F., Zhanatbekova, N., Vedilina, E. A., & Azanbekova, G. (2016). Value orientations of future teachers-researchers. *International Journal of Environmental & Science Education*, 11(17), 10279-10288.
- Budziński, W., Majkiewicz, M., & Charkiewicz, A. (2018). Value preferences among students of various fields of study. *Psychiatria Polska*, 52(3), 497–509.

- Budimir-Ninković, G. (2002). Vrednosne orijentacije mladih i odraslih. *Nastava i vaspitanje*, 51(5), 471–480.
- Brown, B. B., & Larson, J. (2009). Peer relationships in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 74–103). Wiley.
- Corey, G., Corey, M. S., & Callahan, P. (2003). *Issues and ethics in the helping professions* (6th ed.). Brooks/Cole.
- Chernoff, R., & Davison, M. (1999). A study of values among adolescents: Assessing terminal and instrumental value systems and orientations. *Journal of Youth and Adolescence*, 28(6), 747–762. <https://doi.org/10.1023/A:1021668501459>
- Čičkarić, L. (2011). *Globalne promene - lokalne interpretacije. Identitet mladih u rizičnom društvu*. Institut društvenih nauka.
- Čikoš, K. (2021). Kritički stav mladih prema sadržajima i vrednostima koje ističu mediji i društvene mreže. U Z. Paunović, Ž. Milanović (Ur.), Šesti međunarodni interdisciplinarni skup mladih naučnika društvenih i humanističkih nauka, Zbornik radova (pp. 321–335). Univerzitet u Novom Sadu – Filozofski fakultet.
- Eccles, J. S. (2011). Gendered educational and occupational choices: Applying the Eccles et al. model of achievement-related choices. *International Journal of Behavioral Development*, 35(3), 195–201. <https://doi.org/10.1177/0165025411398185>
- Engel, J., & Fritzsche, B. (2019). Cultural identity in multilocal spaces. *Diaspora, Indigenous, and Minority Education*, 13(1), 1–12. <https://doi.org/10.1080/15595692.2018.1553551>
- European Values Study. (2008). About EVS. Retrieved June 1, 2025, from <https://europeanvaluesstudy.eu/about-evs/>
- European Commission. (2021). *Values for the future: The role of ethics in European and global governance*. <https://op.europa.eu/en/publication-detail/-/publication/849e7ec4-cf13-11eb-ac72-01aa75ed71a1>
- Franc, R., Šakić, V., i Ivičić, I. (2002). Vrijednosti i vrednosne orijentacije adolescenata: hijerarhija i veza sa stavovima i ponašanjima. *Društvena istraživanja*, 11(2-3), 215–238.
- Furlong, A., & Cartmel, F. (1997). *Young people and social change*. Open University Press.
- Gavrilović, D. (2012). Tradicionalne i moderne vrednosti u tranzicionoj Srbiji. *Teme*, 36(3), 1121–1138.
- Gavrilović, D. (2017). Vrednosne orijentacije mladih u Srbiji. *Stanovništvo*, 55(2), 57–76. <https://doi.org/10.2298/STNV1702057G>
- Genest, S. (2023). Identity negotiation and conflict resolution in contemporary multicultural settings: The contribution of intercultural mediators. *Social Sciences*, 9(1), 18. <https://doi.org/10.3390/socsci9010018>
- Giacomino, D. E., Brown, J., & Akers, M. D. (2011). Generational differences of personal values of business students. *American Journal of Business Education*, 4(9), 19–30. <https://doi.org/10.19030/ajbe.v4i9.5616>
- Giddens, A. (1990). *The Consequences of Modernity*. Stanford University Press.
- Goff, B. G. (1999). Terminal core values associated with adolescent problem behaviours. *Adolescence*, 34(133), 47–60.
- Gouveia, V. V., Vione, K. C., Milfont, T. L., & Fischer, R. (2015). Patterns of value change during the life span: Some evidence from a functional approach to values. *Personality and Social Psychology Bulletin*, 41(9), 1276–1290. <https://doi.org/10.1177/0146167215594189>

- Gvozdenović, S. (2021). Identitet i vrednosti u dobu konformizma. *Vaspitanje i obrazovanje*, 46(4), 63-77.
- Havelka, N. (1975). Istraživanje vrednosti u našoj zemlji. *Psihologija*, 8(3-4), 139-149.
- Havelka, N. (1995). Vrednosne orijentacije studenata i njihova očekivanja od buduće profesije. *Psihološka istraživanja*, 47(7), 89-125.
- Hooper, C. (2003). Values education study: Literature review. In V. Zbar, D. Brown, & B. Bereznicki (Eds.), *Values education study - Final report* (pp. 168-212). Curriculum Corporation.
- Hitlin, S. & Piliavin, J. A. (2004). Values: Reviving a dormant concept. *Annual Review of Sociology*, 30, (pp. 359-393). <https://doi.org/10.1146/annurev.soc.30.012703.110640>
- Ilišin, V. (2011). Vrednosti mladih u Hrvatskoj. *Politička misao*, 48(3), 82-122.
- Inglehart, R. (1997). *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton University Press.
- Inglehart, R., & Welzel, C. (2005). *Modernization, culture change, and democracy: The human development sequence*. Cambridge University Press.
- Jackson, J. C., & Medvedev, D. (2024). Worldwide divergence of values. *Proceedings of the National Academy of Sciences*, 121(12), 1-15. <https://doi.org/10.1038/s41467-024-46581-5>
- Janković, A. (2017). Društvena stvarnost posmatrana iz perspektive vrednosti, *Sociološka luča*, 11(2), 75-89.
- Joksimović, S., i Maksić, S. (2006). Vrednosne orijentacije adolescenata: usmerenost prema sopstvenoj dobrobiti i dobrobiti drugih. *Zbornik Instituta za pedagoška istraživanja*, 38(2), 415-429.
- Jablanov Maksimović, R. (2012). *Vrednosti i društvene promene u Srbiji*. Etnografski institut SANU.
- Kehily, J. (2007). *Understanding youth: Perspectives and practices*. Sage Publications.
- Kim, J., & Kim, H.-R. (2025). Values, intercultural sensitivity, and uncertainty management: A cross-cultural investigation of motivational profiles. *Frontiers in Psychology*, 16, 1-15. <https://doi.org/10.3389/fpsyg.2025.1623929>
- Koirikivi, P., Benjamin, S., Kuusisto, A., & Gearon, L. (2023). Values, lifestyles, and narratives of prejudices amongst Finnish youth. *Journal of Beliefs & Values*, 44(3), 1-15.
- Knafo, A., Roccas, S., & Sagiv, L. (2011). The value of values in cross-cultural research: A special issue in honor of Shalom Schwartz. *Journal of Cross-Cultural Psychology*, 42(2), 178-185. <https://doi.org/10.1177/0022022110396863>
- Kuzmanović, B. (1995). Društvene promene i promene u vrednosnim orijentacijama studenata. *Psihološka istraživanja*, 7, 17-47.
- Kuzmanović, B. i Petrović, N. (2009). Preferencije ličnih i društvenih ciljeva srednjoškolaca Srbije. *Sociološki pregled*, 43(4), 503-523. <https://doi.org/10.5937/socpreg0904503K>
- Lazarević, D., i Janjetović, D. (2003). Vrednosne orijentacije studenata budućih vaspitača predškolske dece. *Zbornik Instituta za pedagoška istraživanja*, 35, 289-307.
- Lazić, M., & Pešić, J. (2024). Values, norms and social dynamics. *Filozofija i društvo*, 35(1), 35-51. <https://doi.org/10.2298/FID2403703L>
- Lavrič, M., Gavrilović, D., Pužić, S., & Klanjšek, R. (2019). Values and Value Shifts in Four Countries of South-East Europe: Retraditionalization, Erosion of Trust and the Decline in Public Morality. *Facta Universitatis, Series: Philosophy, Sociology, Psychology and History*, 18(2), 55-66. <https://doi.org/10.22190/FUPSPH1902055L>

- Legewie, J., & DiPrete, T. A. (2014). The High School Environment and the Gender Gap in Science and Engineering. *Sociology of Education*, 87(4), 259–280. <https://doi.org/10.1177/0038040714547770>
- Livazović, G., Jukić, R., & Buljubašić-Kuzmanović, V. (2015). Vrijednosni sustav mladih – putokaz pedagogijskoj znanosti i pedagoškoj praksi. In M. Orel (Ed.), *EDUvision 2015: Modern Approaches to Teaching Coming Generation / Sodobni pristopi poučevanja prihajajočih generacij* (pp. 84–97). EDUvision.
- Lindh, K., & Korhonen, V. (2010). Youth values and value changes from cultural and transnational perspectives. In V. Korhonen (Ed.), *Cross-cultural lifelong learning* (pp. 135-166). Tampere University Press.
- Maio, G. R. (2017). *The psychology of human values*. Psychology Press.
- McKenzie, J., & Jensen, L. A. (2024). The globalization and localization of moral values: A cultural-developmental study of adolescents and their parents. *International Journal of Behavioral Development*, 48(2), 179-189. <https://doi.org/10.1177/01650254231222418>
- Mihailova, S., Martinsone, K., & Pipcane, A. (2019). Comparison of adolescent's values: Riga and Vidzeme region. *SHS Web of Conferences*, 68, 1-12. <https://doi.org/10.1051/shsconf/20196801006>
- Miliša, Z., i Bagarić, M. (2012). Stilovi ponašanja i vrednosne orijentacije. *Medianali*, 6(12), 68-104.
- Miliša, Z., Dević, J., i Perić, I. (2015). Kriza vrednosti kao kriza vaspitanja. *Mostariensia: časopis za humanističke znanosti*, 19(2), 7-20.
- Milivojević, M. (2015). Životni stilovi mladih u Srbiji: između tradicije i modernosti. *Sociološki pregled*, 49(3), 371–390.
- Mladenović, U., i Knebl, J. (2000). Vrednosne orijentacije i preferencije životnog stila adolescenata. *Psihologija*, 33(3-4), 435-454.
- Musek, J. (2015). *Personality, values and psychological well-being*. Znanstveno raziskovalni inštitut Filozofske fakultete Univerze v Ljubljani.
- Musil, B., & Jurčec, L. (2004). Value orientations of Japanese and Slovenian students: A cross-cultural study using the Rokeach Value Survey. *Studia Psychologica*, 46(2), 135–144.
- Nagel, L., Mayton, D. M., & Walner, T. (1995). Value differences across 235 tobacco use levels. *Health Values*, 19(6), 39-44.
- Nikolić, M., Čočkalović, D., Terek, E., Božić, S., i Nastasić, A. (2017). Uticaj životnih vrednosti na preduzetničke namere kod studenata u Srbiji. *Journal of Engineering Management and Competitiveness (JEMC)*, 7(1), 28-34. <https://doi.org/10.5937/jemc1701028N>
- Pantić D. (1977). Vrednosti i ideološke orijentacije društvenih slojeva. U M. Popović, S. Bolčić, V. Pešić, M. Janićijević & D. Pantić (Ur.), *Društveni slojevi i društvena svest* (pp. 269-406). Centar za sociološka istraživanja Instituta društvenih nauka.
- Pantić D. (1981). *Vrednosne orijentacije mladih u Srbiji*. Izdavačko-istraživački centar SSO Srbije.
- Pantić, D. (1990). *Promene vrednosnih orijentacija mladih u Srbiji*. Institut društvenih nauka, Centar za politikološka istraživanja i javno mnjenje.
- Parsons, T. (2012). *The structure of social action*. Free Press.
- Petrović, J., i Zotović, M. (2012). Adolescenti u Srbiji: U traganju za novim vrednostima. *Teme*, 36(1), 47–66.
- Pešić Jenačković, D., & Marković Krstić, S. (2021). Traditional family values as a determinant of the marital and reproductive behaviour of young people: The case of Southern and Eastern Serbia. *Stanovništvo*, 59(2), 23–41. <https://doi.org/10.2298/STNV210420004P>

- Popadić, D., Pavlović, Z., & Mihailović, S. (2019). *YouthStudySerbia 2018/2019*. FriedrichEbertStiftung. <https://ssrn.com/abstract=3514181>
- Pratt, M. W., Hunsberger, B., Pancer, S. M., & Alisat, S. (2003). A longitudinal analysis of personal values socialization: Correlates of a moral self-ideal in late adolescence. *Social Development*, 12(4), 563-585. <https://doi.org/10.1111/1467-9507.00249>
- Radoman, M. (2012). Stavovi i vrednosne orijentacije srednjoškolaca u Srbiji. *Sociološki pregled*, 46(2), 247-268. <https://doi.org/10.5937/socpreg1202247R>
- Radovanović, I. D., Spasić, D. V., i Radovanović, D. M. (2022). Promene u vrednosnim orijentacijama adolescenata u periodu od 1972. do 2018. godine. *Sociološki pregled*, 56(3), 929-953. <https://doi.org/10.5937/socpreg56-39829>
- Ranđelović, D. J., Minić, J. J., & Ranđelović, K. Ž. (2021). National identity of secondary school students in the Republic of Serbia. *Sociološki pregled*, 55(4), 1018-1054. <https://doi.org/10.5937/socpreg55-32338>
- Rokeach, M. (1973). *The nature of human values*. The Free Press.
- Robbins, S. (2003). *Organizational behavior*. Prentice Hall.
- Rohan, M. J. (2000). A rose by any name? The values construct. *Personality and Social Psychology Review*, 4(3), 255-277. https://doi.org/10.1207/S15327957PSPR0403_4
- Romero, E., Jorge, S., Angeles, L. M., & Jose, M. J. (2001). Values and antisocial behaviour among Spanish adolescents. *Journal of Genetic Psychology*, 162(1), 20-41. <https://doi.org/10.1080/00221320109597879>
- Schäfer, A. (2025). Groups of individual attitudes towards cultural issues in Europe: A unidimensional conflict? *Politics*, 23(3), 841-859. <https://doi.org/10.1177/14789299241311760>
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 1-65). Academic Press.
- Schwartz, S. H. (1996). Value priorities and behavior: Applying a theory of integrated value systems. In C. Seligman, J. M. Olson, & M. P. Zanna (Eds.), *The psychology of values. The Ontario Symposium* (pp. 1-24). Lawrence Erlbaum Associates.
- Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, 2(1), 1-20. <https://doi.org/10.9707/2307-0919.1116>
- Ule, M., Renner, T., Čeplak, M. M., Tivadar, B. (2000). *Social vulnerability of youth*. Ministarstvo za školstvo in šport.
- UNICEF. (2020). *Education crisis and global challenges*. UNICEF.
- Valerian, F. G., Elvira, G. G., & Olga, V. Y. (2016). The use of problem-based technologies in multicultural education of future teachers. *IEJME - Mathematics Education*, 11(4), 755-766.
- Vaziri, D., Tay, L., Parrigon, S., Bradburn, NM & Pawelski, J.O. (2019). STEM or Humanities? Toward a Balance of Interest Fit. *Frontiers in Education*, 4, 1-7. <https://doi.org/10.3389/educ.2019.00143>

- Vecchione, M., Schwartz, S. H., Alessandri, G., Döring, A. K., Castellani, V., & Caprara, M. G. (2016). Stability and change of basic personal values in early adulthood: An 8-year longitudinal study. *Journal of Research in Personality*, 63, 111–122. <https://doi.org/10.1016/j.jrp.2016.06.002>
- Visković, N. (2013). *Vrednosti i identitet u savremenom društvu*. Filozofski fakultet.
- Vukadinović, D. (2012). *Globalizacija i sistem vrednosti*. Institut za političke studije.
- Zaborskis, A., Kavaliauskienė, A., Eriksson, C., Dimitrova, E., & Makari, J. (2022). Family structure through the adolescent eyes: A comparative study of current status and time trends over three decades of HBSC study. *Societies*, 12(3), 88-104. <https://doi.org/10.3390/soc12030088>
- Zajda, J. (2009). *Globalization, education and social justice*. Springer.
- Zokirova, N. (2020). *Vrednosti i socijalna adaptacija u savremenom društvu*. Filozofski fakultet.
- Zinkina, J., Ustiuzhanin, V., & Shulgin, S. (2022). Social Macroevolution and Changes in the Human Value Systems. *Social Evolution & History*, 21(2), 91-105. <https://doi.org/10.30884/seh/2022.02.06>
- World Values Survey. (2022). *Documentation for download*. <https://www.worldvaluessurvey.org/WVSContents.jsp>
- Wyn, J., & White, R. (1997). *Rethinking youth*. SAGE Publications.

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Predictors of University Students' General Self-efficacy

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Abstract

As self-efficacy is a complex construct, which includes motivation, emotions, thoughts, and behavior in a particular situation, it greatly affects the quality of life and well-being of students. The aim of this study was to determine the predictors of the general self-efficacy of students. Within this study, we examined the correlation of general self-efficacy with optimism, pessimism and academic life satisfaction, as well as differences in certain socio-demographic characteristics. A sample of 237 students of the University of Novi Sad participated in the research. The research results indicate that students achieved a moderately high score on the general self-efficacy scale. Additionally, the results of the research showed a statistically significant negative correlation between general self-efficacy and pessimism, as well as statistically significant positive correlation with optimism and academic life satisfaction. Students' perceived satisfaction with financial situation proved to be an important socio-demographic characteristic. Moreover, the results highlight the substantial impact of optimism on general self-efficacy, while academic life satisfaction and pessimism are shown to play lesser roles. The mentioned results can help with better understanding of this problem, as well as with further consideration and development of support programs that effectively address the needs of students, thereby contributing to their success and well-being during their studies. Integrating support programs into institutional practices can contribute to creating a stimulating environment that enables students to realize their full potential.

Keywords: *self-efficacy, students, optimism, pessimism, academic life satisfaction.*

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Introduction

Student self-efficacy can be defined as a specific belief in personal capabilities (Schunk & Mullen, 2012), significantly affecting how students feel, think, behave and motivate themselves in a given context (Maksimović & Janković, 2016). The concept of self-efficacy is widely applicable and used in many psychological studies, as it can explain numerous determinants of human behavior. It represents an individual's assessment of their ability to organize and execute actions in order to achieve a specific goal (Ivanišević i Vlašić, 2022). The self-efficacy of students has been the subject of numerous studies (Bartimote-Aufflick et al., 2016; Ivanišević i Vlašić, 2022; Olivier et al., 2019; van Dinther et al., 2011). Self-efficacy is a significant variable in learning, as it influences student motivation (van Dinther et al., 2011).

A distinction is made in the literature between general and specific self-efficacy (Luszczynska et al., 2005). General self-efficacy is interpreted as the belief in the ability to successfully solve new tasks, while specific self-efficacy refers to the belief in one's capacities in distinct aspects of an individual's life (Ivanišević i Vlašić, 2022). Personal efficacy is based on personal experience, vicarious experience, verbal persuasion and psychophysiological state (Milanović Dobrota i Radić Šestić, 2012). Students with low self-efficacy often perceive tasks as more complex than they actually are (Bandura, 1997). This perception can lead to depression, helplessness and tension. Conversely, high levels of self-efficacy can enhance students' readiness to face challenges. Therefore, self-efficacy plays a crucial role in human behavior (Pajares, 2006). Malčić (Malčić, 2018) presented self-efficacy as a personal experience of one's competencies related to the effectiveness of performing specific tasks. Additionally, self-efficacy can be understood as a multidimensional set of beliefs that vary in terms of level, generality and strength (Marić Jurišin & Malčić, 2022).

The question of students' academic life satisfaction has been the subject of numerous studies (Chang, 1996; García-Martínez et al., 2023; Nogueira et al., 2019; Pavićević, 2019; Pavićević i Stoševski, 2019; Piper, 2022). When defining satisfaction with academic life, authors note that it is a complex construct that includes students' experiences within the university (Almeida et al., 2012; Santos et al., 2013). Defined in this way, satisfaction with academic life actually reflects the quality of students' adaptation to the academic environment. The same authors note that students face different developmental tasks, which can be academic (involving adaptation to new learning strategies, teaching systems or evaluation), personal (development of identity, self-esteem, self-awareness), social (mature interpersonal relationships with peers and teachers), and professional (professional exploration and identity) (Almeida et al., 2012; Santos et al., 2013). There are four groups of factors that can influence student satisfaction: institutional factors, extracurricular factors, student expectations and student demographics. Institutional factors relate to academic factors (quality of education, communication with professors in and outside of class, literature) and administrative factors (faculty practices and philosophy in administration). Extracurricular factors include social, health, cultural, and sports activities. Student expectations involve choosing a faculty and the possibility of employment after completing studies. Demographic factors include age, gender, attendance and more (Aldemir & Gulcan, 2004 as cited in, Machado et al., 2011).

Correlates of Students' Self-efficacy

Given the significance of these constructs, many authors have investigated the self-efficacy of students and their satisfaction with academic life. The research by Ivanišević and Vlašić (2022) aimed to examine general self-efficacy with some socio-demographic variables and life satisfaction. The results of their study showed that participants did not differ in the assessment of general self-efficacy by gender, education level and marital status. Furthermore, there was a positive statistically significant correlation between general self-efficacy and life satisfaction. Thus, as individuals' confidence in completing a task increases, their level of life satisfaction increases as well (Ivanišević i Vlašić, 2022).

The study on predictors of satisfaction with academic life, academic self-efficacy and achievement (Wilcox & Nordstokke, 2019) aimed to examine first-year students on these constructs. The results showed that academic satisfaction and school connectedness predict life satisfaction, but academic self-efficacy does not. Therefore, academic self-efficacy does not necessarily correlate positively with life satisfaction (Wilcox & Nordstokke, 2019).

Vasić (Vasić, 2015) conducted research to examine the relationships between self-efficacy and academic motivation in adolescence. The sample included 976 participants aged 15 to 19 years. Aspects of academic self-efficacy significantly and positively correlated with internal, external, and to a lesser extent with introjected motivation, while showing an expected negative relationship with amotivation. Thus, adolescents with higher levels of self-efficacy are often internally motivated (Vasić, 2015).

A study on the quality of academic life among students from Turkey conducted by Arslan and Akkas (Arslan & Akkas, 2014) included 1260 participants. The results revealed a positive correlation between life satisfaction and satisfaction with academic life. The study emphasized that universities should enhance students' social satisfaction and ensure improvements in facilities and services within the university in order to elevate the level of academic satisfaction (Arslan & Akkas, 2014).

Penezić, Ivanov and Proroković (Penezić i sar., 1998) investigated the relationship between general self-efficacy, future planning tendency, consideration of future consequences, and overall life satisfaction. The sample included 242 students aged 16 to 31 years. The results showed a significant relationship between general self-efficacy, satisfaction with success, health assessment and life satisfaction. The relationship between self-efficacy and life satisfaction is reflected in significant positive correlations. Perfectionism showed negative correlations with almost all variables, especially with self-efficacy and life satisfaction. Namely, individuals with perfectionistic tendencies believe that they cannot fully satisfy all their obligations, which leads to dissatisfaction with life or a sense of lower self-efficacy (Penezić et al., 1998).

All the previous research results suggest that investigating the satisfaction levels of students provides a deeper insight into the entire educational system (Arslan & Akkas, 2014; Ivanišević i Vlašić, 2022; Penezić et al., 1998; Vasić, 2015; Wilcox & Nordstokke, 2019). Additionally, it is evident that satisfied students often continue and successfully complete their study programs, invest more effort in their education, attend classes regularly and engage in various extracurricular activities more frequently compared to dissatisfied students (Čeko, 2014).

An important factor in the well-being, self-confidence and satisfaction of students is also connected with the subjective experience of achieving important academic and other life goals – more precisely, with the students' idea of the expected outcomes, optimism and pessimism.

Optimism can be represented as a relatively stable general tendency to believe in positive outcomes (Tatalović-Vorkapić & Jelić-Puhalo, 2015). When it comes to optimists, it is typical that they never give up on their goals, regardless of the obstacles (Pavićević, 2019). Optimism is often positively correlated with subjective feeling of well-being, better health and success in work and career (Forgeard & Seligman, 2012). It is also noticeable that optimism can positively correlate with a dominant feeling of self-confidence. Optimism is possibly interpreted as a favorable attitude of the individual's expectations about their future, while cases in which the future is viewed in the opposite way, can be interpreted as pessimism (García-Martínez et al., 2023). Pessimists are characterized by anxious behavior and continuous reconsideration of personal beliefs, but also by giving up on set goals (Pavićević, 2019). When talking about the ratio of optimism and pessimism, the two should be considered as independent dimensions of a single matter; as long as they are stated as positive and negative results expectations in the same matter, the concept of optimism and pessimism should be perceived as two-dimensional (Penezić, 2002).

Research by Schulman (Schulman, 1995) showed that optimistic explanations are associated with better academic achievement and increased productivity at work. In another survey (Peterson & Barrett, 1987) the research goal was to check whether it is possible to predict the academic achievement of students based on their explanatory style. At the beginning of the research, students evaluated negative events according to attributional dimensions. It was found that students with an optimistic explanatory style get better grades than students with a pessimistic explanatory style, as well as that they have more specific goals and actively seek more academic counseling.

Method

The Goal and Tasks of the Research

The aim of the research was to determine the predictors of the general self-efficacy of students. Based on the formulated goal, the following research tasks were set:

1. examine students' general self-efficacy and determine whether there are differences concerning the measured socio-demographic characteristics;
2. examine the correlation between academic life satisfaction and the students' general self-efficacy;
3. examine the correlation between optimism/pessimism and the students' general self-efficacy;
4. examine the extent to which academic life satisfaction and pessimism/optimism affect students' general self-efficacy.

Research Instrument

The following instruments were used for the purposes of examining the set goal and tasks of the research.

- The socio-demographic characteristics questionnaire, which was created for research purposes and which contains the following questions: gender, place of residence, housing situation, students' perceived satisfaction with financial situation, year of study, average grade in studies.

- General Self-Efficacy Scale (GSE) – Authors of the scale are Schwarzer and Jerusalem (1995). The instrument has been translated and adapted into 33 languages, including Serbian (Gavrilov Jerković et al., 2014). It is a four-point scale of 10 items (1 – completely incorrect, 2 – partially incorrect, 3 – partially correct, 4 – completely correct). The scale showed an adequate level of reliability ($\alpha = .896$).

- Academic Life Satisfaction Scale (ALSS) – The original scale was created by a group of authors (Nogueira, et al., 2019). It is a five-point Likert-type scale of 8 items (1 – do not agree at all to 5 – completely agree) which showed an adequate level of reliability ($\alpha = .851$) and consists of two subscales: personal satisfaction – which includes students' perception of their academic performance and relationship with colleagues and teachers (4 items, $\alpha = .746$) – and satisfaction with academic conditions, more precisely, with the physical and pedagogical environment, interest in the study program, commitment to the study program, extracurricular activities and study conditions (4 items, $\alpha = .825$). The scale exhibited a nearly normal distribution (skewness of $-.565$ and kurtosis of $.095$), as indicated by a mean of 29.6920 with a standard error of $.42352$. The data suggests that the scores are clustered closely around the mean, with a variance of 42.511 and a standard deviation of 6.52002 , further indicating a relatively stable distribution.

- Optimism/pessimism scale (O-P scale) – The original scale was created by Chang (1996), and translated and adapted for our region (in Croatian) by Penezić (Penezić, 2002). It is a five-point Likert-type scale of 14 items (1 – does not refer to me at all to 5 – completely applies to me) and consists of two dimensions: optimism (6 items, $\alpha = .831$) and pessimism (8 item, $\alpha = .898$). The optimism scale has a mean score of 22.09 ($SE = .31$) and showed slight negative skewness (skewness = $-.616$), indicating that participants generally reported high levels of optimism with moderate variability ($SD = 4.74$). The distribution is relatively symmetric around the mean, with a range from 6 to 30 and a kurtosis of $.333$, suggesting a slightly more peaked distribution than normal. The pessimism scale has a mean score of 18.95 ($SE = .49$) and exhibited positive skewness (skewness = $.583$), reflecting higher variability ($SD = 7.60$) and a broader range of scores from 8 to 40. The distribution is somewhat flatter than normal (kurtosis = $-.355$), which indicates that a few participants report very high levels of pessimism, contributing to the right-skewed distribution. The pessimism scale has a mean score of 18.95 ($SE = .49$) and exhibits positive skewness (skewness = $.583$), reflecting higher variability ($SD = 7.60$) and a broader range of scores from 8 to 40. The distribution is somewhat flatter than normal (kurtosis = $-.355$), which indicates that a few participants report very high levels of pessimism, contributing to the right-skewed distribution.

Sample and Research Flow

In this research, 237 respondents were involved. The survey was conducted online through the Google Forms platform in the period from June to August 2023. The distribution of the sample based on examined socio-demographic characteristics is presented in Table 1. The data obtained from this research were processed with a statistical program (IBM SPSS for Windows, version 26) while the statistical procedures employed in the analysis included descriptive statistics, analysis of variance (ANOVA) with Tukey post-hoc tests, Pearson correlation and regression analysis.

Table 1
Sample structure

	<i>N</i>	<i>%</i>
Gender		
Male	41	17,3%
Female	196	82,7%
Place of living		
City	174	73,4%
Suburb/countryside	53	26,6%
Perceived financial situation		
Extremely unsatisfactory	4	1,7%
Unsatisfactory	49	20,7%
Satisfying	158	66,7%
Very satisfying	26	11%
Year of study		
First year	55	23,2%
Second year	32	13,5%
Third year	44	18,6%
Fourth year	84	35,4%
Master studies	22	9,3%
Academic achievement		
6,50 – 7,49	19	8%
7,50 – 8,49	87	36,7%
8,50 – 9,49	99	41,8%
9,50 – 10,00	32	13,5%
Faculty		
Faculty of Philosophy	129	54,43%

	<i>N</i>	%
Faculty of Sciences	18	7,59%
Faculty of Technical Sciences	24	10,13%
Faculty of Medicine	11	4,64%
Faculty of Agriculture	24	10,13%
Faculty of Economics	31	13,08%
Total	237	100%

Results

Students' General Self-efficacy

The first task related to the examination of students' general self-efficacy and examined whether there are differences in relation to the measured socio-demographic characteristics. Table 2 shows the descriptive indicators of the general self-efficacy scale and its items.

Table 2

Descriptive indicators of the general self-efficacy scale

	min	max	<i>AS</i>	<i>SD</i>	<i>skewness</i>	<i>kurtosis</i>
I can always manage to solve difficult problems if I try hard enough.	1	4	3.48	.674		
If someone opposes me, I can find the means and ways to get what I want.	1	4	3.03	.786		
It is easy for me to stick to my aims and accomplish my goals.	1	4	2.79	.796		
I am confident that I could deal efficiently with unexpected events.	1	4	2.91	.839		
Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	4	3.06	.811		
I can solve most problems if I invest the necessary effort.	1	4	3.43	.713		
I can remain calm when facing difficulties because I can rely on my coping abilities.	1	4	3.00	.821		
When I am confronted with a problem, I can usually find several solutions.	1	4	2.96	.827		
If I am in trouble, I can usually think of a solution.	1	4	3.14	.745		
I can usually handle whatever comes my way.	1	4	3.04	.752		
Total General self-efficacy scale	10	40	30.82	5.59	-.740	.430

Based on Table 2, we see that at the level of the entire scale, the respondents achieved a moderately high score on the general self-efficacy scale. The distribution of the scale scores is normal with negative skewness, indicating that a large number of students scored high on this scale. The items with the highest score indicate that students think that if they put in enough effort, they believe they can solve most of their problems, or rather, they have faith in putting in effort in order to achieve something.

By examining the differences in the students' general self-efficacy in relation to socio-demographic characteristics, a statistically significant difference was found only in relation to the students' perceived satisfaction with financial situation (Table 3). Students who are more satisfied with their financial situation achieved a significantly higher score on the general self-efficacy scale. Individuals facing economic constraints may experience heightened stress and diminished confidence, thereby compromising their sense of self-efficacy.

Other socio-demographic characteristics were not (gender, place of residence, housing situation, year of study, average grade in studies) shown to be statistically significant association. These results suggest that, in the context of self-efficacy, individual differences which are related to socio-demographic factors may vary in their impact.

Table 3

General self-efficacy and students' perceived satisfaction with financial situation

	<i>N</i>	<i>AS</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Extremely unsatisfactory	5	26.40	9.94	6.11	.001
Unsatisfactory	48	28.27	6.25		
Satisfying	158	31.49	5.08		
Very satisfying	26	32.31	4.73		

The Tukey HSD post hoc test revealed significant differences in students' general self-efficacy scores among various levels of satisfaction with financial situations. Participants who reported extremely unsatisfactory financial situations had significantly lower general self-efficacy scores ($M = 26.40$) compared to those who were satisfied ($M = 31.49$) and very satisfied (32.31), both with p -values less than .001. Similarly, those who were unsatisfied had lower scores (28.27) than those who were satisfied and very satisfied, also with p -values less than .001. However, the difference between extremely unsatisfactory and unsatisfactory financial situations was not significant ($p = .051$), nor was the difference between satisfactory and very satisfactory situations ($p = .175$). These results indicate that higher financial satisfaction is generally associated with higher general self-efficacy. The harmonic mean of group sizes was used due to unequal group sizes, ensuring robust comparisons.

General Self-efficacy and Academic Life Satisfaction

The second task was related to the examination of the correlation between the students' general self-efficacy and academic life satisfaction (Table 4).

A statistically significant positive correlation was found between general self-efficacy and academic life satisfaction (Table 4).

Table 4

General self-efficacy and academic life satisfaction

	Self-efficacy	Academic life satisfaction	<i>p</i>
General self-efficacy	1	.372**	.00
Academic life satisfaction	.372**	1	

This suggests that higher scores of general self-efficacy are associated with greater academic life satisfaction; besides, it also supports the idea that students who believe in their abilities tend to be more satisfied with their academic life.

General Self-efficacy and Optimism/Pessimism

The third task was related to the examination of the correlation between the students' general self-efficacy and optimism and pessimism.

Statistically significant positive correlation was found between self-efficacy and optimism and a statistically significant negative correlation between self-efficacy and pessimism, (Table 5). This result suggests that the students' general self-efficacy rises with higher level of optimism. On the contrary, with the rise of pessimism the students' general self-efficacy lowers.

Table 5

General self-efficacy and optimism/pessimism

	Self-efficacy	Optimism	Pessimism	<i>p</i>
General self-efficacy	1	.700**	-	.00
Optimism	.700**	1		
General self-efficacy	1	-	-.420**	.00
Pessimism	-.420**		1	

Regression Analysis

The fourth task of the research was to examine the extent to which academic life satisfaction and pessimism/optimism affect students' general self-efficacy. The regression analysis demonstrates that the model explains 50% of the variance of general self-efficacy (Table 6). The predictors included in the model were pessimism, academic life satisfaction and optimism, with a significant overall effect ($F(3, 233) = 77.577, p < .001$).

Table 6

Regression model summary – predictors: (Constant), pessimism, satisfaction, optimism Predictors: (Constant), pessimism, academic life satisfaction, optimism

Model	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	Std. Error of the Estimate
	.707	.500	.493	3.98302

The unstandardized coefficient for optimism is .826 ($\beta = .700$, $p < .001$), indicating that optimism is a significant positive predictor of self-efficacy. In contrast, academic life satisfaction has a smaller and marginally non-significant effect on self-efficacy ($B = .082$, $\beta = .096$, $p = .063$). Pessimism, while included in the model, does not significantly predict general self-efficacy ($B = .046$, $\beta = .062$, $p = .310$). The constant term in the model is 9.267 ($p < .001$), reflecting the baseline level of general self-efficacy. Overall, the results showed optimism as a significant predictor of self-efficacy, whereas academic life satisfaction and pessimism did not show significant predictive value.

Discussion

The results of the conducted research have shown that students possess a moderately high level of general self-efficacy, indicating their belief in their abilities to overcome obstacles and solve problems when they invest effort. Moreover, the results indicated differences in the level of self-efficacy in relation to the student's perceived financial situation. Financial problems can also lead to neglecting or dropping out of studies (Joo et al., 2008), negative self-image and general dissatisfaction (Lange & Byrd, 1998). Further research could be directed at investigating some additional variables in order to further clarify the interrelationship between socio-demographic characteristics and self-efficacy beliefs.

The observed positive correlation between self-efficacy and satisfaction with academic life is consistent with the theoretical framework of Bandura's social cognitive theory, which claims that individuals with higher self-efficacy are more likely to set challenging goals and persist in the face of obstacles (Bandura, 1997). Consequently, students who possess a strong sense of general self-efficacy can approach academic tasks with greater confidence and enthusiasm, thereby increasing their overall satisfaction with the learning process and academic achievement.

High levels of general self-efficacy may contribute to increased academic satisfaction and positive academic experiences; in turn, students' successes may strengthen their confidence in their abilities, fostering a sense of academic fulfillment. This cyclical process highlights the interaction between self-efficacy beliefs and subjective perceptions of academic well-being, emphasizing the importance of cultivating positive self-beliefs to promote holistic student development.

Optimism, defined as a more or less stable set of positive expectations concerning future experiences, is an important variable for self-perception in a variety of contexts (Carver & Scheier, 2014). Optimism is a disposition that affects how we make decisions by acting as a mediator between our interpretation of the outside world and ourselves. Less optimistic

people are less able to react to negative, critical, and even traumatic situations. On the other hand, optimistic people prefer to respond positively to unpleasant circumstances, conquering them. Considering that, when it comes to believing in their abilities and resourcefulness in solving various problems and overcoming difficulties, less optimistic students perceive themselves as less effective. When time, effort, and resources are uncertain, optimism is the only strategy that can generate enough self-efficacy to accomplish the task.

This alignment between self-beliefs and optimistic outlooks underscores the motivational and adaptive functions of self-efficacy, as postulated by Bandura's Social Cognitive Theory (Bandura, 1997).

The observed positive correlation between self-efficacy and optimism suggests that interventions aimed at enhancing students' self-efficacy may also contribute to fostering a more positive and hopeful mindset. Moreover, optimism proved to be a significant predictor of students' self-efficacy. By empowering students to develop confidence in their abilities and resilience in the face of adversity, educators can facilitate the development of optimistic perspectives, thereby promoting psychological well-being and academic success. The inverse relationship between self-efficacy and pessimism underscores the protective role of self-beliefs in buffering against negative cognitive biases and maladaptive thought patterns. By instilling confidence in students' abilities and fostering a growth-oriented mindset, educators can help mitigate the detrimental effects of pessimism on academic motivation and performance.

Conclusion

A statistically significant positive correlation was found between general self-efficacy and optimism, as well as between general self-efficacy and academic life satisfaction, while a negative correlation was found with pessimism. Those results are consistent with some previous research by various authors (Čeko, 2014; Ivanišević i Vlašić, 2022; Penezić et al., 1998). Nevertheless, optimism stands out as a significant predictor, compared to pessimism and satisfaction with academic life.

The obtained results indicate that students differ in the level of general self-efficacy in relation to their perceived satisfaction with financial situation. Students who are more satisfied with their financial situation achieved higher scores on the self-efficacy scale, highlighting the importance of financial stability in supporting students' confidence and ability to cope with academic challenges. These findings underscore the importance of providing support to students to enhance their self-efficacy, thereby improving their academic success and well-being. Strategies including fostering optimistic attitudes, providing financial support, and promoting self-confidence can be crucial in this process.

As self-efficacy is not something that some people have and some people don't, it can be influenced and developed. Regardless of an individuals' current situation or past experiences, everyone has the opportunity to strengthen self-efficacy (Malčić, 2018). This research may serve as a basis for further consideration and development of support programs that effectively address the needs of students, thereby contributing to their success and well-being during their university studies. Programs could include training sessions, peer mentoring, or individual counseling to help students develop strategies for achieving

their goals. Given the significance of financial stability for students' self-efficacy, universities should provide resources and support to help students manage financial challenges. This may involve providing information on available scholarships, student loans, or offering financial management counseling. Furthermore, faculties should create a supportive and encouraging atmosphere that enables students to develop self-efficacy. This may include mentorship, peer support and opportunities for engagement in activities that support the development of self-confidence (Arslan & Akkas, 2014).

Additionally, the pedagogical implications of our research emphasize the importance of providing support and resources to enable students to develop self-efficacy and achieve academic success. Integrating support programs into institutional practices can contribute to creating a stimulating environment that enables students to realize their full potential (Arslan & Akkas, 2014). Furthermore, future research endeavors could explore the underlying mechanisms driving the observed correlations between self-efficacy and optimism/pessimism. Longitudinal studies may provide insights into the temporal dynamics of these relationships, shedding light on the reciprocal influence between self-beliefs and cognitive attitudes over time.

Taking all of the aforementioned into account, it is crucial to emphasize that the development of self-confidence and self-efficacy among students is not merely a matter of individual characteristics, but also a result of the context in which they find themselves. Therefore, it is important that higher education institutions recognize the role they can play in supporting the development of these important competencies among students. This research provides a basis for further investigation and the development of tailored interventions and support programs aimed at enhancing students' self-efficacy.

Considering the specific needs of each educational institution, these programs can be designed to provide various forms of support, including educational, emotional, and financial resources. Ultimately, we hope that our research and conclusions will contribute to a more comprehensive understanding of the relationship between students' self-efficacy, their academic success and well-being. Integrating these findings into practice can have a positive impact on the effectiveness of educational systems in supporting the success and satisfaction of all students.

The positive correlation between self-efficacy and academic life satisfaction underscores the intrinsic link between students' beliefs in their capabilities and their subjective perceptions of academic well-being (van Dinther et al., 2011). By fostering self-efficacy and creating supportive learning environments, educational institutions can empower students to achieve their full academic potential and cultivate a sense of fulfillment in their educational journey.

When discussing the strengths of this study, one of the key advantages is its clear practical application. The findings offer important implications for the development of support programs aimed at students, particularly through educational and counseling initiatives. The research highlights the importance of fostering optimism and ensuring financial stability to enhance self-efficacy, which can serve as a foundation for designing comprehensive support programs. For instance, universities could allocate resources toward financial aid, psychological counseling, and workshops that focus on building optimism and self-confidence.

Furthermore, the study lays a foundation for future research projects, particularly longitudinal studies, which could provide a more nuanced understanding of how self-effi-

cacy and cognitive attitudes develop over time. This opens up opportunities for long-term support programs that could monitor and evaluate the impact of these interventions on students' academic success.

Despite these strengths, there are certain limitations that should be acknowledged. The first limitation concerns the sample and the generalizability of the findings. Since the study was conducted with students from limited geographical area, the results may not be fully representative of the broader student population. This constraint necessitates caution when applying the conclusions to different academic and cultural contexts. In addition to that, there is a big difference between the number of male and female respondents. Moreover, the research relies to a greater extent on self-assessments of respondents, rather than objective situations.

References

- Almeida, L. S., Guisande, M. A. & Paisana, J. (2012). Extra-curricular involvement, academic adjustment and achievement in higher education: A study of Portuguese students. *Anales de Psicología / Annals of Psychology*, 28(3), 860–865. <https://doi.org/10.6018/ANALESPS.28.3.156111>
- Arslan, S. & Akkas, O.A. (2014). Quality of College Life (QCL) of Students in Turkey: Students' Life Satisfaction and Identification. *Springer*, 115(2), 869–884. 10.1007/s11205-013-0235-9
- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. Freeman & Company.
- Bartimote-Aufflick, K., Bridgeman, A., Walker R., Sharma, M. & Smith, L. (2016). The study, evaluation, and improvement of university self-efficacy. *Studies in Higher Education*, 41(11), 1918–1942. <https://doi.org/10.1080/03075079.2014.999319>
- Carver, C.S. & Scheier M.F. (2014). Dispositional optimism. *Trends in Cognitive Sciences*, 18(6), 293–299. <https://doi.org/10.1016%2Fj.tics.2014.02.003>
- Chang, E.C. (1996). Distinguishing Between Optimism and Pessimism: A Second Look at the "Optimism-Neuroticism Hypothesis". In R. R. Hoffman, M. F. Sherrick & J. S. Warm (Eds.). *Psychology beyond the threshold* (pp. 415–432). American Psychological Association. <https://psycnet.apa.org/doi/10.1037/10290-019>
- Čeko, J. (2014). *Zadovoljstvo studijem i percepcija profesionalnih perspektiva studenata zdravstvenih studija*. (Nepublikovana doktorska disertacija). Sveučilište u Splitu.
- Forgeard, M. J. C., & Seligman, M. E. P. (2012). Seeing the glass half full: A review of the causes and consequences of optimism. *Pratiques Psychologiques*, 18(2), 107–120. <https://doi.org/10.1016/j.prps.2012.02.002>
- García-Martínez, I., Gavín-Chocano, Ó., Molero, D. & León, S. P. (2023). Analysing university students' life satisfaction through their socioemotional factors. *Revista de Investigación Educativa*, 41(1), 107–124. <https://doi.org/10.6018/rie.496341>
- Gavrilov Jerković, V., Jovanović, V., Žuljević, D. & Brdarić, D. (2014). When Less is More: A Short version of the Personal Optimism Scale and the Self-Efficacy Optimism Scale. *Journal of Happiness Studies*, 15(?), 455-474. <https://link.springer.com/article/10.1007/s10902-015-9687-8>
- Ivanišević, D., i Vlašić, I. (2022). Relacija opće samoefikasnosti s nekim sociodemografskim varijablama i zadovoljstvom životom. *Educa*, 15(5), 109–113.

- Joo, S. H., Durband, D. B. & Grable, J. (2008). The academic impact of financial stress on college students. *Journal of College Student Retention: Research, Theory and Practice*, 10(3), 287–305. <https://doi.org/10.2190/CS.10.3.c>
- Lange, C. & Byrd, M. (1998). The Relationship Between Perceptions of Financial Distress and Feelings of Psychological Well-being in New Zealand University Students. *International Journal of Adolescence and Youth*, 7(3), 193–209. 10.1080/02673843.1998.9747824
- Luszczynska, A., Gutiérrez-Dona, B. & Schwarzer R. (2005). General self-efficacy in various domains of human functioning: Evidence from five countries. *International Journal of Psychology*, 40(2), 80–89. <https://doi.org/10.1080/00207590444000041>
- Machado, M. L., Brites, R., Magalhaes, A. & Sa, M. J. (2011). Satisfaction with Higher Education: critical data for student development. *European Journal of Education*, 46(3), 415–432. <https://doi.org/10.1111/j.1465-3435.2011.01489.x>
- Maksimović, J. & Janković, Lj. (2016). Inkluzivna praksa i samoeфикаsnost budućih učitelja. *Zbornik radova Učiteljski fakultet u Užicu*, 19(18), 261–272.
- Malčić, B. (2018). Teorijske osnove samorazvoja i samoeфикаsnosti odraslih u kontekstu njihovih interesovanja za fizičke aktivnosti. *Zbornik Odseka za pedagogiju*, 27, 85–104. <https://doi.org/10.19090/zop.2018.27.85-104>.
- Marić Jurišin, S. i Malčić, B. (2022). *Samoprocena nastavničke profesije u savremenom obrazovnom kontekstu*. Filozofski fakultet Univerziteta u Novom Sadu.
- Milanović Dobrota, B. & Radić Šestić, M. (2012). Značaj modela samoeфикаsnosti u vaspitno-obrazovnom radu sa adolescentima. *Specijalna edukacija i rehabilitacija*, 11(4), 637–654. <https://doi.org/10.5937/specedreh11-3104>
- Nogueira, M. J., Antunes, J. P. & Sequeira, C. (2019). Development and Psychometric Study of the Academic Life Satisfaction Scale (ALSS) in a Higher Education Students Sample. *Nursing & Healthcare International Journal*, 3(2), 1–8. <https://doi.org/10.23880/nhij-16000183>.
- Olivier, E., Archambault, I., De Clercq, M. & Galand, B. (2019). Student Self- Efficacy, Classroom Engagement and Academic Achievement: Comparing Three Theoretical Frameworks. *Journal of Youth and Adolescence*, 48, 326–340. <https://doi.org/10.1007/s10964-018-0952-0>
- Pajares, F. (2006). Self-efficacy during childhood and adolescence: Implications for teachers and parents. *Self- efficacy beliefs of adolescents*, 5, 339–367.
- Pavićević, M. S. (2019). Korelacija optimizma - pesimizma kod adolescenata. *Zbornik radova Učiteljskog fakulteta*, 14, 315–324. <http://doi.org/10.5937/zrufpl2014315P>
- Pavićević, M. i Stoševski, A. (2019). Povezanost optimizma-pesimizma, nade i zadovoljstva životom kod studenata. U G. Đigić, L. Milošević Radulović (Ur.). *Savremeno društvo i nauka, Tematski zbornik radova, knjiga 1* (str. 55–67). Filozofski fakultet Univerziteta u Nišu.
- Penezić, Z. (2002). Skala optimizma-pesimizma (O-P skala). U Lacković-Grgin, A. Proroković, V. Čubela & Z. Penezić (Ur.) *Zbirka psihologijskih skala i upitnika* (str. 15–17). Filozofski fakultet u Zadru.
- Penezić, Z., Ivanov, L. & Proroković, A. (1998). Samoeфикаsnost i perfekcionizam kod studenata: Pokušaj psihometrijske provjere korištenih skala. *Radovi-Razdio FPSP*, 37(14), 67–80.
- Peterson, C. & Barrett, L. C. (1987). Explanatory style and academic performance among university freshman. *Journal of Personality and Social Psychology*, 53(3), 603–607. <https://doi.org/10.1037/0022-3514.53.3.603>
- Piper, A. (2022). Optimism, pessimism and life satisfaction: an empirical investigation. *International Review of Economics*. 69(2), 177–208. <http://doi.org/10.1007/s12232-022-00390-8>

- Santos, A., Polydoro, S., Scortegagna, S. & Linden, M. (2013). Integration to Higher Education and Academic Satisfaction in University Students. *Psychology: science and profession*, 33(4), 80–793. <https://doi.org/10.1590/S1414-98932013000400002>
- Schulman, P. (1995). Explanatory Style and Achievement in School and Work. In G.M. Buchanan, M. E. P. Seligman (Eds.) *Explanatory Style* (pp.159-171). Routledge.
- Schunk, D. H. & Mullen, C. A. (2012). Self-efficacy as an engaged learner. In S. L. Christenson, A. L. Reschly, C. Wylie, (Eds.) *Handbook of research on student engagement* (pp. 219–236). Springer. http://doi.org/10.1007/978-1-4614-2018-7_10
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35–37). NFER-NELSON.
- Tatalović-Vorkapić, S. & Jelić-Puhalo, J. (2015). Povezanost osobina ličnosti, nade, optimizma i zadovoljstva životom odgojitelja predškolske dece. *Napredak*, 157(1–2), 205–220.
- van Dinther, M., Dochy, F., & Segers, M. (2011). Factors affecting students' self-efficacy in higher education. *Educational Research Review*, 6(2), 95–108. <https://doi.org/10.1016/j.edurev.2010.10.003>.
- Vasić, A. (2015). Relacije samoefikasnosti i akademske motivacije u adolescenciji. *Časopis za humanističke i društvene nauke*, 2(22), 1–17. <https://doi.org/10.7251/RAD1622014V>
- Wilcox, G. & Nordstokke, D. (2019). Predictors of university student satisfaction with life, academic self-efficacy, and achievement in the first year. *Canadian Journal of Higher Education*, 49(1), 104–124. <https://doi.org/10.7202/1060826ar>

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Mentor Teachers' Perceptions of Challenges in Working with Novice Teachers¹

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Abstract

Professional development of teachers is often accompanied by numerous insecurities and challenges, especially at the beginning of their careers. The teacher induction program and the internship period itself are aimed at training novice teachers for independent educational and professional work. The role of the mentor teacher during this sensitive period for the novice teacher is very important. The competence of the mentor can significantly determine the quality of the professional experience of the novice teacher. Since the quality of future teachers is the common interest of all actors in the education system, the aim of the study was to gain insight into the perceptions of mentor teachers regarding the challenges and problems they encounter while working with novice teachers. The study included 98 biology teachers with mentoring experience from primary and secondary schools in Serbia. A survey technique was used to collect the data. The study analyzed the perceptions of mentor teachers regarding the characteristics of novice teachers, the most common problems novice teachers face and the sources of stress in working with them. It also examined the respondents' views on the importance and areas of additional training necessary for the successful work of mentors themselves. The results indicate that novice teachers often lack knowledge and competencies in various areas necessary for successfully performing their teaching role. Problems arise in planning, preparing and delivering lessons, pedagogical guidance, communication, and student assessment. Strengthening competencies is also necessary for mentor teachers. According to the findings, 85% of respondents expressed the need for additional support in working with novice teachers. The practical implications of the research are found in the results that can be used as guidelines in designing teacher training

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programs, both during initial education and as a part of training programs within the framework of continuous professional development.

Keywords: *biology teacher, mentoring, professional development, competencies.*

Introduction

One of the most important areas of education modernization is professional development of teachers as a factor in improving the quality of education (Shibankova et al., 2019). Professional development is a continuous effort in the emergence of a professional and refers to the value system, code of ethics, knowledge, skills, and responsibility that guide both thinking and action. Initial education is neither the first nor the last stage in the professional development of teachers (Vujisić Živković i Vranješević, 2019). Every change in the education system requires teachers to make a significant step forward from their previous practice, as well as to upgrade and expand their professional knowledge, skills, attitudes, and values in order to meet educational reforms effectively (Radulović et al., 2019). The induction programs and process of mentoring aim at training and preparing novice teachers for independent educational and professional practice. The period of being an intern teacher usually represents the first professional experience upon formal education. For novice teachers this is an opportunity to familiarize themselves with school as their working environment and become aware of various roles of the teacher. For inexperienced individuals, this period is very dynamic and can be accompanied with the feeling of insecurity in personal qualifications. Navigating a wide array of new roles and relationships requires competencies from various fields, which a novice teacher may lack at the beginning. Failure in adapting to the environment and in completing teaching tasks successfully can cause feelings of disappointment and frustration and may lead to dropping the profession. This is why the role of the mentor is crucial during this sensitive period for the novice teachers. At this phase, mentoring strategies influence novices' beliefs about teaching practices and consequently their actions (Achinstein & Barrett, 2004). Traditional models of mentoring usually focus on one of the most common and widely spread ways of perceiving the process of mentoring – a type of professional development in which a more experienced person assists and guides a less experienced colleague. In this concept, mentoring is seen as a one-way relation from the more experienced (mentor) to the less experienced person (novice teacher), which in practice is hardly the case, as relationships between humans always go both ways (Miškeljin, 2016).

New models of mentoring, that focus more on collaboration than hierarchical relations, have been introduced in the last decades. Mutual collaboration, collaborative behavior and learning in group create a context that is gradually being put in practice as a modification to the traditional concept of mentoring (Mullen, 2005). As an alternative to the traditional concept of mentoring, which includes one mentor one mentee, Higgins and Kram (Higgins & Kram 2001) propose the concept of individual developmental net-

work where mentoring is perceived as a developmental phenomenon that naturally includes a number of various participants. As Willegems and associates notice (Willegems et al., 2017), the inclusion of a larger number of professionals (educators, teachers, social workers) in a non-hierarchical relationship represents one of the most effective models of novice teacher training. This partnership concept requires the reconceptualization of the role of the mentor. The concept of mentoring as a reflective and collaborative process has been analyzed by other authors (Peeters, 2008; Peeters & Vandenbroeck, 2011). They propose that solutions should be sought through the context of "disagreement" (discussing in teams and opposing different opinions about changes that need to be implemented in practice). The new concept of mentoring implies the interrelation of individuals (not only those experienced and inexperienced ones), groups, institutions, and wider socio-political context, team competencies in joint learning and reflective self-assessment, cooperation with other institutions, professionals and families of children within and out of the system, professional networking with institutions of initial education and a coherent system of support (Pavlović Breneselović, 2009).

An issue that is often raised in connection with mentoring is whether the emphasis should be on the subject content or on pedagogical, psychological, and methodological aspects. Obviously, the solution is in achieving the optimal balance between these two sides. Mentoring programs should be developmental. Hargreaves and Fullan (2000) identify three key determinants of mentoring programs, aiming at long-term changes within school and professional development of its employees. The first of these is that teachers are recognized as change initiators and not only as those who replicate accepted patterns of behaviour. In achieving this vision of mentoring, the second condition is that mentoring should be connected with other components of transformation of the teaching profession. It is not sufficient that only mentoring programs are developmental, initial education and current systems of professional development should also be transformed and improved. Finally, the third condition is that all those involved in mentoring programs should look at the possibilities for improving the profession.

Mentoring is also an important period in the professional development of the mentor. This engagement implies different challenges and requires a different set of competencies than those needed in working with students, which is the reason why teachers may have difficulties. Based on the relevant literature review, D'Abate and Eddy (D'Abate & Eddy 2008) conclude that successful mentoring depends on several conditions: adequate selection of the mentor and the mentee, adequate preparation of the mentor and the mentee, and the quality of interaction between the mentor and the mentee. Abell and associates (Abell et al., 1995) claim that mentoring will be more effective if the choice of the mentor is made in relation to the mentee's characteristics. According to Hobson and associates (Hobson, et al., 2009) neither successful teachers make good mentors, nor do good mentors perform well with every mentee. Lee and Feng (2007) point out that mentoring will be more successful if there is collaborative climate and learning culture in which mentors get support from other teachers. The importance of support is emphasized by Gordon and Brobeck (Gordon & Brobeck 2010), who claim that, apart from initial training for mentoring, mentors need continuous support throughout the mentoring process.

From the perspective of current mentoring practices in Serbia, modern mentoring ideas seem too much of avant-garde. The potential of collaborative research of teachers as a way of learning and school development is not supported by schools. Although teacher professional development is considered as one of the key factors for improving the quality of education, empirical research on this topic is scarce. Based on her research on the reflection of mentors and novice teachers on their mutual practice, Šijaković (Šijaković, 2018) offers a typology of mentoring in Serbian context. Ad hoc mentoring is a model that, in short, implies the reproduction of the mentor's practice, which is viewed as a role model. In such an approach, numerous joint activities of preparation, planning, and evaluation of teaching are often missing, which negatively affects the possibility of mutual development. Form mentoring is the second model, in which complex work and collaboration between the mentor and the intern teacher are also often completely absent, since the mentor primarily focuses on formal requirements and obligations. This approach frequently stems from the mentor's own insecurity. The third model is characterized as developmental mentoring. Its defining features are a motivated mentor who is ready for work, collaboration, and providing full support for the intern's professional improvement and development, as well as a willingness to reflect on their own practice and personal growth. This model is certainly the most desirable and is beneficial for both the intern teacher and the mentor.

In the Serbian education system, the procedure for selecting mentors is more closely regulated by the Rulebook on the License for Teachers, Educators, and Professional Associates (Official Gazette of the Republic of Serbia, No. 9/2022). According to the rulebook, a prominent licensed teacher needs at least five years of work experience in the field of education in order to be selected as a mentor. The school principle appoints the mentor after obtaining official agreement of a board of professionals, usually the board of subject teachers. In Serbia, officially, formal mentor trainings should be of 40-hour length. In real life, however, it is often the case that the only criterion for becoming a mentor is having at least five years of experience in teaching, while the quality of the mentoring work is limited to an assumption that a successful teacher will make a good mentor. The result of such situation can be unsuccessful, making the mentoring process overly formalized. When the mentor trains an adult, the skills and competencies he/she applies in working with students should be extended and this is done through additional training (Uščumlić, 2012). Although it is sometimes believed that every experienced teacher can guide an inexperienced colleague, everyday practice does not support this view. Radulović and colleagues (Radulović et al., 2022a) point out that the problem of inadequate teacher training for the mentoring role exists not only in our country but also in countries such as Slovakia, the Czech Republic, and Hungary. To become a good mentor, the teacher interested in this activity should be given additional support and guidelines. Official legislations require neither monitoring nor evaluating of the mentor's work. For overcoming this problem, Organisation for Economic Co-operation and Development (OECD) suggests inclusion of educational counselors, so that an objective assessment of the novice's practice is achieved.

The teaching profession is certainly one of the most beautiful and significant professions in society. Despite this, the professional development of teachers is often accompanied by numerous challenges. This paper presents the obstacles and challenges in the work of mentor teachers and intern teachers in the Republic of Serbia, identified through the analysis of data obtained in empirical research.

Research Methodology

One of the areas of professional development for teachers receiving increasing attention is the mentoring of novice teachers by experienced colleagues. In our country, novice teachers are introduced to the teaching profession and prepared for the teaching license exam during their induction period. The success of this process largely depends on the quality of interpersonal relationships and communication between the teacher mentor and the intern teacher. The development of this relationship is heavily influenced by the mentor's perceptions of the novice teacher's personality and potential, as well as their approach to work. The significance of this topic has been recognized within the Serbian educational system, therefore, the objective of this research is to examine the challenges in the field of mentoring novice teachers in Serbian schools. The aim of the research is to gain insight into the perceptions of mentor teachers regarding the challenges and problems which they encounter when working with novice teachers. The research focuses on the competencies that novice teachers lack at the start of their professional careers, as well as the areas where mentor teachers need further support and empowerment. The research objective is operationalized through the following research tasks:

1. Examine the perceptions of mentor teachers regarding the characteristics of novice teachers;
2. Assess the work-related problems that, according to mentor teachers, novice teachers encounter;
3. Identify stressors and problematic relationships that disrupt the success of the mentoring process from the perspective of mentor teachers;
4. Analyze the self-assessment of mentor teachers regarding their own competencies for mentoring work;
5. Analyze mentors' perceptions of the areas of additional training required to empower their competencies for successful mentoring and guidance of novice teachers;
6. Examine whether there is a statistically significant difference in the responses of mentor teachers based on their years of work experience, on one hand, and their perceptions of novice teachers' characteristics and sources of stress, as well as the importance of various training areas, on the other hand.

A total of 98 biology teachers from primary schools, secondary schools, and grammar schools (gimnazije) across Serbia participated in the study. The primary criterion for the participant selection was prior experience in mentoring novice teachers. The major

rity of respondents completed the questionnaire in printed format during the National Biology Competition for secondary school students. A portion of the respondents completed the survey online via Google Forms, accessing the link through the Bioblog website. Regarding the gender distribution, the sample consisted of 84 female respondents (85.7%) and 14 male respondents (14.3%). This gender imbalance reflects the actual professional demographic of biology teachers in Serbian schools. According to 2019 data from the Statistical Office of the Republic of Serbia, more than two-thirds of teachers in primary and secondary education are women. Regarding the distribution of the sample by employer institution, the largest proportion of respondents work in grammar schools (72.4%), followed by secondary schools (14.3%), with the smallest number working in primary schools (13.3%). In terms of work experience, the majority of the sample (64.3%) has more than 10 years of experience, while 14.3% have between 6 and 10 years, and 13.3% have over 31 years. Only 8.1% have up to 5 years of experience. All respondents were included in the final analysis, because all of them possessed relevant mentoring experience, including the respondents in the 'up to 5 years' category.

The survey technique was used for data collection in this study. The research instrument, a questionnaire, was developed as part of the activities within the international project Mentor Training (project acronym: MENTRA), funded with the support of the Erasmus+, KA2 program. Six higher education institutions from four countries, including Serbia, participated in the project. The first part of the questionnaire consists of items relating to the sociodemographic profile of the respondents. After being revised for the purposes of this research, the second part of the questionnaire included eight questions: three questions based on a five-point Likert scale model, two open-ended questions and three closed-ended questions with multiple-choice options.

Two types of five-point Likert scales were used for the responses: the first included the options 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree, while the second consisted of 1-completely unimportant, 2-unimportant, 3-undecided, 4-important, and 5-very important. As for the open-ended questions, respondents were asked to provide concise and specific answers, and the resulting textual data were analyzed by identifying specific themes or patterns and classifying responses into categories through a coding process. To assess the reliability of the instrument used, the Cronbach's alpha value was calculated and found to be .72. Given that reliability coefficients greater than .7 are considered satisfactory, the questionnaire used possesses acceptable reliability (Mišćević-Kadijević, 2009). Participants were informed of the general purpose of the study and that participation was anonymous and voluntary. The survey was conducted during 2022.

The data from the questionnaire were statistically processed using the SPSS software. The analysis included the mean, frequency, percentage distribution, and the chi-square test. The primary reason for selecting non-parametric analysis was the deviation of certain items from a normal distribution (as skewness and kurtosis values exceeded ± 1). Additionally, values for each item within the applied Likert scale were treated as discrete values, while the years of work experience were grouped into four categories to allow for discrete observation.

Results and Discussion

The results of the responders' perceptions of novice teachers' qualities (Table 1) show that the majority of teachers think that novice teachers thoroughly prepare for lessons ($M = 4.25$). High mean values are also recorded for the following aspects of novice teachers' engagement: they accept criticism constructively ($M = 4.17$) and they are ready to ask their mentors for help and appreciate it ($M = 4.17$). Such finding indicates the seriousness and commitment of the novice teachers, as well as their readiness to collaborate with the mentor. The lowest means, on the other hand, are related to taking notes while working with mentors ($M = 3.47$). We would like to briefly address the respondents' perception of self-reflection of novice teachers. This item was ranked among the bottom three characteristics ($M = 3.65$). It is important to emphasize that the role of the mentor, perceived from the perspective of a reflective practice, is to create conditions in which the novice teacher can assess his/her own practice and attitudes towards it. This further implies that the mentor's capability for creating such conditions directly influences the level of self-reflective development of the novice teacher in that period. According to Brookfield (Brookfield, 1995), if lacking self-reflection on personal practice and the context it takes place in, teachers are under continuous risk of making wrong decisions and assessments.

Chi-squared test shows no significant difference between the responders' perceptions and the years of their work experience ($r > .05$). Regardless of the length of their work experience, biology teachers equally express high values of novice teachers' qualities and their attitude towards teaching.

Table 1.
Teacher-mentors' perceptions of novice teachers' characteristics

Items	<i>M</i>
1. Interested in teaching career.	4.08
2. Prepare thoroughly for lessons.	4.25
3. Possess realistic self-reflection.	3.65
4. Interested in mentor's assessment of their work.	4.05
5. Accept criticism constructively.	4.17
6. Ask for mentor's help and appreciate it.	4.17
7. Willing to ask for help in lesson preparation.	4.13
8. Show interest in school activities and events.	3.80
9. Have difficulties with didactic transformation of curriculum.	3.60
10. Take notes during sessions with mentors.	3.47

Regarding the question of which areas novice teachers most frequently encounter problems, 90 teacher-mentors provided specific answers, which were grouped into six categories: (I) planning, preparing, and delivering lessons; (II) administrative tasks and maintenance of pedagogical documentation; (III) classroom management and communication with students; (IV) student assessment and grading; (V) subject area knowledge;

and (VI) other responses that did not fall into the previously mentioned categories. The results (Table 2) indicate that the segment referring to planning, preparing and delivering lessons is the most challenging for novice biology teachers ($n = 47.8\%$).

Table 2

Mentor teachers' perceptions of the most common work-related problems of novice teachers

Groups of responses	Participants' responses	Frequency of responses	n (%)
I	- writing lesson plans	14	47.8%
	- lesson organization	4	
	- lesson delivery	4	
	- didactic transformation of curriculum	3	
	- adjusting to the level and quantity of knowledge	3	
	- time management	3	
	- syllabi, annual and monthly teaching plans	2	
	- lack of confidence	2	
	- overconfidence	1	
	- discussion with students	1	
	- establishing vertical correlation	1	
	- developing critical thinking	1	
	- extracurricular activities	1	
	- integrating personal ideas in lesson design	1	
	- organizing additional activities	1	
	- orientation to their own practice, and not to how much students learn	1	
II	- administrative work	3	5.5%
	- keeping pedagogical records	2	
III	- maintaining class discipline	6	15.6%
	- maintaining students' interest in class	3	
	- communication with students	3	
	- being too close with students	1	
	- the lack of authority	1	
IV	- student assessment	7	8.9%
	- achievement of outcomes and standards	1	
V	- knowledge of genetics	6	18.9%
	- knowledge of didactics and methodology of teaching	4	
	- molecular biology knowledge	3	
	- knowledge of evolution	2	
	- knowledge of plant and animal physiology	2	
VI	- difficulty in accepting mentor advice	1	3.3%
	- novice teachers encounter no difficulties in their work	1	
	- Novice teachers perceive themselves as having no work-related problems	1	
		1	
Total:		90	100%

According to the results, novice teachers most often have problems in writing lesson plans and organizing and delivering lessons. They also have problems with didactic transformation of curriculum, the quantity of teaching content and lesson time management. Bearing in mind that the responses refer to teachers with very little or almost none of teaching experience, who often lack confidence in that period, the results are not surprising. Nevertheless, the findings point out that, during the period of their initial education, future teachers should receive more skills and competencies in this area. This view is additionally supported by the fact that a considerable number of participants ($n = 18.9\%$) emphasize the problem of novice teachers' insufficient knowledge of the subject area, such as genetic and molecular biology topics, as well as those referring to didactics and teaching methodology. When it comes to class management and communication with students, novice teachers are mostly reported to have problems with student discipline.

The above results are mostly in line with the findings reported by Simić (2014) in her study on novice teachers' concerns. According to these findings, the issues that mostly concern novice teachers are class management issues (how to maintain the classroom discipline and deal with problematic behavior of students), effective delivery of lessons and student motivation. Novice teachers' concerns are also related to fitting into the school community and collaborating with other teachers. Compared to this study results, the biology teachers in this survey do not recognize this as a problem for novice teachers.

Table 3 presents the results related to the sources of discomfort and stress that mentors experience while working with novice teachers.

Table 3

Teacher-mentors' perceptions of sources of discomfort and stress in working with novice teachers

Items	<i>M</i>
1. Novice teachers' lack of teaching skills (being unprepared for teaching career).	3.37
2. Novice teachers' overconfidence in their own competencies and professional engagement	3.75
3. Novice teachers do not follow the mentor's instructions.	3.50
4. Novice teachers disagree with the mentor's views of a problem situation.	2.86
5. Novice teachers' insistence on their own attitudes.	2.65
6. Improper communication with the mentor.	2.93
7. Novice teachers' inability to cope with problem situations in the classroom.	3.40
8. Improper communication with colleagues.	3.54
9. Novice teachers expect ready-made lesson plans and materials from the mentor.	3.83
10. Novice teachers' failure in coping with administrative work.	3.32

As can be seen, the greatest value is recorded in relation to novice teachers' expectations of receiving ready-made lesson plans and materials from their mentors ($M = 3.83$). Common sources of discomfort and stress are also related to novice teachers'

overconfidence in their teaching competencies ($M = 3.75$), as well as a frequent incapacity for communication with their colleagues ($M = 3.54$). While high self-confidence can be considered a positive trait, in this specific context, where the induction period is often a novice teacher's first step into teaching practice and where they, as per the results of this study, often lack various competencies acquired through work and experience, any unrealistic self-reflection regarding one's own competencies can pose a problem in professional performance and communication with the mentor. Pursuing their own points of view ($M = 2.65$) and disagreeing with the mentor about a problem situation ($M = 2.86$) appear to be the situations that cause the least of stress for mentors. The obtained result shows that mentor teachers understand the need of young teachers to advocate for their own views.

Chi-squared test shows no statistical difference regarding the effect of years of teaching experience on the sources of stress and discomfort among mentors ($r > .05$). Regardless of the length of their work experience, biology teachers express rather similar views related to the quality of their collaboration with novice teachers.

The survey results indicate that about 90% of responders did not receive any training in mentoring during their initial education. Furthermore, more than 80% of them did not attend any training program as a part of their professional development. Nevertheless, their responses in relation to the importance of various segments of mentoring are qualified with high values. The results are presented in Table 4. According to the collected responses, the most important segments of a mentoring training are: communication between the mentor and the intern teacher ($M = 4.65$), building positive relationship with the intern teacher ($M = 4.54$), familiarity with the mentor's roles and responsibilities ($M = 4.49$) and conflict and stress management ($M = 4.44$).

Table 4
Teacher-mentors' perceptions of the importance of mentor training by areas

Items	<i>M</i>
1. Familiarity with the roles and responsibilities of the mentor.	4.49
2. Establishing positive relationship with intern teachers.	4.54
3. Mentor-intern teacher communication.	4.65
4. Individual approach and counseling.	4.36
5. Development of evaluation competencies.	4.36
6. Development of self-reflection and self-assessment.	4.36
7. Establishment of career awareness and development.	4.04
8. Conflict and stress management.	4.44

The analysis of the respondents' answers, regarding the areas in which they feel additional training is needed for successful mentoring, revealed six key domains. Method-

ological competencies ranked first, with the most frequent responses relating to training for the implementation of practical teaching and field work, as well as the application of new methodological approaches. The second place was taken by subject-matter competencies and knowledge, specifically highlighting the field of genetics, followed by knowledge of the legal rights, roles, and obligations of mentors. The third most significant area identified was conflict management, stress control, and the development of communication skills. The remaining two areas, identified by a smaller number of respondents, were digital competencies and administrative task management. These results suggest a need to re-evaluate the training of future teachers in these specific areas during their initial education.

About 85% of responders believe that teachers of sciences need additional support for successful mentoring and professional development. This high percentage indicates the need for modifying pre-service teacher training courses at university and initiating and implementing more teacher training programs for in-service teachers.

Conclusion

The research results reveal that, according to the opinions of mentor teachers, novice teachers lack knowledge and competencies from various areas. Problems are evident in planning and delivering lessons, class management, communication and assessment. One of the theoretical foundations that creators of mentoring programs are guided with is the idea that professional competences and knowledge cannot be developed during initial education, but by learning through practical experience and work. Like in any other profession, the development of teaching competences requires time, commitment and motivation. Professional responsibility is not gained automatically with a university degree. It is an individual process of personal and professional maturation, in which both positive and negative challenges appear. This is why the novice teacher needs support and assistance of the mentor. This assistance can be directed to faster orientation towards teaching profession, successful solution of problems and gradual acquisition of confidence through practical knowledge (Radulović et al, 2022).

Research indicates that stress is highly prevalent within the teaching profession, yet teachers often possess insufficient knowledge regarding the prevention, identification, and resolution of stressful situations (Telebec, 2014). This lack of adequate stress management skills can become a source of frustration and dissatisfaction, negatively impacting all aspects of work and the personal well-being of the teacher. The present study found that the leading sources of mentors' stress are the novice teachers' expectations for ready-made teaching materials and their high self-confidence regarding professional competencies, which, are often lacking at the start of a career, as previously noted. It is also significant that the teachers themselves recognize the need to develop stress control skills within the work environment. According to the respondents, the four most important areas for additional mentor training include mentor-mentor teacher communication, building positive relationships, conflict management, and stress control. The fact that all training areas were highly and positively rated indicates that teacher-mentors

perceive the mentoring period as a developmental phase that opens new avenues for their own personal and professional growth.

The findings show that 85% of biology teachers think that they need additional support in their work with novice teachers. One of the recommendations of OECD is to introduce mandatory trainings for all mentors, as well as to establish network of mentors from different institutions. In regional countries that have recognized the importance of high-quality mentor training, higher education institutions are increasingly involved in providing support to teachers, often through seminars and training sessions across various fields implemented via project funding. This form of support has also been recognized in our country: specifically, the Faculty of Sciences at the University of Novi Sad has implemented two such projects over the past few years, dedicating them specifically to teacher-mentors: *Mentor Training* and *Mentor Vademecum*.

If mentoring practice is to be integrated into professional development of teachers, then it must encompass a larger number of professionals and rest on a well established concept of mentoring. The concept should be based on experiential, partnership and reflexive learning, and it should include programs of school development. This would enable schools to support learning in which novice teachers develop their own teaching styles, by integrating knowledge and skills acquired in initial education with new skills and attitudes which they developed during their work with mentors. Concurrently, mentors would be in position to test their own teaching styles and roles they acquire and perform in their own teaching practices.

Practical implications of the research can be found in findings that may serve as guidelines for planning teacher training programs, both during initial education and within continuous professional development. The limitations of this research lie in the sampling method. Given that there is no official record or database of teacher mentors in Serbia, it is difficult to reach a larger sample of the target group. For this reason, we believe that the current study represents a significant contribution to the field and that it can be considered a call for further research on this topic.

References

- Abell, S. K., Dillon, D. R., Hopkins, C. J., McInerney, W. D., & O'Brien, D. G. (1995). "Somebody to count on": Mentor/intern relationships in a beginning teacher internship program. *Teaching and teacher education*, 11(2), 173-188. [https://doi.org/10.1016/0742-051X\(94\)00025-2](https://doi.org/10.1016/0742-051X(94)00025-2)
- Achinstein, B., & Barrett, A. (2004). (Re)Framing classroom contexts: how new teachers and mentors view diverse learners and challenges of practice. *Teachers College Record*, 106(4), 716-746. <https://doi.org/10.1111/j.1467-9620.2004.00356.x>
- Brookfield, S. (1995). *Becoming a critically reflective teacher*. Wiley.
- D'Abate, C. P., & Eddy, E. R. (2008). Mentoring as a learning tool: Enhancing the effectiveness of an undergraduate business mentoring program. *Mentoring & tutoring: partnership in learning*, 16(4), 363-378. <https://doi.org/10.1080/13611260802433692>

- Gordon, S. P., & Brobeck, S. R. (2010). Coaching the mentor: Facilitating reflection and change. *Mentoring & Tutoring: Partnership in Learning*, 18(4), 427-447. <https://doi.org/10.1080/13611267.2010.511851>
- Hargreaves, A., & Fullan, M. (2000). Mentoring in the new millennium. *Theory into practice*, 39(1), 50-56.
- Higgins, M. C., & Kram, K. E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of management review*, 26(2), 264-288.
- Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and teacher education*, 25(1), 207-216. <https://doi.org/10.1016/j.tate.2008.09.001>
- Lee, J. C. K., & Feng, S. (2007). Mentoring support and the professional development of beginning teachers: A Chinese perspective. *Mentoring & Tutoring*, 15(3), 243-262. <https://doi.org/10.1080/13611260701201760>
- Maghnouj, S., Salinas, D., Kitchen, H., Guthrie, C., Bethell, G., & Fordham, E. (2020). *OECD Reviews of Evaluation and Assessment in Education: Serbia*. OECD Publishing.
- Miščević-Kadijević, G. (2009). The Construction of Test on Declarative and Procedural Knowledge. *Psychology*, 42(4), 535-547. <https://doi.org/10.2298/PSI0904535M>
- Miškeljin, L. (2016). Mentorship as practitioner collaboration: Mentors' perspective. *Nastava i vaspitanje*, 65(2), 395-410. <https://doi.org/10.5937/nasvas1602395M>
- Mullen, C. A. (2005). *Mentorship primer*. Peter Lang.
- Pavlović Breneselović, D. (2009). Promene u vaspitnoj praksi - Izvodljivost i/ili kompatibilnost. *Pedagogija*, 64(2), 319-324.
- Peeters, J. (2008). *The Construction of a New Profession: a European perspective on professionalism in early childhood education and care*. SWP publishers.
- Peeters, J., & Vandenbroeck, M. (2011). Childcare practitioners and the process of professionalization. In L. Miller & C. Cable (Eds.), *Professionalization, leadership and management in the early years* (pp. 62-76). Routledge.
- Pravilnik o dozvoli za rad nastavnika, vaspitača i stručnih saradnika* (2022). Službeni glasnik Republike Srbije br. 9/2022.
- Radulović, B., Gajić, O., Španović, S., & Lungulov, B. (2019). Challenges of initial teacher education in the context of higher education reform in Serbia. *Education and Self Development*, 14(3), 34-39.
- Radulović, B. i sar. (2022). *OBUKA mentora: materijali i zadaci*. Univerzitet u Novom Sadu.
- Radulović, B., Jovanović, T., Gadušová, Z., Hašková, A. & Pavera, L. (2022a). Mentor's perception of the future science teacher's teaching practice. *Journal of Education Culture and Society*, 13(1), 145-155.
- Shibankova, L. A., Ignatieva, A. V., Belokon, I. A., Kargapol'tsev, S. M., Ganaeva, E. A., Beroeva, E. A., & Kozlova, E. B. (2019). Institutional mechanisms of university teacher professional development. *Humanities & Social Sciences Reviews*, 7(4), 1061-1068. <https://doi.org/10.18510/hssr.2019.74145>
- Simić, N. (2014). *Nastavničke brige i načini njihovog prevazilaženja* (doktorska disertacija). NaRDuS (123456789/3364)
- Šijaković, T. (2018). Mentorski rad u Srbiji-konture jedne tipologizacije. *Teme*, 42(3), 877-897. <https://doi.org/10.22190/TEME1803877S>
- Telebec, K. (2014). Stres na radu-zašto, što i kako djelovati. *Sigurnost: časopis za sigurnost u radnoj i životnoj okolini*, 56(4), 381-384.

- Uščumlić, Š. (2012). *MENTOR i pripravnik: vodič za nastavnike, vaspitače i stručne saradnike*. Zavod za unapređivanje obrazovanja i vaspitanja i Centar za profesionalni razvoj zaposlenih u obrazovanju.
- Vujić Živković, N. i Vranješević, J. (2019). Konceptualizacija i istraživanje profesionalnog razvoja nastavnika. *Inovacije u nastavi*, 32(3), 13-23.
- Willegems, V., Consuegra, E., Struyven, K., & Engels, N. (2017). Teachers and pre-service teachers as partners in collaborative teacher research: A systematic literature review. *Teaching and teacher education*, 64, 230-245.

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Teacher Humor in the Classroom: A Bibliometric Analysis of the Scientific Literature

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Abstract

Teacher humor, as well as humor in teaching in general, serves as an important pedagogical resource that contributes to creating a stimulating classroom atmosphere, facilitates communication and enhances students' learning processes. This paper aims to analyze contemporary scientific trends in research on teacher humor in the classroom, with a particular focus on the analysis of bibliographic unit networks. The study is based on a bibliometric analysis of scientific publications. The study was conducted on a sample of 421 scientific articles examining teacher humor in the context of classroom instructional processes. The data were analyzed using the software VOSviewer 1.6.20, with the aim of constructing and visualizing bibliometric networks, as well as identifying research directions in the field of teacher humor studies. The findings indicate a growing presence of this subject in the scientific literature over the past two decades. Moreover, the analysis highlights the existence of distinct clusters of key terms appearing in the bibliographic units, their interconnections, as well as the most represented research areas focusing on teacher humor in the classroom. The most productive authors and scientific journals in this research domain were also identified. The obtained results may be valuable to researchers in the academic community, serve as a foundation for future studies and provide guidance to scholars on this relatively underexplored subject. The study offers support in collecting adequate primary and secondary sources, relevant and systematically organized information and a basis for theoretical elaboration upon which methodological frameworks can be developed.

Keywords: *bibliometric analysis, humor, teacher, classroom, VOSviewer.*

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Introduction

Bibliometric analysis of scientific publications remains relatively underutilized in academic communities despite becoming increasingly applied, partially due to its descriptive nature, which does not align with research orientations focused on explaining and interpreting phenomena with deeper contextual meanings. This occurs most frequently in the social sciences and humanities. Nevertheless, its value lies in the ability to provide a systematic insight into the development of scientific output, contributing to the strategic direction of future research. The expansion of information and communication technologies has led to the use of citation counts and various indices as key indicators for multiple purposes, with bibliometric analyses serving as important arguments within academic communities (Moslavac, 2022; Weingart, 2005). Bibliometric analysis holds significant practical value within academic communities and is based on the interaction of qualitative and quantitative indicators (Wouters, 2020). In line with social contingencies, the number of programs and software tools is increasing, while bibliometric analysis offers substantial advantages to researchers. It enables the generation of objective indicators for a given topic of interest, the construction of bibliometric networks of scientific articles and their citations, as well as the assessment of individual authors' productivity and impact. Initially, it assists in data collection and in gaining insights into the research topic, while also enhancing the visibility of the review to the broader academic community. Bibliometric analysis is defined as the quantitative assessment of academic literature through publication and citation metrics. It allows for the identification of key developmental directions and contributions within a specific field (Rulijana et al., 2025). Another notable advantage of bibliometric analyses conducted using the VOSviewer software is the extensive coverage of analysis units (Van Eck & Waltman, 2010).

Individual units of analysis, namely, scientific articles published in journals, serve as the fundamental and primary means for studying and investigating specific topics, while bibliometric analyses provide valuable arguments for the systematization of research questions. This is particularly relevant in fields where an increase in empirical evidence is anticipated (Bryant et al., 1980), such as humor.

Theoretical Foundations of the Research

Humor and the Educational Context

The complexity of human language and imagination allows individuals to create humor in an infinite variety of forms. From a developmental perspective, laughter, is one of the first vocalizations in humans, alongside crying. The ability to appreciate humor and express it through laughter is a fundamental part of what it means to be human in the truest sense of the word. Experiencing humor involves experiencing pleasant feelings of emotional well-being and joy. It is a playful activity that serves numerous social, emotional, and cognitive functions, making it an interesting subject for scientific research (Rod, 2007). Some authors emphasize that all individuals possess a sense of humor (Kolenović

- Đapo, 2012), though they enjoy it in different ways. Consequently, they highlight that differences among people in the development of a sense of humor are reflected in weaker or stronger humor abilities. The sense of humor is a dimension on which all individuals are positioned differently.

In the twentieth century, humor began to be studied more seriously as part of instructional strategies. Its inclusion in education was previously considered unscientific (Korobkin, 1989). Some authors emphasize that the role of humor in schools is insufficiently represented, even though it can contribute to more effective teaching, higher-quality teacher–student relationships, improved work performance and a more positive learning experience (Dramac i Lazzarich, 2016; Lazzarich, 2013; Mrazovac, 2021; Rod, 2007; Tong & Tsung, 2020).

In a broader sense, humor refers to anything an individual says or does, which carries an amusing or entertaining stimulus (Rod, 2007). It can be defined as a quality or ability of an individual to be witty and make another person laugh (Lovorn & Holaway, 2015), as well as a form of human communication aimed at making people happy (Stupar et al., 2023). Bell (Bell, 2011) emphasizes that humor is difficult to define, yet it represents a specific mode of communication in which something is expressed with the intent of entertaining.

In the classroom context, humor is one component of a broader set of teacher behaviors that contributes to a sense of immediacy in the classroom, leading to positive evaluations from students and more effective learning (Rod, 2007). When it's focused primarily on knowledge acquisition and traditional instructional approaches, education tends to overlook the therapeutic role of laughter within the school environment. Education constantly strives to fulfill fundamental values in human life, yet it is often considered frustrating and joyless, existing in a "grayness" of prohibitions and rules. Humor influences a pleasant classroom atmosphere, making the interplay between joy and well-being an important factor in the development of young individuals, while the instructional potential of laughter in teaching remains underutilized (Lazzarich, 2013). According to some authors, humor in the classroom is an act that can be expressed through linguistic or non-linguistic means. It can be enacted by all participants in the instructional process, be it students or teachers (Wagner & Urios-Aparisi, 2011). Humor is an important part of everyday life and holds a special place in the instructional process, where its presence often serves as a stimulus for a more relaxed atmosphere and improved interpersonal relationships.

Through their polyvalent roles, teachers motivate students, encourage collaborative relationships, enhance the classroom atmosphere, and improve the dynamics of lesson delivery. All of these outcomes can be fostered through the appropriate use of humor. Humor can also be useful for mitigating criticism and promoting group cohesion (Keltner et al., 2001). At early ages, humor should be used in moderation and appropriately; otherwise, it may cause confusion and the acquisition of incorrect information (Banas et al., 2011). Additionally, humor can reduce stress and feelings of anxiety during learning, make instruction more dynamic and help maintain students' motivation and engagement. However, it is important that the humor used in the classroom is appropriate and does not come at the expense of anyone in the classroom. Teachers who use humor can more

easily draw students' attention to the subject matter, thereby contributing to a positive classroom atmosphere. Yet, humor should not be overly dominant or used as a means to avoid serious topics. Competent teachers know how to strike a balance, using humor as a strategy to facilitate communication and foster a positive attitude toward learning. Therefore, it should be inclusive in the truest sense, respecting the diverse cultural, ethnic, and social backgrounds of students. Also, a variety of anecdotes can help teachers facilitate the interpretation of instructional content. The inconsistency of research findings confirms that humor remains a domain with significant potential for further investigation and validation. While various studies confirm the positive effect of humor in the instructional process (Askildson, 2005; Bieg et al., 2017; Neff & Rucynski, 2017; Pexman & Olineck, 2002), other research has shown that humor and the use of playful examples in the classroom can impact test performance negatively (Bolkan et al., 2018).

Humor and the positive emotions associated with it are linked to the overall learning experience, giving students a more favorable attitude toward education in general and increasing their motivation to learn, which in turn can lead to better academic achievement. The novelty and emotions experienced through the use of humor can help capture and maintain students' attention, thereby facilitating the process of acquiring new information. The incongruent mental associations that are an inherent feature of humor also ease cognitive processes, particularly elaboration (Rod, 2007). Recalling and connecting previously learned material is much easier when it is presented with humor than when it is delivered in a strictly serious manner.

Matijević emphasizes the significance of humor in an individual's life and highlights its role in teaching. He also raises the question of whether the limited representation of humor in scientific studies is due to a gap between the seriousness of researchers and the (perceived) lighthearted nature of the topic (Matijević, 1994). Humor contributes to reducing anxiety, increasing motivation and enhancing the effectiveness of interpersonal relationships, while education and instruction are, characterized by interpersonal interactions, above all. Culturally, learning and play are often separated, which may be one reason for the scarcity of notable studies on the phenomenon of humor. Stupar and colleagues (Stupar i sar, 2023) caution that humor must be used appropriately in teaching, analogous to a whistle in a physical education class – neither too little nor too much, applied at the right time and in the right measure, and exclusively in relation to the lesson content or self-directed humor.

Theoretical Foundations of Humor

In the attempt to explain the conditions and mechanisms underlying humor, various theories or theoretical foundations of humor have emerged. Some of these include the superiority theory, the instructional humor processing theory, the incongruity theory, the surprise theory, the relief theory and the arousal-relief (oscillation) theory. Some of these theories are not yet fully clarified and are often interconnected.

The superiority theory interprets humor as a form of expressing dominance and as a defense mechanism against threats in reality. According to this theory, humor arises

from one individual's sense of superiority over another individual who is in an inferior position, thus expressing dominance or mockery (Matijević, 1994; Carrell, 2008 as cited in Şahin, 2021). This theory has its particular implications when discussing types of inappropriate humor.

The literature also discusses the instructional humor processing theory, which contrasts with the superiority theory. Specifically, this theory proposes that humor leads to better information processing as a result of the positive emotions experienced in humorous situations. It suggests that humor produces a positive effect in any domain, motivating elaboration and deeper approaches to information processing (Bolkan et al., 2018). When humor is used in a prosocial manner, it has positive effects. Conversely, when humor is employed to belittle or offend another individual, it produces negative effects (Wanzer et al., 2010).

The incongruity theory, as the term suggests, views humor as the result of a contrast or discrepancy between ideas, expectations and reality. These are situations that end contrary to what is expected, thereby eliciting laughter, or situations in which the outcomes are incongruent with the anticipated resolution. In order for the message to be perceived as humorous, the recipient must recognize the incongruity in relation to the expected outcome within the existing context of the message. According to this theory, the recipient identifies an occurrence that does not align with their expectations for the specific communicative context (Mrazovac, 2021; Wanzer et al., 2010). Berk considers incongruity or contrast to be a key element of humor, describing it as a combination of expected content and an unexpected twist (Berk, 2002). In the classroom or educational context, students' attention is activated when a teacher uses humor, because humor often inherently involves some form of incongruity. This, in turn, enhances content elaboration and facilitates more effective learning (Frymier et al., 2008; Wanzer et al., 2010).

In addition to the aforementioned theories, the literature also discusses the surprise theory, which highlights a sudden disruption of events as the main source of humor and emphasizes the role of humor as a stimulus. The relief theory is also mentioned, viewing humor as a byproduct of the release of nervous tension, as well as the arousal-relief (oscillation) theory, which proposes that an individual's wit arises when the individual simultaneously experiences conflicting, oscillating emotions (Matijević, 1994). The theoretical foundations presented can be useful for the conceptual development of future research studies, serving as a basis for constructing methodological frameworks and aiding in the analysis and interpretation of the obtained data.

Method

An analysis of the relevant literature revealed no bibliometric studies on humor in the instructional context. Therefore, the aim of this paper is to examine scientific trends in research on teacher humor in the classroom. This objective was operationalized through several research tasks, namely:

1. To analyze the chronological development of interest in researching teacher humor in the classroom, with the aim of identifying dominant periods;

2. To identify the most relevant authors, journals, and the most influential articles published in scientific journals, as well as the countries that have addressed teacher humor;
3. To extract key terms and their relationships from the sample of relevant literature.

The study is based on a bibliometric analysis of scientific publications. Content analysis was employed, with the unit of analysis being the scientific article. Given that this is a bibliometric study of the literature, the software VOSviewer 1.6.20 was used, aiming to construct and visualize bibliometric networks through mapping and clustering techniques, that is, by extracting relationships from bibliographic units. The software provides quantitative data, as well as partial qualitative insights, by identifying the most relevant journals, authors, scientific articles; besides, it clusters of the most frequently occurring terms across the entire set of scientific publications. The sample consists of 421 scientific articles and the Dimensions database was used for the search. Thus, the sample includes scientific articles published in any journal indexed in this database and retrieved through a keyword-based search. The data were collected using VOSviewer 1.6.20, a software program that employs an algorithm involving the following interconnected keywords: humor, teacher and classroom. VOSviewer is designed to use algorithms for word detection and clustering, thereby visualizing the relationships between concepts and the thematic structure of the data. Alternative approaches within the software are not technically supported. Included studies were limited to English-language publications containing the specified keywords in the title or abstract. The search was conducted in December 2024.

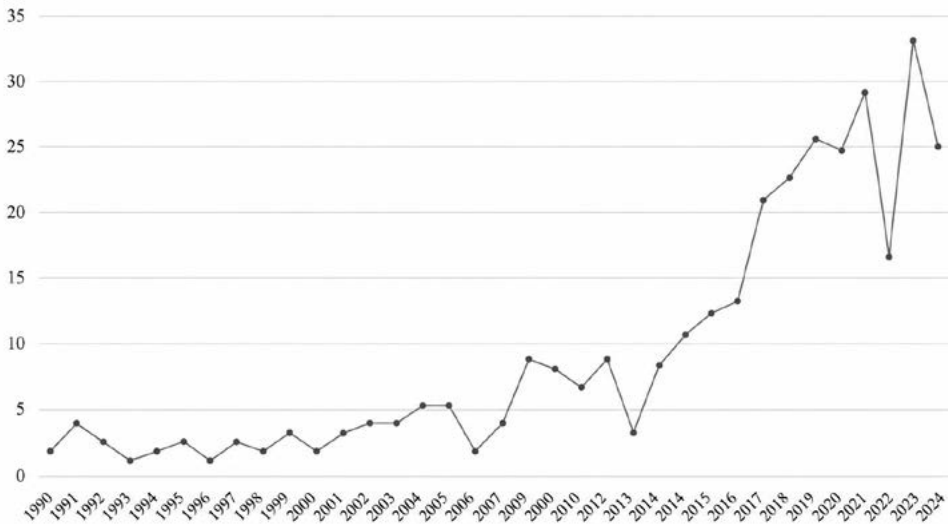
In scientific communities, the SPSS software package is commonly used for data analysis, which differs significantly in approach and functionality from the aforementioned program. Therefore, bibliometric analysis represents an innovation in the scientific context and is particularly applicable to emerging or unconventional research topics.

Results and Discussion

The development of scientific thought in this field dates back to nearly four decades and continues to the present. Figure 1 identifies three periods in the evolution of this subject. The first spans 1990-2006, the second 2006-2013, characterized by fluctuations, and the third from 2013 to the present, during which the number of publications has increased (showing an exponential growth pattern on the graph).

Based on the analysis of the evolution of scientific production in research on humor in teaching, an oscillation can be observed during the Covid-19 pandemic period. Specifically, Figure 1 shows a slight decline in the publication of scientific articles around early 2021, continuing until the end of 2022. This decline can be attributed to the restrictions implemented during that period, which relatively hindered or limited field-based research activities.

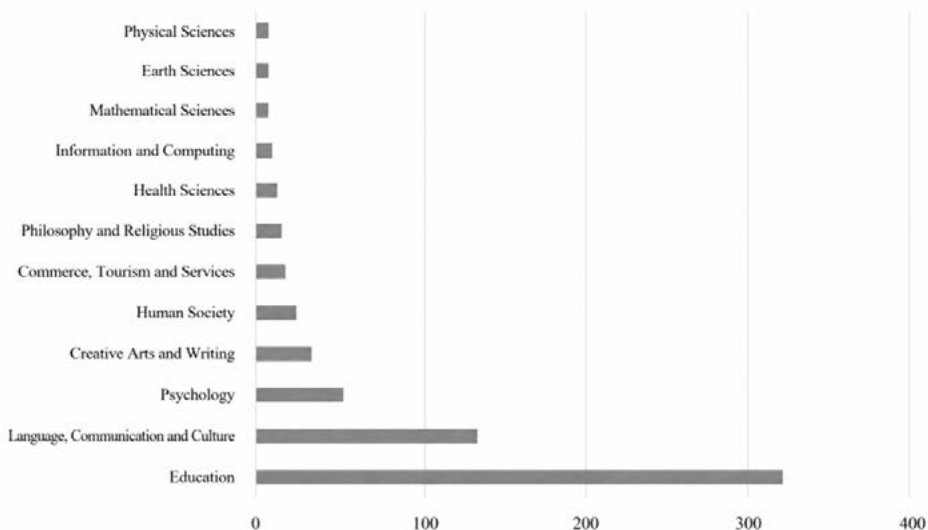
Graph 1
Evolution of Scientific Production



Although existing evidence on the development of humor is inconsistent, it can still be related to the results of our study. Some authors note that over the past thirty years, interest in researching humor has increased across various fields, including education (Ford & Martin, 2018), which is roughly reflected in the curve of scientific production shown. Other authors emphasize that humor began to be studied more intensively only in the second half of the twentieth century (Hrebac Hlobik & Pavlin-Bernardić, 2014), which aligns with the results of the most cited units in our analysis and their publication years, presented in Table 2. As noted by Fortunato and others (Fortunato et al., 2018) and Bornmann and others (Bornmann et al., 2021), the number of active researchers and institutions has been steadily increasing, and global scientific production grows on average by approximately 4.1% per year. In this context, the observed exponential growth in publications on humor in teaching may partially reflect this broader trend. However, specific shifts in certain time intervals (e.g., the decline during the pandemic or the intensified interest after 2013) indicate that the dynamics in this field do not solely represent a consequence of general production growth, but also reflect particular scientific and educational interest.

Figure 2 presents the most represented research categories to which the largest number of articles on this topic belong, as well as their highest citation counts. The majority of articles fall within the fields of education, language, communication and culture, psychology, creative arts and sociology. It is important to note that a single publication can appear in multiple research categories, as well as that the Dimensions database itself is aligned with the standard research classification of Australia and New Zealand (Australian and New Zealand Standard Research Classification, ANZSRC, 2000).

Graph 2

Most Represented Research Categories

A review of the research fields shows that the majority of publications originate from the social sciences, particularly those in the area of educational sciences. Since the studies in the sample are limited to the English-speaking context, foreign authors do not distinguish between the concepts of “education” and “instruction.” The results indicate a very small number of publications on the application of humor in fields such as geology, ecology, hydrology, physics, chemistry, biology, or in fields related to the biomedical sciences, mathematics, and engineering. The reason for this may lie in the inherent differences in the nature of various scientific disciplines. Social sciences focus on human behavior, social relationships and cultural phenomena, all of which naturally involve emotions, interaction and context, making humor easier to integrate as a pedagogical tool for illustration. In contrast, natural sciences often demand rigor and abstract thinking, leaving less room for humor. Accordingly, some authors rightly emphasize the importance of understanding the specificities of the methodologies of different scientific fields, which have both theoretical and applied value (Peličić et al., 2016). These differences in approach and subject matter also determine the possibilities for applying phenomena such as humor. Within human social life, humor nonetheless occupies a significant place.

Table 1 presents the five most relevant journals in the field of teacher humor research. The largest number of articles in this area and well as the highest number of citations are found in the journal *Communication Education* ($n = 10$). Considering that the Dimensions database is limited to English-language publications and that, as previously mentioned, there is no clear distinction between the terms “education” and “instruction”, it is not surprising that this journal emerges as the most prominent in the field (Table 1).

By examining the stated aims of the journal *Communication Education*, which contains the largest number of articles on teacher humor, we observe a frequent publication of studies in the field of communication, particularly related to the terms: education, instruction, teaching, teacher, and learning. The journal's acceptance rate, impact factor and indexing in major databases indicate the high quality of the articles it publishes. The most relevant journal is published by the National Communication Association (NCA), headquartered in Washington, with a mission to transform lives through communication, placing special emphasis on humor in education.

Table 1
Most Relevant Journals in This Field

Journals	Number of Documents	Number of Citations
Communication education	10	1071
Teachers college record: the voice of scholarship in education	7	333
European Journal of humour research	7	62
Procedia, social and behavioral sciences	6	55
Educating the young child	6	42

In this bibliometric analysis, we also identified the most productive authors who have worked on this topic, that is, authors with the highest number of articles in this field, as well as the units of analysis, namely the most cited articles, and the countries most engaged in this area of research. The threshold for the most productive authors was set at a minimum of three publications and at least five citations, which resulted in the identification of three most productive authors (Table 2), with the most cited author being Ann Bainbridge Frymier, with 329 citations. Regarding the most productive countries, the United States dominates with 77 articles and a total of 2,375 citations. Table 2 also presents the three most cited works within the unit of analysis. Thus, out of the 421 articles in the sample, the most cited work is *Influences on Classroom Interest*, with a total of 335 citations.

It can be hypothesized that the number of publications by a researcher often correlates with their number of citations. However, according to the results in Table 2, this is not an universal rule, even within the same subject. Such deviations can be hypothetically explained by differences in the quality and relevance of the articles, the reputation of the journals in which they were published, as well as by their reach within the academic community.

The three most cited articles, presented in Table 2, address the same issue: the role of humor in relation to learning and the teaching process. Other research confirms this pattern and the significance of humor as a pedagogical tool in the classroom. The pleasant subjective feelings elicited by humor fulfill a range of cognitive and social functions (Rod, 2007), such as improved reasoning, better organization of learning, reduction of physiological arousal and tension, more effective memory (Isen, 2003), enhanced attention and overall intellectual resources (Fredrickson, 2001), as well as easing criticism and fostering group cohesion (Keltner et al., 2001).

Table 2*Most Relevant Authors, Most Productive Countries, and Most Cited Units of Analysis*

Authors	N	Number of Citations
Ann Bainbridge Frymier	3	329
San Bolkan	3	84
Anne Pomerantz	4	56
Countries		
United States (SAD)	77	2375
Australia	11	257
Canada	11	79
Units of Analysis		
Bergin, A.D. (1999). Influences on classroom interest. <i>Educational Psychologist</i> , 34(2), 87-98. https://doi.org/10.1207/s15326985ep3402_2		335
Gorham, J. & Christophel, M.D. (1990). The relationship of teachers' use of humor in the classroom to immediacy and student learning. <i>Communication Education</i> , 39(1), 46-62. https://doi.org/10.1080/03634529009378786		239
Murray, G.H. (1983). Low-inference classroom teaching behaviors and student ratings of college teaching effectiveness. <i>Journal of Educational Psychology</i> , 75(1), 138-149. https://doi.org/10.1037/0022-0663.75.1.138		194

The results show that the most cited authors are simultaneously affiliated with universities in countries that have the highest number of publications on humor. This indicates a correlation between the productivity of individual researchers and the geographical distribution of scientific activity in the field of humor. Specifically, these authors are affiliated with West Virginia University (USA), the University of Missouri (USA), and the University of Western Ontario (Canada). When it comes to scientific publications, the most productive countries in humor research occupy a leading position, which can be explained by their territorial size and the number of members in their research communities. Interestingly, Americans as a nation were also among the first to contribute to the "global village" through humorous, widely known TV series such as „*Friends*“, „*The Simpsons*“, and „*Seinfeld* “. The emergence of this humorous production is also confirmed by other authors (Takashi & Minako, 2021), while some note that the American comedies mentioned above have shaped comedic tastes beyond the United States and stimulated imagination in other areas as well (Buonanno, 2008). It is also noteworthy that in central Canada, specifically Ontario, the popular humorous cartoon *Winnie the Pooh* was created (Milne, 1926). This suggests that in these countries, humor in general receives considerable attention, which also has implications in the context of scientific research.

From the total sample of relevant literature, the most frequently occurring keywords were extracted. Figure 1 also shows the interconnections between these terms. Out of 12,175 terms, 273 were selected based on a minimum occurrence threshold of 10. Nodes of the same color represent terms that are most frequently used together, while the size of a node indicates a higher number of occurrences for that term. Clusters are formed by grouping words that often appear together in the same scientific articles, with the clustering algorithm linking terms with strong mutual connections into thematic units (clusters). Based on the analysis (Figure 1²), three clusters can be distinguished: the first with 65 terms, the second with 61 terms and the third with 19 terms. Table 3 presents the most frequent terms for each cluster.

Table 3
Term Clusters and Frequency

Cluster 1	F	Cluster 2	F	Cluster 3	F
interview	60	age	40	child	56
perception	59	book	39	play	30
motivation	55	life	37	community	30
learning	51	examples	36	communication	20
english	50	place	30	parents	17
questionnaire	40	success	15	gender	15
joke	27	change	15		
teacher humor	11				
wordplay	11				

The relationships between keywords in clustering are determined by analyzing the frequency of their co-occurrence within the same context (for example, within the same article or abstract). The so-called word co-occurrence analysis allows for the identification of terms that frequently appear together, indicating their thematic or conceptual connection. Clusters represent groups of keywords that are more frequently connected to each other, reflecting the dominant themes or areas within the analyzed literature. In practice, a term from one cluster that frequently co-occurs with a term from another cluster indicates a connection between those topics or concepts. This type of linkage allows for a better understanding of how different aspects of the research subject are integrated and interwoven in the available literature.

The extraction of keywords and their relationships from the sample of relevant literature leads to several conclusions. All three clusters are interconnected. For example, the results show that the terms *questionnaire* and *interview* are most strongly associated with

² <https://doi.org/10.5281/zenodo.20099707>

the terms *child*, *parents* and *gender* from the third cluster, as well as with the terms *life*, *age*, *place*, and *technology* from the second cluster. Terms within the same cluster most frequently appear together. For instance, the term *teacher humor* is linked to *learning*, *English language*, and *university*. We can conclude that these results from the extraction of key terms and their relationships align with the findings on research categories, where education, language, and communication are the most represented research areas. Considering that the first cluster is also the largest, we can conclude that it represents the best-researched connections and relationships. This is confirmed by the analysis of the relevant literature. Authors from the Croatian context emphasize the significance of humor, as well as various linguistic contributions and benefits in foreign language learning (Leovac, 2017; Mrazovac, 2021). Additionally, other studies highlight the role of humor in motivation, teacher-student relationships and the interconnection between humor and learning (Askildson, 2005; Bratanić i Maršić, 2005; Fileš i Pavlin-Bernardić, 2021; Pavlović i Tošić-Rudić, 2009; Stupar et al., 2023; Wanzer et al., 2010; Wanzer & Frymier, 1999). Through the analysis of these studies, noticeable patterns emerge in theoretical discussion, citation of units of analysis and authors, as well as in research fields, which align with the results obtained in this study.

There are also studies indicating that the scientific appeal of humor as a research topic is increasing across various fields. Research shows that humor is a key element in communication and an effective method for overcoming conflicts and strained relationships (Relja & Baturina, 2010). Other studies support these findings, noting that humor is a desirable trait important for communication and the enhancement of interpersonal relationships (Sprecher & Regan, 2002). These are also the most frequent terms within the keyword clusters identified in our study. Humor, as a subject of scientific interest, is present in nearly all areas of human life (Lang & Lee, 2010; Relja & Baturina, 2010). This highlights its status as an important human characteristic and emphasizes its potential within multidisciplinary research.

Concluding Remarks

Undoubtedly, this topic is of considerable interest among researchers; however, it remains insufficiently explored and raises new questions that may serve as the main focus of future investigations. This study may serve as a starting point for future researchers who intend to examine the role of humor in the classroom in various ways, as it provides an overview of the current state of research and an understanding of the main directions in the scientific literature within this field. The overall synthesis of the study suggests a growing tendency for further research on this topic.

The limitations of our study primarily relate to the search conducted within a single database. In addition, the VOSviewer program does not technically support a greater diversity of keywords, which represents a limitation of the study. However, although VOSviewer restricts the analysis to word-based algorithms, this simultaneously contributes to the clarity and focus of the topic, preventing excessive fragmentation of the results.

All bibliometric analyses rely on quantitative indicators such as the number of publications, citations, and authors, without providing insight into the quality of the publications, the research context, or the innovativeness of the authors' research ideas. Therefore, the lack of a more in-depth analysis represents another limitation of the study.

In addition to its limitations, the study also has several advantages. Specifically, a bibliometric study enables the presentation and integration of large volumes of information that, under other circumstances, would require considerable time for systematization as well as for the integrated presentation of results. In this sense, this type of study relies on the principle of efficiency. Critical thinking is encouraged through bibliometric analyses, as the structure of the results itself offers limited possibilities for direct comparison, thereby requiring researchers to demonstrate ingenuity and creativity in the discussion of findings. The greatest significance lies in understanding the structure and dynamics of scientific research on a given topic, as well as in providing a systematic understanding of the scientific landscape as an initial stage of the research process, and in identifying emerging issues within both research and educational practice. The practical implications are reflected in the identification of key researchers and research areas, insights into scientific trends, and assistance in selecting relevant sources of knowledge for future research endeavors on humor in the classroom. The study also provides a broader readership, including researchers, educational practitioners and experts from related disciplines, with insight into scientific trends related to this topic. Beyond this more strictly scientific discourse, the authors call for further examination of the effects of humor in the classroom, which we recognize as a significant resource in the educational process.

References

- Askildson, L. (2005) Effects of humor in the language classroom: humor as a pedagogical tool in theory and practice. *Journal of Second Language Acquisition and Teaching*, 12, 45-61.
- Australian and New Zealand Standard Research Classification (ANZSRC), 2020, Australian Bureau Statistics. Retrieved from <https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-research-classification-anzsrc>
- Banas, J. A., Dunbar, N., Rodriguez, D., & Liu, S. J. (2011). A Review of Humor in Educational Settings: Four Decades of Research. *Communication Education*, 60(1), 115-144. <https://doi.org/10.1080/03634523.2010.496867>
- Bell, N. D. (2011). Humor Scholarship and Tesol: Applying Findings and Establishing a Research Agenda. *Tesol Quarterly*, 45(1), 134-159. <https://doi.org/10.5054/tq.2011.240857>
- Berk, R. A. (2002) *Humor as an instructional defibrillator: evidence-based techniques in teaching and assessment*. Sterling. Stylus Publishing, LCC.
- Bieg, S., Grassinger, R., & Dresel, M. (2017) Humor as a magic bullet? Associations of different teacher humor types with student emotions. *Learning and Individual Differences*, 56, 24-33. <https://doi.org/10.1016/j.lindif.2017.04.008>

- Bolkan, S., Griffin, D. J., & Goodboy, A. K. (2018). Humor in the classroom: The effects of integrated humor on student learning. *Communication Education*, 67(2), 144-164. <https://doi.org/10.1080/03634523.2017.1413199>
- Bornmann, L., Haunschild, R., & Mutz, R. (2021). Growth rates of modern science: A latent piecewise growth curve approach to model publication numbers from established and new literature databases. *Humanities and Social Sciences Communications*, 8, 224. <https://doi.org/10.1057/s41599-021-00903-w>
- Bratanić, M. i Maršić, T. (2005). Povezanost motivacije učenika s gledištima o nastavniku. *Napredak*, 146(3), 300-312.
- Bryant, J., Comisky, P. W., Crane, J. S., & Zillmann, D. (1980). Relationship between college teachers' use of humor in the classroom and students' evaluations of their teachers. *Journal of Educational Psychology*, 72(4), 511-519. <https://doi.org/10.1037/0022-0663.72.4.511>
- Buonanno, M. (2008). *The age of television: Experiences and theories*. Intellect Books.
- Dramac, I. i Lazzarich, M. (2016). Smiješna strana obrazovanja – humor u poučavanju. *Život i škola*, 62(3), 87-96.
- Fileš, T. i Pavlin-Bernardić, N. (2021). Stilovi humora sveučilišnih nastavnika kao prediktori evaluacije nastavnika i motivacijskih čimbenika u studenata. *Odgojno-obrazovne teme*, 4(1), 41-64. <https://doi.org/10.53577/ooot.4.1.3>
- Ford, T. E. & Martin R. A. (2018) *The psychology of humor: An integrative approach*. Second edition. Academic Press.
- Fortunato, S., Bergstrom, C. T., Börner, K., Evans, J. A., Helbing, D., Milojević, S., Petersen, A., Radicchi, F., Sinatra, R., Uzzi, B., Vespignani, A., Waltman, L., Wang, D., & Barabási, A. (2018). Science of science. *Science*, 359(6379), 1-7. <https://doi.org/10.1126/science.aao0185>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 55(3), 218-226. <https://doi.org/10.1037/0003-066X.56.3.218>
- Frymier, A. B., Wanzer, M. B., & Wojtaszczyk, A. M. (2008). Assessing students' perceptions of inappropriate and appropriate teacher humor. *Communication education*, 57(2), 266-288. <https://doi.org/10.1080/03634520701687183>
- Hrebac Hlobik, M. i Pavlin-Bernardić, N. (2014). Utjecaj humora na učinak u rješavanju problemskih matematičkih zadataka i anksioznost. *Klinička psihologija*, 7(1-2), 23-38.
- Isen, A. M. (2003). Positive affect as a source of human strength. In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths: Fundamental questions and future directions for a positive psychology* (pp. 179-195). American Psychological Association.
- Keltner, D., Capps, L., Kring, A. M., Young, R. C., & Heerey, E. A. (2001). Just teasing: A conceptual analysis and empirical review. *Psychological Bulletin*, 127(2), 229-248. <https://doi.org/10.1037/0033-2909.127.2.229>
- Kolenović-Đapo, J. (2012). *Psihologija humora: teorije, metode i istraživanja*. Svjetlost.
- Lang, J. C. & Lee, C. H. (2010). Workplace humor and organizational creativity. *The International Journal of Human Resource Management*, 21(1), 46-60. <https://doi.org/10.1080/09585190903466855>
- Lazzarich, M. (2013). Comic Strip Humour and Empathy as Methodological Instruments in Teaching. *Croatian Journal of Education*, 15(1), 153-190. <https://doi.org/10.15516/cje.v15i1.342>

- Leovac, I. (2017). Humor u nastavi njemačkoga jezika i njemačkoga jezika struke: studeni se smiju smijati. U D. Omrčen, i M. Krakić (Ur.), *Zbornik radova međunarodne konferencije „Od teorije do prakse u jeziku struke“* (str. 134-144). Udruga nastavnika jezika struke na visokoškolskim ustanovama.
- Lovorn, M. & Holaway, C. (2015) Teachers' perceptions of humour as a classroom teaching, interaction, and management tool. *European Journal of Humour Research*, 3(4), 24-35. <https://doi.org/10.7592/EJHR2015.3.4.lovorn>
- Matijević, M. (1994). *Humor u nastavi, pedagoška i metodička analiza*. UNA-MTV
- Milne, A. (1926). *Winne the Pooh*. Methuen & Company.
- Moslavac, A. (2022). Bibliografska, bibliometrijska i scientometrijska analiza znanstvenih časopisa Filozofskog fakulteta Sveučilišta u Rijeci za razdoblje od 2010. do 2020. godine. *Bosniaca*, 27(27), 192-215. <https://doi.org/10.37083/bosn.2022.27.192>
- Mrazovac, M. (2021). Humor u nastavi stranoga jezika. *Strani jezici*, 50(2), 267-278. <https://doi.org/10.22210/strjez/50-2/5>
- Neff, P., & Rucynski, J. (2017). Japanese perceptions of humor in the English language classroom. *Humor*, 30(3), 279-301. <https://doi.org/10.1515/humor-2016-0066>
- Pavlović, J. i Tošić-Rudić, M. (2009). Mišljenje učenika o osobinama nastavnika. *Nastava i vaspitanje*, 58(3), 458-468.
- Peličić, D., Bokan, D., Dobrović, D. i Bokan, D. (2016). Klasifikacija nauke. *Sestrinska reč*, 20(73), 18-21.
- Pexman, P. M., & Olineck, K.M. (2002). Understanding irony: How do stereotypes cue speaker intent? *Journal of Language and Social Psychology*, 21(3), 245-274. <https://doi.org/10.1177/0261927X02021003003>
- Relja, R. i Baturina, D. (2010). Uloga i značaj humora u svakodnevnom životu mladih. *Školski vjesnik*, 59(3), 347-362.
- Rod, M. A. (2007). *The Psychology of Humor: An Integrative Approach*. University of Western Ontario.
- Rulijana, G., Siregar, E., & Kustandi, Č. (2025). Bibliometrijski i metaanalitički pregled uticaja masovnih otvorenih online kurseva na visoko obrazovanje. *Zbornik Instituta za pedagoška istraživanja*, 57(1), 119-146. <https://doi.org/10.2298/ZIP2501119R>
- Şahin, A. (2021). Humor Use in School Settings: The Perceptions of Teachers. *Sage Open*, 11(2), 1-16. <https://doi.org/10.1177/21582440211022691>
- Sprecher, S., & Regan, P. C. (2002). Liking Some Things (in Some People) more than Others: Partner Preferences in Romantic Relationships and Friendships. *Journal of Social and Personal Relationships*, 19(4), 463-481. <https://doi.org/10.1177/0265407502019004048>
- Stupar, D., Aleksić, I., Romanov, R. i Beretić, I. (2023). Humor u nastavi. U S. Zuković (ur.), *Zbornik radova međunarodne naučne konferencije „Pedagogija, juče, danas, sutra“* (str. 281-288). Filozofski fakultet Univerziteta u Novom Sadu.
- Takashi, Y., & Minako, I. (2021). Analysis of the Influence of Linguistic Characteristics on the „Laughter“ Generation Process: Comparative Study of Comedy Programs in the US and China. *Bulletin of Japanese Society for the Science of Design*, 67(4), 33-42. https://doi.org/10.11247/jssdj.67.4_33
- Tong, P., & Tsung, L. (2020) Humour strategies in teaching Chinese as second language classrooms. *System*, 91(4-4), 1-15. <https://doi.org/10.1016/j.system.2020.102245>
- Van Eck, N. J. & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics* 84, 523-538. <https://doi.org/10.1007/s11192-009-0146-3>

- Wagner, M., & Urios-Aparisi, E. (2011). The use of humor in the foreign language classroom: Funny and effective? *International Journal of Humor Research*, 24(4), 399-434. <https://doi.org/10.1515/humr.2011.024>
- Wanzer, M. B., Frymier, A. B., & Irwin, J. (2010) An Explanation of the Relationship between Instructor Humor and Student Learning: Instructional Humor Processing Theory. *Communication Education*, 59(1), 1-18. <https://doi.org/10.1080/03634520903367238>
- Wanzer, M. B., & Frymier, A. B. (1999). The relationship between student perceptions of instructor humor and student's reports of learning. *Communication Education*, 48(1), 48-62. <https://doi.org/10.1080/03634529909379152>
- Weingart, P. (2005). Impact of bibliometrics upon the science system: Inadvertent consequences?. *Scientometrics*, 62(1), 117-131. <https://doi.org/10.1007/s11192-005-0007-7>
- Wouters, P. (2020). The Mismeasurement of Quality and Impact. In M. Biagioli & A. Lippman (Eds). *Gaming the Metrics: Misconduct and Manipulation in Academic Research* (pp. 67- 76). The MIT Press.

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Contemporary Poetry for Children as an Incentive for Children's Linguistic Creativity

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Abstract

Poetry collections by contemporary poets are slowly finding their way into the educational process. Additionally, in terms of their methodological potential, the focus is on understanding and interpreting verses, whereas there are only sporadic mentions of the possibilities for the development of children's language skills offered by contemporary poetry. Therefore, the poetic work for children by Dragana Mladenović, a well-established contemporary poet, becomes the subject of research in this paper. The aim of research is to determine which aspects of the textual composition may function as the incentive for the development of children's language skills. The corpus, which includes all four books of poetry for children by Dragana Mladenović, undergoes a qualitative thematic analysis which results in identifying the four key themes: 1) lexeme cataloguing 2) word-formation models 3) syntactic models and 4) graphic and conceptual design of the text. The insights acquired at these levels influence the following proposals as to what could become the incentive for children's linguistic development when they encounter poetry by Mladenović: 1) the encouragement of the lexical development through the acquisition and thematic networking of lexemes 2) the encouragement of the lexical development through the acquisition and generalization of word-formation models, 3) the encouragement of the syntactic development through the acquisition of models and defamiliarization of syntactic links and 4) the encouragement of early literacy through establishing and fostering a critical attitude towards the text. The analysis and its related methodological implications point to the fact that contemporary poetry for children can provide inspiration for fostering the referential, imaginative and expressive functions of speech, taking into consideration the value of dialogue, games and project-based approach in working with children. Consequently, this paper can be viewed as a call for further research in this field.

Keywords: contemporary literature for children, speech development methodology, lexicology, syntax, early literacy.

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Introduction

Modern speech development methodology is based on the knowledge of the primary subject-matter, from which the functional interweaving with the knowledge of other disciplines emerges (Milatović, 2009; Vukomanović Rastegorac, 2020). Namely, at the beginning it uses the facts produced by linguistics and literary studies as its starting point. Then, in a methodologically adequate way, these facts combine with the knowledge of developmental psychology (psycholinguistics in particular) as well as with pedagogical and didactic research, that put educational process in focus. Given this theoretical framework, it is clear that, in the process of introducing literary texts into kindergarten and primary school classrooms, the priority is to be given to their linguistic, stylistic, and poetic characteristics, ensuring that their subsequent interpretation is adapted to the child's cognitive and emotional development. At the same time, certain aspects of the literary work become the focal point of interpretation, whereas others await their turn to be examined by the recipients when they are ready for that. In view of the fact that every esthetically valuable literary text is peculiar, drawing the line between what is appropriate at a given stage (age-related or otherwise) and what is not remains, to a significant extent, a matter of the educator's and / or the teacher's personal judgment. Their judgment is refined through the continuous testing of the horizon of children's expectations and challenging the boundaries of children's reception of texts (Marković, 2025).

At the same time, we should keep in mind that the interpretation of literary work can go in different directions, including not only understanding of the text but also its creative elaboration (particularly if we talk about an open work of art) (Eco, 1965) or its use as the incentive for children's linguistic and speech development (Mičić, 2025). In case of the latter, the literary text becomes the incentive for children's games which in turn encourage thinking about language at different levels and in different forms of its realization: from the phonetic, morphological, and lexical to the syntactic and pragmatic form, from the early encouragement of the speech abilities development to the early encouragement of various forms of literacy (Janković, 2019; Mičić, 2019; Vukomanović Rastegorac, 2023). In this respect, it is particularly challenging to include contemporary literary texts in working with children with adequate assessment of their esthetic and educational qualities. Rising to that challenge implies the tendency to establish the productive links between the most valuable work of current literary production and the classrooms in preschool institutions, assigning a particular importance to shedding light on the methodological aspects of the literary text reception and its larger potential within educational framework. In this paper, we shall try to highlight some of these aspects using the work of the prominent contemporary female children's poet.

Before it is done, it is essential that we provide a short note. In the endeavors of this kind, it is vital that we be aware of the two perspectives which intersect in the field of educational work. The first delves into the structure and meaning of the poetic text which subsequently yields the potential for their actualization in the field of education; the second, though, has the fundamental concepts and the guidelines at its centre, which are determined by the core elements of the valid preschool curriculum (Godine uzleta, 2018; Mičić i Vukomanović Rastegorac, 2020). Moreover, they primarily promote the appreciation

of children's feelings, needs and relationships, affinities and interests. In this regard, the proposals given in this paper should not be taken as the initiatives which educators introduce without consulting children and/or realize them without children's participation, but they should be seen as the fields waiting to be discovered and activated if children in the group draw closer to them through the project-based approach.

Methodology

Children's poetry collections by Dragana Mladenović, a well-established author who has taken a prominent place in the field of children's literature, are the subject of our research (Vukomanović Rastegorac, 2025). For the time being, this poetic segment of her work consists of the four published collections: *Uljezi* [Intruders] (Mladenović, 2016), *Dar-mar* [Hodgepodge] (Mladenović, 2019), *Kad stvari poljude* [When Things Become Human] (Mladenović, 2023a) and *Tri, četiri, sad!* [Ready, steady, go] (Mladenović, 2023b).

Within the selected corpus of texts, the aim of our research is to identify the aspects of the verse composition that can stimulate the work on the linguistic development of preschool children. Accordingly, we have formulated the research question to which we shall try to provide the answer: at what level and in what way can the verses for children by Dragana Mladenović act as an incentive for different aspects of children's linguistic development in educational work?

We shall attempt to answer this question by means of the qualitative thematic analysis of the poetry collections. The results will be presented in textual form, in line with the adopted methodology. With regard to the themes that prove to be relevant for the qualitative analysis, we shall present the aspects that are deemed important from the perspective of children's linguistic development. Then, through the discussion, we shall point to the methodological implications and potential, which arise from the qualitative approach to the corpus. At the same time, it is vital that we highlight that our aim is not to provide a closed set of actions and initiatives, likely to be prompted by the introduction to contemporary poetry and / or the poetry by Dragana Mladenović, but to create space for functionally unrestricted research in this field.

Results and result analysis

The presentation of the analysis of all the aspects of the poetic formation of verse, that could encourage the development of children's language abilities in preschool institutions, goes beyond the scope set in this paper. Therefore, we shall further present only the results of the qualitative analysis that refer to the four key themes: 1) lexeme cataloguing, 2) word-formation models 3) syntactic models, 4) graphic and conceptual design of the text. While citing the verses used as the illustration of the given insights, it is understood that these verses are composed by the given author, therefore, only the year of publication and the page number are put in parenthesis (with the exception of the verses from the poetry collection *Uljezi*, which does not have the page numbers, so we shall put in parenthesis the title of the poem in question).

Lexeme cataloguing

Cataloguing is a very frequent method of the poem composition applied by Dragana Mladenović. It entails sequencing of lexemes from the same thematic field. Thus, the verses in the poem "Cica se kinđuri" [Cica is dressing up] are abundant with the nouns referring to the clothing items (we have here *hats, little hairpins, neckties, jackets, tutus...*), "Marta vozi" [Marta is driving] abounds in the names of vehicles (a *car, a ship, a convertible, a truck, a boat...*), "Katarina planira" [Katarina is making plans] teems with the names of female job titles (a *female pharmacist, a female doctor, a female editor, a female journalist, a female police officer...*). Based on this, the poems of different thematic orientations are created, which is often visible in their title, "Čula" [Senses], "Meseci" [Months], "Planete" [Planets]. Furthermore, cataloguing both points to the nouns and hints at a string of various adjectives: poems "Boje" [Colours], "Ukusi" [Tastes], "Dodiri" [Touches] bring the words that describe the sensations of different kind: visual (*yellow, green, blue...*), gustatory (*sour, savoury, sweet...*) and tactile (*soft, sharp, hard...*), just like the poems "Zemlja" [Earth] and "Vazduh" [Air] do, whose foundation consists of the usual attributes that collocate with these nouns (*fertile, loose, hard; humid, fresh, cold* etc.).

However, such cataloguing would certainly come across as monotonous unless the poem included the *intruder* principle, characteristic of the poetry by Mladenović. Namely, the poetry collection of the same title begins with "Pismo pre svega/snega" [The letter above all / above the snow] in which the Intruder warns the reader that every poem comes with its two companions. Thus, poetry reading turns into a unique quest for an *odd word out* while at the same time its semantic boundaries are being determined in that way (Mladenović, 2019, p. 4). In all the above-mentioned poems, we find the words that do not belong either explicitly or implicitly to the given set: *pickles* and *shadows* are the "odd words out", among the nouns referring to clothing items, a *cone* and a *goalpost* among the names of the vehicles, a *bird* and a *cape* among the words for job titles – which is one of the devices used to achieve a humorous effect in verses. At the same time, the appearance of the intruder is often supported by a partial phonetic overlap and/or rhyme: *čulo dodira : čulo leptira* [the sense of touch : the sense of a butterfly] ("Čula"), *kiselo : veselo* [sourly : merrily], *slatko : glatko* [sweetly : smoothly] ("Ukusi"), *jun : žbun* [June : bush], *start : mart* [start : March] ("Meseci"). Apart from these examples, most frequent in the collection *Uljezi*, we find similar ones in the *Dar-mar* and the *Tri, četiri, sad!* collection, in which we also find another variation of this game to which ambiguous words and expressions open the door. For example, in the poem "Natikače" [Slip-ons] in the sequence of words for footwear most commonly worn on feet around the house (*slippers, bedroom slippers, slipper sneakers*, etc.) intruders are the words that denote something that can be *carried* around the room – just not *on feet* (*strudels* and *hot chocolates*).

Word-formation models

Relations between lexemes do not have to be based solely on meaning, but can also be based on their derivational relationship. It is best seen on the example of the poem "Pogrdno" [Derogatory] in the *Dar-mar*, focused on pejoratives ("Pogrdno od mačke je

mačketina / Pogrdno od surle je surletina" [The pejorative form of the cat is a big ugly cat / the pejorative form of the trunk is a massive ugly trunk] and the like, 2019, p. 56), and on the example of the poem "Manje" [Smaller], focused on diminutives ("Manje od kuće je kućica / Manje od ruke je ručica" [Something smaller than a house is a tiny house / something smaller than a hand is a tiny hand], 2019, p. 58). There is also the poem "Veće" [Bigger] which, contrary to expectations, does not say anything about augmentatives. It once more brings diminutives into focus from a different, reversed perspective ("Veće od vrećice je vreća / Veće od kesice je kesa" [Something bigger than a baggie is a bag / Something bigger than a sachet is a sack], 2019, p. 59). And here, the author refreshes the reception of the poem by introducing intruders whose phonetic composition resembles that of the non-intruders, or whose appearance is otherwise motivated by the rhyme ("Manje od kašike je kašica / [...] Manje od bebe je bebica / Manje od babe je dedica" [Less than a spoonful is just a little bit of porridge / [...] Smaller than a baby is a tiny baby / Smaller than a grandma is a grandpa] 2019, p. 58). In this regard, of particular interest are, albeit rare, instances of verses oscillating around the same word root or derivational affix: "*ključ je zaključio // lakše je zaključati se / nego otključati se*" [The key has locked it in // It is easier to lock oneself in / than to unlock oneself] (2023a, p. 16; highlighting is ours); "*Zapevaj! / Nemam kišobran // Hej, haj, haj! Nemam ni vetrobran. // Sve liči na raj. // Ni gromobran. // A sada baj-baj! / Čak ni blatobran!*" [Sing! / I have no umbrella. // Hey, aye, aye! I have no windshield. // Everything looks like paradise. // Not even a lightning rod. // And now bye-bye! / Not even a fender!] (Mladenović, 2023b, pp. 38-39).

Morphological neologisms are the most interesting examples in the context of speech development; though not numerous, they occupy a prominent position in the text: one of the book titles reads "*hajde da se poezigramo*" [let's poetry-play] (2023b), and its poetry-play number four is titled "*rimorint*" [rhymorynth] (Mladenović, 2023b, p. 36), and number seven "*dominovina*" [dominoland] (Mladenović, 2023b, p. 57) – which are blend words, the former is derived from the phrase "*rimovani lavirint*" [rhymed labyrinth], and the latter is formed by blending the words *domina* [domino] and *domovina* (homeland); in the *Dar-mar*, the title of the cycle, *emocicije* [emotional misers] (Mladenović, 2019, p. 12), is built on a similar principle. In this regard, we find particularly interesting the neologisms created through analogical generalizations of formative elements outside the expected and standard-“allowed” range. Such is the case across the entire cycle "*Uljez, on i ona i ono*" [The Intruder, He and She and It] (Mladenović, 2019, pp. 20-27), where, for instance, we read the poem "*Ona i on*" [She and He] (Mladenović, 2019, p. 24), which is primarily constructed from demonyms (Greek woman and Greek man). However, the words such as *Brkinja* and *Brk*, which do not belong to this semantic field, are also hidden among them. The latter word, of course, exists in the Serbian language (though not as a demonym), but *Brkinja* is undoubtedly the result of the overgeneralisation of the motion suffix *-inja*. A similar play on words results in the following examples: *najmače* [the kitten-est kitten], *najlače* [the easiest easy] and *najkuća* [the house-est house] in the poem "*Najmače*" (Mladenović, 2019, p. 36): "*Od jakog može jače (pa i najjače) / Od mačke može mače (pa i najmače) / Kao i od lakog lače (pa i najlače) / [...] Od vrućeg bude vrući (pa i najvrući) / od kuće može kući (pa i najkući)* [From strong comes stronger (even the strongest) / From a cat comes a kitten (even the kitten-est kitten) / Just like from easy comes easier

easy (even the easiest easy) / [...] From hot comes hotter (even the hottest) / From a house comes a house (even the house-est house). In these verses, the poetess first introduces a phonetic correspondence between words (jače : mače : lače; vrući : kući), and then, by establishing an analogy in the formation of superlatives, she creates a new example that represents a neologism (*najjače : najmače; najlače; najvrući : najkući*).

Syntactic models

It could be inferred from the verses quoted so far that they are mostly syntactically simple structures. It is perhaps most obvious in the cycle "Samo subjekat, zebre i predikat" [Only the Subject, the Zebra and the Predicate] where they are indeed composed solely following the transparent subject + predicate model (S+P). For instance, the poem "Užasna buka" [Terrible Noise] begins like this: "Cveće cvrkuće / Vuk arlauće / Pčela zuji / Dete jauće / Sova mjauće" [Flowers are chirping / The wolf is howling / The bee is buzzing / The child is crying / The owl is meowing] (Mladenović, 2019, p. 48; cf. also the poem "Vikend na selu" [The Weekend In the Countryside], 2019, p. 49). The cycle "Pelene u modi" [Diapers In Fashion] is composed in the similar fashion, initially adopting the form of the well-known children's game "leti, leti" [fly, fly] ("Leti, leti, leti sova, / leti bumbar, leti kljova, / leti, leti, leti soko, / leti muva previsoko", Mladenović, 2019, p. 8) [Fly, fly, fly... an owl, / fly, fly... a bumblebee, fly, fly... a tusk / fly, fly, fly... a falcon / very high flies the fly], and then the same model with modifications is applied to the chosen verb (*trči, pliva, pada*) [run, swim, fall], and, of course, to the selected nouns that complete the sentence pattern. Syntactic uniformity is not a feature of only the two mentioned cycles which belong to the *Dar-mar*; its somewhat different form can also be found in the collection *Tri, četiri, sad!*. For example, the poetry-play number one says "Zeka je u rupi / sova je u šupi / puma je u šumi / rezanac u supi" [The bunny's in the hole / the owl's in the shed / the puma's in the woods / the noodle's in the soup] (Mladenović, 2023b, p. 7; also cf: 2023b, p. 9). The poetry-play number nine says "Neko ovde nema balone, / neko ovde nosi pantalone, / neko ovde jede makarone, / neko ovde mrzi feferone" [Someone here has no balloons, / someone's wearing pantaloons, / someone's eating macaroni, / someone hates the pepperoni] (Mladenović, 2023b, p. 68) and the like. In addition to such examples, it is worth mentioning the cases in which parallelism is established among the offered comparisons, as the item being compared is separated from the rest of the construction by a pause which the end of the line suggests: "šunjaju se [patike] kao / dve pume / izviruju kao / dva jelena / skakuću kao / dva jareta / cvile kao / dve kuće" [[sneakers] Sneaking like / two pumas / peeking like / two deer / hopping like / two kids / whining like / two pups] (Mladenović, 2023a, p. 8).

In the final cycle of the *Dar-mar*, titled "Spiskovi, cedulje, agende, kadulje" [Lists, Notes, Agendas, Sages] (which also includes a phonetically similar intruder), the expected syntactic and syntagmatic links are intentionally disrupted and the new, comic, and wondrous ones are established. The poem "Dobro jutro, dušice" [Good Morning, Sweetheart] brings even more unusual requests: "Čim se razbudiš, molim te, / navij papagaja i / nahrani sat, [...] uredno spakuj sendvič i / doručuj krevet / (gledaj da to uradiš do devet), / očešljaj zubiće, / prašinu obuci, / prebriši zavesu, / trenerku navuci" [As soon as you wake up, please, /

wind up the parrot and / feed the clock, [...] pack a sandwich neatly and / have the bed for breakfast / (make sure you do it by nine), / comb your little teeth, / put on the dust, / wipe the curtains, / slip into your tracksuit] (Mladenović, 2019, p. 92). As shown, they arise from the permutation of elements within common collocations (*wind the clock* and *feed the parrot* → *wind the parrot* and *feed the clock*) or simply by replacing the elements with some other lexeme (*comb your hair* → *comb your little teeth*). In the latter case, it is not merely a matter of breaking any one connection between two words, but rather of disrupting a strong collocation, in which the verb *češljati* [to comb] is expected to combine with only a few nouns, such as *hair* (*kosa*), *fur* (*dlaka*), or the like. A similar way of refreshing poetic expression can be found in the poem “Superparket” [Super-parquet], in which the lyrical you is instructed to buy “a liter of bread” and “a kilo of milk” (Mladenović, 2019, p. 88). However, transcending the horizon of expectations relies not only on such mechanisms, but also on the naming of the non-existent entities (“four black-and-white onions”), contradictory descriptions (“orange-colored lettuce”), and permutations of elements within the same phrase (“headache against the medicine”). This last instance brings Dragana Mladenović’s texts closer to the poetics of Branko Ćopić’s famous “Izokrenuta priča” [the Upside-Down Story] (Klikovac, 1997, p. 174).

Graphic and conceptual design of the text

In Dragana Mladenović’s poetry for children, experimentation with the graphic design of the text holds a prominent place. One stage of this experiment involves the direction(s) of reading: namely, having been introduced to the *Uljezi*, children see titles placed vertically alongside the stanzas (as in the poems “Zemlja”, “Vazduh”, etc.) or those that, along with the poem itself, can only be read by turning the book upside down (“Marta vozi”). Furthermore, in the process of joint reading with an adult, the child notices that the reading process can be non-linear, as seen in the poems “Pravac u proleće, tutanj u jesen” [Straight into Spring, Rushing into Autumn] (Mladenović, 2023b, pp. 38-39) and “Čudovište iz potoka” [The Creek Monster] (Mladenović, 2023b, pp. 42-43). The second level of defamiliarization involves the typographic play: thus, in the *Dar-mar*, list-poems are designed to appear handwritten (Mladenović, 2019, p. 88). In the poetry-play number six in the collection *Tri, četiri, sad!*, words such as “jako” [strongly] (Mladenović, 2023b, p. 51) and “tufnama” [dotted] (Mladenović, 2023b, p. 53) are written in such a way that their visual form suggests their meaning – the former in bold black letters, and the latter in letters covered with dots. Finally, at the third level, there is obviously a strong integration of verbal and visual content, verses and illustrations, particularly in those poems that count on the alignment between the meaning of the textual template and the content depicted in the image. Thus, the poetry-play number nine states: “Neko ovde nema uvo, / neko ovde nema torbu, / neko ovde ima tortu, / neko ovde nema loptu. / KO?” [Someone here is missing an ear, / someone here is missing a bag, / someone here has a cake, / someone here is missing a ball. / WHO?] (Mladenović, 2023b, p. 67) – the answer to this question can only be provided upon the close examination of the illustration accompanying the poem.

The poet also addresses socially engaged themes through her verses. In her very first collection, the field of "(in)appropriate" occupations for a girl is clearly touched upon – that kind of limitation is indirectly called into question through the affirmation of job titles formed by using the appropriate motion suffixes: thus, we find here *rediteljka* [female director] and *novinarka* [female journalist], *pilotkinja* [female pilot] or *predsednica* (female president) (the topic of gender-sensitive language is indirectly introduced by the use of feminine nouns to denote these professions). On the other hand, ecological engagement is most obvious in the poems from the collection *Kad stvari poljude*: thus, in the verses of the "Ekološki protest" [Ecological Protest], the lyrical I calls upon "sve svoje prijatelje / motorne testere / na protest zbog seče šuma / jer ako isečemo sva stabla / neće više biti ni gnezda / ni vazduha ni vode ni neba / i kome će onda / motorna testera da treba" [all the friends / chainsaws / to the protest against deforestation / because if we cut down all the trees / there will be no more nests / or air or water or sky / and who will then / need a chainsaw] (2023a, p. 31; also cf. the poem "U poverenju" [In confidence], 2023a, p. 68). In this book, one of the most striking transformations of objects occurs when an ATM decides to spend "sav novac / na sebe [...] napuniće kadu novčanicama / i plivaće u parama / jer može mu se" [all the money / on itself [...] it will fill the bathtub with banknotes / and swim in cash / because it can] (Mladenović, 2023a, p. 31) – and that is only a part of the social critique presented on these pages (cf. the poems "Gospođica sofa" [Miss Sofa], 2023a, p. 18; "Ustoličenje" [Enthronement], 2023a, p. 22).

Discussion and methodological implications

As mentioned in the introductory lines of our paper, when considering the poetic text as an incentive for the development of the language skills of preschool children, it is logical to start from the aspect that includes its poetic shaping, and then to adapt its introduction into the kindergarten room to the cognitive and emotional characteristics of children, while respecting their diversity and interests. Insights into the structure of Dragana Mladenović's verses for children suggest that the potential for their actualization within the educational context can be sought in: 1) the encouragement of lexical development through the acquisition and thematic – and frequently hierarchical – networking of lexemes, 2) the encouragement of lexical development through the acquisition and analogical generalization of word-formation models, 3) the encouragement of syntactic development through the acquisition of models and defamiliarization of syntactic links and 4) the encouragement of early literacy by establishing and fostering a critical attitude towards the text.

The encouragement of lexical development: acquisition and thematic networking of lexemes

From the perspective of speech development, it could be noticed that there is a thematic connection between the lexeme groups used by Dragana Mladenović in the cataloguing process in her poetry and young children's linguistic and life experiences

(Anđelković 2012a; Kostić i Vladislavljević, 1995). In this regard, the reception of a poem that – once again – unites them can help solidify their meaning, just like it can increase the number of lexemes the child encounters in cases when, for instance, the child is familiar with only a small number of lexemes from the specific field. Furthermore, due to this composition of the poem and the poetic “task”, when searching for the intruder in them, children are highly likely to use one mechanism in particular: the mutual exclusivity mechanism, they typically employ in the acquisition of the word meaning (Tomasello, 2005, pp. 72–75). They are particularly expected to do so in the poem “Planete”, set up as an either-or game. In the poem, children are asked to choose a celestial body name from pairs like *Jupiter* and *kreker* [Jupiter and cracker], *Sapun* and *Saturn* [Soap and Saturn], or *Ćuran* and *Uran* [Turkey and Uranus]. Even if they do not know the names of the planets, children are familiar with the meaning of the words *cracker*, *soap*, and *turkey*, making it easy for them to conclude which word belongs to the thematic group of planets and which does not, by relying on process of elimination,.

Of course, the reception of this and other poems does not have to stop at identifying the intruder; instead, a dialogue can be developed to clarify the criteria which tell why a certain lexeme is not an intruder in a particular verse catalogue while another one is. This process is naturally easier when the thematic cluster is already suggested by the title. However, verses can also be read without having read the title first, allowing children to discover it at the end – once the poem is read to them and they find the common semantic denominator for the majority of the lexemes in it. It is also worth noting that children spontaneously grasp the paradigmatic hyponymic relation in language through the reception of these poems (Dragičević, 2007, p. 290; for the preschool context see Anđelković, 2012a, p. 61; for the lower primary school context see Lazarević & Stevanović, 2015). It is important, among other things, to classify concepts and understand the hierarchical relationships between them with regard to the development of the ability. Apart from that, one should not miss the opportunity for children to notice the way the intruders resemble the concepts among which they are hidden – here we primarily refer to the presence of the rhyme as an important type of the formal relationship between lexemes (Dragičević, 2007, p. 306). Noticing rhyme is one of the indicators of the development of the metalinguistic function of speech (Tunmer et al., 1984; Kožopeljč, 1996).

Through the enrichment of the vocabulary – initially passive, and then active (Vasić, 2009) – new lexemes stimulate the development of the referential function of speech. However, the encounter with the poem does not have to end there; the game can also be presented to children in a creative way. Verses can be understood as an invitation to expand the catalogue with new words – by engaging young (pre)readers mentally and verbally to continue the poem with words belonging to a specific thematic cluster. In the context of the project, such an activity can serve different purposes: it can act as a provocation for the project, either as its peripheral or its central part and the like. In this way, mini glossaries of terms are jointly created within an educational group, where parents and the larger community can also participate in the different phases of the project-based research.

This type of the catalogue-like or glossary-style presentation has one flaw, so to speak: the words in it are mostly deprived of their context, or of a major part of it. However, this flaw can be turned into a virtue by encouraging further elaboration, for instance, through thematic explication (*bedroom slippers – soft, put on/take off*, etc.) or through the visual representation of both stimulus words and response words (where illustrations particularly help or intertwine with them). In a manner similar to that in Mladenović's poems, an either-or game can be designed, thematically based on the focus of the project theme. In the next, more demanding phase of the game, children can insert intruders between the terms of the same category, encouraging their friends to find them. Hiding these intruders can be done quite freely, or it can be guided to intensify their "camouflage" – for example, by choosing intruders that rhyme with the non-intruder words, or by searching for words that seem to be thematically related, but for some reason do not actually belong to the chosen thematic cluster, etc.

The encouragement of lexical development: acquisition and analogical generalization of word-formation models

The methodological possibilities of a game-based approach to word formation within the framework of the linguistic standard – in both preschool and school contexts – have already been discussed in depth. This research primarily focuses on the creation of compound words (Janković, 2019, Mičić i Vukomanović Rastegorac, 2016; Vorkapić, 2023). Based on the cited references, it is easy to see certain poems by Dragana Mladenović as an incentive for the games involving the gathering and grouping of the words belonging to the same derivational-semantic core, or for the interweaving of different lexemes (more precisely, their derivational morphemes) to produce compounds. The increase in the number of words the children come into contact with occurs in the instances when they are introduced to the specific building blocks of the lexicon and encouraged to observe the connections that can exist between them (as seen in the poem mentioning *kišobran* [umbrella], *vetrobran* [windshield], *gromobran* [lightning rod], and *blatobran* [fender]), while subsequently discovering similar examples.

However, that is not all – it has long been well known that preschool children show a tendency to generalize derivational forms, which especially "affects" the exceptions to the rule accepted by adult speakers as part of the linguistic standard (Vukomanović Rastegorac, 2021, pp. 115-116). The construction of new words based on analogy is also clearly documented in linguistic studies (Anđelković & Mirić, 2017) as well as in the recently published *Rečnik detinjih reči i izraza* [Dictionary of Children's Words and Phrases] (Smiljanić Rangelov, 2024). If the game is structured to be more open, yielding unexpected – yet non-existent but possible – combinations, it explores the space that language does not (yet) encompass. Therefore, we can talk about identification of word-formation patterns (*bebica, kesica, kućica*) [little baby, little bag, little house] in preschool and school contexts, as well as the analogical examination of their scope by generalising the existing model, at the same time going beyond its existing boundaries. For instance, the already mentioned suffix *-ica* is typically added to feminine nouns, as seen in the previous examples, while masculine nouns usually take *-(č)ić* and neuter nouns take *-(en)ce*. Hence, although theoretically

possible, forms like *telefonica* (for a small phone) or *pilica* (for a small chicken) are non-standard ones. Common lexemes (*telefončić* and *pilence*) [little telephone and little chicken] are outlined against the backdrop of such an experiment, providing material for reflection on the nature of the distribution of these suffixes. If we were to follow strictly what we find in poetic texts, we could rely on the already mentioned examples *Brkinja* and *Brk*: it is evident that the name of the male “member of a nation” is actually the name of a body part (*brk* – moustache), while the name of the female member is built using the motion suffix *-inja*. Following a similar model, we could build names for “citizens” from the names for other body parts: *Nos* [Nose] and *Nos(k)inja*, *Vrat* [Neck] and *Vrat(k)inja*, *Prst* [Finger] and *Prst(k)inja*, and so on. The construction process can also work in reverse: by taking the feminine nouns for body parts to form the name of a male citizen using the suffix *-ac*: *Kosa* [Hair] and *Kosac*, *Ruka* [Hand] and *Rukac*, *Noga* [Foot] and *Nogac*, etc. Additionally, if we apply another model detected in Mladenović’s poetic language, based on blending (combining the first part of one word with the second part of another), it is possible to create a large number of combinations that cut across various linguistic domains. Together with children, we can ask what we would call a labyrinth if it were green or located on Jupiter (*zelirint*, *Jupirint?*), or what we would call the homeland (*domovina*) of vacuum cleaners (*usisivača*), pumpkins (*bundeva*), or hamsters (*hrčaka*) (*usisomovina*, *bundomovina* or *bundevina*, *hrčomovina* or *hrčkovina?*), and the like.

The encouragement of syntactic development: acquisition of models and defamiliarization of syntactic links

Taking into consideration the stages in children’s sentence development, as well as the most frequent sentence models in the particular phases of that development (Anđelković, 2012b), it appears that Dragana Mladenović’s poems are characterised by simple sentence structures, which is particularly suitable for reading with the youngest children. Through their reception, a child is provided with examples of grammatically typical utterances that serve as a reliable linguistic model in terms of the order of elements and their congruence. Interestingly, their construction largely aligns with the characteristics of child-addressed speech, which, among other things, includes short utterances, clear pauses, and repetitions (Saxton, 2017). Poetic speech, however, transcends these boundaries as it occasionally introduces more complex constructions: for instance, the aforementioned “neko ovde mrzi feferone” is, in a syntactic sense, undoubtedly more complex than “vuk arlauče”. Nevertheless, the reception of verses with a more complex structure is facilitated by the repetition of the same model and the existence of the partial or complete syntactic parallelism. The exposure to such significantly predictable linguistic relationships encourages the child to master increasingly complex language structures, based on the scaffolding principle (Tutnjević i Savić, 2019). At the same time, it should be emphasized that Serbian literature for children notably lacks literary texts that respect this principle. Therefore, Dragana Mladenović’s verses become even more precious in this context.

As was the case at the lexical level, poems can be set up as open structures, calling for further expansion, where one need not insist on a single solution, but rather encourage

a multitude of them. This results in various surface realizations of one and the same deep structure of a sentence (Crystal, 1999, pp. 76-77). The interactive strategy of interrupted reading gains its full functionality in this domain (Mičić, 2020, pp. 223-260; Stanković, 2024), revealing both the face and the reverse side of our horizon of expectations: it points to our expectations and the logic behind them, while simultaneously possessing the potential to impart the knowledge that such expectations can be subverted through illogical solutions – in the latter case, humor usually arises in the text, and a smile appears on the reader's face (Perišić, 2010, pp. 45-47). In such instances, we can use stimulating questions to motivate children to reflect on unusual combinations, then reconstruct disrupted collocations and bring concepts back into logical order (e.g., “to translate” *a liter of bread and a kilo of milk* into *a liter of milk and a kilo of bread*) or to render defamiliarized combinations familiar (“to translate” *wind up the parrot and feed the clock* into *wind up the clock and feed the parrot*) – therefore, this can be a methodologically correct procedure, but not much more than that. However, following the author's poetics, we can go further and encourage the imaginative function of speech by inviting children to create (syntactically) and semantically unusual solutions, where humor arises precisely from the unexpectedness of the syntagmatic or sentence combination and the discord between the used elements.

In this regard, oxymoronic, nonsensical combinations such as *orange green salads* are particularly interesting, as they seem to paraphrase Chomsky's colorless green ideas (Chomsky, 1957; 1984, p. 23). They themselves provoke the question of what such a thing would look like if it truly existed. This process of imagining the unimaginable evokes an intersection with the visual arts: not only can unusual combinations be created in language, but we can also attempt to present them visually – what would a (liquid) liter of bread look like, or how would we eat/drink (solid) milk? What would it be like if we fed a clock like a pet or ate a bed for breakfast? These are just some of the questions that stimulate the ability to imagine the unimaginable and fantasize about it, suggesting that, in our own world, relationships are simultaneously perceived as just one of many possibilities and as the only possible option. Finally, a potential for the game-like engagement and physical action can be opened up here. If the poems in the cycle “Pelene u modi” utilise the form of the “fly, fly” motion game (along with its variations with the verbs *trči, skače, pliva* [*run, jump, swim*]), one can first imagine its interpretation accompanied by the corresponding moves. Subsequently, the verses could be expanded with new lexemes denoting beings that fly, run, jump, or swim, as well as with the sequences of appropriate intruder lexemes. The variation of the game that introduces new verbs (*gmiže, roni* [*crawl, dive*]) would be a step further and it need not be limited to the verbs of motion (e.g. *grebe, peva, čita* [*scratch, sing, read*]).

The encouragement of early literacy: establishing and fostering a critical attitude towards the text

Although systematically guided reading acquisition in Serbia begins in primary school, the skills that support this activity develop largely during the preschool period (Browne, 2001; Merchant, 2008; Tafa, 2008; Ševa & Radišić, 2013). A child encounters many records and inscriptions in various forms, and through shared activities with adults, be-

comes familiar with the elements of a book and the ways of “using” it – starting to understand that written signs convey meaning and that (in our culture) they are read from left to right and top to bottom, that a book usually has a title and the author’s name on its front cover, and that the table of contents points to specific parts of the book (Nikolić i Milenković, 2019; Snow, 2006; Whitehurst & Lonigan, 1998). Through the introduction to certain poems by Dragana Mladenović, the child has the opportunity to notice that most of these features are a matter of convention, and that the text can be played with in various ways. Entirely in the spirit of the visual design of the *Dar-mar*, this can open up the space for a “collage” game during which, for instance, children arrange words cut out from newspapers across the page and then connect them with arrows whichever way they like. Then, they go over these words during the process of shared reading with their teacher, which is exceptionally important for various aspects of a child’s language development (Vander Woude et al., 2009). In this way, a nonsense creation is (most likely) formed, which can provoke laughter and simultaneously call for the “rearrangement” – that is, the translation of a nonsensical text into a meaningful and imaginative story. Additionally, to draw attention to the role of the graphic design and the value and suggestiveness of the chosen typographic solution, children can be encouraged to make assumptions about the meaning of the word whose letters – letters that children do not necessarily need to know – are written so that their edges are extremely sharp or very rounded, if they are dotted or striped, etc. If the goal is to encourage further critical reflection on the relationship between form and content, an intentional discrepancy can be created between them: for instance, the word *green* can be written in blue, and vice versa; a word with positive connotations (e.g. *friendship*) can be written in sharp letters, while one with negative connotations can be presented with ornaments (e.g. *rudeness*) (Mičić, 2025, pp. 77–87). Based on the (wrong) assumptions, one can discuss the relationship between form and content and then note that colorful shapes sometimes trick us into thinking that what they represent is certainly beautiful, though that need not be the case. Finally, when it comes to the powerful interaction between the text and the image, the poems by Dragana Mladenović can be used to create similar riddles in which the child visually presents various shapes and beings, then challenges others to find them in the drawing.

The concept of critical literacy implies the reader’s active approach to the meaning of the text, manifested through the open discussion and the exchange of arguments (O’Brien & Comber, 2000; Mitrović, 2010, p. 139). Even though an open dialogue on gender stereotypes and gender-sensitive language seems desirable in the school context, especially in view of the portrayal of male and female characters in children’s literature (Radovanović, 2022) or the gender (in)sensitivity of textbooks (Stakić, 2017), such conversations may seem premature in the preschool period. However, if questions are asked appropriately, Mladenović’s poetic world can encourage a more flexible verbalization of children’s theories about the world that can go in different directions: “Are there more male or female directors, presidents or women presidents in the world? What is the cause of this? Does it have to be that way and why? Do words like *female kindergarten teacher*, *female police officer*, or *female pilot* sound unusual to you? If they do, why; if they don’t, why not?” This type of dialogue uses the text of the poem as a starting point, only to evolve into

the confrontation and elaboration of attitudes and perspectives related to a given topic. Furthermore, the emphasis here is not, of course, on becoming familiar with the socio-historical context, but on sparking curiosity about real life that surrounds us, the linguistic facts in which we are immersed, and learning to support one's own position – whatever it may be – with valid arguments. Similarly, becoming familiar with and interpreting this author's poems can serve as an introduction to conversations about today's particularly vital topics of environmental protection, thereby raising the ecological awareness and literacy of the youngest, which is then further developed in primary school (Kalmar, 2022; Zejak, 2021). Finally, a conversation about money, its value, and also about the limits of its power, can prompt the youngest children to reflect on highly relevant real-life issues regarding the values we strive for and/or hold dear. Furthermore, such a focused discussion can be a step toward raising awareness of class differences, whose reflection is inevitable in any preschool setting. A dialogue on this subject could stimulate the development of empathy and contribute to creating an internal need to take concrete actions to help those in a difficult financial situation.

Conclusion

Poetry for children by Dragana Mladenović is not only challenging to understand and interpret but can also serve as a multifaceted stimulus for the speech development of preschool children across several linguistic levels: primarily lexical and syntactic, and subsequently, the cultivation of early literacy level. At the first level, it involves the acquisition and understanding of linguistically conventional and/or conceptually harmonious elements: from the acquisition of the thematic groups of lexemes to the perception of word-formation models, and from the reception of sentence patterns to familiarisation with the conventions of written cultural products. However, one can go even further: into the creative expansion of word catalogues within specific fields, through the creation of neologisms and semantically unusual sentence structures, all the way to testing, and the occasional subversion of the horizon of expectations, through interactive strategies of the collective engagement with the text. This shifts the focus from the referential function of speech to the imaginative and expressive functions.

All in all, one must keep in mind the value of open dialogue which supports a diversity of perspectives and the solutions which they offer, especially when it comes to creativity. Dialogue is particularly important when dealing with the texts that provoke the development of critical literacy by reflecting on themes such as gender stereotypes and the encouragement of ecological literacy.

What is particularly important in the preschool setting is that the ludic element in the books by this contemporary poet opens up possibilities for stimulating various aspects of child development, including the experience and understanding of the text, as well as the engagement in different fields of human experience. Such a departure from the dimension of the text that is (merely) spoken or heard to other levels – such as visual expression or the incorporation of movement – also expands the potential points of contact with various projects in the kindergarten context, and suggests productive interactions in the various learning situations.

Finally, in addition to the aforementioned, it should be noted that this text addresses to a limited extent the methodological actualisation of Dragana Mladenović's poetry in preschool institutions; we believe that future research is yet to reveal the richness of potential encounters between the youngest (pre-)readers and her poetry, as well as contemporary Serbian children's poetry in general.

References

- Anđelković, D. (2012a). Razvoj komunikacije, neverbalna komunikacija, govor i pismenost. U A. Baucal (U.), *Standardi za razvoj i učenje dece ranih uzrasta u Srbiji* (str. 51-65). Institut za psihologiju Filozofskog fakulteta Univerziteta u Beogradu i Unicef.
- Anđelković, D. (2012b). *Glagoli i glagolske dopune u razvoju dečijeg govora* (doktorska disertacija). NaRDuS (123456789/3250).
- Anđelković, D., & Mirić, M. (2017). Distribution of verbal overgeneralizations in the Serbian Corpus of Early Child Language. *Psihološka istraživanja*, 20(2), 291–310. <https://doi.org/10.5937/PsIstra1702291A>
- Browne, A. (2001). *Developing Language and Literacy* 3–8. Paul Chapman Publishing.
- Čomski, N. (1984). *Sintaksičke strukture*. Dnevnik – KZ Novog Sada.
- Dragičević, R. (2007). *Leksikologija srpskog jezika*. Zavod za udžbenike.
- Eco, U. (1965). *Otvoreno djelo*. Veselin Masleša.
- Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja* (2018). Ministarstvo prosvete, nauke i tehnološkog razvoja.
- Janković, Đ. (2019). Razvijanje jezičkih kompetencija u duhu *Godina uzleta* – na primeru morfološkog sistema. *Metodička praksa*, 13(2), 319-340. <https://doi.org/10.5937/metpra1902319J>
- Kalmar, L. (2022). Uloga i značaj ekološkog obrazovanja u savremenoj školi. *Metodička teorija i praksa*, 25(1), 26-34. <https://doi.org/10.5937/metpra2201026K>
- Klikovac, D. (1997). *Izokrenuta priča* Branka Ćopića ili o iskustvenoj utemeljenosti leksičkih i gramatičkih kategorija. *Južnoslovenski filolog*, 53(1), 173-186.
- Kodžopeljić, J. (1996). Metalingvistički preduslovi uspešnog usvajanja čitanja. *Psihologija*, 29(1), 35-48.
- Kostić, Đ. i Vladislavljević, S. (1995). *Govor i jezik deteta u razvoju*. Zavod za udžbenike i nastavna sredstva.
- Kristal, D. (1999). *Enciklopedijski rečnik moderne lingvistike*. Nolit.
- Lazarević, E. i Stevanović, J. (2015). Razvijenost hiponimije u jeziku učenika mlađeg osnovnoškolskog uzrasta. *Nastava i vaspitanje*, 64(1), 39-54. <https://doi.org/10.5937/nasvas1501039L>
- Marković, B. (2025). *(Ne)moguće granice poezije za decu i mlade*. Fakultet za obrazovanje učitelja i vaspitača Univerziteta u Beogradu.
- Merchant, G. (2008). Early reading development. In J. Marsh, & E. Hallet (Eds.), *Desirable Literacies: Approaches to Language & Literacy in the Early Years* (pp. 81-102). Sage.
- Mićić, V. (2019). Podsticanje razvoja rane pismenosti. *Metodička praksa*, 13(1), 171-194. <https://doi.org/10.5937/metpra1901171M>
- Mićić, V. (2020). *Dete čitalac i hronologija čitanja*. Učiteljski fakultet Univerziteta u Beogradu.

- Mićić, V. (2025). *Negovanje govora u vrtiću*. Fakultet za obrazovanje učitelja i vaspitača Univerziteta u Beogradu.
- Mićić, V. i Vukomanović Rastegorac, V. (2016). Kako nastaju reči – igroliki pristup tvorbi reči u predškolskoj ustanovi. U E. Kopas-Vukašinović i B. Stojanović (Ur.), *Savremeno predškolsko obrazovanje i vaspitanje: izazovi i dileme* (str. 195-208). Fakultet pedagoških nauka.
- Mićić, V. i Vukomanović Rastegorac, V. (2020). Nove programske tendencije u vaspitno-obrazovnom radu: predškolski program u Republici Srbiji. *Annales universitatis Paedagogicae Cracoviensis – Studia ad Didacticam Litterarum Polonarum et Linguae Polonae Pertinentia*, 11(315), 217-227. <https://doi.org/10.24917/20820909.11.17>
- Milatović, V. (2009). Metodika razvoja govora kao naučna i nastavna disciplina. U V. Milatović (Ur.), *Metodika razvoja govora* (str. 13-24). Učiteljski fakultet Univerziteta u Beogradu.
- Mitrović, M. (2010). *Pismenost i obrazovanje: perspektiva Novih studija pismenosti*. Filozofski fakultet Univerziteta u Beogradu.
- Mladenović, D. (2016). *Uljezi*. Fabrika knjiga.
- Mladenović, D. (2019). *Dar-mar*. Kreativni centar.
- Mladenović, D. (2023a). *Kad stvari poljude*. Kreativni centar.
- Mladenović, D. (2023b). *Tri, četiri, sad! Hajde da se poezigramo!* Kreativni centar.
- Nikolić, M. i Milenković, S. (2019). Predlog programa za podsticanje razvoja predveština čitanja u predškolskoj ustanovi. *Inovacije u nastavi*, 32(1), 125-138. <https://doi.org/10.5937/inovacije1901125N>
- O'Brien, J., & Comber, B. (2000). Negotiating Critical Literacies with Young Children. In C. B. Pugh, & M. Rohl (Eds.), *Literacy Learning in the Early Years* (pp. 152-171). Allen & Unwin.
- Perišić, I. (2010). *Uvod u teorije smeha*. Službeni glasnik.
- Radovanović, M. (2022). Karakteristike muških i ženskih likova u književnim tekstovima za decu. *Nastava i vaspitanje*, 71(2), 233-248. <https://doi.org/10.5937/nasvas2202233R>
- Saxton, M. (2017). *Child Language: Acquisition and Development*. Sage.
- Smiljanić Rangelov, V. (2024). *Srpskiričarska rečorčica: rečnik detinjih reči i izraza*. Službeni glasnik.
- Snow, C. E. (2006). What Counts as Literacy in Early Childhood. In K. McCartney, & D. Phillips (Eds.), *Blackwell Handbook of Early Childhood Development* (pp. 274-294). Blackwell Publishing.
- Stakić, M. (2017). Analiza istraživanja rodne osetljivosti udžbenika za srpski jezik. *Nastava i vaspitanje*, 66(3), 483-495. <https://doi.org/10.5937/nasvas1703483S>
- Stanković, S. (2024). *Uticaj interaktivnog pristupa čitanju slikovnica na njihovo razumevanje kod predškolskog deteta (na primerima slikovnica Džulije Donaldson)* (master rad). Fakultet za obrazovanje učitelja i vaspitača Univerziteta u Beogradu.
- Ševa, N., & Radišić, J. (2013). The Development of Emergent Literacy in Serbian Kindergartens: Basic Resources and Related Practices. *Psihološka istraživanja*, 16(2), 159-174. <https://doi.org/10.5937/PsIstra1302159S>
- Tafa, E. (2008). Kindergarten Reading and Writing Curricula in the European Union. *Literacy*, 42(3), 162-170. <https://doi.org/10.1111/j.1741-4369.2008.00492.x>
- Tomasello, M. (2005). *Constructing a Language: A Usage-Based Theory of Language Acquisition*. Cambridge University Press.

- Tunmer, W. E., Pratt, S., & Heriman, M. L. (1984). *Metalinguistic Awareness in Children: Theory, Research and Implications*. Springer-Verlag.
- Tutnjević, S. i Savić, M. (2019). *Usvajanje jezika: uvod u razvoju psiholingvistiku*. Filozofski fakultet Univerziteta Banjoj Luci.
- Vander Woude, J., Van Kleeck, A., & Vander Veen, E. (2009). Book Sharing and the Development of Meaning. In P. M. Rhyner (Ed.), *Emergent Literacy and Language Development: Promoting Learning in Early Childhood* (pp. 36-77). The Guilford Press.
- Vasić, S. (2009). Razvijanje i bogaćenje dečjeg rečnika. U V. Milatović (ur.), *Metodika razvoja govora* (str. 217-223). Učiteljski fakultet Univerziteta u Beogradu.
- Vorkapić, M. (2023). Nastajanje složenica – igroliki pristup tvorbi reči. *Metodička teorija i praksa* 26(2), 23-35. <https://doi.org/10.5937/metpra2300023V>
- Vukomanović Rastegorac, V. (2020). Pogled Vuka Milatovića na metodiku razvoja govora: kontekst, koncept, perspektive. U Z. Cvetanović, V. Janičijević i V. Mičić (Ur.), *Metodika i poetika Vuka Milatovića* (str. 193-203). Učiteljski fakultet Univerziteta u Beogradu
- Vukomanović Rastegorac, V. (2021). *Uvod u metodiku razvoja govora*. Učiteljski fakultet Univerziteta u Beogradu.
- Vukomanović Rastegorac, V. (2023). Individualni neologizmi u pesništvu za decu Dejana Aleksića – jezički aspekti i metodički potencijali. *Novorečje*, 5(9), 126-143.
- Vukomanović Rastegorac, V. (2025). Poezija za decu Dragane Mladenović i njeni metodički potencijali. [U štampi].
- Whitehurst, G. J., & Lonigan, C. J. (1998). Child Development and Emergent Literacy. *Child Development*, 69(3), 848-872. <https://doi.org/10.2307/1132208>
- Zejak, S. (2021). Predškolska ustanova kao značajan faktor u razvoju ekološke svesti dece. *Metodička teorija i praksa*, 24(2), 200-211. <https://doi.org/10.5937/metpra2102200Z>

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L2 Motivation in Context: Rethinking L2 Motivation Models in Professional English Language Learners

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Abstract

Motivation is a key factor in foreign language learning, which initiates and sustains engagement and often determines success. This study explores which theoretical framework better explains L2 motivation among university students majoring in English Language and Literature: the L2 Motivational Self System (L2MSS) or the 2×2 Model of L2 motivation. The L2MSS includes the ideal L2 self, a vision of oneself as a successful language user, and the ought-to L2 self, shaped by perceived obligations. The 2×2 model builds on this by distinguishing between internal and external regulation within both self-guides. The four self-guides in the 2×2 model are as follows: ideal L2 self/own, ideal L2 self/other, ought L2 self/own and ought-to L2 self/other, capturing whether motivation stems from the learner's own values or from perceived expectations. Using a quantitative approach, the research employed a structured questionnaire assessing the dimensions of both models and L2 motivation. Hierarchical regression analysis assessed their predictive power. The results show that the ideal L2 self significantly predicts motivation, confirming its central role. However, the ought-to L2 self and the additional dimensions of the 2×2 model did not offer any additional explanatory value. For students with internalized L2 goals and strong professional identities, the simpler L2MSS may be more applicable. The findings suggest that educators who teach professionally oriented learners should help them connect language learning to personal identity, by supporting the development of their ideal L2 selves and enhancing relevance and motivation.

Keywords: L2 motivation, L2 Motivational Self System, 2×2 Model of L2 motivation, ideal L2 self, ought-to L2 self.

Introduction

Due to the complexity of L2 motivation, no single theory has yet provided a comprehensive explanation of this construct, despite decades of research. Instead, various theoretical frameworks have focused on separate aspects of motivation: from its intensity

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and types to its sources and fluctuations over time (Dörnyei, 1994; Gardner, 1985; Shoaib & Dörnyei, 2005). However, there is a broad consensus among researchers which states that motivation is one of the most significant factors in foreign language learning, as it initiates the learning process and provides the driving force to sustain learning, accounting for both success and failure (Dörnyei, 2005).

Widespread dissatisfaction with Gardner's (Gardner, 1985) notion of *integrativeness* – a central concept in earlier motivational research – has resulted in numerous reinterpretations and reevaluations of this dimension. Researchers have increasingly questioned the idea that learners' motivation primarily stems from their tendency to integrate into the target language community. In response to concerns about the limited generalizability of this concept, several alternative frameworks have been proposed. One of the most influential frameworks is the *L2 Motivational Self System* (L2MSS) (Dörnyei, 2005; 2009), which reconceptualizes identification in foreign language learning as an internal process within the learner's self-concept, rather than a desire to integrate into the target language community. The model's core components – the ideal L2 self, the ought-to L2 self and the L2 learning experience – are considered key sources of L2 motivation in a globalized world, particularly in the context of learning English as a global language. Learners are motivated to learn a foreign language by the desire to reduce the discrepancy between their actual L2 self, on the one hand, and either their ideal visions of themselves as L2 users or the expectations imposed by their environment, on the other hand. In addition, situation-specific motives related to the immediate learning context and experience (e.g. the curriculum, the teacher, the peer group, the experience of success) can inspire them to invest effort into learning English (Dörnyei & Ushioda, 2011, p. 86).

The initial two dimensions are derived from the possible selves theory, whereas the third component was introduced to represent the potential influence of learners' environment, reflecting the new wave in motivational research in the 1990s. Although the original L2MSS includes these three components, the present study focuses on the two-self guide dimensions – the ideal L2 self and the ought-to L2 self, as the aim of the research is to compare the components with the self-guides in the 2x2 model. The L2 learning experience is not a future-self guide and therefore does not have a direct equivalent in the 2x2 model.

While numerous empirical studies (e.g. Ryan 2009; Taguchi et al., 2009) have supported the L2MSS across various educational settings, researchers have continued to modify and refine the model. One such development is the *2x2 model of L2 self-guides*, which reconsiders L2 motivation from the perspective of Higgins's (1987) self-discrepancy theory and regulatory focus theory (Higgins, 1997). The model offers a more detailed perspective by distinguishing between internally and externally regulated forms of both the ideal and ought-to selves. It aims to clarify how various forms of self-guides influence learners' motivation across diverse learning environments.

The present study aims to compare the predictive power of the L2MSS and the 2x2 model of L2 self-guides by examining L2 motivation among Serbian university students majoring in English Language and Literature. By analyzing these two frameworks within a specific academic group, the study aims to identify which model is more effective in reflecting the motivational dynamics of students who have chosen English as their professional path.

Literature review

L2 motivation research

Despite being derived from the mainstream theories of learning motivation, research on L2 motivation has developed into an independent field, confirming that foreign language learning involves unique psychological, social and cultural dimensions. Throughout the history of L2 motivation research, theories have evolved through several phases, shaped by both mainstream psychological perspectives and the unique complexity of the L2 learning process.

According to Dörnyei and Ushioda (Dörnyei & Ushioda, 2011), the history of L2 motivation research can be divided into four periods. The socio-psychological period (1959-1990), shaped by Gardner and his associates in Canada, emphasized the role of learners' attitudes towards a specific language community. At the core of his theory was the concept of integrativeness, which he defined as learners' interest in social interaction with members of the target language community.

The cognitive-situated period (the 1990s) shifted attention to motivation in specific classroom contexts, drawing on cognitive theories from educational psychology and emphasizing a micro-level rather than a broad, generalized macro perspective.

At the turn of the century, L2 motivation research entered the process-oriented period, marked by an emerging interest in the dynamic and temporal nature of L2 motivation. This phase emphasized the evolution of motivation over time and the influence of ongoing learning experiences on its development.

The current socio-dynamic phase adopts a holistic approach, recognizing "the situated complexity of the L2 motivation process and its organic development in dynamic interaction with a multiplicity of internal, social and contextual factors" (Dörnyei & Ushioda, 2011, p. 72). This phase emphasized the person-in-context perspective and shifted the focus on the interaction between individual learner traits and the wider learning environment.

The L2 Motivational Self System

Within the socio-dynamic phase of L2 motivation research, Zoltan Dörnyei (2005; 2009) proposed a reconceptualization of L2 motivation through the lens of self and identity theories. The introduction of the L2MSS was motivated by three key observations. First, acquiring a new language fundamentally differs from learning other academic subjects, as it involves not only mastering new linguistic knowledge but also the development of a new aspect of one's identity. Consequently, L2 motivation research requires a whole-person approach, including cognitive, emotional and personal factors (Dörnyei & Ryan, 2015). Second, while integrativeness is meaningful in multicultural and multilingual contexts (e.g. Canada), it becomes less relevant in settings where learners lack real-life contact with L2 speakers. Third, the global spread of English as a lingua franca has weakened its ties to specific geographic or cultural communities. Consequently, studying L2 motivation

as a concept which stems exclusively from learners' attitudes towards a target language community has become less tenable.

The L2MSS thus reinterprets Gardner's traditional concept of integrativeness. In the globalized context, particularly in relation to English, the process of identification and integration now occurs within the learner's self-concept rather than through integration with the target language community (Dörnyei & Ryan, 2015). Simultaneously, the model builds on Higgins's (Higgins, 1987) self-discrepancy theory, which suggests that individuals are motivated to reduce discrepancies between their actual self and internalized self-guides, the ideal self or the ought self.

The L2MSS consists of three core components: the ideal L2 self, the ought-to L2 self and the L2 learning experience. The ideal L2 self represents desired attributes one aims to possess in relation to English language learning (Dörnyei & Ushioda, 2011, p. 82). A discrepancy between the ideal and actual self can serve as a powerful motivator for language learning. On the contrary, the ought-to L2 self includes the traits which learners believe they should possess in order to meet the expectations of significant others, such as parents, teachers or society. Although it can also motivate learning behaviour, this component is typically associated with externally driven motivation and the desire to avoid negative outcomes. The third component, the L2 learning experience, refers to "executive" motives related to the immediate learning experience.

Numerous studies (Al-Shehri, 2009; Ryan, 2009) have supported the model's validity across diverse educational contexts, examining its relationship with variables such as language anxiety, achievement and willingness to communicate. Research has demonstrated that learners' internal desire to become competent L2 users plays a crucial role in language learning (Dörnyei & Chan, 2013). However, despite two decades of intense interest in L2MSS, recent critiques (Al-Hoorie et al., 2024) have raised concerns about the model's measurement instruments, urging for its revision.

The 2x2 model of L2 self-guides

Building on critiques of the L2MSS (Dörnyei & Chan, 2013; Papi & Teimouri, 2012), particularly its neglect of internal versus external regulatory orientations, Papi and colleagues (Papi et al., 2019) proposed the 2x2 model of L2 self-guides. This model incorporates concepts from both self-discrepancy theory (Higgins, 1987) and regulatory focus theory (Higgins, 1997), introducing a more nuanced categorization of L2 self-guides based on the learner's own perspective versus the expectations of others.

Higgins's (Higgins, 1997; 1998) self-regulatory theory offers a valuable framework for explaining motivational differences among language learners. This framework suggests that differences stem from individuals' sources of self-regulation and that learners with different self-regulatory orientations – promotion or prevention – will show variation in their motivational and behavioural characteristics. The promotion-focus orientation emphasizes advancement and accomplishment, while the prevention-focus orientation is concerned with responsibility and the avoidance of negative consequences (Higgins, 1987; 1997). Thus, these orientations are closely related to the future self-guides proposed by Dörnyei's (Dörnyei, 2005) L2MSS.

Although both self-discrepancy theory and regulatory focus theory address how internal standards influence motivation, they concentrate on different dimensions. Self-discrepancy theory (Higgins, 1987) highlights the tension created by the gaps between the actual self and internal self-guides, that is, the ideal self and the ought self. In contrast, regulatory focus theory examines different strategies individuals use to pursue goals: a promotion focus, which emphasizes achievement, and a prevention focus, concerned with responsibility and the avoidance of negative outcomes. Together, these theories offer complementary insights into language learning motivation. The L2MSS is grounded in self-discrepancy theory, while the 2x2 model extends this foundation by incorporating regulatory focus distinction.

The 2x2 model differentiates types of motivation along two key dimensions: the source of the self-guide (own vs. other) and its regulatory focus (promotion vs. prevention). Specifically, it refines the ideal and ought-to L2 self-constructs by introducing an additional distinction between self-guides that stem from the learner's own perspective and those imposed by external agents. This construct provides a more nuanced understanding of motivation by considering both internal aspirations and externally imposed obligations (Papi et al., 2019).

The four self-guides in the 2x2 model are as follows:

1. Ideal L2 self/own – L2 traits the learner ideally hopes to possess in the future (own standpoint; promotion focus);
2. Ideal L2 self/other – L2 traits the learner's significant others, such as his or her family, ideally hope the learner will develop (other standpoint; promotion focus);
3. Ought L2 self/own – L2 traits the learner believes he or she ought to possess (e.g., obligations, duties, and requirements) to avoid negative consequences (own standpoint; prevention focus);
4. Ought L2 self/other – L2 traits the learner believes others expect them to possess (e.g., obligations, duties, and requirements), with negative outcomes anticipated if these expectations are unmet (other standpoint; prevention focus).

By distinguishing self-driven aspirations from external pressures, the 2x2 model offers a more precise view of motivation, which could be particularly relevant in contexts where personal goals interact with external expectations, such as for English majors. The following section explores how these orientations shape learners' language behaviours.

Research methodology

Research objectives

The study aims to determine which model – the L2MSS or the 2x2 model of L2 motivation – provides a more comprehensive explanation of L2 motivation, operationalized through learners' L2 learning effort, among students of English Language and Literature.

The specific objectives are to:

1. Assess the levels of the motivational components proposed by both models among students of English Language and Literature;

2. Compare the predictive power of the L2MSS and the 2×2 Model of L2 Motivation in explaining L2 motivation;
3. Identify which specific motivational components (from either model) serve as the strongest predictors of L2 motivation.

Participants

The study included 86 students enrolled in the Department of English Language and Literature at the Faculty of Philology and Arts, University of Kragujevac. The majority of the participants were female (62.8%) and most were in their third year of study (46.5%). On average, the participants had approximately 14 years of experience learning English by that time. Only a small proportion (14%) had visited English-speaking countries. The average grade obtained in the previous semester for the *Integrated English Language Skills* course was 7.47 ($SD = 1.23$). More than half of the participants rated their English proficiency at the C1 level (Table 1).

Table 1

Demographic characteristics of participants

Gender	Year of study	Length of English language learning	Visit to an English-speaking country	Grade in Integrated English Language Skills	Self-assessed CEFR level
Male 31 (36%)	Second 31 (36%)	$M = 14.40$	Yes 12 (14%)	$M = 7.47$	C2 – 12 (14%)
Female 54 (62.8%)	Third 40 (46.5%)	$SD = 1.56$	No 74 (86%)	($SD = 1.23$)	C1 – 49 (57)%
Other 1 (1.2%)	Fourth 15 (17.4%)	Min. 10			B2 – 19 (22.1%)
		Max. 20			B1 – 6 (7%)

Instruments

This study employed a questionnaire consisting of three sections: demographic information, the L2MSS (Taguchi et al., 2009) and the 2×2 model of L2 motivation (Papi et al., 2019).

The first section gathered demographic data, including gender, year of study, length of English learning experience, prior visits to an English-speaking country, recent Integrated English Language Skills grades and self-assessed English language proficiency.

The second section measured L2MSS components: the ideal L2 self, ought-to L2 self and L2 motivation, operationalized by the self-reported effort and cognitive investment that learners are willing to invest in language learning.

The third section addressed the 2×2 model of L2 motivation, which integrates promotion and prevention orientations and divides motivation into four categories. These include: ideal L2 self/own (personal aspirations; promotion), ideal L2 self/other (aspirations of significant others; promotion), ought-to L2 self/own (self-imposed duties to avoid

failure; prevention) and ought-to L2 self/other (externally imposed duties/expectations; prevention).

All items were rated on a 5-point Likert scale, ranging from “strongly disagree” to “strongly agree”, allowing the participants to express their level of agreement with each statement.

The internal consistency of the scales was assessed using Cronbach’s alpha. The reliability coefficients were acceptable to high across all subscales: ideal L2 self ($\alpha = .81$), ought- to L2 self ($\alpha = .89$), L2 motivation ($\alpha = .84$), ideal L2 self/own ($\alpha = .78$), ideal L2 self/other ($\alpha = .87$), ought-to self/own ($\alpha = .79$) and ought-to self/other ($\alpha = .85$) (De Vellis, 2003).

Data Collection and Analysis

The data were collected in October 2024 via a paper-based questionnaire administered during regular class sessions. Participation was voluntary and anonymous, with all participants providing informed consent before completing the questionnaire.

The data analysis was performed using SPSS (Version 20.0), involving: reliability analysis (Cronbach’s alpha), used for the assessment of internal consistency, descriptive statistics used for the evaluation of the levels of motivational variables, and hierarchical regression analysis, used for the examination of the predictive power of the two motivational models in explaining L2 motivation.

Results and discussion

Descriptive statistics were conducted to examine responses to the L2MSS and the 2x2 Model of L2 Motivation (Table 2). The findings reveal a predominant orientation towards ideal-self-related motivation, while limited support for ought-to dimensions.

Within the L2MSS, the ideal L2 self had a high mean score ($M = 4.51$) on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), indicating a vivid, positive vision of oneself as a proficient English user. In contrast, ought-to L2 self was rated low ($M = 2.48$), implying that external obligations and expectations are weaker motivators. This confirms the stronger influence of internal aspirations over external pressures.

The 2x2 Model of L2 Motivation revealed a similar pattern. The ideal L2 self/own had the highest mean ($M = 4.52$), reaffirming personal aspirations as primary motivators. The ideal L2 self/other was also positively rated ($M = 3.62$), suggesting that some students are motivated by the ideals of significant others, although to a lesser extent than their own aspirations. The ought-to self/own scored moderately ($M = 3.08$), suggesting that some participants may experience an internalized sense of duty or responsibility. However, ought-to L2 self/other had the lowest mean ($M = 2.27$), confirming that external obligations or pressure are the least influential among all components measured.

The mean score for L2 motivation ($M = 3.42$) indicates that the participants are generally willing to invest both cognitive and behavioural effort in their English language learning.

Table 2

Descriptive statistics for key motivational components

	Items	Min.	Max.	Mean	Std. dev.	Skewness	Kurtosis
Ideal L2 self	6	3.17	5.00	4.51	.49	-.82	-.36
Ought-to L2 self	5	1.00	5.00	2.48	1.09	.42	-.76
L2 motivation	5	1.60	5.00	3.42	.80	-.04	-.53
Ideal L2 self/own	4	3.00	5.00	4.52	.54	-1.09	.46
Ideal L2 self/other	4	1.00	5.00	3.62	1.07	-.56	-.55
Ought-to self/own	4	1.00	4.50	3.08	.93	-.28	-.74
Ought-to self/other	2	1.00	5.00	2.27	1.18	.64	-.71

A hierarchical multiple regression analysis was conducted to determine which model – L2MSS or 2x2 L2 Model of L2 Motivation – predicts learners' L2 motivation more effectively.

Prior to this analysis, all relevant assumptions were tested. Preliminary diagnostics confirmed that the assumptions of linearity, absence of multicollinearity, normality, homoscedasticity and independence of residuals were adequately met, ensuring the appropriateness of the regression analysis.

Table 3

Model summary for hierarchical regression analysis

Model	R	R ²	Adj. R ²	Std. Error	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.297	.088	.066	.77026	.088	4.023	2	83	.021
2	.341	.116	.049	.77728	.028	.626	4	79	.645

In the first step of the hierarchical regression analysis, the core components of the L2 MSS were entered as predictors: ideal L2 self and ought-to L2 self. The model was statistically significant ($F(2, 83) = 4.023, p = .021$), explaining 8.8% of the variance in L2 motivation ($R^2 = .088$). Although modest, the variance explained is meaningful in the context of motivational research where various individual differences and contextual factors affect the dimension.

Of the two predictors, only ideal L2 self emerged as a significant positive predictor ($\beta = .276, p = .010$), while ought-to L2 self did not reach statistical significance ($\beta = -.102$,

$p = .333$). These results support previous research (e.g. Dörnyei, 2009; Taguchi et al., 2009), which emphasizes the stronger predictive power of the ideal L2 self compared to the ought-to L2 self in the domain of L2 motivation. The significant and positive effect of the ideal L2 self suggests that learners who can vividly imagine themselves as successful users of English are more likely to invest effort in achieving that vision. In contrast, the non-significant contribution of the ought-to L2 self implies that external, socially imposed obligations are not strong motivating factors for a learner population with well-internalized L2 goals, as observed in similar university contexts (Papi, 2010).

In the second step, four additional predictors from the 2x2 model were added. The variance explained rose slightly ($R^2 = .116$), but the increase was not statistically significant ($\Delta R^2 = .028$, F change (4, 79) = 0.626, $p = .645$). Furthermore, none of the predictors reached statistical significance in the second model (all $p > .05$).

Notably, ideal L2 self, which had been a significant predictor in the first step, lost its predictive power ($\beta = .144$, $p = .464$) when the additional variables were introduced. The diminished significance may stem from the conceptual overlap between the ideal L2 self in the L2MSS and the “own” orientation dimensions in the 2x2 model – especially ideal L2self/own. These variables may reflect similar elements of learners’ internal motivation, resulting in overlapping variance when both are included in the regression model. In other words, the ideal L2 self in the L2MSS is a more holistic dimension that incorporates both personal (“own”) and social (“other”) aspirations, while the 2x2 model divides them into two separate subcomponents. When these overlapping predictors are included simultaneously into the regression model, the shared variance reduces the separate contribution of each, resulting in the loss of statistical significance. This suggests that, for this specific group of learners, the construct of the ideal L2 self already integrates both personal aspirations and those influenced by social expectations, thus diminishing the relevance of further subdivisions into “own” and “other” categories.

These findings provide empirical support for the central role of the ideal L2 self in predicting learners’ motivation to invest effort in learning English. One possible explanation lies in the profile of the participants – students of English language and literature – who have deliberately chosen English as their professional field. Therefore, they are likely to possess strong internal motivation and well-established L2 identities. For this group, English is more than an academic subject – it is integrated into their personal goals, values and identity development. Their motivation appears to be primarily rooted in personal visions of future success, rather than external obligations and expectations. This reflects the idea that these learners are at a stage where English is deeply embedded in their sense of self, and their ideal L2 self aligns closely with their academic and career goals.

The diminished role of the ought-to L2 self and the 2x2 Model underscores a decreased role of external motivational factors among learners who have already internalized their L2 goals. For these students, who are training to become professionals, motivation may become more stable and less affected by short-term demands or external obligations. This internalization may account for the limited role of ought-to factors and the reduced relevance of ideal-other motivators in predicting their L2 motivation.

The differentiation proposed by the 2×2 Model may be more applicable in the initial phases of language learning or in educational contexts where English is studied as a requirement rather than a chosen professional path. For university students, who strongly identify with the target language both personally and professionally, motivation appears to be predominantly shaped by identity-based constructs and personal future self-guides. This diminishes the influence of ought-based motivations, such as societal norms, a sense of obligation or parental expectations.

These findings may not generalize to learners in other contexts. For example, students studying English as a general requirement in a non-language field might show a different motivational profile, with external motivators – such as grades or societal expectations – playing a more prominent role. In such cases, greater emphasis might be placed on the ought-to L2 self or “other”-oriented motivational dimensions.

Another possible explanation may lie in the nature of the educational and cultural context. In certain collectivist cultures – such as those in Thailand, China or Iran (Kim, 2009; Lanvers, 2016; Taguchi et al., 2009; Topalov & Radić Bojanić, 2021) – learners tend to have stronger ought-to L2 self, as external expectations often play a significant role in shaping academic choices and motivational orientations. In contrast, when it comes to other cultural contexts, these external pressures tend to be less emphasized once learners reach the university level, especially in fields that are self-chosen. Within the Serbian higher education context, the choice to major in English language and literature likely reflects a high degree of autonomy and personal interest. This may explain why external motivators have a more reduced impact in this group, suggesting that such pressures may be more influential in earlier stages of education journey or in other fields of study.

Ultimately, these findings confirm the context-sensitive nature of L2 motivation. Learners’ stage of development, academic focus and long-term goals influence the relative importance of different motivational components. For learners who have chosen English as their profession, the ideal L2 self functions as a strong and cohesive source of motivation that goes beyond external pressures.

Table 4
Regression coefficients for predicting L2 motivation

Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		<i>B</i>	Std. Error	<i>Beta</i>	
1	(Constant)	1.585	.802		.051
	Ideal L2 self	.447	.170	.276	.010
	Ought-to L2 self	-.075	.077	-.102	.333
2	(Constant)	1.900	.877		.033
	Ideal L2 self	.233	.317	.144	.464
	Ought-to L2 self	.022	.154	.030	.887
	Ideal L2 self/own	.124	.286	.084	.666
	Ideal L2 self/other	.114	.102	.153	.267
	Ought L2 self/own	-.090	.121	-.104	.462
	Ought L2 self/other	-.125	.159	-.186	.433

Conclusion

The study aimed to explore the predictive power of two theoretical models of L2 motivation – the L2MSS and the 2×2 Model – in the context of university students majoring in English Language and Literature.

The findings highlight that students who have chosen English as their professional path are primarily motivated by their ideal L2 self, as conceptualized in the L2MSS framework. These students appear to be at an advanced stage of their motivational development, with English language deeply integrated into their academic and professional identities. Their internal, identity-driven motivation is the primary force guiding their learning efforts. Consequently, for this group of learners, the “own” and “other” orientations are so intertwined that separating them into two subcomponents, as proposed by the 2×2 Model, may be irrelevant in this context. In other words, for university students deeply committed to English as a part of their future careers, the ideal L2 self may already integrate both personal and socially influenced goals.

In contrast, the more detailed structure of the 2×2 Model, despite its appealingness, did not enhance predictive power in this context. This suggests that for learners who have already internalized their L2 goals, as in the present study, the simpler L2MSS framework may be more appropriate and sufficient. The limited predictive power of externally oriented motivational dimensions in the 2×2 Model further reflects the reduced relevance of such constructs in the context where learners exhibit a strong sense of autonomy and professional identification with the target language. Although the 2×2 Model aims to distinguish between internally and externally regulated dimensions of both the ideal and ought-to self, its added complexity proved unnecessary for this specific group of learners.

Overall, these findings should be read as context-specific and not as the theoretical dismissal of the 2×2 Model. Namely, the potential limitation of externally oriented dimensions in settings where learners exhibit high levels of autonomy and professional orientation towards the L2, does not imply that promotion and prevention dimensions are theoretically irrelevant. Rather, the findings suggest that the finer distinction proposed by the 2×2 Model did not offer additional explanatory value in the context of the study, probably due to the overlap between the components and the profile of the sample. However, it may be meaningful for learners who have not yet developed a solid L2 identity, or those studying English due to curricular obligations rather than personal interest.

Therefore, future research could explore whether similar motivational patterns are observed among students in other academic settings, for example, those studying English as a mandatory subject or in disciplines unrelated to language. Such studies could clarify how learners' academic focus shapes the emergence of different motivational components and whether the 2×2 Model could be more applicable in less specialized or earlier stages of language learning.

Finally, the findings carry important pedagogical implications for language instructors who teach professionally oriented English learners. Educators should aim to support the development of students' ideal L2 selves by encouraging them to form meaningful connections between English language learning and their personal identity, as well as to envision themselves as successful language users in their future careers. By relating

instruction to students' internal identity-based motivations, educators can create a more engaging learning environment and deepen the personal relevance of language learning. Dörnyei (2009, p. 32) proposed six strategies for fostering and maintaining learners' ideal L2 self: constructing a future self-image, which implies encouraging cross-cultural communication and encounters with native speakers and their culture, as well as presenting powerful role models; strengthening the vision, which refers to rendering mental images elaborate and vivid; making the ideal L2 self plausible, which is achievable by encouraging students to reflect on their possible selves and relate them to realistic expectations; activating the ideal L2 self, which entails keeping the vision alive through engaging in cultural activities or inviting role models to the classroom; developing an action plan, which refers to goal-setting, the modification of objectives and plans, as well as the examination of hopes, expectations and fears; and encouraging learners to consider the consequences of L2 acquisition failure, primarily concerning the limitations imposed by inability to communicate in the language.

References

- Al-Hoorie, A.H., Hiver, P., & In'nami, Y. (2024). The validation crisis in the L2 motivational self system tradition. *Studies in Second Language Acquisition*, 46 (2), 307-329. <https://doi.org/10.1017/S0272263123000487>
- Al-Shehri, A.S. (2009). Motivation and vision: The relation between the ideal L2 self, imagination and visual style. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp.164-171). Multilingual Matters.
- De Vellis, R. F. (2003). *Scale Development: Theory and Applications*. Thousand Oaks. Sage Publications.
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *Modern Language Journal*, 78(3), 273-284.
- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Lawrence Erlbaum.
- Dörnyei, Z. (2009). The L2 Motivational Self System. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 1-42). Multilingual Matters.
- Dörnyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation*. Pearson Education.
- Dörnyei, Z., & Chan, L. (2013). Motivation and vision: An analysis of future L2 self images, sensory styles, and imagery capacity across two target languages. *Language Learning*, 63(3), 437-462.
- Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.
- Gardner, R.C. (1985). *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. Edward Arnold.
- Higgins, E.T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review* 94(3), 319-340. <https://doi.org/10.1037/0033-295X.94.3.319>
- Higgins, E.T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280-1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (1-46). Academic Press.

- Kim, T. Y. (2009). The Sociocultural Interface between ideal self and ought-to self: A case study of two Korean students' ESL motivation. In Z. Dörnyei, & E. Ushioda (Eds.), *Motivation, Language Identity and the L2 Self* (pp. 274-294). Multilingual Matters.
- Lanvers, U. (2016). Lots of selves, some rebellious: developing the self-discrepancy model for language learners. *System*, 60, 79–92.
- Papi, M. (2010). The L2 motivational self-system, L2 anxiety, and motivated behavior: A structural equation modeling approach. *System*, 38 (3), 467-479. <https://doi.org/10.1016/j.system.2010.06.011>
- Papi, M., Bondarenko, A., Mansouri, S. Feng, L., & Jiang, C. (2019). Rethinking L2 motivation research: The 2x2 Model of L2 self-guides. *Studies in Second Language Acquisition*, 41(2), 337-361. <https://doi.org/10.1017/S0272263118000153>
- Papi, M., & Teimouri, Y. (2012). Dynamics of selves and motivation: A cross-sectional study in the EFL context of Iran. *International Journal of Applied Linguistics*, 22(3), 287-309.
- Ryan, S. (2009). Self and identity in L2 motivation in Japan: The ideal L2 self and Japanese learners of English. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 120-143). Clevedon: Multilingual Matters.
- Shoaib, A. & Dörnyei, Z. (2005). Affect in lifelong learning: Exploring L2 motivation as a dynamic process. In Nunan, D. (Ed.), *Learners' Stories: Difference and Diversity in Language Learning* (pp. 22-41). Cambridge University Press.
- Taguchi, T., Magid, M., & Papi, M. (2009). The L2 motivational self system amongst Chinese, Japanese and Iranian learners of English: A comparative study. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 66-97). Multilingual Matters.
- Topalov, J. & Radić Bojanić, B. (2021). Thai and Serbian student L2 motivational selves: a contrastive study. *Issues in Ethnology and Anthropology*, 16(4), 1229–1255. <https://doi.org/10.21301/eap.v16i4.11>

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Data Privacy and AI Use in Primary Education in Serbia: Student Awareness and Adult Support

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Abstract

Student data privacy, especially among younger users, raises critical concerns since the growing use of AI tools in education. This study examines how primary school students in Serbia understand data protection in the context of AI-enhanced educational platforms. It specifically investigates the relationship between student awareness of privacy risks and adult mediation—by teachers and parents—as well as whether increased AI use corresponds with reduced adult supervision. A structured questionnaire was administered to 240 students in grades 5 through 8. Composite variables were generated from Likert-scale items and results were analyzed using nonparametric methods, including Spearman's rank correlation and the Wilcoxon Signed-Rank test. The findings indicate that adult communication has a limited effect on students' data privacy understanding, although parental support appears to be more influential than teacher involvement. These results point to the urgent need for age-appropriate digital literacy initiatives, institutional accountability and targeted support for teachers and parents, since students often lack a concrete understanding of abstract privacy concepts and require structured, developmentally adapted guidance to safely engage with AI technologies.

Keywords: *AI in education; student data privacy; primary school students; adult mediation; digital literacy.*

Introduction

The presence of artificial intelligence (AI) in education is changing not only how students learn but also how they are monitored and evaluated. Tools such as adaptive

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learning platforms and automated feedback systems now routinely collect and analyze detailed information about students' behavior and performance. This shift has raised serious concerns about the scope of data collection, the lack of transparency in how information is used, as well as of the absence of meaningful consent (Lupton & Williamson, 2017; Williamson, 2017). In many cases, students remain unaware that their digital activities — clicks, answers, time spent on tasks — are being recorded and shared, sometimes with third-party providers operating beyond the school's oversight (Williamson, 2019).

Regulatory bodies and international organizations have begun to issue specific guidelines aimed at protecting human dignity and children's rights in the context of AI development. China's "Ethical Rules for New-generation Artificial Intelligence" (2021), for example, emphasize that "AI development must promote human well-being" (Huang, 2023, p. 2578). Similarly, UNESCO's *Recommendation on the Ethics of Artificial Intelligence* (2022) calls for the protection of human rights, freedom, dignity and autonomy. Both documents stress that personal data should never be collected without informed consent and they advocate for clear rules about how children's data are gathered, stored and used — especially in school settings.

As schools begin to use more algorithm-based technologies, students are often represented by data profiles that shape how they are taught and assessed (Williamson, 2019). These systems are rarely transparent and their influence on learning raises important questions about who controls student data and how decisions are made. Scholars have responded by arguing that digital literacy must go beyond basic computer skills. It should also help students understand what personal data are being collected, how they are used and what this means for their learning and privacy (Hillman et al., 2024; Yeşilyurt & Vezne, 2023).

The problem is especially visible in primary and secondary education, where students often lack the cognitive and linguistic tools to interpret complex ideas about digital privacy. Empirical studies show that children struggle to grasp terms such as "data sharing", "personal information" or "tracking" unless explained in clear, age-appropriate ways. Even though children's use of digital platforms is rising, as shown by algorithms, they are rarely taught what these systems do, how they might be biased, or what rights they have when using them. Institutional safeguards are uneven: research highlights a lack of teacher training in AI ethics and data protection (CoSN, 2025; Kelly et al., 2023), while parental mediation tends to be inconsistent and often uninformed (Livingstone & Blum-Ross, 2020).

This study focuses on primary education in Serbia, where research on AI, data privacy and student agency remains limited. It investigates how children perceive privacy risks, how adult mediation (from teachers and parents) affects that understanding and whether frequent AI use reduces supervision. It also offers empirical evidence to international debates on children's digital rights as well as to the role of schools in creating safe and supportive AI-mediated learning environments.

Literature review

International research has constantly pointed to privacy infringement, limited autonomy and the lack of algorithmic systems as key ethical concerns in using AI in education

(Guo, 2021; Zhao et al., 2021). These systems often collect data covertly and create asymmetrical power relations between users and technology providers. In response, scholars have proposed student-centered ethical frameworks (Hao et al., 2019; Liu et al., 2021), more flexible and responsive forms of regulation (Xue & Zhao, 2019) and stronger rules for data management in schools (Jia & Jiang, 2017). These contributions share a common focus: ensuring that AI systems used in education operate transparently and are accountable.

New developments in data technologies have made it even harder to separate helpful educational tools from forms of digital monitoring. “Some AI systems can now make assumptions about a student’s behavior, emotions, or thinking patterns based on their online activity, making it harder to tell where support ends and surveillance begins” (Huang, 2023, p. 2582). Regulatory responses such as the General Data Protection Regulation (GDPR) and the so-called “right to be forgotten” (Hoofnagle et al., 2019; Shi & Zhou, 2022) aim to give people more control over how their personal data are used. Other strategies, such as privacy built into the design of digital tools (Zhao et al., 2016), try to ensure that data protection is considered from the beginning. Institutional proposals such as Wang’s (2016) model for school-based data governance stress the need to align technical solutions with legal and ethical responsibilities.

Empirical studies show that many young children are still unable to understand digital privacy. Wang and others (Wang et al., 2019) found that children aged 6 to 10 could recognize basic risks such as oversharing, but had difficulty comprehending more abstract issues, such as how platforms track behavior or suggest content. Similarly, Andries and Robertson (Andries & Robertson, 2023) demonstrated that primary students in Scotland did not understand how AI works, indicating a need for introducing age-appropriate lessons about digital technologies early in education.

Classic theories of child development can explain children’s difficulty in a better way with digital privacy and AI-related concepts. According to Piaget, most children in primary school are in the concrete operational stage (typically ages 7–11), during which they can reason logically about concrete events, but often struggle with abstract ideas. While they may recognize obvious risks like sharing personal details online, they find it more difficult to comprehend less tangible dangers, such as being tracked by apps or targeted by online content.

Vygotsky’s theory of the zone of proximal development (ZPD) helps explain how children can learn abstract ideas when guided by adults or peers. He emphasized that learning is most effective when children are guided by more knowledgeable others — teachers, parents, or peers — who can scaffold abstract concepts through collaborative interaction, questions and reflection. In the context of AI and digital privacy, this implies that children are unlikely to internalize ethical principles or identify surveillance threats unless these are made visible through clear guidance and adapted to children’s level of understanding. Piaget and Vygotsky remind us that children need structured support and relatable examples to make sense of digital tools and the risks they carry.

Gao and others (Gao et al., 2025) worked with teachers to co-design micro-lessons for K–8 students. They showed that even short, well-integrated activities can enhance

children's capacity to identify and respond to privacy threats. Vartiainen and others (Vartiainen et al., 2025) reached similar conclusions through classroom interventions using custom-built apps, which led to measurable improvements in data agency — students' ability to understand data critically. Their study found that students became more aware of how social media algorithms affect what they see online and how this shapes their behavior.

Yim and Su (Yim & Su, 2025) argue that most existing AI literacy programs overemphasize technical skills while neglecting critical engagement with issues such as consent, surveillance and algorithmic bias. They propose a multidimensional model that integrates legal, ethical and technical competencies. In their systematic review of digital citizenship education for children aged 0 to 8, Li and others (Li et al., 2025) found that such instruction is rare but effective when integrated into core subjects, using gamified and collaborative learning strategies. Their review emphasizes the importance of early, structured interventions that do not treat children as passive recipients of protection, but as emerging digital citizens capable of understanding privacy, consent and ethical digital participation.

Many educational efforts fall short not because of poor curriculum design, but because teachers are not fully prepared to implement them. Using the validated Dig-CompEdu framework, Muammar and others (Muammar et al., 2023) assessed educators' digital competence across several key areas. Their findings show that even higher education faculty demonstrate inconsistent proficiency in areas like data protection and pedagogical integration of digital ethics, stressing the urgent need for teacher training at all educational levels. Without adequate preparation, teachers may avoid digital tools altogether or rely on restrictive measures which limit student engagement.

Research shows that digital ethics should not be introduced through isolated facts or abstract rules. Instead, they need to be integrated into everyday teaching through discussions suitable for children of a particular age and meaningful interaction. As Nguyen (Nguyen, 2023) emphasizes, children's critical engagement with data privacy emerges most effectively through discussion, peer interaction and real-life simulations, rather than isolated lessons. Solberg (Solberg, 2023), building on constructivist ideas, calls for a digital literacy approach, where students and teachers reflect together on real-life digital situations — such as using apps, sharing photos or talking to chat-bots. Such approaches avoid one-way teaching and treat children as capable of making sense of ethical issues. In this way, children build their own understanding through real-world digital experience.

Findings from the KOALA Project (Wang et al., 2019) show that children, despite often being able to spot obvious risks such as sharing their real names, tend to struggle with more hidden or abstract threats, such as being tracked online or shown content based on their behavior. This is why it is important to integrate privacy education in schools that goes beyond simply listing rules. Instead, students need help understanding how digital tools work and how they affect their choices and experiences. Shouli and others (Shouli et al., 2025) make a similar point, arguing that children should be treated as active participants in digital life, not just passive users. Their model encourages schools to include lessons on data rights, how algorithms make decisions, and what it means to give informed consent, as a part of regular classroom teaching.

In Serbia, there is still very little research or policy frameworks regarding how children interact with AI and how their data is used in educational settings. Existing legislation — such as the *Law on Personal Data Protection* (2019), the *Law on Social Protection* (2011) and the *Law on Juvenile Offenders and Criminal Protection of Juveniles* (2005) — does not address the specific risks posed by AI systems in schools. The forthcoming *Draft Law on Children's Rights* similarly lacks provisions concerning digital rights, data ethics or algorithmic educational influence.

Strategic documents like the *Artificial Intelligence Development Strategy of the Republic of Serbia (2020–2025)* and the *Ethical Guidelines for the Development, Implementation and Use of Reliable and Responsible AI* (2022) acknowledge general risks, such as data misuse, but do not include child-specific protections. The establishment of the Research and Development Institute for AI in Serbia is a positive step, yet it has not addressed the ethical concerns related to the use of AI in classrooms or its impact on children (Danaj et al., 2024).

Ignjatović (Ignjatović, 2024) notes that while Serbia's data protection law is formally harmonized with the GDPR, its application within schools is inconsistent and largely unregulated, particularly when AI tools are used for purposes like biometric recognition or behavioral monitoring. Ethical guidelines remain non-binding and contain no specific provisions for children's rights. Furthermore, no regulatory body has been designated to oversee AI applications in educational settings, leaving schools without clear oversight or accountability. This situation increases the risk that children's data will be misused or that they will be exposed to digital surveillance without knowing it. Danaj and others (Danaj et al., 2024) further warn that the absence of empirical research on this issue prevents the development of practical, context-specific responses. Without such data, it is difficult for educators and policymakers to design meaningful safeguards.

Parental mediation, although essential in shaping children's digital behavior, also faces clear structural limitations. Recent findings by Matović and Žunić-Pavlović (Matović i Žunić-Pavlović, 2020) indicate that many parents tend to rely on restrictive methods — such as limiting screen time or requiring access to their children's passwords — rather than fostering open dialogue or long-term digital literacy. Although these strategies may reflect a desire to protect, they are reactive rather than proactive and fall short in promoting long-term digital resilience. In a media interview, Kuzmanović notes that children's digital rights — such as privacy, participation and access to age-appropriate content — must be fully recognized in digital environments, not only regulated through restrictions or bans. She argues that institutional responsibility, rather than excessive parental control, should guide the design of safe digital spaces (Andrić, 2025).

Nešić (Nešić, 2023), in her policy analysis, notes that while parental dialogue remains an important mechanism, many children avoid disclosing risky or sensitive online experiences. She argues that while open communication remains vital, it should be supported by practical strategies such as browsing history checks, device-based filters and parental control tools. However, implementing such measures effectively requires higher levels of digital literacy among parents, as well as institutional support. While restrictive parental mediation remains dominant, it may infringe on children's digital rights. Kuzmanović warned that even well-intentioned actions, such as posting children's photos online ("sharenting"), may violate children's privacy, advocating instead for comprehensive digital

literacy for both children and adults (Andrić, 2025). In addition, institutional partnerships with parents and schools, as proposed in Li and others (Li et al., 2025) and Gao and others (Gao et al., 2025), could offer a non-restrictive path forward — one that promotes shared responsibility instead of placing the burden solely on parents.

This study responds to the absence of empirical evidence in Serbia by examining how primary school students understand data privacy and how the support from adults influences their interaction with AI-enhanced educational tools.

Research Methodology

In order to address the identified research gap, this study employed a quantitative, cross-sectional research design to investigate how primary school students in Serbia perceive and manage data privacy in the context of AI-enhanced educational technologies. Specifically, it explores the relationships between students' familiarity with AI systems, their awareness of data protection practices and the mediating role of adult support — particularly from teachers and parents. The following research questions guided the study:

1. To what extent are primary school students aware of data privacy and protection in the context of using AI tools and applications?
2. How does communication with teachers and parents influence students' understanding of data privacy in AI environments?
3. Is there a difference in the level of support and supervision provided by parents compared to teachers regarding students' use of AI applications?
4. Does the frequency of AI application use relate to the level of parental supervision at home?

Sample

The study was conducted with a sample of 240 primary school students from grades 5 through 8 in Serbia. The grade-level distribution was nearly even: 25.0% were in 5th grade, 25.0% in 6th grade, 25.4% in 7th grade and 24.6% in 8th grade. Regarding gender, 53.3% of participants identified as male and 46.7% as female. Students were recruited from both urban and semi-urban schools using convenience sampling.

Data Collection

The survey link was distributed through professional teacher networks and social-media groups. Only teachers who voluntarily expressed interest conducted the activity with their own classes. According to information provided by these teachers, parents were verbally informed during parent-teacher meetings that students would engage in a trial of the educational chatbot followed by a voluntary, anonymous survey, and were given the opportunity to refuse participation; no objections were reported. All questionnaires were completed in school settings under teacher supervision.

Ethical statement

Participation was entirely voluntary and the survey content was neutral, as well as classified as minimal risk. No personal data (such as names, school identifiers, or IP addresses) were collected and the researchers have no means of subsequent participant identification. All participants completed the questionnaire in school settings under teacher supervision. According to EU GDPR Recital 26 and the Serbian Law on Personal Data Protection, fully anonymous data are not considered personal data; therefore, formal parental consent and institutional ethics approval were not required. The research was conducted in accordance with the principles of the Declaration of Helsinki and relevant national regulations on data protection and educational research.

Hypotheses

The following hypotheses were formulated:

H1. Students who use AI applications more frequently are less likely to be supervised by parents at home.

H2. Communication with adults improves students' understanding of data privacy. Students who communicate with teachers about AI and digital safety will demonstrate greater awareness of privacy issues (H2.1). Students who discuss digital privacy with their parents will show higher levels of privacy awareness (H2.2). Students who receive guidance from both parents and teachers will exhibit the highest levels of data privacy awareness (H2.3).

H3. Institutional support is less developed than familial support. Students are more likely to receive parental permission than teacher permission to use AI tools (H3.1). Students use AI applications more frequently under parental supervision than under teacher supervision (H3.2). Students perceive parents as being more informed than teachers about the safety of AI tools (H3.3).

Research Instrument

The primary instrument for data collection was a self-report questionnaire, originally constructed for the purpose of this study. It was not adapted from any existing validated scale, but developed based on a review of relevant literature and expert consultations in the fields of educational psychology and information technology. The questionnaire consisted of 22 closed-ended items measured on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) and was grouped into five thematic sections: Familiarity and Use of AI Applications (items 1 – 2), Awareness of Data Privacy (items 3 – 10), Experience with Data Sharing and Supervision (items 11 – 13), Teacher and Parental Engagement (items 12 – 19) and Motivation and Educational Needs (items 20 – 22).

Prior to the main data collection, a pilot test was conducted with a sample of 38 primary school students (grades 5 – 8) from an urban school. The aim of the pilot was to assess item clarity, questionnaire length and technical feasibility. Based on pilot test

feedback, minor linguistic adjustments were made to items 4, 13 and 20 to improve comprehension and reduce ambiguity.

For the purpose of hypothesis testing and construct validation, five composite (latent) variables were developed by aggregating thematically related items. These included: (1) Level of Independence in AI Use, derived from items 2 and 17 (reverse-coded); (2) Privacy Awareness Index, based on items 3, 4 and 7; (3) Communication with Adults, composed of items 15 and 19; (4) Teacher Support Index, formed from items 12, 13 and 14 and (5) Parental Support Index, based on items 16, 17 and 18.

Each composite variable was computed as the mean score of its constituent items. Constructs were used to test the relationships among variables and evaluate the proposed hypotheses. These groupings were theoretically informed by existing models of digital literacy and privacy mediation in children (Stoilova et al., 2019) and reflect conceptual coherence within the domains assessed.

The validity of the developed instrument was confirmed on three key grounds: (1) theoretical grounding of the constructs, based on relevant models of digital literacy and privacy mediation in children; (2) satisfactory internal consistency, confirmed by reliability coefficients ($\alpha > .70$) for all indices and (3) empirical confirmation through intercorrelations of composite variables in accordance with the stated hypotheses.

To assess the internal consistency reliability of these constructs, Cronbach's alpha coefficients were calculated using data from the full sample ($N = 240$). The results confirmed satisfactory reliability across all five indices: the *Level of Independence in AI Use* yielded an alpha of .72; the *Privacy Awareness Index* showed an alpha of .81; *Communication with Adults* reached .76; *Teacher Support Index* recorded .79 and *Parental Support Index* demonstrated the highest reliability with an alpha of .83. All coefficients exceeded the conventional threshold of .70, indicating acceptable internal consistency for each construct. It is acknowledged that reliability estimates for two-item scales such as "Communication with Adults" and "Level of Independence in AI Use" should be interpreted with caution, as Cronbach's alpha is less stable for such constructs; nonetheless, both indices exceeded .70 and reflected conceptually coherent dimensions (Eisinga et al., 2013).

These composite variables were subsequently used to examine the relationships among key dimensions of the study, as well as to evaluate the proposed hypotheses. Preliminary evidence of construct validity was obtained through correlation analysis among the composite variables, which revealed statistically significant relationships in expected directions.

The construct validity of the composite variables was supported by both theoretical justification and empirical evidence derived from intercorrelations. The index of autonomy in using AI applications was significantly negatively associated with parental monitoring ($\rho = -.189, p < .01$), while the index of parental support also showed a significant negative correlation with students' awareness of privacy ($\rho = -.163, p < .05$). In contrast, the index measuring communication with adults did not exhibit a statistically significant relationship with students' understanding of privacy ($\rho = .052, n. s.$), suggesting thematic differentiation between the constructs. Furthermore, the Wilcoxon test confirmed statistically significant differences in students' perception of parental versus teacher support ($Z = -3.397, p < .01$), thereby strengthening the internal validity of the defined indices.

Although the instrument was not adapted from pre-existing scales, its coherent thematic structure, clearly defined indicators and consistent empirical patterns provide strong support for its adequacy in assessing students' attitudes and experiences regarding the use of AI tools, awareness of data privacy, as well as the role of adult support.

Data Analysis

All survey responses were numerically coded (1 – 5) and aggregated to produce composite scores for each latent variable. The distribution of variables was tested for normality using the Kolmogorov–Smirnov and Shapiro–Wilk tests. As none of the variables followed a normal distribution, nonparametric statistical methods were employed, including Spearman's rank correlation coefficient (to assess relationships among variables) and the Wilcoxon Signed-Rank test (in order to compare paired responses, particularly between teacher indicators and parental support indicators).

Results

Spearman's rho correlation (Table 1) shows a statistically significant negative correlation between the frequency of AI application use and parental supervision at home ($\rho = -.189, p < .01$), confirming the hypothesis (H1) that students who use AI applications more frequently are less supervised by their parents. In addition, parental supervision shows a negative correlation with the level of privacy awareness ($\rho = -.163, p < .05$), indicating that students under greater parental supervision have a lower level of understanding regarding privacy in AI tools. Students under strict parental control are not likely to have the opportunity to independently explore AI tools and gain experience in understanding privacy. On the other hand, the frequency of AI use did not have a significant correlation with the level of privacy awareness ($\rho = .106$), nor with the level of communication with adults ($\rho = .013$), suggesting that the autonomy in the AI environment is not directly connected with understanding privacy or conversations with adults. The conclusion that higher frequency of AI application use is significantly associated with lower parental supervision supports the hypothesis as correct. Therefore, hypothesis H1 is fully confirmed.

Table 1

Correlation between frequency of AI use, parental supervision, privacy awareness and communication with adults (N = 240)

Variable	Frequency of AI Use	Parental Supervision	Level of Privacy Awareness	Level of Communication with Adults
Frequency of AI Use	1	-.189**	.106	.013
Parental Supervision		1	-.163*	.052
Level of Privacy Awareness			1	.052
Level of Communication with Adults				1

Note. **Correlation is significant at the .01 level (2-tailed). *Correlation is significant at the .05 level (2-tailed).

The influence of students' communication with adults on their understanding of privacy in AI tools (H2) was evaluated using Spearman's rank correlation. As shown in Table 2, the correlation between communication with teachers and privacy awareness was weak and statistically insignificant ($\rho = .096$, $p = n. s.$). Communication with parents showed an even weaker, slightly negative relationship ($\rho = -.010$, $p = n. s.$). In contrast, overall communication with adults was strongly correlated with communication with teachers ($\rho = .739$, $p < .01$) and parents ($\rho = .735$, $p < .01$), indicating that students who communicate with one adult source often communicate with the other adult source as well. However, this combined communication did not translate into a significant improvement in privacy awareness, suggesting that such interactions, even when frequent, may not address data protection topics in meaningful or structured ways.

For H2.1, a weak and statistically non-significant correlation was found between communication with teachers and privacy awareness ($\rho = .096$, $p = n. s.$). This suggests that teacher–student conversations have little impact on students' understanding of digital privacy. A plausible explanation is that privacy-related topics are not sufficiently emphasized in the school curriculum, or that teachers may lack the training to effectively address these issues.

For H2.2, the correlation between communication with parents and privacy awareness was extremely weak and slightly negative ($\rho = -.010$, $p = n. s.$), indicating no meaningful association. This implies that students either do not receive relevant information from their parents or do not perceive such conversations as applicable to their AI-related activities. A likely explanation is that many parents are not adequately informed about AI privacy concerns, thus failing to communicate accurate or comprehensive information.

H2.3 explored whether overall communication with adults (combined parent and teacher interaction) would be a stronger predictor of privacy understanding. Although strong correlations were observed between general communication with adults and the two specific sources (teachers: $\rho = .739$, parents: $\rho = .735$, $p < .01$), the direct correlation between overall communication and privacy awareness remained weak and non-significant ($\rho = .052$, $p = n. s.$). This suggests that while students may engage in conversations with both parents and teachers, these interactions likely focus on general aspects of technology use rather than data protection or privacy.

The results indicate that communication with teachers and parents does not significantly influence students' awareness of data privacy. While a strong and significant correlation exists between teacher and parent communication ($\rho = .739$ and $\rho = .735$, $p < .01$), these interactions do not translate into higher levels of student privacy understanding.

H2.1 and H2.2 are not supported, as neither teacher nor parent conversations show a statistically significant effect on privacy awareness. H2.3 is only partially supported: although combined communication with adults correlates strongly with its individual components, it does not significantly predict students' privacy understanding. These findings suggest that students may acquire most of their knowledge about data protection through personal experience rather than through conversations with adults. Consequently, the overall hypothesis H2 is not confirmed. This points to the need for more explicit and structured education regarding data privacy, both in schools and at home.

Table 2

Association between level of privacy awareness, communication with teachers, parents and the level of communication with adults (N=240)

Variable	Level of privacy awareness	Communication with teachers	Communication with parents	Level of communication with adults
Level of privacy awareness	1.000	.096	-.010	.052
Communication with teachers		1.000	.106	.739**
Communication with parents			1.000	.735**
Level of communication with adults				1.000

Note. **Correlation is significant at the .01 level (2-tailed).

The Wilcoxon Signed Ranks Test results (Table 3) support Hypothesis H3, showing that students perceive parental support for AI tool use as significantly more developed than teacher support. H3.1 is supported: Students report that parents give permission to use AI tools more frequently than teachers do ($Z = -2.579, p < .05$). H3.2 is not supported: No significant difference was found in AI supervision levels between parents and teachers ($Z = -1.072, p = .284$), indicating comparable supervision at home and school. H3.3 is supported: Students perceive parents as more knowledgeable about data safety than teachers ($Z = -1.901, p < .05$). A strong and statistically significant difference in overall support was found in favor of parents ($Z = -3.397, p < .01$). These findings confirm that parental support is generally more developed than school support in guiding children's use of AI applications, thereby fully supporting hypothesis H3. The results indicate that parents play a key role in supporting students in the use of AI tools, while teachers have limited influence, likely due to insufficient adaptation of the curriculum and approach to this topic.

Table 3

Test Statistics of the Wilcoxon Signed Ranks Test for teacher and parental support in the use of AI tools and applications (N = 240)

Teacher and parental support	Permission from teachers at school – parents at home to use AI tools and applications	Use of AI tools only under teacher supervision at school – parental supervision at home	Teachers – parents are informed about data safety in AI tools and applications	Level of teacher – level of parental support
Z	-2.579	-1.072	-1.901	-3.397
Asymp. Sig. (2-tailed)	.010	.284	.039	.001

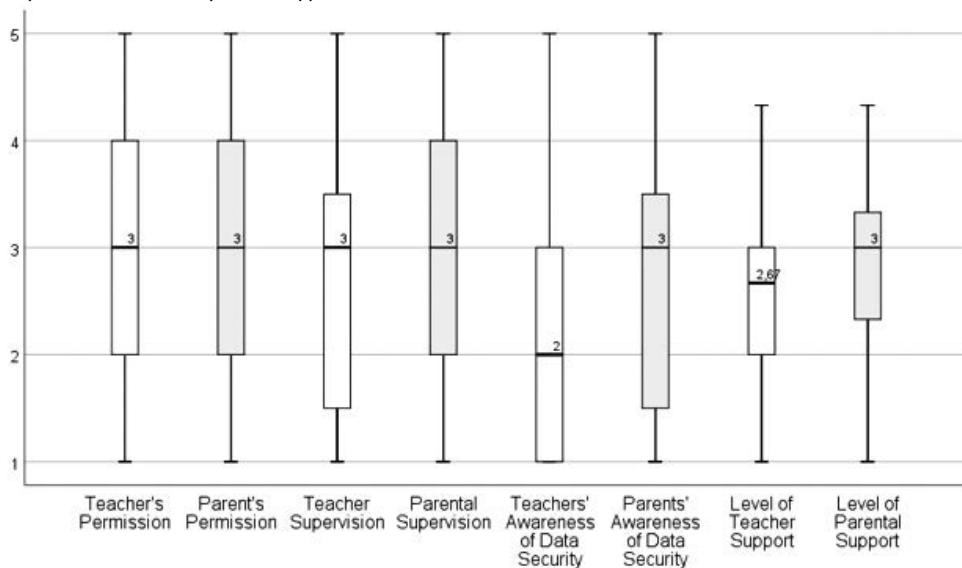
Note: A negative Z-value indicates that all values for parents are higher than those for teachers.

Graph 1 visually confirms previous conclusions that parents provide a higher level of support to students in all aspects of AI tool usage, including permission to use AI tools and applications, supervision by teachers and parents and their awareness of data safety. The graph shows that the median value for teacher support remains lower across

all categories, except in the supervision segment, where the difference is not statistically significant. Awareness of data safety shows a notable difference, as students believe parents are better informed about data privacy protection than teachers. The largest gap appears in the level of support, where parental support is significantly more prominent than teacher support (median 3 vs. 2.67). These findings confirm that students rely more on parental than teacher support when using AI tools and applications, suggesting a need for improved educational initiatives within the school system.

Graph 1.

Comparison of teacher and parental support in the use of AI tools



Discussion

The results of this study show that adult mediation — whether from parents or teachers — has only a modest link to primary students' understanding of data privacy. Parental involvement showed a slightly stronger correlation than teacher engagement, but both effects were weak (e.g., parental supervision and privacy awareness ($\rho = -.163$, $p < .05$). This challenges the common belief that the mere presence of adults, without training or institutional backing, is sufficient to ensure safe digital practices.

Adult guidance in this context appears limited in both form and content. As Matović and Žunić-Pavlović (Matović i Žunić-Pavlović, 2020) note, many Serbian parents rely on restrictive controls rather than encouraging open discussion. Such strategies may create dependency instead of independence, leaving students poorly prepared to deal with privacy risks in AI-based tools. Our findings also support Nešić's (Nešić, 2023) observation that verbal communication, without practical tools or concrete examples, rarely helps children identify or assess online risks. Even when adults try to intervene, the language is often abstract, the examples are too general and the impact is minimal.

At the same time, the statistically significant correlation between parental oversight and privacy awareness must be treated with care. The data show a link but not its direction. One possibility is that restrictive parental strategies may suppress children's ability to think critically about privacy, producing dependence instead of autonomy. But another, equally plausible explanation is that children who already possess greater awareness of data protection seek more independence and therefore face less parental intervention. A third, confounding factor — such as the parents' own digital literacy or socioeconomic background — may influence both their approach and the child's understanding. Long-term or mixed-method studies are needed to clarify these possibilities.

Teachers, despite their formal role, had little measurable influence on students' privacy awareness. This is consistent with the lack of tools or training in Serbia to help them address privacy and AI ethics in classrooms (Danaj et al., 2024; Ignjatović, 2024). As Škobo and Šović (Škobo & Šović, 2025) stress, teacher readiness to use AI is limited not only by missing resources but also by policy delays, infrastructure gaps and weak institutional support. Students exposed to AI tools in schools are rarely able to explain how their data might be used, indicating that classroom integration remains superficial and ethically underdeveloped.

Part of this outcome may reflect the developmental stage of the students. Piaget's model suggests that learners aged 11 to 14 are only beginning to engage with abstract reasoning (McLeod, 2009). Our findings confirm that students often give formal answers without showing deeper understanding. This suggests that teaching strategies need to be carefully scaffolded. If adult support does not match children's developmental level — with simple language, visuals and real-life examples, as Vygotsky's ZPD framework suggests — learning is unlikely to be meaningful. Children may complete surveys filled with technical or legal terms without really knowing what is being asked, pointing to the need for age-appropriate and accessible materials.

Addressing this challenge requires change at both family and school levels. Occasional lessons or abstract talks are not enough to build lasting data literacy. Schools should integrate privacy and ethics into everyday teaching. For example, abstract topics like consent or data sharing can become more relatable through activities such as acting out digital dilemmas (role-plays), discussing common app use situations or walking through the adjustment process of privacy settings in tools students already use. Teachers need training in how to design lessons that make these issues clear, engaging and age-relevant. They should be supported through access to ready-made lesson templates, scenario cards and opportunities to share materials through school networks or online forums.

Parents also have a central role, but they often lack the confidence or knowledge to provide constructive guidance. They need support from schools, policymakers and digital platforms. Schools can provide illustrated guides, short video explainers and conversation starters in order to help families discuss key issues like app permissions, online consent and what it means to "share too much." Home activities might include reviewing app settings together, making a 'family digital contract,' or watching and discussing short clips about online safety. Schools could dedicate part of each parent-teacher meeting to modeling how to talk with children about these issues in a supportive and practical way.

This study has several limitations. First, the sample was drawn from a small number of urban and semi-urban schools in Serbia, so the findings may not apply to rural or ethnically

diverse settings, where access to technology and adult guidance around AI can differ. Second, the findings are based on students' self-reports; although responses were anonymous, younger participants may have misunderstood some questions, given socially desirable answers, or lacked the words to fully explain their experiences. Thirdly, since the study was cross-sectional, the data offer only a snapshot in time. They do not show how children's understanding of privacy might grow or shift as they get older or use AI tools more regularly. Finally, although the questionnaire was carefully designed and showed solid internal consistency, it was not based on existing international scales. This design choice reflected local needs and language but limits comparability with studies from other countries.

Future research should employ longitudinal or mixed-method designs to track how children's views about privacy change as they mature and how sustained adult involvement shapes this process. Qualitative methods such as interviews and group discussions with children might reveal how they understand adult guidance and what kind of advice actually makes sense to them. It would also be useful to test new types of teaching materials that are designed with this age group in mind—short animated videos, simple interactive games or illustrated guides that explain things like consent or data sharing in everyday terms. Teachers might, for example, use storybooks or role-playing games to introduce ideas like digital footprints or online safety. These discussions can be tied to everyday classroom topics using familiar fictional characters or situations — such as a cartoon figure who accidentally overshares online — rather than relying on abstract legal terms. Therefore, collaboration between educators and families, which includes translating abstract concepts into terms that make sense to children — things they encounter in their daily lives — should be prioritized. When done well, this approach could help connect digital literacy with critical thinking, responsible online behavior and even early forms of civic awareness.

Conclusion

This study confirms that the safe and meaningful use of AI in primary education cannot rely on occasional lessons and short-term initiatives. What is needed is a more grounded, long-term approach that combines thoughtful curriculum changes, practical teacher support and meaningful collaboration with families. Although many students do talk with adults about digital tools and risks, these conversations are often too shallow or inconsistent to give them the confidence they need—particularly when it comes to complex issues like data privacy. Digital literacy must be fully integrated into the regular curriculum, not treated as a single topic or limited to IT classes. For younger learners especially, teaching materials need to match their age, language and cognitive development.

At the institutional level, schools need more than just technical checklists. Teachers should have clear, usable guidance on how to choose AI tools responsibly and handle student data safely. But beyond that, schools should promote a shared understanding of what responsible digital behavior looks like, by also making these values visible in the classroom, not just on paper.

The success of AI-related education also depends on treating children as active participants. They should be invited to ask questions, express concerns and reflect critically on their own digital behavior. This kind of digital empowerment, especially when supported at home and in class, is essential for building long-term resilience — not just technical skill.

At the same time, the Serbian education system still faces structural limits. Outdated curricula, gaps in infrastructure and a lack of teacher training in digital ethics make it hard to turn good ideas into everyday practice. Teachers should not be expected to carry this responsibility alone — they must be provided with real preparation, shared resources and institutional trust to take the lead.

References

- Andrić, V. (2025, June 29). Digitalna prava dece: Šta podrazumevaju i ko ih najčešće krši? *Danas*. <https://www.danas.rs/vesti/drustvo/digitalna-prava-dece-sta-podrazumevaju-i-ko-ih-najcesce-krsi/>
- Andries, V. & Robertson, J. (2023). Alexa doesn't have that many feelings: Children's understanding of AI through interactions with smart speakers in their homes. *Computers and Education: Artificial Intelligence*, 5, 1-17. <https://doi.org/10.1016/j.caeai.2023.100176>
- CoSN (2025). *2025 National Student Data Privacy Report*. Consortium for School Networking. <https://www.cosn.org/wp-content/uploads/2025/03/2025-CoSN-National-Student-Data-Privacy-Report-Part-1-Final-031825.pdf>
- Danaj, A., Škorić, J. & Galetin, M. (2024). Comparative analysis of the legal frameworks of the Republic of Serbia and Republic of Albania: The application of Artificial Intelligence and child protection. In M. Počuča (Ed.), *XXI međunarodni naučni skup „Pravnički dani-Prof. dr Slavko Carić „Odgovori pravne nauke na izazove savremenog društva, (Radovi) (pp. 413-425)*. Faculty of Law for Commerce and Judiciary, University of Novi Sad. <https://doi.org/10.5937/PDSC24413D>
- Eisinga, R., Grotenhuis, M.t. & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown?. *International Journal of Public Health*, 58, 637–642. <https://doi.org/10.1007/s00038-012-0416-3>
- Gao, L., Blinder, E. B., Barnes, A., Song, K., Clegg, T., Vitak, J. & Chetty, M. (2025). Creating and Evaluating Privacy and Security Micro-Lessons for Elementary School Children. *arXiv preprint arXiv:2503.07427*. <https://doi.org/10.48550/arXiv.2503.07427>
- Guo, Y. (2021). The Cultural Implications and Ethical Risks of Algorithm Society. *Chinese Book Review*, 9, 45-53. <https://doi.org/10.3969/j.issn.1002-235X.2021.09.006>
- Hao, X., Wang, F. & Qi, C. (2019). The current status and developmental trends of educational artificial intelligence. *Modern Educational Technology*, 2, 12-18.
- Hillman, V., Manolev, J., Johnston, S.K., Kumar, P.C., Martin, F., Zeide, E., Vladova, G. & Lai, R. (2024). Children, Education, and Technologies: Current Debates, Key Concerns, and Future Directions Around Data Privacy, Surveillance, and Datafication. In D. A. Christakis & L. Hale (Eds.), *Handbook of Children and Screens* (pp. 557-567). Springer. https://doi.org/10.1007/978-3-031-69362-5_76
- Hoofnagle, C. J., Van Der Sloot, B. & Borgesius, F. Z. (2019). The European Union general data protection regulation: what it is and what it means. *Information & Communications Technology Law*, 28(1), 65-98. <https://doi.org/10.1080/13600834.2019.1573501>
- Huang, L. (2023). Ethics of artificial intelligence in education: Student privacy and data protection. *Science Insights Education Frontiers*, 16(2), 2577-2587. <https://doi.org/10.15354/sief.23.re202>
- Ignjatović, G. (2024). AI TECHNOLOGIES IN EDUCATION: Regulatory frameworks at the international, regional and national level. *Zbornik radova Pravnog fakulteta u Nišu*, 63(103), 235-260. <https://doi.org/10.5937/zrpf1-55374>
- Jia, K. & Jiang, Y. (2017). Three basic issues of artificial intelligence governance: Technical logic, challenges, and public policy making. *Chinese Public Administration*, 10, 40-45. <https://doi.org/10.3782/j.issn.1006-0863.2017.10.07>

- Li, L., Valdez, J.P.M. & Du, Y. (2025). Digital citizenship education at the early childhood level: how is it implemented? A systematic review. *International Journal of Child Care and Education Policy* 19, 13. <https://doi.org/10.1186/s40723-025-00153-2>
- Liu, S., Liu, S., Sun, J., Shen, X., & Liu, Z. (2021). Key issues in the development of intelligent education. *Distance Education in China*, 4, 69-76. <https://doi.org/10.13541/j.cnki.chinade.2021.04.001>
- Livingstone, S. M. & Blum-Ross, A. (2020). *Parenting for a digital future: How hopes and fears about technology shape children's lives*. Oxford University Press.
- Lupton, D. & Williamson, B. (2017). The datafied child: The dataveillance of children and implications for their rights. *New Media & Society*, 19(5), 780-794. <https://doi.org/10.1177/1461444816686328>
- Matović, M. & Žunić-Pavlović, V. (2020). Povezanost restriktivnih strategija roditeljskog nadzora i digitalnog nasilja u adolescenciji. *CM: Communication and Media*, 15(47), 35-56. <https://doi.org/10.5937/cm15-27100>
- McLeod, S. (2009). Piaget's Theory and Stages of Cognitive Development. *Simply Psychology*. <https://doi.org/10.5281/zenodo.15241970>
- Muammar, S., Hashim, K. F. B. & Panthakkan, A. (2023). Evaluation of digital competence level among educators in UAE Higher Education Institutions using Digital Competence of Educators (DigComEdu) framework. *Education and Information Technologies* 28, 2485-2508. <https://doi.org/10.1007/s10639-022-11296-x>
- Nešić, A. (2023). Zaštita podataka o deci na internetu. *Savremene studije bezbednosti*, 16(1), 29-48. <https://doi.org/10.5937/ssb202301029N>
- Nguyen, A., Ngo, H. N., Hong, Y., Dang, B. & Nguyen, B. P. T. (2023). Ethical principles for artificial intelligence in education. *Education and Information Technologies*, 28(4), 4221-4241. <https://doi.org/10.1007/s10639-022-11316-w>
- Shi, Y. & Zhou, X. (2022). The debate on the "right to be forgotten" in the era of big data: To be remembered or forgotten? *Editorial Friends*, 12, 88-99. <https://doi.org/10.13786/j.cnki.cn14-1066/g2.2022.12.012>
- Shouli, A., Barthwal, A., Campbell, M. & Shrestha, A. K. (2025). Ethical AI for Young Digital Citizens: A Call to Action on Privacy Governance. *arXiv preprint arXiv:2503.11947*. <https://doi.org/10.48550/arXiv.2503.11947>
- Solberg, J. (2023). Privacy in Early Childhood Education and Care: The Management of Family Information in Parent-Teacher Conferences. *Human Studies*, 47, 367-388. <https://doi.org/10.1007/s10746-023-09683-5>
- Stoilova, M., Livingstone, S. & Nandagiri, R. (2019). *Children's data and privacy online: Growing up in a digital age*. Research findings. London School of Economics and Political Science.
- Škobo, M. & Šović, M. (2025). Teachers' perspectives on Chatbots and AI agents in primary and secondary education. *International Journal on Studies in Education*, 7(2), 410-442. <https://doi.org/10.46328/ijonse.352>
- UNESCO. (2022). *Recommendation on the Ethics of Artificial Intelligence*. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000381137>
- Vartiainen, H., Pope, N., Kahila, J., López-Pernas, S. & Tedre, M. (2025). Classroom Activities and New Classroom Apps for Enhancing Children's Understanding of Social Media Mechanisms. *arXiv preprint arXiv:2501.16494*. <https://doi.org/10.48550/arXiv.2501.16494>
- Wang, Z. (2016). American student data privacy protection legislation and governance frameworks in the era of big data. *International and Comparative Education*, 11, 28-33.

- Wang, G., Zhao, J. & Shadbolt, N. (2019). Are children fully aware of online privacy risks and how can we improve their coping ability? *arXiv preprint arXiv:1902.02635*. <https://doi.org/10.48550/arXiv.1902.02635>
- Williamson, B. (2017). *Big data in education: The digital future of learning, policy and practice*. SAGE.
- Williamson, B. (2019). Datafication of education: a critical approach to emerging analytics technologies and practices. In H. Beetham & R. Sharpe (Eds.), *Rethinking pedagogy for a digital age* (pp. 212-226). Routledge.
- Xue, L. & Zhao, J. (2019). Paths to agile governance: The development of emerging industries and regulatory models. *Chinese Public Administration*, 8, 28-34. <https://doi.org/10.19735/j.issn.1006-0863.2019.08.02>
- Yeşilyurt, E. & Vezne, R. (2023). Digital literacy, technological literacy, and internet literacy as predictors of attitude toward applying computer-supported education. *Education and Information Technologies*, 28(8), 9885-9911. <https://doi.org/10.1007/s10639-022-11311-1>
- Yim, I. H. Y. & Su, J. (2025). Artificial intelligence literacy education in primary schools: a review. *International Journal of Technology and Design Education*, 35, 2175-2204. <https://doi.org/10.1007/s10798-025-09979-w>
- Zhao, H., Jiang, Q. & Zhao, W. (2016). The security of big data-based learning analytics and privacy protection. *Modern Educational Technology*, 26(3), 5-11. <https://doi.org/10.3969/j.issn.1009-8097.2016.03.001>
- Zhao, Z., Xu, F., Gao, F., Li, F., Hou, H. & Li, M. (2021). An evaluation of ethical risks in artificial intelligence. *China Soft Science*, 6, 1-12.

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Table 1
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Levels	Format
1	Centered, bold, font 12
2	Flush left, bold, font 12
3	Flush left, bold italic, font 12
4	Sentence case, indented, bold, font 12, ending with a period.
5	Sentence case, indented, bold italic, font 12, ending with a period.

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Cruse, D. A. (2002). Hyponymy and its varieties. In R. Green, C. A. Bean, & S. H. Myaeng (Eds.), *The semantics of relationships: An interdisciplinary perspective* (pp. 3-22). Kluwer Academic Publishers.

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