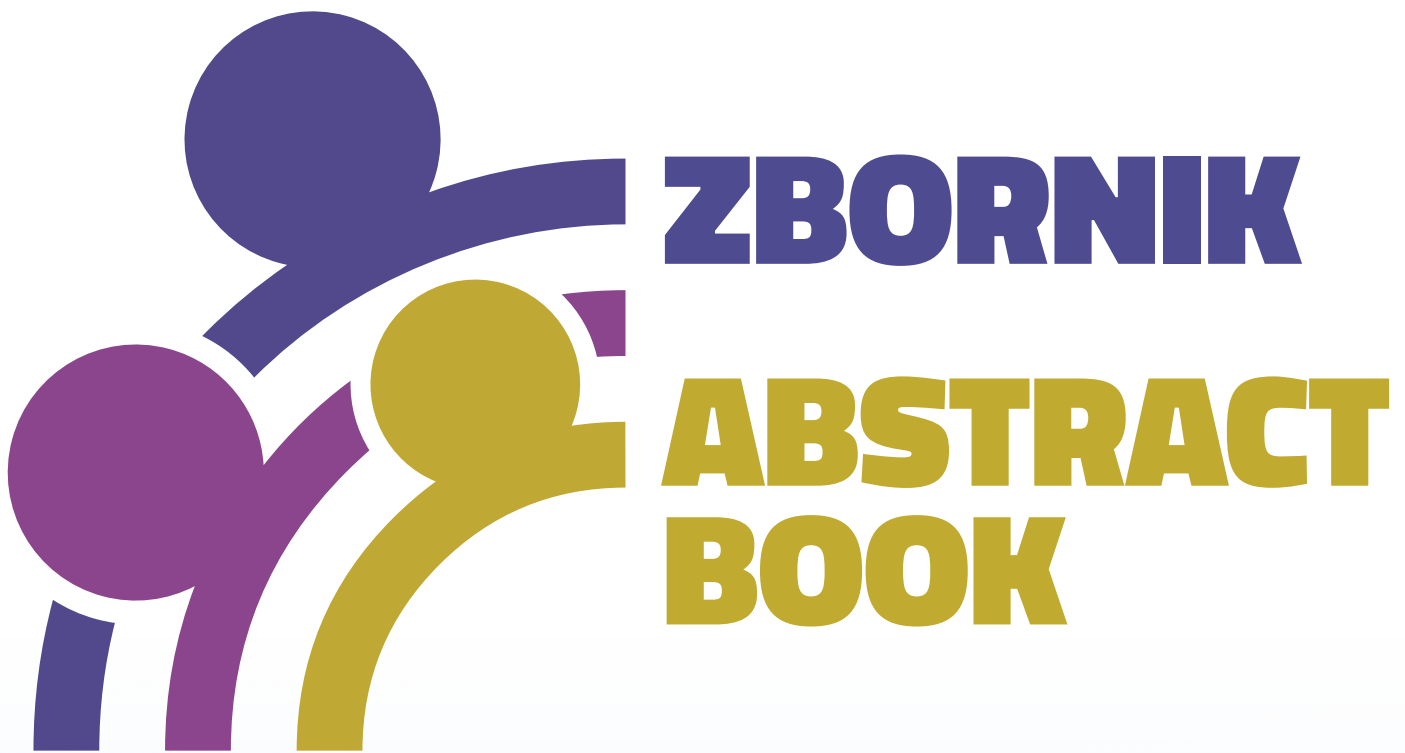


Mednarodna znanstvena konferenca  
*Perspektive razvoja  
izobraževanja učiteljev*

International Scientific Conference  
*Perspectives on Teacher Education  
and Development*



Pedagoška fakulteta, Univerza v Mariboru, Slovenija  
Faculty of Education, University of Maribor, Slovenia

September 30  
- October 1, 2021



## Uredniki/Editors

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Faculty of Education, University of Maribor



University of Maribor

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Faculty of Education

Prva e-izdaja / 1st Electronic ed.

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Ni naprodaj / Not for sale

## Informacije o znanstvenem programu / Scientific Programme Information

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## UVODNI NAGOVOR



Mednarodna znanstvena konferenca *Perspektive razvoja izobraževanja učiteljev* v spremenjenih družbenih okoliščinah poteka v sklopu prireditev ob 60-letnici delovanja Pedagoške fakultete Univerze v Mariboru.

V delovanju Pedagoške fakultete Univerze v Mariboru beležimo tri pomembne mejnike: ustanovitev Pedagoške akademije, preoblikovanje Pedagoške akademije v Pedagoško fakulteto, združitve Pedagoške fakultete in njen nadaljnji razvoj. Izvršni svet Ljudske skupščine LRS je 26. junija 1961 razglasil Zakon o ustanovitvi Pedagoške akademije v Mariboru. Pedagoška akademija je četrto stoletje razvijala pedagoško izobraževanje na višješolski stopnji. Razprava o preobrazbi pedagoškega šolstva v Republiki Sloveniji, stalno posodabljanje in širjenje študijskih programov ter prizadevanje za spodbujanje raziskovalnega dela na področju vzgoje in izobraževanja so prispevali k temu, da je bila Pedagoška akademija 12. februarja 1986 preoblikovana v Pedagoško fakulteto, s čimer je postala prva pedagoška fakulteta v Sloveniji. Med letoma 1986 in 2006 na fakulteti beležimo velik napredek v razvoju študijskih programov in znanstvenoraziskovalnega dela. Poleg pedagoških študijskih programov je fakulteta razvijala tudi nepedagoške študijske programe. Velika programska in znanstvenoraziskovalna pestrost takratne Pedagoške fakultete je odprla vprašanje o njeni združitvi. Državni zbor RS je 6. aprila 2006 sprejel Odlok o spremembah in dopolnitvah Odloka o preoblikovanju Univerze v Mariboru. Kot novi članici Univerze v Mariboru sta bili dodani Fakulteta za naravoslovje in matematiko ter Filozofska fakulteta. Pedagoška fakulteta je ostala zvesta svojemu poslanstvu, to je razvoju kadrov na področju vzgoje in izobraževanja, čemur se posveča že 60 let.

Nenehne družbene spremembe, ki smo jim priča, zahtevajo hitre, strokovne ter kakovostne premisleke o razvoju vzgoje in izobraževanja. Vseživljenjski razvoj izobraževanja učiteljev in vzgojiteljev je z vidika razvoja družbe nujen, saj potrebujemo kadre, ki bodo spodbujali učenje ter razvoj kompetenc, nujnih za spopadanje z izzivi nove resničnosti in prihodnosti.

Mednarodna znanstvena konferenca *Perspektive razvoja izobraževanja učiteljev* je v prvi vrsti namenjena raziskovalcem, visokošolskim učiteljem, predstavnikom šolske politike ter vsem, ki delujejo na področju vzgoje in izobraževanja (npr. učiteljem, vzgojiteljem predšolskih otrok itd.), ter drugi javnosti. Osrednje teme konference so: Trendi in inovacije na področju izobraževanja učiteljev, Programi, pristopi in strategije izobraževanja učiteljev ter Raziskovalne usmeritve v prihodnosti. V okviru teme Trendi in inovacije na področju izobraževanja učiteljev pomembno pozornost namenjamo čustvenemu opismenjevanju učiteljev, inkluziji, digitalni transformaciji izobraževanja, mentorstvu ter številnim izzivom, ki jih pred učitelje postavlja delo z otroki oz. učenci. V okviru teme Programi, pristopi in strategije izobraževanja učiteljev bodo obravnavane teme s področja participacije učencev, izobraževanja STEM, avtonomije in avtoritete učitelja, sodelovalnega učenja in poučevanja, didaktičnih strategij ter spodbudnega učnega okolja. V okviru teme Programi, pristopi in strategije izobraževanja učiteljev posebno pozornost namenjamo programskim vidikom izobraževanja učiteljev, izobraževalnim politikam, mednarodnemu povezovanju in mobilnosti, odprtim izobraževalnim virom ter personaliziranemu učenju in poučevanju.

Številni udeleženci mednarodne znanstvene konference bodo prispevali k izmenjavi mnenj in pogledov o pomembnih vprašanjih vzgoje in izobraževanja ter izobraževanja učiteljev v najširšem pomenu besede. Kritična in odprta diskusija bo zagotovo prispevala k iskanju rešitev na področju izobraževanja pedagoških kadrov v lokalnem in mednarodnem okolju.

Prof. dr. Milena Ivanuš Grmek  
*dekanica UM PEF*

## WELCOME ADDRESS

The international scientific conference, "Perspectives on Teacher Education and Development", will take place with changed social circumstances in the context of recent events, on the occasion of the 60th anniversary of the Faculty of Education, University of Maribor.

There are three important milestones marking the work of the Faculty of Education of the University of Maribor: the establishment of the Pedagogical Academy, the transformation of the Pedagogical Academy into the Faculty of Education, the dissolution of the Faculty of Education and its further development. On 26 June 1961, the Executive Council of the People's Assembly LRS proclaimed the Law establishing the Pedagogical Academy in Maribor. The Pedagogical Academy has developed pedagogical education at the higher education level for a quarter of a century. The discussion on the transformation of pedagogical education in the Republic of Slovenia, the continuous updating and dissemination of study programmes and efforts to promote research work in the field of upbringing and education helped to transform the Pedagogical Academy into the Faculty of Education on 12 February 1986, making it the first faculty of education in Slovenia. During the period between 1986 and 2006, we made significant progress at the faculty in both the development of study programmes and in scientific research work. In addition to teaching programmes, the faculty also developed non-teaching study programmes. A great diversity in terms of programmes and scientific research work of the former Faculty of Education raised the issue of the dissolution of the Faculty of Education. On 6 April 2006, the National Assembly of the Republic of Slovenia adopted a Decree amending and supplementing the Decree on the Transformation of the University of Maribor. The Faculty of Natural Sciences and Mathematics and the Faculty of Arts were added as new members of the University of Maribor. The Faculty of Education has remained true to its mission, i.e., the development of staff in the field of upbringing and education, which has been taking place for 60 years.

The constant social changes we are witnessing call for rapid, professional and well-thought-out considerations on the development of upbringing and education. The lifelong development of teacher and educator education is necessary in terms of the development of society as we need pedagogical staff to promote learning and the development of competencies necessary to meet the challenges of the new reality and the future.

The international scientific conference "Perspectives on Teacher Education and Development" is primarily aimed at researchers, higher education teachers, school policy representatives and all those working in the field of upbringing and education (e.g. teachers, educators of preschool children, etc.), as well as other sections of the public. The main topics of the conference are: Trends and Innovations in Teacher Education; Teacher Education Programmes, Approaches and Strategies, and Research Directions in the Future. Under the topic of Trends and Innovations in Teacher Education, we pay special attention to emotional literacy of teachers, inclusion, digital transformation of education, mentoring and the many challenges faced by teachers when working with children or learners. The topics of learner participation, STEM education, autonomy and authority of the teacher, collaborative learning and teaching, didactic strategies, and a stimulating learning environment will be discussed under the topic of Teacher Education Programmes, Approaches and Strategies. In the Teacher Education Programmes, Approaches and Strategies topic, special attention will be paid to the programme aspects of teacher education, educational policies, international integration and mobility, open educational resources and personalised learning and teaching.

The numerous participants in this international scientific conference will contribute to an exchange of opinions and views on important issues of upbringing and education, as well as teacher education in the broadest sense of the word. A critical and open discussion will certainly contribute to finding solutions in the field of educating pedagogical staff in both local and international settings.

Prof. Milena Ivanuš Grmek, PhD,  
*Dean, Faculty of Education, University of Maribor*



## ORGANIZACIJSKI ODBOR

### Predsednica organizacijskega odbora:

Prof. dr. Milena Ivanuš Grmek,  
*dekanica Pedagoške fakultete UM*

### Člani organizacijskega odbora:

Prof. dr. Darko Friš,  
*dekan Filozofske fakultete UM*

Prof. dr. Blaž Zmazek,  
*dekan Fakultete za naravoslovje in matematiko UM*

Janja Lužnik,  
*Filozofska fakulteta UM*

Jelena Krivograd,  
*Pedagoška fakulteta UM*

Evelina Turk,  
*Pedagoška fakulteta UM*

Lara Šimon,  
*prodekanica za študentska vprašanja Pedagoške fakultete UM*

Doc. dr. Janja Tekavc,  
*Pedagoška fakulteta UM*

Darja Weinzerl,  
*Pedagoška fakulteta UM*

Bojana Slomšek Šlamberger,  
*Filozofska fakulteta UM*

## ORGANISING COMMITTEE

### Organising Committee President:

Prof. Dr. Milena Ivanuš Grmek,  
*Dean of the Faculty of Education at the University of Maribor (UM)*

### Organising Committee Members:

Prof. Dr. Darko Friš,  
*Dean of the Faculty of Arts, UM*

Prof. Dr. Blaž Zmazek,  
*Dean of the Faculty of Natural Sciences and Mathematics, UM*

Janja Lužnik,  
*Faculty of Arts, UM*

Jelena Krivograd,  
*Faculty of Education, UM*

Evelina Turk,  
*Faculty of Education, UM*

Lara Šimon,  
*Vice-Dean for student affairs at the Faculty of Education, UM*

Assistant Professor Dr. Janja Tekavc,  
*Faculty of Education, UM*

Darja Weinzerl,  
*Faculty of Education, UM*

Bojana Slomšek Šlamberger,  
*Faculty of Arts UM*



## PROGRAMSKI ODBOR

### Predsednica programskega odbora:

Doc. dr. Janja Tekavc,  
*Pedagoška fakulteta UM*

### Člani programskega odbora:

Doc. dr. Tomaž Bratina,  
*Pedagoška fakulteta UM*

Prof. dr. Mihaela Brumen,  
*Pedagoška fakulteta UM*

Doc. dr. Kosta Dolenc,  
*Pedagoška fakulteta UM*

Izr. prof. Snježana Dubovicki,  
*Pedagoška fakulteta, Univerza v Osijeku*

Prof. dr. María Fernández Agüero,  
*Facultad de Formación de Profesorado y Educación, Madrid*

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*Pedagoška fakulteta UM*

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Asist. mag. Polona Jančič Hegediš,  
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Asist. mag. Katja Kozjek Varl,  
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Doc. dr. Monika Mithans,  
*Pedagoška fakulteta UM*

Asist. Sabina Ograjšek,  
*Pedagoška fakulteta UM*

Doc. dr. Simona Pulko,  
*Filozofska fakulteta UM*

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*Pedagoška fakulteta UM*

Doc. dr. Andreja Špernjak,  
*Fakulteta za naravoslovje in matematiko UM*

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*Filozofska fakulteta, Univerza Črne gore*

Prof. dr. Smiljana Zrilić,  
*Odjel za učiteljske študije, Sveučilište u Zadru*

Doc. dr. Jerneja Žnidaršič,  
*Pedagoška fakulteta UM*

## SCIENTIFIC COMMITTEE

### Scientific Committee president:

Assistant Professor Dr. Janja Tekavc,  
*Faculty of Education at the University of Maribor (UM)*

### Scientific Committee Members:

Assistant Professor Dr. Tomaž Bratina,  
*Faculty of Education, UM*

Prof. Dr. Mihaela Brumen,  
*Faculty of Education, UM*

Assistant Professor Dr. Kosta Dolenc,  
*Faculty of Education, UM*

Associate Professor Snježana Dubovicki,  
*Faculty of Education, University of Osijek*

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*Facultad de Formación de Profesorado y Educación, Madrid*

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Teaching Assistant Katja Kozjek Varl MA,  
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Assistant Professor Dr. Monika Mithans,  
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Teaching Assistant Sabina Ograjšek,  
*Faculty of Education, UM*

Assistant Professor Dr. Simona Pulko,  
*Faculty of Arts, UM*

Teaching Assistant Mateja Šilc, MA,  
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Assistant Professor Dr. Andreja Špernjak,  
*Faculty of Natural sciences and Mathematics, UM*

Associate Professor Dr. Vučina Zorić,  
*Faculty of Philosophy, University of Montenegro*

Prof. Dr. Smiljana Zrilić,  
*Department of Teacher Education, University of Zadar*

Assistant Professor Dr. Jerneja Žnidaršič,  
*Faculty of Education, UM*



## POMEMBNI PODATKI/IMPORTANT INFORMATION

### Lokacija / Location

Mednarodna znanstvena konferenca 'Perspektive razvoja izobraževanja učiteljev' se bo odvijala na Pedagoški fakulteti Univerze v Mariboru.

Naslov: Koroška cesta 160, 2000 Maribor.

Udeležencem konference bo na voljo brezplačno parkiranje v bližini fakultete.

Odmori za kavo in kosilo bodo organizirani v restavraciji Piano, Koroška cesta 160, Maribor (spodnji prostori kongresne zgradbe).

Izpolnjevanje pogojev PCT (prebolel, cepljen, testiran): Udeležba na konferenci je dovoljena le osebam, ki izpolnjujejo pogoje PCT.

The international scientific conference "Perspectives on Teacher Education and Development" will take place at the Faculty of Education, University of Maribor.

Address: Koroška cesta 160, 2000 Maribor, Slovenia

Conference participants will be provided with free parking in the immediate vicinity.

Coffee breaks and lunch will be organised at the restaurant Piano, Koroška cesta 160, Maribor (the lower floor of the conference building).

Live attendance at the faculty is only possible for persons that meet COVID criteria - [the Recovered - Vaccinated - Tested rule \(RVT rule\\*](#). Verification of meeting the RVT rule shall be organised by the responsible persons at the Faculty entrance.

More info on the use of entry restrictions and other measures at the borders of Slovenia [Border Crossing | GOV.SI](#)





## REGISTRACIJA / ON-SITE REGISTRATION

Registracijski pult bo v avli Pedagoške fakultete odprt v / Registration desk will be located in the foyer of the faculty during the conference and will be open in the following hours:

Četrtek, 30. 9. / Thursday, September 30th

9.00–17.00

Petek, 1. 10. / Friday, October 1st

8.30–14.00

## DRUGE INFORMACIJE / ADDITIONAL INFORMATION

### Imenska priponka / Name badge

Ob prihodu na konferenco boste pri registracijskem pultu prejeli imensko priponko, ki je nujna za udeležbo na strokovnih predavanjih in slovesnosti ob 60-letnici fakultete ter sprejemu po le-tej.

You will receive a name badge during your registration onsite. The badge is needed to attend the scientific programmes and official celebrations of the 60th anniversary of the Faculty of Education.

### Potrdilo o udeležbi / Certificate of attendance

Vsi udeleženci konference bodo prejeli potrdilo o udeležbi.

A certificate of attendance will be issued to all the participants during the onsite registration.



## PLENARNI PREDAVATELJI / PLENARY SPEAKERS

**Prof. dr. Dijana Vican, Univerza v Zadru, Hrvaška**

Četrtek, 30. 9., 10.30–11.15, Amfiteater Pedagoške fakultete UM

### **O prof. dr. Dijani Vican:**



Dr. Dijana Vican je redna profesorica za pedagogiko na Oddelku za pedagogiko Univerze v Zadru, Republika Hrvaška. Njeno znanstveno-strokovno in pedagoško delo poteka v več pedagoških disciplinah – splošni, sistematični in medkulturni pedagogiki, izobraževalnih politikah, andragogiki, podjetniškem izobraževanju, šolski kulturi in izobraževanju učiteljev.

Poklicni prispevek je zagotovila z delom v več organih in funkcijah na nacionalni ravni. Bila je predsednica Sveta za nacionalni kurikulum na Ministrstvu za znanost, izobraževanje in šport (2006–2009), državna sekretarka na Ministrstvu za znanost, izobraževanje in šport (2008–2011), predsednica Komisije za napredek reforme izobraževanja 2016 na Ministrstvu za znanost in izobraževanje. Med letoma 2014 in 2019 je bila vodja Sektorskega sveta za izobraževanje na Ministrstvu za znanost in izobraževanje. Od leta 2015 je rektorica Univerze v Zadru.

Je vodja konkurenčnega znanstveno-strokovnega projekta z naslovom Kompetenčni standardi za učitelje, pedagoge in mentorje, ki je na stopnji izvajanja in se financira na podlagi razpisa za izvajanje CROQF na ravni visokega šolstva; traja od 22. marca 2019 do 22. septembra 2021; projekt sofinancira Evropski socialni sklad v okviru Operativnega programa Učinkoviti človeški viri 2014–2020; nosilec projekta je Univerza v Zadru, projektni partnerji pa so: Ministrstvo za obrambo Republike Hrvaške, Naravoslovno-matematična fakulteta Univerze v Zagrebu, Pedagoška fakulteta Univerze v Osijeku, Filozofska fakulteta Univerze v Splitu, Filozofska fakulteta Univerze na Reki, Filozofska fakulteta Osijek, Filozofska fakulteta Univerze v Zagrebu.

### **Prof. dr. Dijana Vican, University of Zadar, Croatia**

Plenary session: **Teachers in the gap between systemic education and “à la carte education”**

Thursday, 30th September, 10.30 – 11.15, Faculty of Education UM – Amphitheatre

### **About Prof. Dr. Dijana Vican:**

Prof. Dr. Dijana Vican, is a full professor in the field of pedagogy at the Department of Pedagogy, University of Zadar, Republic of Croatia. Her scientific, professional and teaching work is realised in several pedagogical disciplines - general, systematic and intercultural pedagogy, educational policies, andragogy, entrepreneurial education, school culture and teacher education.

She has made numerous professional contributions by working in multiple bodies and functions at the national level. She was the President of the National Curriculum Council at the Ministry of Science, Education and Sports (2006-2009), the State Secretary at the Ministry of Science, Education and Sports (2008-2011), the President of the Commission for the Advancement of Education Reform 2016 at the Ministry of Science and Education. From 2014 to 2019, she was the head of the Sectoral Council for Education at the Ministry of Science and Education. Since 2015, she has been the rector of the University of Zadar.

She is the leader of a competitive scientific professional project that is in the process of being implemented with the title, Competence Standards for Teachers, Pedagogues and Mentors, which has been financed through the Call for Proposals Implementation of the CROQF at the level of higher education. Lasting from March 22, 2019 to September 22, 2021, the project is co-financed from the European Social Fund within the Operational Programme, Efficient Human Resources 2014-2020. The project holder is the University of Zadar, and the project partners are: Ministry of Defence of the Republic of Croatia; Faculty of Science, University of Zagreb; Faculty of Education, University of Osijek; Faculty of Philosophy, University of Split; Faculty of Philosophy, University of Rijeka; Faculty of Philosophy in Osijek; Faculty of Philosophy, University of Zagreb.



**Prof. dr. Pavel Zgaga, Pedagoška fakulteta, Univerza v Ljubljani, Slovenija**

Plenarno predavanje z naslovom: **Mejniki v izobraževanju učiteljev: pogled nazaj, pogled naprej**

Četrtek, 30. 9., 11.15–12.00, Amfiteater Pedagoške fakultete UM

**O prof. dr. Pavlu Zgagi:**



Dr. Pavel Zgaga je redni profesor za filozofijo edukacije na Pedagoški fakulteti Univerze v Ljubljani. Vodil in sodeloval je v več domačih in mednarodnih raziskovalnih projektih, povezanih s konceptualnimi vprašanji izobraževanja, zlasti na področju študij visokega šolstva in izobraževanja učiteljev. V obdobju po osamosvojitvi Slovenije je na tedanjem Ministrstvu za šolstvo in šport deloval kot državni sekretar (1992–1999) in kot minister za šolstvo in šport (1999–2000). Sodeloval je tudi z mednarodnimi organizacijami, kot so Svet Evrope, Evropska komisija, OECD in UNESCO, kot predavatelj in konzulent pa je bil vabljeno v številne države. Bil je soustanovitelj Centra za študij edukacijskih politik (CEPS, 2001) in dekan Pedagoške fakultete Univerze v Ljubljani (2002–2004). Leta 2006 je za svoje raziskovalno delo prejel državno nagrado Republike Slovenije na področju šolstva. Leta 2007 mu je švedska Univerza Umeå podelila častni doktorat, na Univerzi v Ljubljani pa je istega leta za svoje delovanje prejel Zlato plaketo. Leta 2010 je spodbudil ustanovitev Slovenskega društva za raziskovanje edukacije (SLODRE), ki ga je do leta 2017 tudi vodil, ob tem pa je bil član Sveta Evropske zveze raziskovalcev edukacije (EERA). Od leta 2019 je pridružen član Centra za visokošolsko raziskovanje in vrednotenje na Univerzi v Lancastru, Združeno kraljestvo.

**Prof. Dr. Pavel Zgaga, Faculty of Education, University of Ljubljana, Slovenia**

Plenary session: **Milestones in teacher education: looking back, looking forward**

Thursday, 30th September, 11.15 – 12.00, Faculty of Education UM – Amphitheatre

**About Prof. Dr. Pavel Zgaga:**

Prof. Dr. Pavel Zgaga is a full professor of philosophy of education at the Faculty of Education, University of Ljubljana. He has led and participated in several domestic and international research projects related to conceptual issues of education, especially in the field of higher education studies and teacher education. In the period after Slovenia's independence, he worked at the then Ministry of Education and Sports as State Secretary (1992-1999) and as Minister of Education and Sports (1999-2000). He has also collaborated with international organisations and has been invited to many countries as a lecturer and consultant by the Council of Europe, the European Commission, the OECD and UNESCO. He was a co-founder of the Centre for the Study of Educational Policies (CEPS, 2001) and the Dean of the Faculty of Education, University of Ljubljana (2002–2004). In 2006 he received the National Award of the Republic of Slovenia in the field of education for his research work. In 2007, the Swedish University of Umeå awarded him an honorary doctorate, and at the University of Ljubljana he received a Gold Plaque for his work in the same year. In 2010, he encouraged the establishment of the Slovenian Society for Educational Research (SLODRE), which he also led until 2017, and he was also a member of the Council of the European Association of Educational Researchers (EERA). Since 2019 he has been an associate member of the Centre for Higher Education Research and Evaluation at the University of Lancaster, UK.



**Prof. dr. Siniša Opić, Pedagoška fakulteta, Univerza v Zagrebu, Hrvaška**

Plenarno predavanje z naslovom: **Znanost kot pravljica pred spanjem**

Petek, 1. 10., 10.15–11.00, Amfiteater Pedagoške fakultete UM

**O prof. dr. Siniši Opiću:**



Siniša Opić je rojen 8. decembra 1973 v Pakracu na Hrvaškem. Leta 1996 je diplomiral na Fakulteti za humanistične in družbene vede Univerze v Zagrebu. Istega leta se je vpisal v podiplomski študij na Oddelku za vedenjske motnje pri Fakulteti za edukacijske in rehabilitacijske vede, kjer je leta 1999 prejel naziv magistra. Leta 2007 je doktoriral na Oddelku za pedagogiko Fakultete za humanistične in družbene vede Univerze v Zagrebu. Na tej fakulteti je bil od leta 2006 izredni predavatelj.

Predaval je na Naravoslovno-matematični fakulteti (PMF), Akademiji za likovno umetnost, Akademiji za glasbo, Akademiji dramskih umetnosti, Fakulteti za humanistične in družbene vede ter drugih univerzah na Hrvaškem. Od leta 2009 je zaposlen (za polni delovni čas) na Pedagoški fakulteti Univerze v Zagrebu kot izredni profesor in prodekan za študij, študente in akademske zadeve.

Predava na dodiplomski, podiplomski in doktorski stopnji. Področja njegovega znanstvenega in raziskovalnega dela zajemajo raziskovalno metodologijo (družboslovje) in kvantitativno metodologijo. Bil je mentor številnim študentom, ki pripravljajo magistrska ali doktorska dela. Siniša Opić je avtor številnih znanstvenih in raziskovalnih prispevkov (približno 80) in recenzent številnih mednarodnih prispevkov/revij. Bil je vabljeni predavatelj, predsedujoči in slavnostni govornik na številnih svetovnih mednarodnih konferencah. Poleg tega je kot gostujoči profesor poučeval na Univerzi v Brocku (Kanada), Univerzi v Ljubljani, Univerzi v Mariboru, Univerzi v Mostarju (BiH), Univerzi Macquarie (Avstralija), Univerzi v Sankt Gallnu (Švica) ...

Od leta 2018 je novi dekan Pedagoške fakultete Univerze v Zagrebu.

**Prof. Dr. Siniša Opić, Faculty of Teacher Education, University of Zagreb, Croatia**

Plenary session: **Science as a bedtime fairy tale**

Friday, 1st October, 10.15 – 11.00, Faculty of Education UM - Amphitheatre

**About prof. dr. Siniša Opić:**

Siniša Opić was born on December 8, 1973, in Pakrac, Croatia. He graduated in 1996 at the Faculty of Humanities and Social Sciences, University of Zagreb. In the same year, he enrolled into the postgraduate school at the Faculty of Education and Rehabilitation Sciences, Department of Behavioural Disorders where, in 1999, he earned his Master of Science degree. In 2007, he got his doctorate at the Faculty of Humanities and Social Sciences, University of Zagreb, Department of Pedagogy. He has held a part-time lecturer position at the same faculty since 2006.

He used to lecture at the Faculty of Science (PMF), Academy of Fine Arts, Music Academy, Academy of Dramatic Arts, Faculty of Humanities and Social Sciences and other Universities in Croatia. Since 2009, he has been working (full time) at the Faculty of Teacher Education, University of Zagreb, holding the title of associate professor, and in the capacity of Vice Dean for Studies, Students and Academic Affairs.

He teaches courses at the undergraduate, graduate and doctoral study levels. The areas of his scientific and research interest are research methodology (social science) and quantitative methodology. He has been mentoring a dozen students who are in the process of preparing their master or doctoral theses. Siniša Opić is author of many scientific and research papers (approx. 80) and he reviews many international papers and journals. He has been an invited lecturer, president and keynote speaker at many world international conferences. Additionally, as a visiting professor he has taught at the University of Brock (Canada), University of Ljubljana, University of Maribor, University of Mostar (BiH), Macquarie University (Australia), University of Sankt Gallen (Swiss)...

From 2018 he has been the new Dean of Faculty of Teacher Education at the University of Zagreb.



**Prof. dr. Majda Schmidt, Pedagoška fakulteta, Univerza v Mariboru, Slovenija**

Plenarno predavanje z naslovom: **Inkluzivna vzgoja in izobraževanje ter kompetence učiteljev**

Petek, 1. 10., 9.30–10.15, Amfiteater Pedagoške fakultete UM

**O prof. dr. Majdi Schmidt:**



Majda Schmidt je redna profesorica za specialno pedagogiko na Pedagoški in Filozofski fakulteti Univerze v Mariboru. Raziskovalno se ukvarja s področjem vzgojno-izobraževalne inkluzije in izobraževanjem otrok/mladostnikov s posebnimi potrebami v specializiranih institucijah. Specifično je njeno raziskovalno delo, usmerjeno v kakovost življenja družin z otroki z motnjami v duševnem razvoju in drugimi razvojnimi motnjami.

**Prof. Dr. Majda Schmidt, Faculty of Education, University of Maribor, Slovenia**

Plenary session: **Inclusive Education and Teachers' competence**

Friday, 1st October, 9.30 – 10.15, Faculty of Education UM - Amphitheatre

**About Prof. Dr. Majda Schmidt:**

Majda Schmidt, PhD, is a professor for special pedagogy/education at the Faculty of Education and Faculty of Arts, University of Maribor. Her research interests include education of children/youth with special needs both in inclusive and special classes. Her research studies are also focused on the quality of life of families who have children with intellectual disabilities and other developmental disabilities.

**Konferenčni sekretariat / Conference Secretariat**

Pedagoška fakulteta, Univerza v Mariboru / University of Maribor, Faculty of Education



\*V programu so navedeni le avtorji, ki predstavljajo povzetek. Vsi (so)avtorji bodo navedeni v knjigi povzetkov.

Only presenting authors are named in the program; all (co)authors will be included in the Book of abstracts

## Četrtek, 30. september / Thursday, September 30th

10:00	AMFITEATER <b>Otvoritev konference in uvodni pozdrav / Conference opening and welcome speech</b>
10:30	AMFITEATER <b>Plenarno predavanje 1 / Plenary lecture 1</b> <b>Učitelji, razpeti med sistemskim izobraževanjem in „izobraževanjem à la carte“</b> <b>Teachers in the gap between systemic education and “à la carte education”</b> <u>prof. dr. Dijana Vican</u> <i>University of Zadar, Croatia</i>
11:15	AMFITEATER <b>Plenarno predavanje 2 / Plenary lecture 2</b> <b>Mejniki v izobraževanju učiteljev: pogled nazaj, pogled naprej</b> <b>Milestones in teacher education: looking back, looking forward</b> <u>prof. dr. Pavel Zgaga</u> <i>Pedagoška fakulteta, Univerza v Ljubljani, Slovenija</i>
12:00	Kosilo / Lunch
13:00 – 15:00	PREDAVALNICA 0.100/HALL 0.100 <b>Predstavitev prispevkov A1 / Paper presentations A1</b> Chairperson: Simona Pulko
13:00	<b>Nov digitalni pristop k poučevanju in razvoju jezikovnih veščin</b> <b>New digital approach to teaching and developing language skills</b> <u>Katarina Aladrović Slovaček</u> <i>Faculty of Teacher Education, University of Zagreb, Croatia</i>
13:15	<b>Hrvaščina kot drugi jezik – od jezikovne politike v izobraževanju do programa izobraževanja učiteljev</b> <b>Croatian as a second language – from language policy in education to teacher education programme</b> <u>Lidija Cvikić</u> <i>Faculty of Teacher Education, University of Zagreb, Croatia</i>
13:30	<b>Osnovnošolski pouk nemškega in angleškega jezika v času pandemije virusa COVID-19 - implikacije za metodiko tujega jezika</b> <b>German and English language classes in primary school during the COVID-19 pandemic - implications for Foreign language didactics</b> <u>Željka Knežević</u> <i>Faculty of Teacher Education, University of Zagreb, Croatia</i>
13:45	<b>Možnosti učenja novega tujega jezika z aplikacijo Duolingo: mnenja hrvaških univerzitetnih študentov</b> <b>Potentials of learning a new foreign language using Duolingo app: opinions of Croatian university students</b> <u>Vladimir Legac</u> <i>Faculty of Teacher Education, University of Zagreb, Croatia</i>
14:00	<b>Stališča učiteljev o načinu poučevanja in doseženih rezultatih pouka maternega jezika med zaklepanjem</b> <b>Teachers' attitudes about the way of teaching and the realized outcomes of mother tongue teaching during the lockdown</b> <u>Luka Pongračić</u> <i>University of Slavonski Brod, Croatia</i> <i>Elementary School Vladimir Nazor Slavonski Brod, Croatia.</i>
14:15	<b>Formalno, neformalno in informalno učenje jezikov - izzivi in priložnosti v izobraževanju vzgojiteljev</b> <b>Formal, non-formal and informal language learning - challenges and opportunities in preschool teacher education</b> <u>Tamara Turza-Bogdan</u> <i>Faculty of Teacher Education, University of Zagreb, Croatia</i>



- 14:30 **Metoda pedagoške tišine pri poučevanju tujih jezikov**  
**The method of pedagogical silence in teaching foreign languages**  
 Alena Zdanovich  
*Yanka Kupala State University of Grodno, Belarus*
- 13:00 – 15:00 PREDAVALNICA 0.4 / HALL 0.4  
**Predstavitev prispevkov A2 / Paper presentations A2**  
 Chairperson: Katja Kozjek Varl
- 13:00 **Odnos učiteljev likovne umetnosti do sodobne likovne umetnosti**  
**Fine art teachers attitude to contemporary arts**  
 Katja Kozjek Varl  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 13:15 **Kulturno-umetnostna vzgoja v vrtcu in osnovni šoli**  
**Arts and cultural education in kindergarten and in primary school**  
 Olga Denac  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 13:30 **Izzivi in priložnosti spodbujanja kreativnosti pri književnem pouku**  
**Challenges and opportunities of encouraging creativity in literature classes**  
 Nina Železinger  
*Šolski center Kranj, Srednja ekonomska, storitvena in gradbena šola, Slovenija*
- 13:45 **Nemo magister nisi orator bonus: retorično usposabljanje kot sestavni del pedagoškega izobraževanja**  
**Nemo magister nisi orator bonus: Rhetorical training as an integral part of teacher education**  
 Janja Žmavc  
*Pedagoški Inštitut, Slovenija*
- 14:00 **Umetnost šteje**  
**Art counts**  
 Saša Žust  
*Osnovna šola Dragomelj, Slovenija*
- 14:15 **Vključevanje likovnih del umetnikov pri različnih predmetnih področjih (študija primera)**  
**Inclusion of artworks in various subject areas (case study)**  
 Janja Batič  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 14:30 **Ustvarjanje s hrano**  
**Creating with food**  
 Lili Jelen  
*Osnovna šola Hudinja, Slovenija*
- 13:00 – 15:00 ZELENA PREDAVALNICA / GREEN HALL  
**Predstavitev prispevkov A3 / Paper presentations A3**  
 Chairperson: Mateja Šilc
- 13:00 **Učenja otrok s posebnimi potrebami v prilagojenem programu z metodo NTC in metodo dialoškega branja**  
**Learnings of children with special needs in a modified program with the NTC method and the method of dialogic reading**  
 Sergeja Gabor  
*Center za sluh in govor Maribor, Slovenija*
- 13:15 **Možnosti izobraževanja za predmet zgodnja obravnava**  
**Opportunity of professional education and training for Early Childhood Intervention**  
 Bojana Globačnik  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 13:30 **Lahko branje kot personaliziran pristop k poučevanju oseb s posebnimi potrebami**  
**Easy-to-read as a personalized approach to teaching people with special needs**  
 Ana Polona Golobič  
*Center za sluh in govor Maribor, Slovenija*
- 13:45 **Kompetence učiteljev za delo z učenci s posebnimi potrebami z vidika staršev**  
**Teachers competencies for work with children with special needs from parents perspective**  
 Jana Ivartnik  
*Osnovna šola Loka Črnomelj, Slovenija*

14:00	<p><b>Študija primera: inkluzivni razred - težava ali priložnost?</b>  <b>Case study: inclusive classroom – challenge or acquiescence for a teacher?</b>  <u>Nina Volčanjk</u>  <i>Osnovna šola Bojana Ilcha Maribor, Slovenija</i></p>
14:15	<p><b>Spoprijemanje z vedenjskimi težavami otrok</b>  <b>Coping with children's behavioral problems</b>  <u>Anja Žavbi</u>  <i>Osnovna šola Toma Brejca, Slovenija</i></p>
14:30	<p><b>Struktura - element učinkovitega učenja</b>  <b>Structure – An Element of effective learning</b>  <u>Monika Rajšp</u>  <i>Center za sluh in govor Maribor, Slovenija</i></p>
13:00 – 15:00	<p>PREDAVALNICA 0.1 / HALL 0.1  <b>Predstavitev prispevkov A4 / Paper presentations A4</b>          Chairperson: Eva Kranjec</p>
13:00	<p><b>Karierna anksioznost in zadovoljstvo z življenjem bodočih vzgojiteljev in učiteljev</b>  <b>Career anxiety and life satisfaction of future preschool and primary education teachers</b>  <u>Eva Kranjec</u>  <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i></p>
13:15	<p><b>Svetovalno mentorstvo kot nov trend na področju izobraževanja učiteljev</b>  <b>Coaching like a new trend in the field of teacher education</b>  <u>Petra Cajnko</u>  <i>Fakulteta za naravoslovje in matematiko, Univerza v Mariboru, Slovenija</i></p>
13:30	<p><b>Motivi za vpis na fakulteto in samoregulativno učenje pri rednih in izrednih študentih</b>  <b>Student's motives for applying to university and self-regulated learning</b>  <u>Petra Fuks</u>  <i>Filozofska fakulteta, Univerza v Mariboru, Slovenija</i></p>
13:45	<p><b>Prepoznavanje in razvijanje vrlin študentov pedagoških smeri kot pomemben vidik profesionalnega razvoja</b>  <b>Identification and development of student teachers' character strengths as an important aspect of professional development</b>  <u>Polona Gradišek</u>  <i>Pedagoška fakulteta, Univerza v Ljubljani, Slovenija</i></p>
14:00	<p><b>Spodbujanje osebnostnega in strokovnega razvoja študentov pedagoških smeri v procesu sistematično vodenega reflektiranja timskega dela</b>  <b>Enhancing personal and professional development of student teachers in the process of systematically guided reflection on teamwork</b>  <u>Alenka Polak</u>  <i>Pedagoška fakulteta, Univerza v Ljubljani, Slovenija</i></p>
14:15	<p><b>Praktično usposabljanje v tujini v povezavi z jezikom stroke</b>  <b>Vocational education and training abroad in relation to English for specific purposes</b>  <u>Tina Rajhman</u>  <i>Šolski Center Kranj, Slovenija</i></p>
14:30	<p><b>Iz retrospektive lastnega mentoriranja diplomskih del absolventov dodiplomskih pedagoških dvopredmetnih študijskih programov Kemija in izbrano predmetno področje</b>  <b>From the retrospective of self-mentoring of diploma theses of graduates of undergraduate pedagogical two-subject programs Chemistry and other selected subject area</b>  <u>Darinka Sikošek</u>  <i>Fakulteta za naravoslovje in matematiko, Univerza v Mariboru, Slovenija</i></p>
14:45	<p><b>Profesionalni razvoj pomočnikov ravnateljev</b>  <b>Professional development of assistant principals</b>  <u>Sanja Otto</u>  <i>Osnovna šola Lava, Slovenija</i></p>





15:00-15:30 Odmor / Break

15:30 – 17:30 PREDAVALNICA 0.100 / HALL 0.100

**Predstavitev prispevkov B1 / Paper presentations B1**

Chairperson: Polona Jančič Hegediš

15:30 **Comparison of education documents of the National and School curriculum with a focus on music education at the Primary School**

Jarmila Jurášová Šteigerová

*Comenius University In Bratislava, Slovakia*

15:45 **Predvidevanje družbenih okoliščin in vloge učiteljev v prihodnosti**  
**Predicting social circumstances and teacher's role in the future**

Snježana Dubovicki

*Faculty of Education, Josip Juraj Strossmayer University of Osijek, Croatia*

16:00 **Mnenja študentov o uporabi inovativnih oblik učenja in poučevanja**  
**Students' opinions on the use of innovative forms of learning and teaching**

Maja Hmelak

*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*

16:15 **Odnos učiteljev do metod neformalnega izobraževanja**  
**Teacher's attitudes towards methods of non-formal education**

Petra Papierníková

*Comenius University in Bratislava, Slovakia*

16:30 **Evalvacija EGIFT programa v izobraževanju prihodnjih učiteljev**  
**Evaluation of the EGIFT programme in preservice teacher education**

Neža Podlogar

*Pedagoška fakulteta, Univerza v Ljubljani, Slovenija*

16:45 **Manj je lahko včasih tudi več!: O (ne)pomembnosti šolskih znanj in času pandemije covid-19** **Less can sometimes be more!: On the (in)significance of school knowledge and the time of the Covid-19 pandemic**

Gregor Torkar

*Pedagoška fakulteta, Univerza v Ljubljani, Slovenija*

17:00 **Razvoj kompetenc osnovnošolskih učiteljev za spodbujanje zdravega načina življenja in dobrega počutja otrok med 6. in 12. letom starosti**  
**Development of competencies of primary school teachers for promoting a healthy lifestyle and well-being of children 6-12 years of age**

Joca Zurc

*Filozofska fakulteta, Univerza v Mariboru, Slovenija*

17:15 **Kompetence učiteljev učiteljev: perspektiva prihodnjih učiteljev**  
**University-based teacher educators' competences: student teachers' perspective**

Tina Štemberger

*Pedagoška fakulteta, Univerza na Primorskem, Slovenija*

15:30 – 17:30 PREDAVALNICA 0.4 / HALL 0.4

**Predstavitev prispevkov B2 / Paper presentations B2**

Chairperson: Maja Hmelak

15:30 **Razvoj kompetenc v predšolski vzgoji in izobraževanju: učenje, ki temelji na nalogah in projektno učenje v Sloveniji, na Slovaškem in Češkem**  
**Competence Development in Early Childhood Education: Task-Based Learning and Project-Based Learning in Slovenia, Slovakia and Czech Republic**

Darja Antolin Drešar

*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*

15:45 **Timsko delo v vrtcu kot izziv v sodobni družbi**  
**Teamwork in kindergarten as a challenge in modern society**

Maja Hmelak

*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*

16:00 **Multimodalna pismenost študentov predšolske vzgoje**  
**Multimodal literacy of pre-school education students**

Barbara Bednjički Rošer

*Vrtec Ivana Glinška Maribor, Slovenija*

- 16:15 **Spremembe pogojev predšolske vzgoje na Češkem v povezavi s pandemijo Covid 19**  
**Pre-primary education in the Czech Republic and its changes as a result of measures responding to the Covid pandemic**  
 Radmila Burkovičová  
*Faculty of Education, Department of Pre-primary and Primary Education, University of Ostrava, Czech Republic*
- 16:30 **Preprečevanje motenj v komunikaciji pri predšolskih otrocih in težave pri njenem izvajanju z vidika vzgojiteljev v vrtcih**  
**Prevention in Communication Sciences and Disorders with Preschool Children and Difficulties in it's Implementation from the Point of View of Teachers in Kindergartens**  
 Daniela Kilduff  
*University of Ostrava, Czech Republic*
- 16:45 **Analiza dnevnikov praktičnega usposabljanja za didaktiko družboslovja: kakšna je usposobljenost študentov predšolske vzgoje za poučevanje družboslovja?**  
**Analysis of practical internship diaries for didactics of social sciences: How competent are students**  
 Klavdija Kangler  
*Virtec Otona Župančiča, Slovenska Bistrica, Slovenija*
- 17:00 **Značilnosti starševske vključenosti v pripravo otroka na šolo**  
**Attributes of parental involvement in child's school preparation**  
 Petra Papierníková  
*Comenius University in Bratislava, Slovakia*
- 15:30 – 17:30 ZELENA PREDAVALNICA / GREEN HALL  
**Predstavitev prispevkov B3 / Paper presentations B3**  
 Chairperson: Janja Tekavc
- 15:30 **Izvori in komponente poklicnega stresa iz učiteljske perspektive**  
**Sources and components of occupational stress from the teachers' perspective**  
 Toni Maglica  
*Faculty of Humanities and Social Sciences, University of Split, Croatia*
- 15:45 **Spodbujanje in razvijanje čuječnosti pri bodočih vzgojiteljih in učiteljih**  
**Encouraging and developing mindfulness in future preschool and elementary education teachers**  
 Janja Tekavc  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 16:00 **Ali izobražujemo bodoče učitelje za delo v interesnih dejavnostih?**  
**Do we educate future teachers to work in extracurricular activities**  
 Smiljana Zrilić  
*University of Zadar, Croatia*
- 16:15 **Upravljanje vzgojno-izobraževalne ustanove - perspektiva ravnatelja**  
**Management of educational institution - the perspective of the headmaster**  
 Violeta Valjan Vukić  
*Department of Teachers and Preschool Teachers Education, University of Zadar, Croatia*
- 16:30 **Pomen učne analitike v izobraževanju**  
**The Importance of Learning Analytics in Education**  
 Vladimir Grubelnik  
*Fakulteta za elektrotehniko, računalništvo in informatiko, Univerza v Mariboru, Slovenija*



15:30 – 17:30	<p>PREDAVALNICA 0.1 / HALL 0.1</p> <p><b>Predstavitev prispevkov B4 / Paper presentations B4</b></p> <p>Chairperson: Alenka Lipovec</p>
15:30	<p><b>EXPERT – Video razlage in strategije kriznega poučevanja na daljavo</b>  <b>EXPERT – Educational eXplanations and Practices in Emergency Remote Teaching</b></p> <p><u>Alenka Lipovec</u>  <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i></p>
15:45	<p><b>Analiza videorazlag za matematiko na razredni stopnji</b>  <b>Video lectures analysis of elementary school mathematics</b></p> <p><u>Simon Brezovnik</u>  <i>Fakulteta za naravoslovje in matematiko, Univerza v Mariboru, Slovenija</i></p>
16:00	<p><b>Kako učencem približati poklic kemijskega inženirja?</b>  <b>How to bring the profession of chemical engineer closer to pupils?</b></p> <p><u>Brina Dojer</u>  <i>Fakulteta za naravoslovje in matematiko, Univerza v Mariboru, Slovenija</i></p>
16:15	<p><b>Razvoj tehniške ustvarjalnosti pri študentih razrednega pouka v času pandemije Covid 19</b> Development of technical creativity among elementary education students during the Covid 19 pandemic</p> <p><u>Kosta Dolenc</u>  <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i></p>
16:30	<p><b>Primeri dobrih praks poučevanja tehnike in tehnologije na daljavo v osnovni šoli</b>  <b>Good practice examples of distance teaching technical subjects in lower secondary school</b></p> <p><u>Katja Krecenbaher Mernik</u>  <i>Osnovna šola Franceta Prešerna, Maribor, Slovenija</i></p>
16:45	<p><b>Evalvacija samostojnih izdelkov v domačih delavnicah pri pouku Tehnike in tehnologija</b>  <b>The evaluation of self-made products at home during online technology lessons</b></p> <p><u>Uroš Ozmec</u>  <i>Osnovna šola Selnica Ob Dravi, Slovenija</i></p>
17:00	<p><b>Ideja + SketchUp + CNC = Končni izdelek</b>  <b>Idea + SketchUp + CNC = Final product</b></p> <p><u>Marko Podpečan</u>  <i>Oš Angela Besednjaka, Slovenija</i></p>
17:15	<p><b>Integracija matematike in drugih področij kurikulumuma v slovenskih vrtcih, kot jo zaznavajo bodoči vzgojitelji predšolske vzgoje</b>  <b>Prospective teachers' perceptions of the integration of mathematics and other curriculum areas in Slovenian Kindergartens</b></p> <p><u>Darja Antolin Drešar</u>  <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i></p>
18:00	<p>AMFITEATER</p> <p><b>Slavnostna prireditev ob 60-letnici Pedagoške fakultete</b>  <b>Official celebration of the 60th anniversary of the Faculty of Education</b></p>

**Petek, 1. oktober / Friday, October 1st**

09:30	AMFITEATER <b>Plenarno predavanje 3 / Plenary lecture 3</b> <b>Inkluzivna vzgoja in izobraževanje ter kompetence učiteljev</b> <b>Inclusive Education and Teachers' competence</b> prof. dr. Majda Schmidt Krajnc <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i>
10:15	AMFITEATER <b>Plenarno predavanje 4 / Plenary lecture 4</b> <b>Znanost kot pravljica pred spanjem</b> <b>Science as a bedtime fairy tale</b> prof. dr. Siniša Opić <i>Faculty of Science, University of Zagreb, Croatia</i>
11:00 – 11:30	Odmor/Coffee break
11:30 – 13:00	PREDAVALNICA 0.100 / HALL 0.100 <b>Predstavitev prispevkov C1 / Paper presentations C1</b> Chairperson: Sabina Ograjšek
11:30	<b>CLIL izobraževalni pristop poučevanja jezika pomembno prispeva k poznavanju trajnosti in trajnostnega turizma</b> <b>The CLIL educational approach to language teaching makes an important contribution to knowledge about sustainability and sustainable tourism</b> <u>Jana Ambrožič-Dolinšek</u> <i>Pedagoška fakulteta, Fakulteta za naravoslovje in matematiko, Univerza v Mariboru, Slovenija</i>
11:45	<b>Vključenost gibanja v jezikovno usvajanje: na primeru italijanskih pravilnih in nepravilnih glagolov</b> <b>The inclusion of movement in language acquisition: the case of Italian regular and irregular verbs</b> <u>Mojca Kompara Lukančič</u> <i>Fakulteta za turizem, Fakulteta za varnostne vede, Univerza v Mariboru, Slovenija</i>
12:00	<b>Na zanimiv in igriv način do znanja angleščine v 1. triadi</b> <b>Learning English in first triad in interesting and vivid way</b> <u>Nataša Kuselj</u> <i>Osnovna šola Mokronog, Slovenija</i>
12:15	<b>Učenje in poučevanje tujega jezika v zgodnjem obdobju s pomočjo IKT: vpogled v stališča mlajših učencev tujega jezika v Sloveniji</b> <b>Teaching and learning a foreign language in the early age through ICT: An insight into the attitudes of young language learners in Slovenia</b> <u>Tilen Smajla</u> <i>Osnovna šola/Scuola elementare Pier Paolo Vergerio Il Vecchio, Koper, Slovenija</i>
11:30 – 13:00	PREDAVALNICA 0.4 / HALL 0.4 <b>Predstavitev prispevkov C2 / Paper presentations C2</b> Chairperson: Simona Pulko
11:30	<b>Izobraževanje otrok z ADHD v gozdnem okolju</b> <b>Educating children with ADHD in forest surrounding</b> <u>Nikola Adelaida Řandová</u> <i>Institute for Research and Development of Charles University of Prague, Czech Republic</i>
11:45	<b>Inkluzivno pedagoško delo predmetnega učitelja z učenci, ki kažejo čustvene in vedenjske težave</b> <b>Inclusive pedagogical work in subject teaching with students manifesting emotional-behavioural disorders ebd</b> <u>Nataša Vlah</u> <i>Faculty of Teacher Education, University of Rijeka, Croatia</i>
12:00	<b>Strokovno izpopolnjevanje učiteljev za delo z otroki s težavami v razvoju v Franciji, Nemčiji, na Danskem in Škotskem</b> <b>Professional development in teaching students with special educational needs in France, Germany, Denmark, and Scotland</b> <u>Davor Vukelić</u> <i>Faculty of Humanities and Social Sciences, Department of Pedagogy, University of Rijeka, Croatia</i>



- 12:15 **Literarna dela o otrocih s posebnimi potrebami**  
**Literary works about children with special needs**  
Dragica Haramija  
*Pedagoška fakulteta in Filozofska fakulteta, Univerza v Mariboru, Slovenija*
- 
- 11:30 – 13:00 ZELENA PREDAVALNICA / GREEN HALL  
**Predstavitev prispevkov C3 / Paper presentations C3**  
Chairperson: Črtomir Matejek
- 11:30 **Integracija mednarodnih učiteljev z migrantsko izkušnjo v evropske izobraževalne sisteme**  
**Integration of international teachers with migrant experience into European education systems**  
Mihaela Brumen  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 11:45 **Vpliv stališč učiteljev do stereotipnih tem na oblikovanje učnega okolja na primeru uporabe stripa pri pouku slovenščine**  
**The impact of teachers' attitudes towards stereotypical themes on the formation of the learning environment with the use of comics in Slovenian language classes**  
Maja Kerneža  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 12:00 **Inkluzivna praksa v odnosu do učencev in staršev priseljencev v prilagojenem osnovnošolskem vzgojno-izobraževalnem programu**  
**Inclusive practice in relation to children and parents of immigrants in special needs primary education program**  
Uroš Klobas  
*Center za usposabljanje Elvira Vatovec, Strunjan, Slovenija*
- 12:15 **Odražanje multikulturalnosti učencev 1. razreda pri pisanju črk in besed**  
**Reflection of the Multiculturalism of 1st Grade Students in Writing Letters and Words**  
Marija Ropič Kop, Saša Klar Zadravec  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 
- 11:30 – 13:00 PREDAVALNICA 0.1 / HALL 0.1  
**Predstavitev prispevkov C4 / Paper presentations C4**  
Chairperson: Jerneja Žnidaršič
- 11:30 **Razlike izobraževanja učiteljev klavirja: koncepti v petih državah**  
**Differences of education of piano teachers: concepts in five countries**  
Ivana Franceschi  
*Academy of Arts, University of Split, Croatia*
- 11:45 **Analiza načrtovanja ciljev glasbene vzgoje študentov razrednega pouka pri praktičnem usposabljanju na daljavo**  
**Analysis of music education objectives planning of students in distance internship**  
Bojan Kovačič  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 12:00 **Nekateri vidiki izvajanja glasbene ustvarjalnosti v učni praksi na primerih Črne gore in Slovenije**  
**Some aspects of the implementation of musical creativity in teaching practice on the example of Montenegro and Slovenia**  
Jelena Martinović Bogojević  
*Music Academy, University of Montenegro, Montenegro*
- 12:15 **Digitalne kompetence v okviru predšolske glasbene vzgoje**  
**Digital competencies in the context of preschool music education**  
Blaženka Bačlija Sušič  
*Faculty of Teacher Education, University of Zagreb, Croatia*
- 12:30 **Ko spregovori glasba: učiteljeva pot do uspešnega glasbenega pouka**  
**When music begins to speak: the teacher's path to joyful music lesson**  
Konstanca Zalar  
*Pedagoška Fakulteta, Univerza v Ljubljani, Slovenija*
- 
- 13:00 – 14:00 Kosilo / Lunch



14:00 – 15:30	<p>PREDAVALNICA 0.100 / HALL 0.100</p> <p><b>Predstavitev prispevkov D1 / Paper presentations D1</b></p> <p>Chairperson: Alenka Lipovec</p>
14:00	<p><b>Vokalno-tehnično izobraževanje študentov na učiteljski fakulteti</b>  <b>Vocal-technical education of students at the faculty of teacher education</b></p> <p><u>Tamara Jurkič Sviben</u>  <i>Faculty of Teacher Education, University of Zagreb, Croatia</i></p>
14:15	<p><b>Ekološka zavest učiteljev o pomenu dvoživk (Amphibia) in njihovih življenjskih okolij kot učnega okolja (značilnosti in ogroženost)</b>  <b>Ecological Awareness of Teachers about the Importance of Amphibians (Amphibia) and their Habitats as Teaching Environments (Characteristics and Endangerment)</b></p> <p><u>Darinka Kiš-Novak</u>  <i>Faculty of Teacher Education, University of Zagreb, Croatia</i></p>
14:30	<p><b>Poučevanje matematike v zgodnjih letih</b>  <b>Teaching Math at Early Years</b></p> <p><u>Réka Kissné Zsámboki</u>  <i>University of Sopron Benedek Elek Faculty of Pedagogy, Hungary</i></p>
14:45	<p><b>Ekскурzije kot pomemben dejavnik pri razvoju okoljske pismenosti učencev</b>  <b>Excursions as an important factor in the development of students' environmental literacy</b></p> <p><u>Jozef Macko</u>  <i>Faculty of Education, Catholic University, Slovakia</i></p>
15:00	<p><b>Does future teachers' TPACK develop during their college education?</b></p> <p><u>Maja Brust Nemet</u>  <i>Faculty of Education, Josip Juraj Strossmayer University of Osijek, Croatia</i></p>
15:15	<p><b>Modeli sodobnega poučevanja v poučevanju tehnične kulture</b>  <b>Models of modern teaching in the teaching of technical culture</b></p> <p><u>Anna Alajbeg</u>  <i>Faculty of Science, University of Split, Croatia</i></p>
14:00 – 15:30	<p>PREDAVALNICA 0.4 / HALL 0.4</p> <p><b>Predstavitev prispevkov D2 / Paper presentations D2</b></p> <p>Chairperson: Monika Mithans</p>
14:00	<p><b>Analiza slikovnega gradiva v učbenikih za predmet družba v 4. in 5. razredu osnovne šole</b>  <b>Analysis Of Visual Materials In Textbooks For Subject Social Studies in Fourth and Fifth Grade of Elementary School</b></p> <p><u>Vanesa Kidrič</u>  <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i></p>
14:15	<p><b>Slikovno gradivo v učbenikih za predmet spoznavanje okolja v prvem triletju osnovne šole</b>  <b>Visual Materials in Textbooks For Subject Environmental Studies in First Three Years of Elementary School</b></p> <p><u>Barbara Lazički</u>  <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i></p>
14:30	<p><b>Evalvacija slovenskih učbenikov s kazalniki kakovosti</b>  <b>Evaluation of Slovenian textbooks with quality indicators</b></p> <p><u>Milena Košak Babuder</u>  <i>Pedagoška fakulteta, Univerza v Ljubljani, Slovenija</i></p>
14:45	<p><b>Težavnost besedil v šolskih učbenikih: Kako jo lahko določamo z merami berljivosti in očesnega sledilca?</b>  <b>The difficulty of texts in school textbooks: How can it be determined using readability and eye-tracker measures?</b></p> <p><u>Tadej Švorc</u>  <i>Fakulteta za računalništvo in informatiko, Univerza v Ljubljani, Slovenija</i></p>
15:00	<p><b>INSHIP: Za kakovostno pedagoško prakso prihodnjih učiteljev</b>  <b>INSHIP: Towards quality in teaching practice of pre-service teachers</b></p> <p><u>Mojca Juriševič</u>  <i>Univerza v Ljubljani, Pedagoška Fakulteta, Slovenija</i></p>
15:15	<p><b>Sodelovanje, izziv in nuja sodobne šole</b>  <b>Cooperation, Challenges and the Necessities of the Contemporary School</b></p> <p><u>Monika Mithans</u>  <i>Pedagoška fakulteta, Univerza v Mariboru, Slovenija</i></p>



- 14:00 – 15:30 ZELENA PREDAVALNICA / GREEN HALL  
**Predstavitev prispevkov D3 / Paper presentations D3**  
Chairperson: Tomaž Bratina
- 14:00 **Mnenje učencev tretje triade o izobraževanju na daljavo v času epidemije COVID-19**  
**Opinion of third triad students on distance learning during the covid-19 epidemic**  
Nuša Bračko  
*Filozofska fakulteta, Univerza v Mariboru, Slovenija*
- 14:15 **Stališča in doživljanje vsiljenega izobraževanja na daljavo bodočih učiteljev v času pandemije**  
**Views and perceived experiences of prospective teachers on forced remote education during pandemic**  
Mateja Ploj Vrtič  
*Fakulteta za naravoslovje in matematiko, Univerza v Mariboru, Slovenija*
- 14:30 **Izobraževanja učiteljev za potrebe poučevanja na daljavo**  
**Education for teachers for distance teaching needs**  
Maruša Meža  
*Osnovna šola Istrskega odreda, Gračišče, Slovenija*
- 14:45 **Raba učnih metod pri pouku in poučevanju preko spleta**  
**Use of teaching methods at classes and teaching online**  
Iztok Lačen  
*Osnovna šola I, Murska Sobota, Slovenija*
- 15:00 **Identiteta, splet in šola na daljavo**  
**Identity, Internet and distance learning**  
Martina Žličar  
*Osnovna šola Vranksko-tabor, Slovenija*
- 15:15 **Vpliv obdobja COVID-19 na pridobljene kompetence študentov predšolske vzgoje na področju gibanja**  
**The influence of the COVID-19 period on preschool students' acquired competencies in the physical activities' area**  
Miran Muhič  
*Pedagoška fakulteta, Univerza v Mariboru, Slovenija*
- 
- 14:00 – 15:30 PREDAVALNICA 0.1 / HALL 0.1  
**Predstavitev prispevkov D4 / Paper presentations D4**  
Chairperson: Kosta Dolenc
- 14:00 **Generiranje testov s pomočjo programske kode**  
**Generating tests with program code**  
Magda Papič  
*Šc Kranj, Slovenija*
- 14:15 **Ocenjevanje znanja na daljavo – tudi v prihodnje?**  
**Distance grading - also in the future?**  
Alenka Potočnik Zadrgal  
*Šolski center Kranj, Srednja tehniška šola, Slovenija*
- 14:30 **Spletna aplikacija za računalniško analizo berljivosti besedil**  
**A web application for computer analysis of text readability**  
Tadej Škvorc  
*Fakulteta za računalništvo in informatiko, Univerza v Ljubljani; Inštitut Jožef Štefan, Slovenija*
- 14:45 **Razvijanje prostorske inteligence pri poučevanju na daljavo**  
**Developing Spatial Intelligence in distance teaching**  
Igor Košak  
*Osnovna šola Šalek, Slovenija*
- 15:00 **Možnost uporabe virov znanja in učnih pripomočkov pri poučevanju preko televizije**  
**The Possibilities of Using Sources of Knowledge and Teaching Aids in Teaching on Television**  
Mila Bulič  
*Faculty of Humanities and Social Sciences, University of Split, Croatia*
- 
- 15:30 – 16:00 **Plenum**



**Knjiga povzetkov**  
**The Book of Abstracts**

September 30 - October 1, 2021



**Plenarno predavanje / Plenary lecture**

**Učitelji, razpeti med sistemskim izobraževanjem in 'izobraževanjem à la carte'**

**Teachers in the gap between systemic education and "à la carte education"**

**Dijana Vican**<sup>1</sup>

<sup>1</sup>*University of Zadar, Zadar, Croatia*

Cilj predavanja je problematizirati vpliv družbeno-kulturnih, vrednostnih in ekonomskih sprememb, informacijskih in komunikacijskih tehnologij ter številnih drugih dejavnikov, zaradi katerih je sodobni učiteljski poklic bolj zapleten in zahteven od tradicionalnega učiteljskega poklica.

Kompetenčni profil učiteljev je med drugim razpet med različnima konceptoma: konceptom učinkovitega izvajanja sistemskega izobraževanja, tj. omogočanje študentom, da sistemsko pridobivajo osnovne kompetence, in konceptom „izobraževanja à la carte“, ki temelji na omogočanju študentom, da pridobijo raznoliko izobrazbo. Posledice sprememb na formalno sistemsko izobraževanje in kompetenčni profil učiteljev bodo predstavljene s pomočjo nasprotja teh dveh konceptov.

Z razlago kompetenčnega profila učiteljev, ki upoštevajoč zahteve vseh izobraževalnih politik in enega od ciljev formalne (in obvezne) izobrazbe poučujejo učence za vseživljenjsko učenje, avtorica razmišlja o protislovjih v izobraževalni dejavnosti – poučevanju - in izobraževalnem procesu – učenju - kot o praktičnih težavah pri uresničevanju ciljev izobraževalnega sistema.

The aim of the lecture is to problematise the impact of socio-cultural, value and economic changes, information and communication technologies and a number of other factors that make the contemporary teaching profession more complex and demanding than the traditional teaching profession.

The competency profile of teachers lies, among other things, in the gap between two different concepts; the concept of effective implementation of systemic education, that is, enabling students to systemically acquire basic competencies and the concept of "à la carte education", which is based on enabling students to acquire diverse literacy. The implications of the changes on formal systemic education and the competence profile of teachers will be presented through the opposition of these two concepts.

By explaining the competence profile of those who teach through the training of students for lifelong learning as one of the requirements of all educational policies and one of the goals of formal (and compulsory) education, the author considers contradictions in education activity - teaching and educational process - learning as practical difficulties in realising the educational goals of the education system.

**Plenarno predavanje / Plenary lecture**

**Mejniki v izobraževanju učiteljev: pogled nazaj, pogled naprej**

**Milestones in teacher education: looking back, looking forward**

Pavel Zgaga<sup>1</sup>

<sup>1</sup>*Pedagoška fakulteta, Univerza v Ljubljani, Ljubljana, Slovenia*

Jubileji so priložnost za refleksijo in temu je namenjen tudi ta prispevek. Ob častitljivem jubileju akademske ustanove, namenjene izobraževanju učiteljev, bo na eni strani naša refleksija namenjena mejnikom, ki zaznamujejo prehojeno pot, pa tudi poglavitnim idejam, dilemam in konceptualnim rešitvam, ki so to pot trasirale skozi več etap. Od sredine prejšnjega stoletja ugotavljamo dva ključna mejnika: to je bil začetek izobraževanja učiteljev na terciarni stopnji v prvih povojnih letih, nato pa – prav v obdobju postopnega osamosvajanja Slovenije – njegova popolna integracija v splošni okvir univerzitetnega študija. Ta mejnika označujeta zgodovinsko napredovanje področja izobraževanja učiteljev, ki se je v minulih treh desetletjih še naprej srečevalo z vedno novimi izzivi. Tako kot v preteklosti so bili ti izzivi povezani s splošnimi družbenimi spremembami, kot tudi s specifičnimi težavami, ki jih te spremembe vnašajo v kompleksnost šolskega polja. Zato bo v tem prispevku refleksija namenjena tudi izzivom, vprašanjem in dilemam, sredi katerih smo danes in na katere očitno še nimamo vseh odgovorov.

Anniversaries are occasions for reflection, and this is what this paper is intended to do. On the occasion of the venerable anniversary of the academic institution dedicated to teacher education, we shall reflect on the one hand, on the milestones that have marked the journey so far and, on the other, on the main ideas, dilemmas and conceptual solutions that have accompanied this journey through several stages. Since the middle of the last century, we have identified two important milestones: the beginning of teacher education at the tertiary level in the early post-war period and then, just at the time of Slovenia's gradual independence, its full integration into the general framework of university studies. These two milestones mark the historical rise of the field of teacher education, which has been confronted with ever new challenges over the last three decades. As in the past, these challenges have been linked both to general societal changes and to the specific problems that these changes bring to the complexity of the school field. Therefore, in addition, the reflection in this paper will also focus on the challenges, questions and dilemmas, which we find ourselves in the midst of today, and to which we obviously do not yet have all the answers.

**Plenarno predavanje / Plenary lecture**

## Inkluzivna vzgoja in izobraževanje ter kompetence učiteljev

### Inclusive Education and Teachers' competence

Majda Schmidt Krajnc<sup>1</sup>

<sup>1</sup>*Pedagoška fakulteta, Univerza v Mariboru, Maribor, Slovenia*

Že vrsto let je inkluzivno izobraževanje globalni cilj večine izobraževalnih sistemov. Več mednarodnih organizacij (npr. UNESCO, UNICEF) promovira inkluzivno izobraževanje kot pravico vseh učencev do izobraževanja. Cilj 4 Organizacije združenih narodov 2030 'Agenda za trajnostni razvoj' (OZN, 2015) in najnovejše smernice Unesca (2017) posebej poudarjajo perspektivo človekovih pravic s priznavanjem vključenosti in pravičnosti kot temeljnih načel, ki morajo usmerjati vse evropske izobraževalne politike in prakse. Naraščanje števila učencev s posebnimi potrebami (PP) v rednih razredih šol zaradi spremenjene politike in zakonodaje, ki omogoča vzgojno-izobraževalno inkluzijo, ni značilno le za Slovenijo, ampak so ti trendi očitni po vsej Evropi kakor zunaj nje. Promoviranje pravičnega in inkluzivnega vzgojno-izobraževalnega sistema zastavlja vprašanja, kako v praksi pripraviti učitelje za poučevanje v razredih z različnimi učenci (učenci s PP, učenci iz drugačnega sociokulturnega ozadja ipd.). Multidimenzionalni model učiteljevih kompetenc odraža spoznanje, da učiteljeve kompetence ne vključujejo le kognitivnih vidikov (veščin, znanja), temveč tudi prepričanje o učenju, motivaciji in samoregulaciji. Ena od ključnih komponent profila 'inkluzivnega učitelja' je podpora vsem učencem, ki zajema dve obsežnejši področji kompetenc: a) promoviranje akademskega, socialnega in emocionalnega učenja; b) učinkovite pristope poučevanja v heterogenih razredih.

Inclusive education has for many years been viewed as a global goal for most education systems. Several international organisations (e.g. UNESCO, UNICEF) promote inclusive education as a right for all students. Goal 4 of the United Nations' 2030 "Agenda for Sustainable Development" (UN, 2015) as well as the most recent UNESCO guidelines (2017) espouse the human rights perspective by acknowledging inclusion and equity as basic principles, which should guide all European educational policies and practices. Focus on inclusion policies and legislation has consequently led to a rise in the number of students with special needs (SN) included in regular classes at schools. This trend is not only significant in Slovenia; analogous trends can also be observed across and outside Europe. Following the practice to promote a more equitable and inclusive education system raises the questions of how to prepare teachers for teaching diverse students in regular classes (students with SN, students from different socio-cultural backgrounds etc.). The multidimensional model of teacher competence reflects that teacher competence not only includes cognitive aspects (skills, knowledge), but also beliefs related to learning, motivation and self-regulation. One key component of the profile of the "inclusive teacher" is that they will support all students, which encompasses two broad areas of competence: a) promoting academic, social and emotional learning, and b) effective teaching approaches in heterogeneous classes.

**Plenarno predavanje / Plenary lecture**

## Znanost kot pravljica pred spanjem

### Science as a bedtime fairy tale

Siniša Opić<sup>1</sup>

<sup>1</sup>*Faculty of Science, University of Zagreb, Zagreb, Croatia*

Znanost je največje človekovo odkritje, najlepša pravljica z množico čarobnih, manj verjetnih dogodkov, zmedenih dogodkov in osupljivih izidov. Pogosto preseže obzorje opazovalca v prostor in čas nemogočega, abstraktnega, vzročnega in akavzalnega. Z branjem pravljič otrokom pred spanjem jim pravzaprav privzgjamo temelje znanosti. Ko pa otroci hodijo v šolo, jim beremo vse manj pravljič in so vedno manj presenečeni nad svetom okoli sebe. Vse pogosteje vsrkavajo naše odgovore, ne da bi postavljali vprašanja in se spraševali o obstoječih razlagah. Čedalje bolj ihtavo pomnijo, ne da bi razumeli, kaj se učijo, vse manj si želijo iti do nemogočega, zato da bi spremenili mogoče. Pod krinko 'resne znanosti' ali kot bi Thomas S. Kuhn poimenoval običajne vede, se šolski sistem duši v normah in resnosti znanosti, namesto da bi spodbudil radovednost in čudežno spraševanje obstoječega. Nekoč je Robert Oppenheimer spoznal, da se na ulici igrajo otroci, ki bi lahko rešili nekatere moje glavne fizikalne težave, ker imajo oblike zaznavanja, ki sem jih sam že zdavnaj izgubil. In koliko ste vi izgubili med odraščanjem oz. še pomembneje, koliko so danes izgubili vaši otroci v šoli?

»Dejstva so negotova, vrednosti sporne, visoki vložki in spremembe so nujne.«

Science is man's greatest discovery, the most beautiful fairy tale with a multitude of magical, less likely events, confusing events, and breath-taking outcomes. It often goes beyond the horizon of the observer, into the space and time of the impossible, the abstract, the causal, and the acausal. By reading fairy tales to children before bed we are actually instilling in them the foundations of science. But when children go to school, we are reading them fewer and fewer fairy tales, and they are less and less surprised by the world around them. They are increasingly absorbing our answers, without asking questions and questioning the existing ones. They remember more and more, without understanding what they are learning, so they are wanting less and less to do the impossible to change the possible. Under the guise of "serious science," or as Thomas S. Kuhn would call it, normal sciences, the school system suffocates children in the norms and seriousness of science, instead of stimulating their curiosity and miraculous questioning of the existing. On one occasion Robert Oppenheimer realised that "there are children playing in the street and it could solve some of my main physics problems because they have forms of perception that I lost a long time ago". How much did you lose growing up, or more importantly how much did your children lose in school today? "Facts are uncertain, values controversial, stakes high, and change necessary."

**Oral presentations (order as in the programme)**

## Nov digitalni pristop k poučevanju in razvoju jezikovnih veščin

### New digital approach to teaching and developing language skills

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Jezik je abstrakten sistem znakov, ki se kaže skozi jezikovne dejavnosti poslušanja, govora, branja in pisanja. Spodbujanje razvoja vseh štirih jezikovnih veščin v enaki meri je eden od ciljev pouka hrvaškega jezika (materne jezika) na Pedagoški fakulteti z namenom spodbujanja razvoja jezikovnih veščin in pridobivanja različnih strategij za njihovo izboljšanje. Upoštevajoč dejstvo, da je pandemija koronavirusa prizadela dve šolski in študijski leti, ter upoštevajoč prehod na spletna predavanja na fakultetah, se učitelji spopadajo z izzivom prenosa znanja študentom, motiviranja študentov za aktivno sodelovanje in razvijanja jezikovnih veščin v virtualnem okolju, predvsem veščin aktivnega poslušanja in govora. Komunikacija s študenti je omogočena z uporabo digitalnih orodij, vendar so ta manj primerna za ocenjevanje in spremljanje napredka študentov. Zato je bila izvedena raziskava, v kateri je bil uporabljen spletni vprašalnik med študenti prvega, drugega in tretjega letnika programov za učitelje osnovnih šol in predšolske vzgoje o njihovem zadovoljstvu s spletnim poukom hrvaškega jezika. Pričakovati je, da so vsi študentje zadovoljni s spletnimi predavanji, ker so bolj sproščena. Hkrati pa študentje menijo, da tradicionalna predavanja v učilnici niso nadomestljiva. Ključne besede: spletna predavanja, hrvaški jezik, jezikovne veščine, digitalna orodja

Language is an abstract system of signs manifested through the language activities of listening, speaking, reading and writing. Encouraging development of all four language skills is one of the goals of Croatian language (mother tongue) classes at the Faculty of Teacher Education in order to foster developing language skills and acquiring different strategies for improving them. Considering both the fact that the coronavirus pandemic has affected two school and academic years and caused a transition to online classes at faculties, teachers are facing the challenge of transferring knowledge to students, motivating them to actively take part and developing language skills in a virtual environment, especially the skills of active listening and speaking. Communication with students is made possible by the use of digital tools but they are less adequate for assessment and monitoring of students' progress. This is why research has been conducted, in which an online questionnaire was used, among first, second- and third-year students of the programmes for primary school and preschool teachers about their satisfaction with online classes in the Croatian language. It is expected that all students are satisfied with online classes because they are more relaxed, but also that they consider traditional classes in a physical classroom irreplaceable.

Keywords: online lectures, Croatian language, language skills, digital tools

## Hrvaščina kot drugi jezik – od jezikovne politike v izobraževanju do programa izobraževanja učiteljev

### Croatian as a second language – from language policy in education to teacher education programme

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Jezikovna politika v izobraževanju določa zastopanost in status jezika v izobraževanju – od izbire jezika pouka do določanja, kateri jeziki bodo (še) poučevani v izobraževalnem sistemu (Spolsky, 2017), njena določila pa so ključnega pomena tudi za izobraževanje učiteljev (Wiley, 2013). Raziskovanje jezikovne politike v izobraževanju v Republiki Hrvaški je v glavnem usmerjeno na tuje jezike in večjezičnost v hrvaškem izobraževalnem sistemu (glej Košuta, Patekar, Vičević Ivanović, 2017, Lujić, 2016, Papa, 2008, Bratulić et al., 2017) ter na izobraževanje v manjšinskih jezikih (glej Blažević Simić, 2013, 2014a, 2014b, 2018, Čorkalo Biruški et al., 2020, Majdan, 2010, Turza Bogdan in Cvikić, 2020), raziskuje pa se tudi izobraževanje učiteljev tujih jezikov (glej Breka in Petravić, 2015, Cindrić et al., 2014, 2015, Knežević, 2015, 2017).

Cilj pričujočega prispevka je raziskati spremembo jezikovne politike v izobraževanju ter njen vpliv na izobraževanje učiteljev na primeru hrvaščine kot tujega jezika. Na osnovi analize strateških in izobraževalnih dokumentov (zakonov, pravilnikov in kurikuluma) ter dostopnih statističnih podatkov se bo pokazala dvosmerna pot (od spodaj navzgor in od zgoraj navzdol) procesa uvajanja hrvaščine kot J2 v izobraževalni sistem. Posebna pozornost bo posvečena programu izobraževanja učiteljev za poučevanje hrvaščine kot J2. Ključne besede: jezikovna politika v izobraževanju, hrvaški jezik, izobraževanje učiteljev

The language policy in education determines the representation and status of languages in education - from the selection of languages of instruction to the options of foreign languages to be taught (Spolsky 2017) and determines teacher education as well (Wiley 2013). Research on language policy in education in the Republic of Croatia is mainly focused on foreign languages and multilingualism (e.g. Bratulić et al. 2017, Košuta, Patekar, Vičević Ivanović 2017, Lujić 2016, Papa 2008), education in minority languages (Blažević Simić 2013, 2014a, 2014b, 2018, Čorkalo Biruški et al. 2020, Majdan 2010, Turza Bogdan & Cvikić 2020), and foreign language teacher education (Breka & Petravić 2015, Cindrić et al 2014, 2015, Knežević 2015, 2017). The goal of this paper is to investigate the change of language policy in education and its impact on the education of teachers through the example of Croatian as a second language. Based on the content analysis of strategic and educational documents (acts, regulations, and curricula) and statistical data, a two-way (top-down and bottom up) process of Croatian as L2 introduction into the educational system will be shown. Special emphasis will be given to the analysis of Croatian as an L2 teacher education programme. Keywords: language policy in education, Croatian language, teacher education

## Osnovnošolski pouk nemškega in angleškega jezika v času pandemije virusa COVID-19 – implikacije za metodiko tujega jezika

### German and English language classes in primary school during the COVID-19 pandemic - implications for foreign language didactics

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Pouk na daljavo v času pandemije virusa COVID-19 je postavil učitelje tujih jezikov pred nepričakovane izzive in usmeril pozornost na vprašanje njihovih kompetenc za poučevanje z uporabo digitalnih orodij. Zato smo s to raziskavo in s pomočjo online vprašalnika raziskali pripravljenost učiteljev nemškega in angleškega jezika (N = 209) na Hrvaškem na uporabo digitalne tehnologije v poučevanju ter njihovo poučevalno prakso v času ustitve javnega življenja (zaprtja) v letu 2020. Rezultati kažejo, da se večina anketirancev ni počutila pripravljeno za poučevanje na daljavo ter da se je le nekaj več kot 10 % s to tematiko srečalo v sklopu svojega začetnega izobraževanja in strokovnih usposabljanj.

Čeprav je večina anketirancev svoje kompetence za poučevanje s pomočjo digitalnih tehnologij ocenila na srednji ravni, so poučne vsebine najpogosteje posredovali s pomočjo pisnih navodil v Wordu in videa z YouTuba. Po drugi strani pa je bilo ugotovljeno, da učitelji, ki svoje kompetence za poučevanje s pomočjo digitalnih tehnologij ocenjujejo kot visoke, hkrati izvajajo večje število pripravljanih aktivnosti za pouk na daljavo ter uporabljajo širši nabor digitalnih orodij v procesu učenja in poučevanja. Takšni izsledki nakazujejo na nujnost močnejšega vključevanja vprašanja poučevanja s pomočjo digitalnih tehnologij v kolegije metodike pouka tujega jezika.

Ključne besede: didaktika tujega jezika, spletno poučevanje, competence učiteljev

Online classes during the COVID-19 pandemic presented unexpected challenges for teachers and placed their competences for teaching through digital tools in focus. With the presented research, conducted using online questionnaires, we investigated the readiness for online teaching and teaching practices of German and English language teachers in Croatia (N=209) during the lockdown in 2020, as well as their self-perception of competences for teaching through digital tools. The results showed that most teachers felt unprepared for online teaching and that only about 10 % of them dealt with this topic during their initial and further education. Although most participants estimated their teaching competences with digital tools at an intermediate level, most of them also stated that they used instructions in Word and YouTube videos to introduce new content. On the other hand, the results indicated that teachers who estimated their teaching competences with digital tools at a higher level also used several different preparation activities for their teaching and more digital tools in their teaching practice. These findings imply a need to include the development of competences for teaching through digital media more intensively in foreign language didactics courses.

Keywords: foreign language didactics, online teaching, teachers' competences

## Možnosti učenja novega tujega jezika z aplikacijo Duolingo: mnenja hrvaških univerzitetnih študentov

### Potential for learning a new foreign language using the Duolingo app: opinions of Croatian university students

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Jones et al. (2006) so bili med prvimi avtorji, ki so trdili, da imajo mobilne naprave visok motivacijski potencial kot sredstvo neformalnega učenja. Kolikor nam je znano, ne poznamo nobene raziskave tako na Hrvaškem kot drugod, ki bi preučevale potencial mobilnih aplikacij za učenje popolnoma novega jezika univerzitetnih študentov. Zato smo s pomočjo aplikacije Duolingo preizkusili, kako uspešni bi bili univerzitetni študentje pri učenju francoščine in kaj menijo o njeni učinkovitosti.

Naša glavna izhodiščna hipoteza je bila, da bi imeli hrvaški študentje, ki se izobražujejo za učitelje v osnovnih šolah ali vrtcih, na splošno pozitivno mnenje o kakovosti in možnostih učenja novega jezika s pomočjo aplikacije Duolingo. Uporabili smo samokonstruiran francoski preizkus in vprašalnik. Glede na rezultate so študenti v vzorcu (66 z Učiteljske fakultete v Zagrebu) na preizkusu dosegli zmerne rezultate. Menijo, da je učenje francoščine na ta način zabavno in ni težko, bolj motivirajoče kot 'klasične metode', zmanjšuje tujejezično anksioznost, lahko je učinkovito za učenje pravilne izgovorjave, zapornitev novih besed, vadbo slovnice in strukturnih vaj.

Ključne besede: Duolingo, poučevanje francoščine, jezikovna anksioznost, motivacija, IKT

Jones et. al. (2006) were among the first authors who claimed that mobile devices possessed a high motivational potential as a means of informal learning. To the best of our knowledge, we are not aware of any research study in Croatia or elsewhere that has looked into the potential of university students using a mobile app for learning a completely new language. Therefore, we tested how successful university students would be in learning French by means of the Duolingo app and what they thought about its efficiency. Our main starting hypothesis was that Croatian university students studying to become primary or nursery schoolteachers would have an overall positive opinion about the quality and potential of learning a new FL by means of the Duolingo app. We used a self-constructed French test and a questionnaire. According to the results, students in the sample (66 from the Faculty of Teacher Education in Zagreb) achieved moderate results on the test. They thought that learning French in this way was amusing and not difficult, more motivating than "classical methods", it lowered foreign language anxiety, it could be efficient for learning correct pronunciation, memorising new words, practicing grammar and structure drills.

Keywords: Duolingo, teaching French, language anxiety, motivation, ICT.



## Stališča učiteljev o načinu poučevanja in doseženih rezultatih pouka materne jezika v času zaprtja

### Teachers' attitudes about the way of teaching and the realised outcomes of mother tongue teaching during the lockdown

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Pandemija, ki je za nekaj mesecev ustavila skoraj ves svet, je povzročila popolnoma nove vzgojno-izobraževalne pristope in prisilila vse učitelje in profesorje v Republiki Hrvaški k novemu načinu poučevanja in ocenjevanja učencev. V tem prispevku bodo poudarjene posebnosti poučevanja hrvaščine med poukom na daljavo spomladi 2020; od 16. marca 2020 do konca šolskega leta. Izveden je 'Vprašalnik o izvajanju pouka hrvaščine na daljavo' (N = 170). Opravljena je kvalitativna analiza odgovorov in opisna analiza stališč, za korelacije pa je uporabljena enosmerna analiza variance ANOVA. Predstavljeni so načini, na katere so učitelji izvajali pouk in s katerimi metodami so ocenjevali dosežek vzgojno-izobraževalnih rezultatov. Nadalje so učitelji izrazili svoja stališča o tem, ali so učenci samostojno reševali učne naloge in ali so ustvarili stike in dobro komunikacijo z učenci in starši. Primerjali smo stališče o doseganju vzgojno-izobraževalnih rezultatov med spletnim poukom in neposrednim poučevanjem na šoli. Spoznali smo, da so učitelji manj zadovoljni z rezultati, doseženimi med poukom na daljavo, in so poudarili več negativnih stališč do pouka na daljavo v primerjavi z neposrednim poukom.

Ključne besede: pouk na daljavo, pouk hrvaščine, poučevanje hrvaščine, metode pouka na daljavo

The pandemic, which stopped almost the entire world for several months, provoked completely new educational approaches and forced all teachers, lecturers and professors in the Republic of Croatia to form a completely new way of teaching and evaluating students. This paper will highlight the specifics of Croatian language teaching during distance learning in the spring of 2020; from March 16, 2020, until the end of the school year. A questionnaire on distance learning of the Croatian language was conducted (N = 170). A qualitative analysis of responses and a descriptive analysis of attitudes were performed, and one-way analysis of ANOVA variance was used for correlations. The ways in which teachers conducted teaching and the methods used to evaluate the achievement of educational outcomes are presented. Furthermore, teachers expressed their views on whether students solved teaching tasks independently and whether they had contact and good communication with students and parents. The position on the realisation of educational outcomes during online teaching and direct teaching in school was compared. We came to the realisation that teachers were less satisfied with the results achieved during distance learning and pointed out more negative attitudes about distance learning compared to direct teaching.

Keywords: Croatian language classes, Croatian language teaching, distance learning, distance teaching methods

## Formalno, neformalno in informalno učenje jezikov - izzivi in priložnosti v izobraževanju vzgojiteljev

### Formal, non-formal and informal language learning - challenges and opportunities in preschool teacher education

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Formalno učenje je znano kot tradicionalno šolsko učenje, druge oblike (neformalno in informalno učenje) pa pogosto niso priznane kot možnosti za usvajanje jezika v institucionalnem izobraževanju. Predmet raziskave so bile aktivnosti za razvoj pismenosti otrok, katerih izobraževalni jezik se razlikuje od maternega, ki je nastal kot rezultat Erasmus projekta DEAL. Načela, po katerih se oblikujejo te aktivnosti, so različne oblike učenja jezikov, povezovanje področij učenja (transdisciplinarnost), večjezičnost in jezikoslovna ozaveščenost, medkulturna kompetenca ter inovativnost in igrifikacija. V okviru raziskovanja možnosti širše uporabe projektnih rezultatov so omenjene aktivnosti bile ponujene vzgojiteljem, podiplomskim študentom kot eden od načinov doseganja njihovih kompetenc na področju jezikovnega izobraževanja predšolskih otrok. Uporablja se metoda analize vsebine pisnih poročil o izvedenih aktivnostih in opisna analiza vprašalnikov za izvajalce dejavnosti. Na podlagi pridobljenih rezultatov so se raziskale možnosti spodbujanja otrokovega jezikovnega razvoja pri različnih oblikah učenja jezikov (formalnem, neformalnem, informalnem), pa tudi možnost izboljšanje praktičnega izobraževanja vzgojiteljev. Podane so smernice o možnostih prilagajanja aktivnosti za spodbujanje razvoja pismenosti v različnih jezikovnih okvirih in oblikah učenja jezikov. Navedene so tudi smernice za izboljšanje izobrazbe vzgojiteljev za razvoj jezikovnih in komunikacijskih kompetenc otrok.

Ključne besede: formalno, neformalno in informalno učenje, vzgojitelji, usvajanje hrvaškega jezika

Formal language learning encompasses traditional classroom settings in a school, while other, non formal and informal forms are often not recognised as appropriate forms of language learning in an institutional setting. This paper focuses on activities for literacy development among children whose language of education is different from their mother language. These activities, developed as results of the DEAL project, were designed to reflect different, abovementioned forms of language learning, and they aimed at fostering transdisciplinary, multilingualism and linguistic awareness, intercultural competency, innovativeness, creativity and playfulness. In order to identify further opportunities for wider implementation of project results, the activities were offered to preschool teachers and master students for developing their professional competencies. By applying content analysis on the reports about the process of conducting activities and a descriptive analysis of the survey for professionals who have conducted those activities, various possibilities for incentivising language development among children in different learning settings were analysed. Ways of improving training of preschool teachers with those activities were also analysed. Based on the results, guidelines on possible applications are presented depending on the context of learning. These are followed by guidelines for improving the training of educators working in developing linguistic and communication skills in children.

Keywords: formal, non-formal and informal learning, preschool teachers, Croatian language acquisition

## Metoda pedagoške tišine pri poučevanju tujih jezikov

### The method of pedagogical silence in teaching foreign languages

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When teaching students a foreign language we teach how to communicate, which means not only the use of words and texts, but also silence. Silence is not only a pause in speech when the student doesn't know what to say, but also a communicatively significant process of cognising an object not expressed in a sign form. Content analysis of scientific and educational literature, method of system analysis of heuristic tasks, analysis of students' educational products, pedagogical experiment. The use of the method of pedagogical silence contributes to the formation of students' sense of responsibility for the results of independent cognitive activity and enhances their motivation and interest in learning. The method of pedagogical silence allows students to overcome language and psychological barriers, to engage in creative independent work to develop the meaning and content of education and, as a result, create their own educational product. Silence has a heuristic basis and is built on three stages: at the first stage students learn objects of reality and create their own educational product, at the second stage they compare their product with the knowledge already available relative to them, the third stage involves the creation of a generalised educational product by the students in the process of comparing their product of a previously known cultural and historical analogue. The development of the method of pedagogical silence includes the creation of a structural-functional model of using the method in teaching foreign languages, the development of a methodology for using the method, determination of the stages of application of the method and forms of teaching students, the development of heuristic tasks, and the diagnosis of educational achievements of students.

Keywords: silence, heuristic learning, foreign language learning.

## Odnos učiteljev likovne umetnosti do sodobne likovne umetnosti

### Fine art teachers' attitude to contemporary arts

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Skozi vsebine sodobne likovne umetnosti učenci spoznavajo svet, v katerem živijo. Ob ustreznem interpretiranju sodobnih likovnih del lahko oblikujejo različne poglede glede poudarjenih tem in razvijajo lastno kritično misel. Ker je sodobna umetnost večplastna, hkrati nudi možnosti za spodbujanje likovno-ustvarjalnega dela v razredu. Pri tem je vloga učitelja likovne umetnosti ključna, saj lahko z ustreznim pristopom sodobno likovno umetnost uspešno implementira v kurikulum. Tak pristop zahteva angažiranega in ustvarjalnega učitelja, ki sledi aktualnim dogajanjem ter se strokovno izpopolnjuje na svojem profesionalnem področju.

V pričujočem prispevku nas je zanimal odnos učiteljev likovne umetnosti do sodobnih likovnih praks in na kakšen način spremljajo sodobne likovne prakse. Raziskavo smo izvedli na neslučajnostnem vzorcu slovenskih osnovnošolskih učiteljev likovne umetnosti (N = 84). Ugotavljali smo razlike glede na starost in delovne izkušnje anketirancev. Rezultati raziskave kažejo na obstoj razlik tako z vidika starosti kot delovnih izkušenj anketiranih učiteljev, ki so bolj izražene v samem odnosu do sodobne likovne umetnosti. Pri angažiranosti za spremljanje sodobne likovne umetnosti nismo zaznali večjih razlik med anketiranci ne z vidika starosti anketirancev in ne z vidika delovnih izkušenj.

Ključne besede: sodobna likovna umetnost, strokovno izpopolnjevanje, učitelj likovne umetnosti, osnovna šola

Through the content of contemporary visual art students learn about the world in which they live. With the proper interpretation of contemporary artworks, they can form different views according to the themes presented and develop the latest critical thinking. Since contemporary art is versatile, it also provides opportunities to encourage artistic and creative work in the classroom. The role of the art teacher is crucial, as they can successfully implement contemporary art into the curriculum with an appropriate approach. Such an approach requires a dedicated and creative teacher who follows current events and improves professionally in their subject area.

In this article, we were interested in art teachers' attitudes towards contemporary art practices and how they observed contemporary art practices. The research was conducted on a non-random sample of Slovenian primary visual arts teachers (N = 84). We determined the age differences and professional experience of the respondents. The results of the study showed the existence of differences in both age and professional experience of the teachers interviewed, which were more expressed in the attitude towards contemporary visual arts. In the engagement to the supervision of contemporary visual arts, we did not find major differences between the respondents, neither in terms of age of the respondents nor in terms of visible professional experience.

Keywords: visual contemporary art, professional education, art teacher, primary school

## Kulturno-umetnostna vzgoja v vrtcu in osnovni šoli

### Arts and cultural education in kindergarten and in primary school

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Kulturno-umetnostna vzgoja predstavlja izhodišče za soustvarjanje kulturno ozaveščenega in estetsko občutljivega posameznika. Zato je v procesu izobraževanja treba vsem otrokom in mladim zagotoviti kakovostno kulturno-umetnostno vzgojo.

V raziskavi, v kateri so sodelovali vzgojitelji iz vrtcev in učitelji iz osnovnih šol, proučujemo oceno vzgojiteljev in učiteljev o pomembnosti različnih vrednot za življenje posameznika in družbe ter njihovo mnenje o vključenosti kulturno-umetnostnih področij in ciljev v vzgojno-izobraževalni proces.

Rezultati kažejo, da tako vzgojitelji kot učitelji duhovnim in kulturnim ter estetskim vrednotam ne pripisujejo velikega pomena. Vzgojitelji v vrtcih menijo, da bi pri načrtovanju kulturno-umetnostnih področij morali več pozornosti posvetiti uprizoritveni in glasbeni umetnosti ter kulturni dediščini, učitelji v osnovni šoli pa bralni kulturi in prav tako uprizoritveni umetnosti ter kulturni dediščini.

Da bodo duhovne in kulturne ter estetske vrednote v slovenskem prostoru v zadostni meri vključene v celoten izobraževalni sistem, bo v prihodnje vsekakor treba več prizadevanj usmeriti v načrtovanje in uresničevanje vsebin in ciljev kulturno-umetnostne vzgoje tudi na predšolski in osnovnošolski stopnji izobraževanja.

Ključne besede: vzgojitelji in učitelji, kulturno-umetnostna vzgoja, cilji kulturno-umetnostne vzgoje

Arts and cultural education represent the starting point of shaping a culturally aware and aesthetically sensitive individual. Therefore, it is necessary to ensure a quality arts and cultural education for all children and youngsters.

In a study involving kindergarten and primary-school teachers, we researched teachers' evaluations of the importance of various values for the life of an individual and the society, as well as their opinions about the inclusion of cultural and artistic areas and goals in the educational process.

Results showed that neither kindergarten nor pre-school teachers attributed much importance to spiritual, cultural and aesthetic values. Kindergarten teachers believed that, in planning cultural and artistic areas, more attention should be dedicated to performing arts, music and cultural heritage; primary-school teachers, on the other hand, mentioned reading culture, performing arts and cultural heritage.

In order to achieve an appropriate inclusion of spiritual, cultural and aesthetic values in the entire Slovene education system, more efforts will have to be invested in the planning and implementation of the contents and goals of arts and cultural education at the pre-school and primary-school levels.

Keywords: kindergarten and primary-school teachers, arts and cultural education, goals of arts and cultural education

## Izzivi in priložnosti spodbujanja kreativnosti pri književnem pouku

### Challenges and opportunities of encouraging creativity in literature classes

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V prispevku bo predstavljen pomen spodbujanja kreativnosti pri pouku književnosti. Razvojni učitelji pri pouku, poleg zmožnosti razumevanja in vrednotenja prebranih besedil, pričakujemo, da dijaki aktivno sodelujejo pri diskusiji in tvorijo poustvarjalna besedila. Ker slednje zajema tudi zmožnost utemeljevanja, doživljanja in primerjanja, je pomembno, da pri interpretaciji umetnostnih besedil ne preskočimo stopnje novih nalog, ampak usmerjamo dijake, da se poglobijo v književno doživetje.

Z raziskavo želimo pokazati, da s kreativnimi metodami dela dijake motiviramo, spodbujamo njihovo ustvarjalnost in izboljšujemo učno klimo. V raziskavo so bili zajeti dijaki 3. letnika programa Ekonomski tehnik, rezultati pa prikazujejo primerjavo ocen preteklega in letošnjega šolskega leta po prvem ocenjevalnem obdobju.

Rezultat dela se kaže v sproščenosti dijakov med govornim nastopom in sodelovalnim učenjem, kjer s pomočjo podprtih vprašanj utemeljujejo lastno mnenje, ter v izboljšanju njihovega učnega uspeha. 41 % dijakom se je ocena izboljšala, 18 % dijakov ima slabšo oceno. Povprečna ocena v preteklem šolskem letu je bila 3,35, v letošnjem 3,7.

Učitelj kot motivator in podpornik z uporabo domiselnih učnih postopkov in metod skozi kreativno naravnani pouk vpliva na motivacijo in sodelovanje dijakov ter na njihovo ustvarjalnost. Dijaki se s svojo aktivnostjo pri pouku opirajo na namene učenja, postavljene ob začetku sklopa, in z novimi nalogami razvijajo veščine sporazumevalnih zmožnosti.

Ključne besede: učitelj kot spodbujevalec, sodelovalno učenje, kreativno (po)ustvarjanje.

The article presents the importance of using student's creativity in literature classes. Besides understanding and evaluating literary texts, it is also expected that students actively participate in class discussions and reproduce literary texts.

Our research showed how creative methods of work helped teachers motivate students, encouraged their creativity, and improved the atmosphere in class. The results are displayed by comparing marks in Year 3 between this and previous school years after the first term. We saw better marks with 41 % of students, while 18 % got a worse mark than before. The average mark last school year increased from 3.35 to 3.70. Students could actively participate in the literary work discussion by preparing a presentation and discussing supporting questions in groups. The questions could be prepared on different difficulty levels and the students were not only able to articulate their own opinion, but also to reproduce the discussed literary work while, or after, reading it.

The teacher acts as a motivator who supports using innovative learning approaches and methods and boosts the motivation and cooperation of students and their creativity.

Keywords: teacher as an encourager, collaborative learning, creative literary (re)production.

## Nemo magister nisi orator bonus: retorično usposabljanje kot sestavni del pedagoškega izobraževanja

### Nemo magister nisi orator bonus: Rhetorical training as an integral part of teacher education

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V prispevku razmišljamo o izzivih sodobnega visokošolskega pedagoškega izobraževanja, ki izhaja iz predpostavke o učitelju/-ici kot javnem govorniku/-ki v antičnem pomenu besede.

Z analizo antičnega modela vzgoje govornika, ki mu vzpostavimo temeljne koncepte sodobnega profesionalnega razvoja učiteljev/-ic, razpiramo polje raziskovanja formativne vloge t. i. retoričnega izobraževanja znotraj visokošolskih pedagoških programov.

Kot rezultat takšnega raziskovanja predstavljamo model interdisciplinarnega programa visokošolskega usposabljanja, ki ga je mogoče vključiti v obstoječe visokošolske pedagoške programe. Njegovo osnovno jedro predstavljajo vsebine, ki tvorijo konceptualni okvir sodobne retorične discipline, nadgrajujejo in dopolnjujejo pa ga vsebine različnih drugih strok, ki prečijo družboslovne in humanistične vede s področja jezika, edukacije in javnega diskurza v družbi.

Pri modelu retoričnega izobraževanja, ki temelji na klasični retoriki in je specifičen v smislu nabora vsebin in metod, gre za proces celovitega in sistematičnega oblikovanja učitelja/-ice – govornika/-ke, ki v tem procesu ne usvaja le znanja in razvija spretnosti, temveč se oblikuje tudi v določeno osebnost na moralni, intelektualni in estetski ravni. Slednje lahko predstavlja teoretično dobro utemeljeno in dodatno podlago za tiste perspektive, ki vključujejo pluralnost izobraževalnih ciljev in praks znotraj procesa oblikovanja profesionalne identitete učitelja/-ice.

Ključne besede: visokošolsko izobraževanje, retorika, vzgoja govornika, vloga učitelja

In the paper, we discuss the challenges of modern teacher education, which is based on the assumption of a teacher being an orator in the ancient sense of the word.

By analysing the ancient model of education of the orator together with juxtaposition of the basic concepts of modern professional development of teachers, we explored the formative role of rhetorical education in the context of teacher education.

As a result of our research, we present a model of an interdisciplinary higher education training programme that can be included in various higher education pedagogical programmes. Its basic core is represented by the conceptual framework of modern rhetorical discipline, and further upgraded with the contents of various disciplines that cross social sciences and humanities in the field of language, education and discourse in society.

The model of rhetorical education, which is based on classical rhetoric and is specific in terms of both content and methods, represents a process of comprehensive and systematic formation of the teacher – orator, who in this process not only acquires knowledge and develops skills, but becomes a certain personality on a moral, intellectual and aesthetic level. The latter can represent a theoretically well-founded additional basis for these perspectives that include the plurality of educational aims and practices within the process of forming the professional identity of a teacher.

Keywords: higher education, rhetoric, education of the orator, role of teacher

## Umetnost šteje

### Art counts

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Kot učiteljica likovne umetnosti, ki je na začetku pedagoške poti v iskanju stalne zaposlitve zamenjala kar nekaj različnih šol, sem se vsako leto znova znašla pred izzivom, kako na novi šoli pri učencih, kolegih in vodstvu na šoli vzpostaviti mesto umetnosti.

Predstavila bom primere dobrih praks, ki so mi pomagale umetnost jasno načrtovati na šolski zemljevid. Kot bistveno se je izkazalo k sodelovanju povabiti in vključiti učence na načine, ki so jim blizu. S pomočjo filma, animacije, družabnih omrežij in šolskega likovnega natečaja, v katerega so aktivno vključeni učenci od 1. do 9. razreda, z učenci aktivno ustvarjamo likovno krajino šole.

Če ima umetnost pomembno in vidno mesto v šolskem vsakdanu, učencem jasno predstavi možnost umetniškega poklica in življenja. Razvija in spodbuja številne pomembne spretnosti in znanja, ki so pri drugih predmetih šolskega kurikulumu manj v ospredju. S tem omogoči izkušnjo uspeha tudi učencem, ki je morda drugod niso vajeni, ter jim pomaga najti svoje mesto v družbi.

Pozitivne vplive vidne vloge likovne umetnosti podpre tudi teorija o reprezentaciji kot pomembnem dejavniku, ki vpliva na doživljanje umetnosti učencev in njihovo motivacijo.

Ključne besede: umetnost, dobra praksa, sodelovanje, film, družabna omrežja

As an art teacher, I had the pleasure of teaching at quite a few different schools at the beginning of my teaching career, and because of that, I have been regularly faced with the challenge of giving art a proper and significant place in the school amongst students, colleagues, and my superiors.

I will present several practical examples that help establish art as an integral part of school life. I have found it essential to include students as much as possible during this process and to come up with projects that spark their interest. That is why I regularly use film, animation, social networks, and art competitions that connect the whole school.

Art, as an integral part of everyday life, offers possibilities of an artistic profession to students. It encourages and nurtures many important life skills that may be less represented amongst some other subjects. This enables students who may not have been very successful elsewhere to experience success and find their place in society.

We can apply a positive correlation in terms of the theory of representation to students' experience of art and their motivation to actively engage it in their lives.

Keywords: art, good practice, collaboration, film, social networks



## Vključevanje likovnih del umetnikov pri različnih predmetnih področjih (študija primera)

### Inclusion of artworks in various subject areas (case study)

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Likovna dela umetnikov imajo velik potencial za medpredmetno povezovanje v osnovni šoli, saj se dotikajo zelo različnih področij človekovega delovanja. Umetnine imajo moč, da pritegnejo našo pozornost, vplivajo na naše čute in lahko vzbudijo močna čustva. Zato nas lahko tudi spodbudijo k razmišljanju o neki določeni temi. Ker smo želeli raziskati, kako bi lahko vključili likovna dela umetnikov v poučevanje različnih predmetnih področij, smo izvedli študijo primera. V raziskavo smo vključili en oddelek učencev petega razreda in njihovo učiteljico. En teden pouka smo organizirali tako, da so se učenci v uvodu pouka pri različnih predmetih z učiteljico nekaj minut pogovarjali o likovnih delih umetnikov. Pred in po izvedbi tako organiziranega pouka smo podatke od učencev pridobivali s pomočjo vprašalnika, prav tako so učenci odgovarjali na vprašalnik po vsakem zaključenem dnevu. Podatke smo pridobivali tudi z opazovanjem z udeležbo. Pridobljeni podatki kažejo, da je bila izvedba učnih ur z vključevanjem umetnin v pouk pri učencih zelo dobro sprejeta. Učence je pogovor o umetninah motiviral za nadaljnje aktivnosti.

Ključne besede: likovna umetnost, likovna dela umetnikov, medpredmetno povezovanje, motivacija

Artists' artworks have great potential for cross-curricular integration in primary schools, as they relate to very different areas of human activity. Artworks have the power to attract our attention, affect our senses, and can evoke strong emotions. Therefore, they can also encourage us to think about a particular topic. Because we wanted to explore how artworks could be included in the teaching of various subject areas, we conducted a case study. One class of fifth graders and their teacher were included in the study. One week of lessons was organised so that in the introductory part of the lesson, pupils talked with the teacher for a few minutes about the artists' works in various subjects. Before and after implementing such organised lessons, we obtained data from the students with the help of a questionnaire, and the pupils also answered a questionnaire after each completed day. Data were also obtained through participatory observation. The obtained data show that the implementation of lessons with the inclusion of artworks in the lessons was very well received by the pupils. The conversations about the artworks motivated the pupils for further activities.

Keywords: fine art, artworks, cross-curricular integration, motivation

## Ustvarjanje s hrano

### Creating with food

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V času epidemije virusa COVID-19 je kar nekaj časa pouk potekal na daljavo. Večino likovnega materiala in likovnih pripomočkov imajo učenci v šoli.

Ker sem želela, da je pouk likovne umetnosti kljub temu zanimiv, sem učencem pri izbirnem predmetu Likovno snovanje ponudila različne likovne materiale/tehnike. Ena likovnih nalog v 9. razredu je bila, da so si izbrali eno znano umetniško sliko. Nato so morali to umetniško delo upodobiti, a z malo drugačnim materialom – s hrano. Delali so individualno.

Devetošolci so izbrali različne primere: Edward Munch – Krik, Jan Vermeer – Dekle z bisernim uhanom, Vincent van Gogh – Zvezdna noč, Michelangelo Buonarotti – Stvarjenje Adama ...

Namesto platna so uporabili toast, nanj pa so namesto z barvami motiv ustvarjali z različno zelenjavo in sadjem, raznimi namazi itd. Svoje 'slike' so nato fotografirali in jih poslali v spletno učilnico.

Učenci so bili navdušeni nad idejo, da lahko slike ustvarjajo tudi s hrano, ne le z barvami, čopiči in drugim slikarskim materialom. Hkrati so se srečali s sodobno likovno umetnostjo, ki nudi kakovostne likovne rešitve.

Ključne besede: uporaba hrane v umetnosti, uporaba hrane pri pouku, pouk na daljavo, izbirni predmet

During the epidemic of Covid-19 we had distance learning for quite some time and most of the art materials and supplies were left at school.

Nevertheless, I wanted the art lessons to be interesting, so for the elective course of artistic designing I offered my students various art materials and techniques. One of the tasks in the 9th class was to choose a famous painting and then to create it with a special material – food. They worked individually.

The 9th class chose various paintings: Edward Munch – The Scream, Jan Vermeer – Girl with a Pearl Earring, Vincent van Gogh – The Starry Night, Michelangelo Buonarotti – The Creation of Adam ...

Instead of a canvas they used toast and instead of colours they used different vegetables, fruit and spreads to create a motif. They took photos of their artwork and sent them to the virtual classroom.

The students were thrilled to learn that it was possible to create artwork with food and not only with paints, brushes and other painting supplies. At the same time, they learnt about contemporary art, which offers quality artistic solutions.

Keywords: using food in art, using food in classes, distance learning, elective course

## Učenje otrok s posebnimi potrebami v prilagojenem programu z metodo NTC in metodo dialoškega branja

### Learnings of children with special needs in a modified programme with the NTC method and the method of dialogic reading

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Metoda NTC in metoda dialoškega branja celostno vplivata na razvoj otroka. Otrok sklepa, misli, povezuje in širi besedni zaklad. Raziskovali smo, kakšen bo napredek pri otrocih našega vzorca na posameznih sklopih učenja po izvedbi metode NTC in metode dialoškega branja pri šestih otrocih s posebnimi potrebami v prilagojenem programu, starih 4–6 let. Dva otroka imata težjo govorno-jezikovno motnjo ter rahlo gibalno oviranost, trije težjo govorno-jezikovno motnjo in motnjo pozornosti ter hiperaktivnost. Oblikovali smo kontrolni seznam ter ga beležili pred in po izvajanju projekta. Rezultate smo obdelali kvantitativno in kvalitativno. Za ugotavljanje vsebinskih ugotovitev smo uporabili t-test ter uporabili kvalitativne podatke iz zapisa vsakodnevnih evalvacij. Rezultati kažejo, da se je v desetih dneh izvajanja projekta pri otrocih s posebnimi potrebami statistično značilno izboljšala pozornost in koncentracija pri štirih postavkah od sedmih; pri verbalnem spominu se je statistično značilno izboljšalo pri eni od dveh postavk; pri govorno-jezikovnem razumevanju in izražanju se je pri treh od štirih postavk statistično značilno izboljšalo; pri treh sklopih je viden manjši napredek. V raziskavi smo povezali temo o učenju s praktično izvedbo sodobnih metod (metode NTC in metode dialoškega branja) pri otrocih. Rezultati potrjujejo, da uporaba metod zelo pozitivno vpliva na napredek otrok.

Ključne besede: metoda NTC, dialoško branje, učenje, otroci s posebnimi potrebami

The NTC method and dialogic reading have a holistic effect on children's development. Children conclude, think, connect and expand their vocabulary. We investigated the progress of children (six children with special needs in an adapted programme, aged 4-6 years) in individual learning sets after the implementation of the NTC method and the method of dialogic reading. The children had a severe speech and language impairment, a mild mobility impairment, and an attention deficit hyperactivity disorder. We created a checklist and recorded them before and after the project. We used the t test and the qualitative data from the record of daily evaluations. The results show that in the ten days of the project, attention and concentration, verbal memory, speech and language comprehension and expression in these children with special needs improved statistically significantly; the other three sets showed less progress. We linked learning and practical implementation of modern methods. The results confirm that the use of these methods has a significant impact on the children's progress.

Keywords: NTC method, dialogic reading, learning, children with special needs.

## Možnosti izobraževanja za predmet zgodnja obravnava

### Opportunity of professional education and training for Early Childhood Intervention

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V razdobju od leta 2005 do danes so vse evropske države oblikovale zakonski okvir za zagotavljanje pomoči najmlajšim otrokom s posebnimi potrebami in njihovim družinam. V letu 2017 smo temu sledili tudi v Sloveniji. Zaradi prepoznane povečane populacije in potrebe po celovitejši obravnavi je utemeljen enotnejši pristop k izobraževanju strokovnjakov za to področje.

Primerjalna analiza praks izobraževanja in usposabljanja zajema sedem univerz v Evropi, ki pretežno temeljijo na modelu Malardalske univerze (Švedska).

Analiza kaže, da samostojne študijske programe, kot je magistrski bolonjski študij, izvajajo na štirih osrednjih univerzah v Evropi. Druge univerze izvajajo različne podiplomske programe, kot so specializacije ali različna certifikatna tematska izobraževanja.

S člankom želimo spodbuditi aktivnosti za enotnejše oblike izobraževanja in usposabljanja za predmet zgodnje obravnave tudi v Sloveniji, ki zahteva interdisciplinarni pristop. Na ta način bodo družinam z najmlajšimi otroki zagotovljeni približno enaki in po kakovosti primerljivi standardi storitev, ki jih bo mogoče evalvirati.

Ključne besede: zgodnja obravnava, izobraževanje in usposabljanje strokovnjakov

Between 2005 and today, European's countries have developed a legal framework to provide ECI to the youngest children with special needs and their families, and in 2017 this was also done in Slovenia. Due to the recognised increase in the numbers of these young children with special needs, and the need for a more uniform approach to the education of experts, this is also professionally justified.

A comparative analysis of existing education and training practices was carried out within seven universities in Europe, based mainly on the model of the University of Malardalen (Sweden).

An analysis of the forms of education showed that independent study programmes, such as the Bologna Master's programme, are carried out at four central universities in Europe. Other universities mainly carry out postgraduate programmes, as specialisation or various certificate thematic trainings.

With the article we want to encourage activities for more uniform forms of professional education and training for ECI in Slovenia, which requires an interdisciplinary approach. In this way, families and children will be provided with the same comparable quality of educational standards that can be evaluated.

Keywords: Early childhood Intervention (ECI), education and training of professionals.

## Lahko branje kot personaliziran pristop k poučevanju oseb s posebnimi potrebami

### Easy-to-read as a personalised approach to teaching people with special needs

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Lahko branje osebam s težavami pri branju omogoča razvoj pismenosti ter socialno in psihološko vključenost v okolje. Da bi vsem učencem omogočili napredovanje na teh področjih, je poleg obveznega individualiziranega programa za učence v prilagojenih izobraževalnih programih z EIS in učence s posebnimi potrebami v večinskih šolah pri poučevanju koristno poučevati personalizirano.

Osebe s težavami pri branju in pisanju (gluhi in naglušni, osebe z govorno-jezikovnimi motnjami, AM, motnjami v duševnem razvoju, ADHD) potrebujejo personaliziran pristop pri vseh predmetih in v vseh stopnjah učnega procesa. Za doseg te ciljev je treba ustrezno izobraziti kadre.

Prispevek predstavlja primer personaliziranega poučevanja gluhih s pomočjo lastne priredbe literarnega besedila v lahko branje in ob tem raziskava bralne motivacije, bralnega razumevanja in literarnoestetskega doživljanja ob branju izvirnika ter priredbe. Raziskava je potekala v treh stopnjah: 1. branje izvirnika, 2. branje izvirnika s pomočjo kretenj slovenskega znakovnega jezika, 3. samostojno branje besedila v obliki lahkega branja. Navedeno smo preverjali: 1. z metodo petih prstov, tolmačko in delovnim listom, 2. s prirejenim vprašalnikom bralne motivacije za mlajše učence in 3. s polstrukturiranim intervjujem. Učenci, vključeni v raziskavo, so s pomočjo lahkega branja izboljšali razumevanje, zvišali motivacijo in besedilo literarnoestetsko doživljali.

Ključne besede: lahko branje, personalizirano poučevanje, posebne potrebe

Easy-to-read materials enable people with reading difficulties to develop literacy and achieve social and psychological inclusion. To enable all students to progress in these areas, in addition to the mandatory individualised programme for students in adapted educational programmes with an equivalent educational standard and students with special needs in public schools, it is useful to teach in a personalised way. Students with reading and writing difficulties may need a personalised approach in all subjects and at all stages of the learning process. To achieve this, it is necessary to properly train the staff.

The article presents an example of personalised teaching of the deaf with the help of the abridgement of the literary text into easy-to-read. Moreover, it presents research on reading motivation, reading comprehension and the literary aesthetic experience while reading the original and the abridged version. The research was carried out in three phases: 1. Reading the original. 2. Reading the original with the help of Slovene sign language. 3. Independent reading of the text in the easy-to-read. This was implemented: 1. With the five-finger method, the sign language interpreter and a worksheet, 2. With an adapted reading motivation questionnaire for younger students and 3. With a semi-structured interview.

The students included in the research improved their comprehension, had increased motivation and experienced the text in a literary-aesthetic way with the help of easy-to-read.

Keywords: easy-to-read, personalised teaching, special needs

## Kompetence učiteljev za delo z učenci s posebnimi potrebami z vidika staršev

### Teachers competencies for work with children with special needs from parents perspective

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Vključenost otrok s posebnimi potrebami v večinske šole je v Sloveniji dobro uveljavljena praksa, saj je prepoznanih vse več otrok. Populacija se vsako šolsko leto povečuje. Kljub naraščajočemu trendu otroci s posebnimi potrebami v veliko šolah nimajo primerne celostne obravnave, ki bi jo potrebovali. Vzrok je tudi usposobljenost učiteljev, ki ni zadostna.

Anketni vprašalnik, ki so ga izpolnjevali starši. Vzorec je zajemal po 150 staršev v dveh slovenskih regijah. Analiza je pokazala odstopanje od pričakovanih ciljev. Izobraženost in usposobljenost učiteljev za poučevanje otrok s posebnimi potrebami po mnenju staršev ni zadostna in primerna v razredu. V obeh slovenskih regijah so rezultati primerljivi, odstopanja se kažejo v mnenjih staršev, kjer naštevajo različne vzroke za nastalo šolsko situacijo.

Iz analize je razvidno, da kljub trenutnim prizadevanjem in možnostim za izobraževanje ter strokovnim izpopolnjevanjem učiteljev še vedno ni zadovoljivega rezultata z obstoječimi poučevalnimi strategijami za vključevanje otrok s posebnimi potrebami v večinske osnovne šole. S člankom želimo spodbuditi in razširiti možnosti za izobraževanje učiteljev ter spodbuditi k nastajanju bolj poenotenih poučevalnih praks in pristopov v večinskih osnovnih šolah.

Ključne besede: kompetence učiteljev, poučevalna praksa, otroci s posebnimi potrebami, starši

As more and more children with special needs have been identified, their inclusion in mainstream schools has become a well-established practice in Slovenia. The number of pupils with special educational needs increases every school year. Despite the growing trend for a holistic approach to treatment of children with special needs, many schools still do not provide adequate holistic care. One of the reasons for this is also inadequate teacher training.

Questionnaire completed by parents. The sample included 150 parents in two Slovenian regions.

The analysis showed a deviation from target. According to the parents, the skills required for teaching pupils with special needs in the classroom have proved insufficient and inappropriate. The questionnaire results in both Slovenian regions were comparable, with the discrepancies reflected in the opinions of parents, where they list various reasons for the school situation.

The analysis showed that despite current efforts, opportunities for education, and professional development for teachers, existing teaching methods for the inclusion of children with special needs in mainstream schools have not yet produced a satisfactory result. With this article, we want to encourage and expand opportunities for teacher education, the emergence of more unified teaching practices and strategies in most primary schools.

Keywords: Teacher competencies, teaching practice, children with special needs, parents

## Študija primera: inkluzivni razred – težava ali priložnost?

### Case study: inclusive classroom – challenge or acquiescence for a teacher?

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Inkluzija je proces, ki omogoča učencem s posebnimi potrebami, da se vključujejo v redne skupine šol. Za učence s svojimi individualnimi značilnostmi, posebnostmi in interesi učitelj diferencira učno delo ter socialno okolje.

Za namen raziskave smo dve leti spremljali inkluzivni razred, socialno klimo v njem ter napredek posameznikov. Namen raziskave je predstaviti metode in strategije, ki so bile uporabljene v inkluzivnem razredu, z namenom boljše socialne povezanosti in večjega občutka pripadnosti posameznika.

V raziskavi je bila uporabljena kvalitativna metodologija. Raziskovalni vzorec je zajemal 22 učencev inkluzivnega razreda, v katerem je bilo 6 učencev s posebnimi potrebami, 3 učenci v postopku identifikacije ter 6 nadarjenih učencev.

Rezultati kažejo, da je bila razredna klima zelo zahtevna. Na začetku je bilo veliko izločanja, verbalnega in fizičnega nasilja. Po dveh letih je stopnja izločanja drastično upadla. Še zmeraj je bilo prisotno verbalno nasilje, občasno tudi fizično. Močno je bilo zaznati individualni napredek na področju vključevanja učencev in učne uspešnosti pri otrocih s posebnimi potrebami. Predstavljenih je nekaj strategij in metod, ki so po mnenju učencev in učiteljice najbolj kakovostno vplivale na izgradnjo dobre razredne klime ter večjo medsebojno povezanost učencev.

Ključne besede: inkluzija, socialna klima, učenec s posebnimi potrebami, inkluzivni razred, diferenciacija

Inclusion is a process that allows students with special needs to join regular school groups. For students with their individual characteristics, teachers differentiate the learning work and social environment. For the purpose of the research, we monitored an inclusive class for two years. The purpose of the research was also to present the methods and strategies used in an inclusive classroom with the aim of better social cohesion and a greater sense of belonging.

A qualitative case study was conducted. The research sample included 22 students, among which 6 were students with special needs, 3 in the process of identifying and 6 were gifted students. The results of the research showed that the class climate was very demanding. There was a lot of exclusion and violence in the beginning. After two years, the elimination rate of students dropped. Verbal violence was still present, occasionally also physical violence. In children with special needs individual progress in social inclusion and learning performance was strongly perceived.

Some strategies and methods are also presented, which, in the opinion of the teacher and students, had the biggest impact on building a good classroom climate and greater interconnectedness of the students.

Keywords: inclusion, social climate, students with special needs, inclusive class, differentiation

## Spoprijemanje z vedenjskimi težavami otrok

### Coping with children's behavioural problems

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V zadnjem času v šolah opažamo porast vedenjskih težav pri otrocih. K slednjemu je prispeval tudi nestanovitni vsakdan, ki otrokom onemogoča življenje v strukturiranem šolskem okolju. Pojavljajoče se vedenjske težave številnim učiteljem otežujejo izvedbo pouka. Ob prepoznavanju, iskanju vzrokov za omenjene težave zasledimo kompleksnost, ki potrebuje temeljito obravnavo in sodelovanje vseh vključenih v proces. Pri delu z otroki z vedenjskimi težavami je pomembno razumevanje in sposobnost uvida, ki omogoča lažje spoprijemanje z različnimi situacijami.

V prispevku bodo poudarjene študije primerov, ki predstavljajo primere dobrih praks. S predstavitvijo študij primerov je omogočena integracija tujih izkušenj v lastno delo.

Rezultati različnih študij primerov prikazujejo zbrane metode, ki so pomembne za delo z učenci, ki imajo vedenjske težave. Pomembni poudarki se navezujejo tudi na vzročno povezavo med osebnostjo učitelja in pojavom vedenjskih težav. Zaradi omenjenega je pomembno izobraževanje učiteljev na področju vedenjskih težav.

Pomemben poudarek v izobraževanju učiteljev bi v prihodnosti morali nameniti znanjem s področja vedenjskih ter pogosto sočasno prisotnih čustvenih težav.

Ključne besede: vedenjske težave, šola, čustva, metode

Recently we have seen an increase of behavioural problems in children in schools. The unstable everyday life, which makes it impossible for children to live in a structured school environment, has also contributed to the increase. Behavioural problems make it difficult for many teachers to conduct lessons. When identifying and looking for the causes of these problems, we encounter a complexity that requires thorough consideration and cooperation of all those involved in the process. When working with children with behavioural problems, it is important to understand them, which makes it easier to cope with different situations.

The paper highlights case studies that present examples of good practice. The presentation enables the integration of foreign experience into someone's work.

The results of various case studies show collected methods that are important for working with students who have behavioural problems. Important points are also related to the causal link between the teacher's personality and the occurrence of behavioural problems. Because of the above, it is important to educate teachers in the field of behavioural problems.

In the future, an important emphasis should be given in teacher education on knowledge in the field of behavioural and often co-present emotional problems.

Keywords: behavioural problems, school, emotions, methods.



## Struktura - element učinkovitega učenja

### Structure – An element of effective learning

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Struktura otrokom predstavlja varnost. Količino in vrsto strukturiranosti za optimalno funkcioniranje je treba prilagajati posameznikovim potrebam. V sklopu uporabe metode TEACCH smo vpeljali elemente ustrezne fizične ureditve prostora, sisteme aktivnosti, vizualno strukturirane naloge in vizualne urnike. Raziskava je temeljila na neslučajnostnem vzorcu heterogene skupine predšolskih otrok s posebnimi potrebami, ki so vključeni v prilagojen program in imajo težave na govorno-jezikovnem področju v različnih intenzitetah ter pridružene primanjkljaje (motnja v duševnem razvoju, avtizem, dolgotrajna bolezen, gibalna oviranost). V procesu raziskovanja smo uporabili kvalitativno metodo pedagoškega raziskovanja – študijo primera. Na podlagi ocenjevalne lestvice smo opisno ocenili funkcioniranje otrok na različnih področjih (prilagodljivost, tesnoba, socialne veščine, komunikacija in samostojnost) pred vpeljavo elementov sistema TEACCH ter po treh mesecih aktivne uporabe teh in tako ugotovili uspešnost uporabe omenjenega sistema. Ugotovili smo, da so opazovani otroci napredovali na vseh petih ključnih področjih. Največji napredek je opazen pri sposobnostih prilagajanja, najmanjši pri spopadanju otrok s tesnobo. Ocenjujemo, da je bila vpeljava elementov strukturiranega poučevanja v oddelek uspešna in učinkovita, struktura pa je pomembna za vse, ne le za otroke z avtizmom.

Ključne besede: fizična ureditev prostora, sistemi aktivnosti, vizualno strukturirane naloge, strukturiranje časa.

A structured life represents safety for children. To achieve optimum functioning and progress, the quantity and types of structuring need to be adapted to individual needs. While implementing the TEACHH method, we introduced elements of arranging the working environment, activity systems, visually structured tasks, and visual timetables. The research was based on a random research sample – a heterogenous group of preschool children with special needs, included in the special needs programme, who had speech and language disorders and other deficiencies. To carry out the research, we used a qualitative method of pedagogical research – the case study. Prior to the implementation of the TEACHH method, a descriptive evaluation of the children's functioning in various areas was made with the help of an assessment criteria. After three months of actively using the TEACHH method, another evaluation was made which confirmed its positive effects. We learnt that the observed children experienced progress in all of the five key areas. The biggest improvement was seen in their adjustment capabilities, the smallest in coping with anxiety. We believe that the implementation of structured teaching was successful and effective.

Keywords: physical arrangement of space, activity systems, visually structured tasks, time structuring.

## Karierna anksioznost in zadovoljstvo z življenjem bodočih vzgojiteljev in učiteljev

### Career anxiety and life satisfaction of future preschool and primary education teachers

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Karierna anksioznost se povezuje z različnimi individualnimi in okoljskimi dejavniki. V višji meri se izraža pri študentih zaključnih letnikov tako zaradi strahu pred študijskim neuspehom kot strahu pred pomanjkanjem zaposlitvenih priložnosti. V raziskavi smo preučili izraženost karierne anksioznosti pri študentih zaključnih letnikov študijskih programov Predšolska vzgoja in Razredni pouk ter moderatorsko vlogo fiksne miselne naravnosti in optimizma v odnosu med karierno anksioznostjo in zadovoljstvom z življenjem. Na vzorcu 192 študentov smo uporabili lestvico anksioznosti STAI-X2, lestvico karierne anksioznosti, vprašalnik miselne naravnosti, lestvico optimizma LOT-R in vprašalnik zadovoljstva z življenjem SWLS. Rezultati slovenskega vzorca študentov so pokazali pozitivno povezanost med karierno anksioznostjo in fiksno miselno naravnostjo ter negativno povezanost med karierno anksioznostjo, optimizmom in zadovoljstvom z življenjem. Karierna anksioznost, fiksna miselna naravnost in optimizem prav tako predstavljajo pomembne napovednike zadovoljstva z življenjem. Nadalje so rezultati pokazali, da sta tako fiksna miselna naravnost kot optimizem pomembna moderatorja odnosa med karierno anksioznostjo in zadovoljstvom z življenjem pri bodočih vzgojiteljih in učiteljih. Na osnovi pridobljenih rezultatov povzemamo implikacije za pedagoško prakso in svetovalno prakso visokošolskih kariernih centrov.

Ključne besede: karierna anksioznost, miselna naravnost, optimizem, zadovoljstvo z življenjem, študenti

Career anxiety is associated with a variety of individual and environmental factors. It is more pronounced in final study year students, both due to the fear of study failure and the lack of employment opportunities. The study examined the presence of career anxiety in students in the final years of the study programmes Preschool Education and Elementary Education and the moderator role of a fixed mindset and optimism in the relationship between career anxiety and life satisfaction. The STAI-X2 anxiety scale, the career anxiety scale, the mindset questionnaire, the LOT-R optimism scale, and the SWLS life satisfaction questionnaire were used on a sample of 192 students. The Slovenian sample results showed a positive relationship between career anxiety and a fixed mindset and a negative relationship between career anxiety, optimism, and life satisfaction. Career anxiety, fixed mindset, and optimism were also significant predictors of life satisfaction. Furthermore, the results showed that both a fixed mindset and optimism were significant moderators of the relationship between career anxiety and life satisfaction in future preschool and primary education teachers. Based on the obtained results, we summarise the implications for the pedagogical practice and counselling practice of university career centres.

Keywords: career anxiety, mindset, optimism, satisfaction with life, university students.

## Svetovalno mentorstvo kot nov trend na področju izobraževanja učiteljev

### Coaching as a new trend in the field of teacher education

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Učitelj predstavlja temelj procesa v izobraževanju. Pomembno je, da se učitelj pri opravljanju svojega dela počuti dobro in da je zanj motiviran. Zadnje obdobje je obdobje sprememb. Pojavilo se je vprašanje, kako povezati dva koncepta: koncept dosedanjih načinov izobraževanj učiteljev in koncept uvedbe svetovalnega mentorstva na področje izobraževanj učiteljev.

Raziskava bo temeljila na uporabi teorije, virov ter empirične raziskave z uporabo statističnih metod. Glede na število stikov bo presečna študija. Glede na časovno obdobje bo raziskava retrospektivna.

Tema je izjemno aktualna, njeni rezultati pa bodo omogočili učiteljem razumeti pozitiven pomen in vpliv uvedbe svetovalnega mentorstva. Zavodom bodo rezultati raziskave omogočili spoznati novo vrsto metode, ki bo služila približevanju aktivnosti svetovalnega mentorstva v proces izobraževanja. Rezultat raziskave bo objava koncepta procesa. Dejanski rezultati pa bodo znani čez 5 let.

Če povzamemo, lahko rečemo, da bo vpeljava aktivnosti svetovalnega mentorstva v proces izobraževanja učiteljev predstavljala možnost za izhod iz krize. Učitelj, ki je svetovalni mentor pri svojem predmetu, je prav tako odgovoren do slušateljev, zavoda, širše družbe.

Ključne besede: svetovalno mentorstvo, učitelj, proces izobraževanja, zadovoljstvo sodelujočih

The teacher represents the foundation of the process in education. It is important that the teacher feels good in his work and that he is motivated for it. The last period is a period of change. The question arose as to how to connect the two concepts: the concept of existing methods of teacher education and the concept of coaching in the field of teacher education.

The research will be based on the use of theory, sources and empirical research using statistical methods. Depending on the number of contacts, there will be a cross-sectional study. Depending on the time period, the research will be retrospective.

The topic is extremely relevant, and its results will allow teachers to understand the positive importance and impact of the introduction of coaching. The results of the research will enable institutions to learn about a new method that will serve to bring the activities of coaching closer to the educational process. The result of the research will be the publication of the concept of the process. The actual results will be known in 5 years.

In summary, we can say that the introduction of coaching activities in the process of teacher education will be an opportunity to get out of the crisis in which education currently finds itself. The teacher, who is a coach in his subject, is also responsible to the listeners, the institution, and the wider society.

Keywords: coaching, teacher, educational process, satisfaction of participants

## Students' motives for applying to university and self-regulated learning

### Motivi za vpis na fakulteto in samoregulativno učenje pri rednih in izrednih študentih

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Na področju izobraževanja se vse bolj poudarja razvoj samoregulativnih strategij in učenja, skozi katerega posameznik spreminja in prilagaja svoje vedenje z namenom uresničitve določenega cilja. V članku predstavljamo raziskavo, v kateri smo se ukvarjali z ugotavljanjem povezanosti med motivi za vpis na fakulteto in samoregulativnim vedenjem. Zanimalo nas je, ali obstajajo izstopajoči motivi, ki se še posebej pozitivno povezujejo s samoregulativnim vedenjem.

V raziskavo je bilo vključenih 106 študentov pedagoških študijskih smeri Filozofske in Pedagoške fakultete Univerze v Mariboru. Za namen raziskave je bil uporabljen spletni vprašalnik '1ka', sestavljen iz samostojno oblikovanega sklopa za raziskovanje motivov ter standardiziranega vprašalnika samoregulativnosti.

Rezultati raziskave nakazujejo na sorazmerno pozitivno povezanost notranjih motivov za vpis na fakulteto in dobre samoregulacije. Ugotavljamo tudi obratno, torej pozitivno povezanost zunanjih motivov in manj uspešne samoregulacije. Najvišje pozitivne povezanosti s samoregulacijskim učenjem prepoznavamo pri motivih, ki izražajo interes do področja, željo po znanju in boljšem poznavanju področja ter izpolnitvi poklicnih želja.

V raziskavi so sodelovali študentje pedagoških študijskih smeri, torej v veliki meri študentje, ki se bodo v prihodnosti zaposlovali kot pedagogi, svetovalni delavci, inkluzivni pedagogi ipd. Vrednote, ki jih umeščajo med najpomembnejše, ter njihova stopnja samoregulativnosti, nedvomno opisujejo dobre bodoče pedagoške strokovnjake.

Ključne besede: samoregulativnost, samoregulacijsko učenje, motivi, motivacija

It is important to acknowledge that humans possess an internal privilege to determine and direct our own learning processes. This enables us to plan our lives and to adapt adequately to the requirements of the environment, which represent important elements of self-regulated learning (Lončarič in Peklaj 2008). The central aim of this research was to establish possible connections between self-regulation and the reasons that motivated the participants to attend university. Our goal was to determine whether there were certain motives that correlated particularly strongly to self-regulated learning.

The research was conducted among 106 students at the University of Maribor that were enrolled in pedagogical university programmes. Data was gathered using a standardised self-regulation questionnaire (SRQ), in combination with a questionnaire exploring motives that was designed by the authors of the article.

The findings of the research suggest that the students, who were motivated intrinsically, also displayed higher levels of self-regulation. Personal interest in the area of study was shown to be most significantly connected to successful self-regulation, along with other intrinsically stimulated motives.

The results of the research showed the participants to be virtuous and adaptable individuals, expressing good self-regulation. The findings are encouraging, as the qualities mentioned are highly appreciated in any profession, especially in future school workers, pedagogues, counsellors etc.

Keywords: self-regulation, self-regulated learning, motives, motivation

## Prepoznavanje in razvijanje vrlin študentov pedagoških smeri kot pomemben vidik profesionalnega razvoja

### Identification and development of student teachers' character strengths as an important aspect of professional development

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Vrline, opredeljene kot pozitivne osebnostne lastnosti z visoko moralno vrednostjo, predstavljajo pomembno raziskovalno področje v pozitivni psihologiji. Eden od ciljev oblikovanja klasifikacije vrlin je bil zagotoviti besedišče, s katerim bi lahko opisali pozitivne lastnosti in s tem omogočili komunikacijo o pozitivnih vidikih človekovega delovanja. Avtorica prispevka je zasnovala delavnico o prepoznavanju in razvijanju vrlin, namenjeno študentom pedagoških smeri. V prispevku predstavljamo rezultate raziskave, v kateri je sodelovalo 222 študentov 1. letnika predšolske vzgoje in razrednega pouka na Pedagoški fakulteti Univerze v Ljubljani. Cilji 90-minutne delavnice so bili seznanitev s klasifikacijo vrlin, prepoznavanje osebnih vrlin, iskanje možnosti udeležanja osebnih vrlin v različnih kontekstih ter aplikacija teorije na področje dela z otroki in na področje lastnega profesionalnega razvoja. Pred delavnico so študenti izpolnili vprašalnik vrlin VIA, po delavnici pa so pisno reflektirali pomen poznavanja svojih osebnih vrlin in njihovega razvijanja ter reflektirali prepoznane učinke delavnice na njihov osebnostni in profesionalni razvoj. Glede na statistično analizo vprašalnika vrlin so pri študentih najvišje izražene vrline: pravičnost, prijaznost, sodelovanje, ljubezen, vodenje in pristnost. V prispevku bomo predstavili tudi analizo vsebine pisnih refleksij sodelujočih študentov in poudarili pomembnost procesa prepoznavanja in razvijanja vrlin študentov pedagoških smeri kot dejavnika njihovega profesionalnega razvoja.

Ključne besede: vrline, osebne vrline, študenti pedagoških smeri, osebnostni razvoj, profesionalni razvoj

Character strengths, defined as positive personality traits that are morally valued, represent an important research topic in the field of positive psychology. This paper presents the results of a study on a sample of 222 1st year primary and preschool education students at the University of Ljubljana, Faculty of Education. The students participated in a workshop on identifying and developing character strengths designed by the presenting author. The goals of the 90-minute workshop were to introduce the classification of character strengths, identify students' signature strengths, explore new ways of using strengths in different contexts, and apply theory to student teachers' professional development. Prior to the workshop, students completed the VIA-IS survey on character strengths. After the workshop, they wrote individual reflections on the process of identifying their signature strengths and their development and reflected on the impact of the workshop on their personal and professional development. Statistical analysis showed that students had high scores on the character strengths of fairness, kindness, teamwork, love, leadership, and integrity. The results of the qualitative data analysis are also presented, the perceived importance of developing character strengths is highlighted, and their role in the professional development of future teachers is discussed.

Keywords: character strengths, signature strengths, teacher students, personal development, professional development

## Spodbujanje osebnostnega in strokovnega razvoja študentov pedagoških smeri v procesu sistematično vodenega reflektiranja timskega dela

### Enhancing the personal and professional development of student teachers in the process of systematically guided reflection on teamwork

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Zmožnost timskega dela je pomembna generična kompetenca pedagoških delavcev v sedanjem času. Razvijanje spretnosti timskega dela bi moralo v izobraževanju učiteljev postati pomemben študijski cilj. Kompetenco timskega dela lahko pri študentih pedagoških smeri razvijamo s prakticiranjem timskega dela kot pristopa znotraj različnih študijskih predmetov, lahko pa v okviru posebnega študijskega predmeta, ki temelji na sistematično vodenem procesu osebnostnega in profesionalnega razvijanja na področju timskega dela. Tim predstavlja pester kontekst za učenje, saj vključuje intrapersonalno, interpersonalno, reflektivno in metakognitivno učenje, ki ga posameznik izkusi med timskim načrtovanjem, timskim poučevanjem in timsko evalvacijo pedagoškega dela. V prispevku bodo predstavljeni vsebina in metode dela pri študijskem predmetu Timsko delo v vzgoji in izobraževanju, zasnovanem s strani avtorice prispevka in izvajanem na Pedagoški fakulteti Univerze v Ljubljani. Predstavljene bodo ugotovitve kvalitativne raziskave, pridobljene z metodo analize vsebine avtorefleksivnih zapisov, ki jih študenti kot dele portfolia pišejo pri omenjenem predmetu. Raziskovalne ugotovitve potrjujejo, da poglobljena avtorefleksija, usmerjena na tim in timsko delo, prispeva k osebnostnemu in profesionalnemu razvoju študentov.

Ugotovitve raziskave bodo interpretirane z vidika različnih vrst učenja v timu, predstavljeni bodo predlogi za izobraževanje pedagoških delavcev ter novi raziskovalni izzivi na tem področju.

Ključne besede: timsko delo, študenti pedagoških smeri, osebnostni razvoj, profesionalni razvoj, avtorefleksija, portfolio

Teamwork skills are an important generic competency of today's teachers. Therefore, well-developed teamwork skills of student teachers should be an important study objective in teacher education. Students' competence in teamwork can be developed by using teamwork as an approach within different courses of study, and within a specific course of study, based on a systematically guided process of personal and professional development in teamwork. A team represents a very powerful learning context because during team planning, team teaching and team evaluation, several aspects of intrapersonal, interpersonal, reflective and metacognitive learning take place in a team. In the presentation, the objectives and the learning methods of the study course, Teamwork in Education at the University of Ljubljana, Faculty of Education, designed by the presenting author, are presented. Some qualitative research findings, based on a content analysis of students' portfolios written during the course and based on guided self-reflection of teamwork experiences, are presented. The research findings indicate that students' in-depth self-reflection on their own teamwork experiences enhanced their personal and professional development. The findings are discussed in relation to different theoretical models of learning, suggestions for future teacher education, and some ideas for future research are highlighted.

Keywords: teamwork, student teachers, personal development, professional development, self-reflection, portfolio

## Praktično usposabljanje v tujini v povezavi z jezikom stroke

### Vocational education and training abroad in relation to English for specific purposes

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Preko programa mednarodne izmenjave gredo lahko dijaki srednjega poklicnega in strokovnega izobraževanja na usposabljanje v tujino. Jezik stroke je vključen v pouk angleščine, vendar se šele ob povratku dijakov izkaže, katere vsebine so jim prišle prav in katere so pogrešali.

Teoretični del prispevka temelji na deskriptivni metodi, prisotni pa so tudi elementi komparacije in generalizacije. Empirični del je izveden po deskriptivni metodi in temelji na intervjuju dijakov, ki so bili na praktičnem usposabljanju v tujini.

Hipoteza, ki je predpostavljala, da dijaki med štiritredenskim praktičnim usposabljanjem v tujini angleščine ne izboljšajo, je bila zavrnjena, prav tako kot hipoteza, da bodo največ jezikovnega znanja pridobili dijaki s šibkejšim znanjem angleščine. Hipoteza, ki je predpostavljala, da bodo dijaki na praksi v tujini najbolj potrebovali slušne in govorne zmožnosti v angleščini, je bila potrjena.

Rezultati študije primera so potrdili, da so dijaki v srednjem strokovnem ter poklicno-tehniškem izobraževanju jezikovno dobro pripravljeni na praktično usposabljanje v tujini. Prav tako se iz rezultatov lahko sklepa, da dijaki lahko angleščino izboljšajo tudi, če izmenjava poteka v državi, ki ta jezik prav tako smatra za tuji in ne za svoj uradni jezik.

**Ključne besede:** mobilnost, mednarodna izmenjava, poklicno izobraževanje in usposabljanje, jezik stroke, komunikacijske spretnosti

International mobility programmes enable students of upper-secondary programmes to do their vocational education and training abroad. Even though English for specific purposes is a part of English lessons only the mobility period can show which lesson content was useful and which one should have been practiced more. The theoretical part of the research included the descriptive research method, the comparative method and the method of generalization. The empirical part was carried out using the descriptive method and was based on interviews with students who did their vocational education and training abroad.

The hypothesis suggesting that students participating in a four-week VET mobility do not improve their English was disproved, the same as the hypothesis, suggesting weaker language students would benefit more from the mobility. The hypothesis proposing students would mainly be involved in listening and speaking activities was confirmed.

According to the results of the case study it can be confirmed the language knowledge of the students in upper-secondary programmes is suitable for the VET abroad. The results have also shown that students do not necessarily need to spend time in a host country where English is spoken as L1.

**Key words:** mobility, exchange programme, vocational education and training, English for specific purposes, communicative competences.

## Iz retrospektive lastnega mentoriranja diplomskih del absolventov dodiplomskih pedagoških dvopredmetnih študijskih programov Kemija in izbrano predmetno področje

### From the retrospective of self-mentoring of diploma theses of graduates of undergraduate pedagogical two-subject programmes with Chemistry and other selected subjects

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Pred letom 2006 je zaključek študija univerzitetnih dvopredmetnih študijskih programov na Pedagoški fakulteti v Mariboru predstavljalo diplomsko delo iz enega in diplomsko seminarsko nalogo iz drugega predmetnega področja študijskega programa. Dvoje enakovrednih diplomskih del ali pa skupno diplomsko delo za oboje predmetnih področij absolviranega študijskega programa predstavlja uveljavljeni obliki študijskega zaključka na Fakulteti za naravoslovje in matematiko in Filozofski fakulteti Univerze v Mariboru. Raziskava je usmerjena na opredelitev kompetenčnega pristopa v strategiji mentoriranja diplomantovega zaključnega dela. Opravljena je bila deskriptivna analiza izbranih diplomskih del, upoštevajoč naslednje parametre: 1) vrsta vpisanega dvopredmetnega programa, 2) dvopredmetna vsebinska obravnava, 3) udejanjanje dvopredmetnih kompetenc, 4) status mentorstva. Rezultati analize so prikazani kot primerki naslednjih oblik formalnega mentorstva: a) Umeščanje didaktičnega vsebinskega sklopa v raziskovalni sklop predmetnega področja – Kemija; b) Skupno diplomsko delo kot udejanjanje vsebinske dvopredmetnosti; c) Diplomantovo samodejno dvopredmetno povezovanje ob formalno vsebinski enopredmetnosti. Razprava je osredotočena na ključno vprašanje, kako ob formalno enakovrednih smereh dvopredmetnega programa uveljavljati logično potrebo po dvopredmetnosti diplomskega dela? Logičen zaključek številnih razmislekov, zajetih pri uresničevanju skupnega ciljno-kompetentnega načrtovanja, predstavlja mentorski tim. Ključne besede: pedagoški dvopredmetni program, vsebinska dvopredmetnost, strategija mentorstva

Prior to 2006, the completion of the study of the University two-subject study programmes at the Faculty of Education in Maribor, was represented by a diploma thesis from one, and a diploma seminar paper from another subject. At the Faculty of Science and Mathematics and the Faculty of Arts University of Maribor two equivalent diploma theses or the joint diploma thesis for both subjects represent an established form of study conclusion. The research is aimed at defining a competency approach in the strategy of mentoring a graduate thesis. A descriptive analysis of selected diploma theses was performed, considering the following parameters: 1) The type of enrolled two-subject programme. 2) Two-subject content treatment. 3) The implementation of two-subject competencies. 4) The status of mentoring. The results of the analysis are presented as examples of the following forms of formal mentoring: a) Placement of the didactic content set in the research set of the subject area, Chemistry; b) Joint diploma work as a realisation of the content of two subjects; c) Graduate's automatic two-subject connection with a formal substantive single-subject. The discussion focuses on the key question of how, in the formally equivalent directions of a two-subject programme, to assert the logical need for two-subject diploma work? As a logical conclusion of the considerations covered, the implementation of joint goal-competent planning is suggested for the mentoring team.

Keywords: pedagogical two subject programme, content two subject matter, mentoring strategy.



## Profesionalni razvoj pomočnikov ravnateljev

### Professional development of assistant principals

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Pomočniki ravnateljev se pri svojem vsakdanjem delu pogosto znajdejo v t. i. 'sendvič položaju', kar pomeni v položaju med strokovnimi delavci in ravnateljem. V okviru tega se spopadajo z vedno bolj zahtevnimi vodstvenimi nalogami, za katere potrebujejo novejša vodstvena znanja in spretnosti. Da bi uspešno krmarili, je za pomočnike ravnateljev nujno vseživljenjsko izobraževanje in usposabljanje. Prispevek v uvodu prikaže analizo stanja ponudbe izobraževanja in usposabljanja za pomočnike ravnateljev v Sloveniji, v nadaljevanju pa posebno pozornost nameni pilotnemu programu Šole za ravnatelje z naslovom (P)ostani uspešen srednji vodja, ki se osredotoča na pridobivanje vodstvenih znanj in spretnosti srednjih vodij. Predstavljena bo evalvacija pilotnega programa s soudeležbo. Pilotni program je bil ovrednoten z anketnim vprašalnikom, ki je vrednotil več ravni učinkov, med drugim vpliv, uporabnost in koristnost. Rezultati evalvacije programa kažejo izjemno visoko koristnost, uporabnost in vpliv na izvajanje del pomočnika ravnatelja, saj so povprečne vrednosti ocen udeležencev v skoraj vseh trditvah višje od 3,5 (na lestvici od 1 do 4). Raziskava daje jasnejši vpogled v potrebe pomočnikov ravnateljev, saj odstira številne predloge tem oz. vsebin izobraževanj in usposabljanj, kot tudi načine njihove izvedbe.

Ključne besede: pomočnik ravnatelja, profesionalni razvoj, programska evalvacija

In their work, assistant principals find themselves in the so called "sandwich position," that is a position between teachers and the principal. In this context, they face increasingly demanding management tasks that require the acquisition of new skills. In order to navigate successfully, lifelong education and training are essential for an assistant principal. The article introduces a state-of-the-art analysis of education and training for assistant principals in Slovenia, and then pays attention to the pilot programme of the National School for Leadership in Education, entitled Successful Middle Leadership, which focuses on acquiring leadership and management skills. The evaluation of the pilot programme with participation will be presented. The pilot programme was evaluated using a questionnaire, which evaluated several levels of effects, including impact and usefulness. The results of the programme evaluation showed an extremely high usefulness and impact on the implementation of the work of the assistant principal, as the participants' assessments in almost all statements exceed a 3.5 average (on a scale from 1 to 4). The research provides a clearer insight into the needs of assistant principals, as it revealed many suggestions for training topics for assistant principals training, as well as ways for their implementation.

Keywords: assistant principals, professional development, programme evaluation

## Comparison of education documents of the National and School curriculum with a focus on music education at Primary Schools

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Glasbena vzgoja je na Slovaškem del izobraževalnega sklopa Umetnost in kultura, uvrščen pa je med obvezne predmete okvirnega izobraževalnega načrta. Kot drugi umetniški predmeti se srečuje z velikimi omejitvami (nizko število ur, okolje klasičnega razreda, število učencev v razredu, nezadostne kompetence učiteljev na področju glasbene vzgoje), kar vpliva na oblikovanje šolskega izobraževalnega programa. Raziskovalno vprašanje je učni načrt za glasbeno vzgojo. Cilj je primerjati in pregledati prilagoditve in vključevanje državnega izobraževalnega programa v šolske izobraževalne programe s poudarkom na glasbeno vzgojo. Pri raziskavi smo uporabili metodologijo kvalitativnega raziskovanja. Šolski dokumenti desetih šol so bili predmet vsebinske analize in medsebojne primerjave. Ugotovljeno je bilo, da so tematski učni načrti še vedno del učnih osnov, vendar njihovo izvajanje ni obvezno. Z analizo državnega izobraževalnega programa se v šolskih dokumentih spoštujejo kompetence, povezane z glasbeno vzgojo, ki jih razvijajo raznolike glasbene dejavnosti, aktivnosti in glasbeni krožki. Kljub določeni svobodi pri pripravi učnih načrtov smo ugotovili, da so učni načrti enaki izobraževalnim standardom. Izbrane identifikatorje, povezane z glasbeno vzgojo (ključne kompetence, glasbene dejavnosti, medpredmetne teme, učne ure in ocenjevanje), smo primerjali v šolskih dokumentih in z državnim izobraževalnim programom. Metode ocenjevanja učencev so bile povezane s kompetencami učiteljev, kar pozitivno vpliva tudi na kompetence učencev in njihov odnos do glasbene vzgoje. Ključne besede: glasbena vzgoja, državni izobraževalni program, šolski izobraževalni program, primerjava, glasbena pismenost učencev

Music education in Slovakia is one of the compulsory subjects in the framework educational plan. The aim is to compare and map the modification and implementation of the national curriculum into the schools' curriculum with a focus on Music Education. In our research we have applied the methodology of qualitative research. The curricula of ten schools were subjected to a content analysis and a mutual comparison. The findings are that the Thematic Educational Plans continue to be part of the curriculum, but the implementation is optional. The musical competencies listed in the national curriculum are followed and developed by the schools through a wide range of musical activities. Despite a certain freedom in curriculum development, we observed that teachers lack the qualifications to modify educational standards. Selected identifiers related to Music Education - key competencies, musical activities, cross-cutting themes, time allocation and evaluation - were compared between the school and the national curricula. Pupil assessment methods were related to the teachers' competencies, which also has a positive effect on students' competencies and their relationship to Music Education.

Keywords: music education, state educational programme, school educational programme, comparison, music literacy of students

## Predvidevanje družbenih okoliščin in vloge učiteljev v prihodnosti

### Predicting social circumstances and teachers' roles in the future

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Predvidevanja prihodnosti se vse bolj postavljajo v središča večine znanstvenih področij, prav tako so tudi razlog za številne raziskave, na podlagi katerih znanstveniki poskušajo ponuditi številne rešitve za prihajajoče izzive. Če pogledamo zgodovino, lahko ugotovimo, da je bilo najmanj študij, ki bi predvidevale prihodnost, ravno na področju pedagogike. V zadnjih nekaj letih zaznamo (teoretično in metodološko) intenzivnejše ukvarjanje z vprašanjem predvidevanja prihodnosti na področju pedagogike. Tudi futurološke raziskovalne metode so se začele intenzivneje uveljavljati v pedagoških raziskavah, pa tudi v raziskavah izobraževalnih izzivov.

Na podlagi navedenih prizadevanj, pa tudi sprememb v tematskih in metodoloških prizadevanjih na področju pedagogike, članek preučuje napovedi socialnih razmer študentov, bodočih učiteljev (N = 205) in učiteljev (N = 512), na podlagi katerih so raziskane projekcije prihodnjih spremenjenih učiteljskih vlog zgoraj navedenih družbenih sprememb, ki so podlaga za razvoj projekcijskih sprememb. Rezultati raziskave kažejo, da tako učitelji kot bodoči učitelji v prihodnosti predvidevajo bolj negativne kot pozitivne scenarije družbenih okoliščin, bodoči učitelji pa za razliko od učiteljev verjamejo, da jih bodo v prihodnosti nadomestili hologrami in druge oblike umetne inteligence.

Ključne besede: prihodnost, družbene okoliščine, nove učiteljske vloge, napovedi, umetna inteligenca

Predictions of the future are now the focus of most areas of science, but they are also the subject of numerous research projects, based on which scientists try to offer diverse solutions to upcoming challenges. Looking back, only a small number of studies predicting the future were conducted in the field of pedagogy. However, over the past few years, it has been noted (theoretically and methodologically) that the subject of predicting the future in the field of pedagogy has been dealt with more intensively. Furthermore, futurological research methods have begun to be more intensively used in pedagogical research, and also in the research of educational challenges.

Based on the stated aspirations, but also on the necessary changes in the thematic and methodological endeavours in the field of pedagogy, the paper investigates the predictions of social circumstances of future teachers (N=205) and teachers (N=512) on the basis of which projections of changed future teacher roles following the above social changes were investigated, forming the basis for the development of projective change. The research results show that both teachers and future teachers predict more negative than positive scenarios for social circumstances in the future, and future teachers, unlike existing teachers, believe that in the future they will be replaced by holograms and other forms of artificial intelligence.

Keywords: future, social circumstances, new teachers' roles, predictions, artificial intelligence

## Mnenja študentov o uporabi inovativnih oblik učenja in poučevanja Students' opinions on the use of innovative forms of learning and teaching

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V članku predstavljamo nekatere inovativne oblike učenja in poučevanja kot pomembne v procesu spodbujanja ustvarjalnosti študentov, kar je v sodobni družbi ključno za kakovosten profesionalni razvoj posameznika. Pri tem smo posebej poudarili projektno učenje, izobraževanje na daljavo (distance learning), učenje na daljavo (online learning) oziroma po spletu, ki zajema tudi različne družbene platforme. Ob aktivni vlogi študenta smo se osredotočili tudi na vlogo profesorja. V empiričnem delu smo uporabili kvantitativno metodo raziskovanja. Anketni vprašalnik je izpolnilo 151 študentov predšolske vzgoje. Namen raziskave je bil ugotoviti, v kolikšni meri in kako študentje uporabljajo inovativne oblike učenja pri svojem študiju ter v kolikšni meri profesorji uporabljajo inovativne oblike poučevanja. Pri tem nas je zanimalo tudi zadovoljstvo študentov s takšnim načinom dela. Rezultati kažejo, da študentje redko uporabljajo inovativne oblike učenja, a se jim zdijo pomembne. Prav tako se jim zdi pomembna vloga profesorja pri uporabi inovativnih oblik poučevanja, kakor tudi njegova ustvarjalnost pri delu na daljavo. Na osnovi ugotovitev lahko kritično razmislimo o dodatnih usposabljanjih in možnostih dela na daljavo, s poudarkom na inovativnosti in ustvarjalnosti pri poučevanju, pa tudi o spodbudah o uporabi inovativnih oblik pri samostojnem učenju. Ključne besede: obrnjeno učenje, profesionalni razvoj, projektno delo, učenje po spletu, ustvarjalnost

In this article, we present some innovative forms of learning and teaching that are important in promoting student creativity, which is crucial for the quality professional development of the individual in modern society. We have especially emphasised project learning, distance learning, or online learning, which also covers various social platforms. In addition to the students' active roles, we also focused on the professors' roles. In the empirical part, we used a quantitative research method. The survey questionnaire was completed by 151 pre-school students. The study's purpose was to determine to what extent, and how, students use innovative forms of learning in their studies and to what extent professors use innovative forms of teaching. We were also interested in the satisfaction of students with this way of working. The results showed that students rarely used innovative forms of learning but find them important. They also considered the role of the professor in the use of innovative forms of teaching to be important, as well as his creativity in distance learning. Based on the findings, we can critically consider additional training and distance work opportunities with an emphasis on innovation and creativity in teaching, as well as incentives for the use of innovative forms in independent learning.

Keywords: reverse learning, professional development, project work, online learning, creativity.

## Odnos učiteljev do metod neformalnega izobraževanja

### Teacher's attitudes towards methods of non-formal education.

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Tema neformalnega izobraževanja v zadnjih letih vse bolj odmeva v različnih strokovnih člankih, pa tudi v časopisih, namenjenih širši javnosti. V več primerih dajejo pri vprašanju izobraževanja prednost učencem, učitelji pa so pozabljeni. V prispevku predstavljamo rezultate in interpretacije raziskave, katere cilj je bil preučiti odnos učiteljev do metod neformalnega izobraževanja po končanem 7-dnevnem mednarodnem izobraževalnem tečaju, osredotočenem na oblikovanje metodologije, facilitiranje in vrednotenje izobraževalnih aktivnosti na podlagi neformalnih metod izobraževanja. Kvalitativna raziskava je bila sestavljena iz osebnostnega vprašalnika NEO (NEO Five-Factor Inventory, P. T. Cost in R. R. McCraeh) in polstrukturiranih intervjujev. Pomembna ugotovitev je pomanjkanje izkušenj in informacij o novih orodjih in metodah med učiteljsko kariero v formalnem izobraževanju in vpliv delovnega okolja na uporabo neformalnih metod. Najpomembnejša ugotovitev je pomanjkanje medsektorskega sodelovanja med učitelji in facilitatorji v formalnem in neformalnem izobraževanju ter s tem manjkajoče izobraževanje in motivacija učiteljev v njihovi učiteljski karieri.

Ključne besede: neformalno izobraževanje, učiteljeva osebnost, metode neformalnega izobraževanja, izobraževalni program

In recent years, the topic of non-formal education and cross sectorial collaboration have increasingly resonated among pedagogic staff and educators. Mostly the emphasis in education is on students and teachers are left out. In our article, we present the results and interpretations of our research, which aimed to examine teachers' attitudes towards methods of non-formal education after experiencing a 7 day international educational training course on how to design, facilitate and evaluate meaningful educational activities based on nonformal methods. The research was based on the qualitative methodological approach and consisted of a NEO Five-Factor Inventory (NEO Five-Factor Inventory by P.T. Cost and R.R. McCraeh) and semi-structured interviews. The important finding was the lack of experience and information about new tools and methods during the teaching career in formal education and the impact of the working environment on usage of nonformal methods. The most important finding was that cross-sectorial cooperation was missing among teachers and facilitators in formal and nonformal education.

Keywords: non-formal education, teacher personality, methods of non-formal education, training programme

## Evalvacija programa EGIFT v izobraževanju prihodnjih učiteljev

### Evaluation of the EGIFT programme in preservice teacher education

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Izobraževanje učiteljev o nadarjenosti in poučevanju nadarjenih učencev je ključnega pomena, saj so učitelji pomembni za podporo nadarjenim učencem v šoli. Spletni izobraževalni program EGIFT (tj. European Gifted Education Training) nudi učne izkušnje, namenjene izboljšanju kompetenc v izobraževanju nadarjenih. Za namen te študije je bil program EGIFT evalviran v okviru izbirnega predmeta 'Nadarjeni učenci v šoli' za dodiplomske študijske programe na Pedagoški fakulteti Univerze v Ljubljani.

Sodelovalo je 34 študentov; analizirali, predstavili in razpravljali so o osnovnih enotah programa EGIFT in izpolnili evalvacijski vprašalnik o svojih izkušnjah s programom EGIFT.

Študenti so na splošno poročali o pozitivni izkušnji s programom EGIFT, vsebine so ocenili kot informativne in zanimive. Predlagali so različne ideje, kako bi bilo vsebine mogoče uporabiti v praksi. Glavni predlogi za izboljšave so bili izenačevanje težavnosti vprašanj v kvizih, uporaba slovenskega jezika za boljše razumevanje in bolj interaktivni videoposnetki.

Na splošno je evalvacija pokazala, da je program EGIFT primerno obogatitveno orodje v učnem načrtu izobraževanja nadarjenih za prihodnje učitelje. Koristen je predvsem pri učenju na daljavo in individualnem študiju.

Ključne besede: izobraževanje učiteljev, nadarjenost, učenje na daljavo, evalvacija

Teacher education in giftedness and teaching gifted students is crucial, as teachers are key to supporting gifted students in school. The online educational resource, EGIFT (European Gifted Education Training) provides learning experiences aimed at improving competence in gifted education. For the purpose of the present study, EGIFT was evaluated in the framework of the elective course, "Gifted Students in School", for undergraduate study programmes at the Faculty of Education University of Ljubljana.

A total of 34 students participated; they analysed, presented, and discussed the EGIFT basic units and completed the evaluative questionnaire about their experience with the EGIFT.

Students in general reported positive experiences with the EGIFT programme, indicating that the contents were informative and interesting. They proposed different ideas of how its contents could be used in teaching practice. The main suggestions for improvement were equalising the difficulty of questions in quizzes, the use of Slovene language for better understanding and more interactive videos.

Overall, the evaluation revealed that the EGIFT programme is a suitable enrichment tool in the curriculum of gifted education for pre-service teachers. It is particularly useful in distance learning settings and for individual study.

Keywords: teacher education, giftedness, online learning, evaluation

## Manj je lahko včasih tudi več!: O (ne)pomembnosti šolskih znanj in času pandemije virusa COVID-19

### Less can sometimes be more! On the (in)significance of school knowledge and the Covid-19 pandemic period

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Pandemija virusa COVID-19 ni samo zdravstveni, ampak tudi družbeni in gospodarski izziv. Poskrbeti moramo za osnovno naravoslovno pismenost (npr. delovanje virusa v celici gostitelja), razumeti številke (npr. kaj je reprodukcijsko število in vpliv na epidemijo) in poznati zgodovino nalezljivih bolezni (npr. da so pandemije v zgodovini povzročile več smrti kot vojne). Trdim, da je predvsem naša zgodovinska naravoslovna pismenost pomanjkljiva ali ni obstoječa, zato se ne znamo resno spoprijeti z nastalo krizo. Pregled učnih ciljev, učnih načrtov za osnovno šolo in gimnazije v Sloveniji je pokazal, da so epidemije in pandemije obravnavane samo kot izbirni moduli predmetov zgodovina in biologija. Vse, kar se danes otroci učijo v šolah, tudi pri biologiji in zgodovini, verjetno ni enako pomembno in nujno. V zadnjih kurikularnih prenovah osnovnošolski predmet biologija povečuje obseg učnih vsebin na račun novih odkritij v biološki znanosti. Ali to prispeva k naravoslovni pismenosti? Pri spoprijemanju s posledicami pandemije ne pomaga tudi dejstvo, da zgodovina zelo malo pozornosti posveča okoljski zgodovini. Nekatera šolska znanja so neizogibna za naše življenje, druga pač ne. To je poziv pedagoški stroki, da koreniteje premisli o kurikularnih in strukturnih spremembah šolskega sistema.

Ključne besede: šolsko znanje, pandemija, naravoslovna pismenost

The Covid-19 pandemic is not only a health challenge, but also a social and economic one. We need to teach basic science literacy (e.g. the effect of a virus in a host cell), understand numbers (e.g. what reproductive numbers are and what impact they have on an epidemic), and know the history of infectious diseases (e.g. that pandemics have historically caused more deaths than wars). I argue that, above all, our historical science literacy is deficient or non-existent, so that we do not know how to take crises seriously. A review of the learning objectives of primary and secondary school curricula in Slovenia revealed that epidemics and pandemics are considered only optional modules in the subjects of history and biology. Everything children learn in schools, including biology and history, is probably not equally important or necessary. In recent curriculum renovations, the primary subject of biology is expanding the scope of learning at the expense of new discoveries in the biological sciences. Does this contribute to science literacy? Nor does the fact that little attention is paid to environmental history in the subject of history help in dealing with the consequences of a pandemic situation. Some school knowledge is necessary for our lives, some is not. This is a call to the educational profession to think more radically about curricular and structural changes in the school system.

Keywords: school knowledge, pandemic, science literacy

## Razvoj kompetenc osnovnošolskih učiteljev za spodbujanje zdravega načina življenja in dobrega počutja otrok med 6. in 12. letom starosti

### Development of competencies of primary school teachers for promoting a healthy lifestyle and well-being of children 6-12 years of age

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Osnovnošolski učitelji spadajo med največje poklicne skupine v vzgoji in izobraževanju. Njihove kompetence zajemajo širok nabor znanj, sposobnosti in spretnosti, od psihologije in pedagogike, naravoslovja, družboslovja, jezikov, športa in umetnosti. Vendar izobraževanje učiteljev po vsem svetu zelo redko vključuje teme, ki so povezane z zdravjem otrok in njihovim življenjskim slogom. Namen raziskave je bil zato pridobiti vpogled v vlogo osnovnošolskih učiteljev pri spodbujanju zdravega načina življenja in dobrega počutja otrok.

Izveden je bil sistematični pregled literature na vzorcu 854 raziskav. Podatki so bili analizirani s tematsko analizo in metasintezo.

Rezultati so pokazali vplivno vlogo učiteljev pri promociji zdravega življenjskega sloga v starostni skupini otrok od 6. do 12. leta. Učitelji so bili prepoznani kot vplivni akterji pri izvedbi programov za krepitev telesnega in duševnega zdravja otrok, različnega trajanja in zahtevnosti.

Osnovnošolski učitelji imajo pomembno vlogo pri spodbujanju zdravega načina življenja in dobrega počutja otrok v svojem razredu. Zgodnje šolsko obdobje je še posebej občutljivo za razvoj dolgoročnih vzorcev zdravega življenjskega sloga. Zato bi moral biti razvoj kompetenc za promocijo zdravja prednostna naloga v kurikulumu izobraževanja bodočih učiteljev.

Ključne besede: osnovna šola, promocija zdravja, izobraževanje učiteljev

Primary school teachers are one of the largest professional groups in education. Their competencies cover a wide range of knowledge, abilities and skills, reaching from psychology and pedagogy to natural sciences, social sciences, languages, sport and art. However, the curriculum of teacher education globally rarely contains topics related to children's health and lifestyle. The purpose of our study was to gain an insight into the role of primary teachers in supporting a healthy lifestyle and the well-being of children.

A systematic literature review was implemented. A sample of N=854 studies was extracted and analysed with thematic analysis and meta-synthesis.

The results showed a significant role of teachers in school-based health promotion for children aged 6-12.

The teachers were recognised as influential providers in interventions strengthening children's physical and mental health with different durations and complexity.

Primary school teachers have a significant role in promoting healthy lifestyles and well-being among children in their class. During early school ages, children are susceptible to establishing a long-term healthy lifestyle. Hence, the development of health promotion competencies should be a priority in the curriculum of teachers' education.

Keywords: primary school, health promotion, teacher education



## Kompetence učiteljev učiteljev: perspektiva prihodnjih učiteljev

### University-based teacher educators' competences: student teachers' perspective

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V prispevku se osredotočamo na učitelje učiteljev, ki imajo pomembno vlogo pri izobraževanju in podpori tako učiteljev kot prihodnjih učiteljev, a gre vendarle še za šibko raziskano področje. Najprej definiramo, kdo učitelji učiteljev so, kakšne so njihove kompetence in vloge. Opozorimo tudi na to, da so učitelji učiteljev heterogena skupina in se nato osredotočimo na učitelje, ki poučujejo na fakulteti. V nadaljevanju predstavimo rezultate preliminarne študije, katere cilj je bil ugotoviti, kako študentje razumejo vlogo učiteljev učiteljev in kakšna pričakovanja imajo do njih. Rezultati kažejo, da študentje v največji meri pričakujejo, da so učitelji učiteljev strokovnjaki na svojem področju ter da znajo učinkovito poučevati, a se zdi, da ne razmišljajo o različnih vlogah učiteljev učiteljev (npr. učitelj, raziskovalec, upravljavec ipd.), kar potrjuje tezo o šibki raziskovanosti in poznavanju področja delovanja učiteljev učiteljev ter nakazuje potrebo po nadaljnjem raziskovanju in posledično utrjevanju vloge tega profila.

Ključne besede: učitelji učiteljev, definicija, kompetenca, študentje

In the paper we focused on teacher educators who play a key role in supporting new and experienced teachers, yet they have been under researched. We first tried to define who teacher educators are, what are their roles and competences, we highlighted the great variety of this group and we focused on university-based teacher educators. Further on, we presented the results of a preliminary study in which we wanted to establish what students' perception about teacher educators was. The results indicated that students mostly expected teacher educators to be well educated professionals who were able to teach the prospective teachers effectively and it seems they were not aware of the multiple roles (e.g. teacher, researcher, organiser, leader) that teacher educators take, which confirms the initial thesis about the under researched area and indicated the need for further research of the profile.

Keywords: teacher educator, definition, competence, students

## Razvoj kompetenc v predšolski vzgoji in izobraževanju: učenje, ki temelji na nalogah, in projektno učenje v Sloveniji, na Slovaškem in Češkem

### Competence Development in Early Childhood Education: Task-Based Learning and Project-Based Learning in Slovenia, Slovakia and the Czech Republic

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Prispevek se osredotoča na razvoj kompetenc otrok v predšolskem izobraževanju z učenjem, ki temelji na nalogah (TBL), in s projektnim učenjem (PBL). V prispevku so predstavljeni namen in začetni rezultati projekta Učenje z aktivnostmi – doseganje osnovnih kompetenc v predšolski vzgoji in izobraževanju, ki poteka v okviru programa ERASMUS+. Cilj projekta je s teoretičnega vidika osvetliti metodi TBL in PBL ter prispevati k njuni uporabi v vrtcih v Sloveniji, na Slovaškem in Češkem. V prispevku so predstavljena teoretična izhodišča in rezultati analize podatkov, pridobljenih v pilotski raziskavi, ki se je osredotočila na predhodne izkušnje 15 vzgojiteljev v vrtcih z metodama TBL in PBL. Raziskovalna vprašanja so: a) katere izobraževalne metode prevladujejo pri pedagoškem delu vzgojiteljev v vrtcih, b) kako vzgojitelji uporabljajo metodi TBL in PBL in c) kakšne ovire vzgojitelji zaznavajo pri uporabi metod TBL in PBL. Raziskava je pokazala, da pri pedagoškem delu vzgojiteljev, ki so sodelovali v pilotski raziskavi, še vedno prevladujejo verbalne in demonstracijske metode. Metodo PBL so v največji meri uporabljali slovenski vzgojitelji. Številni vzgojitelji niso pokazali razumevanja obeh metod in njune uporabe v predšolski vzgoji. Med ovirami so bile omenjene pomanjkljiva strokovna usposobljenost vzgojiteljev, velikost in heterogenost oddelkov, materialne okoliščine in pomanjkanje časa.

Ključne besede: predšolska vzgoja, projektno učenje, učenje na podlagi nalog, učne metode

The paper focuses on the development of children's competencies in pre-primary education through Task-Based Learning (TBL) and Project-Based Learning (PBL). It presents the intentions and first results of the project, Learning by Doing – Attainment of Basic Competences in ECEC supported by the ERASMUS+ Programme. The project aims to support the theoretical basis of TBL and PBL methods and their implementation in kindergartens in Slovenia, Slovakia, and the Czech Republic. The paper presents theoretical backgrounds and results of the analysis of data obtained in the pilot part of the research, which focused on the previous experience of 15 kindergarten teachers with TBL and PBL methods. Research questions were: a) What educational methods predominate in the pedagogical work of kindergarten teachers. b) How teachers use TBL/PBL-methods, and c) What obstacles do teachers perceive when using TBL and PBL-methods. The research sample showed that verbal and demonstration methods still predominate in the practice of teachers. Slovenian teachers mostly used the PBL-method. Many respondents showed a misunderstanding of the substance of both methods and their use in pre-primary education. Among the obstacles mentioned were the insufficient expertise of teachers, the size and heterogeneity of the classes, material conditions and lack of time.

Keywords: Pre-Primary Education, Project-Based Learning, Task-Based-Learning, Teaching Methods

## Timsko delo v vrtcu kot izziv v sodobni družbi

### Teamwork in kindergarten as a challenge in modern society

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V sodobni družbi, polni vsakodnevnih izzivov in številnih novosti, je bistveno timsko (so)delovanje z namenom kakovostnega vzgojno-izobraževalnega dela. V teoretičnem delu je predstavljeno timsko delo in delo v tandemu v vseh razsežnostih, torej oblikovanje le-teh, problemi, ki se pojavijo znotraj omenjenega, opisana pa je tudi vloga članov. Raziskavo o timskem delu smo izvedli med vzgojitelji in pomočniki vzgojiteljev vrtcev v Pomurju in na avstrijskem Štajerskem. Raziskali smo dejavnike, ki privedejo do oblikovanja tima, pogostost pojavljanja različnih vzrokov za neučinkovitost tima oziroma neučinkovitost izvajanja dejavnosti znotraj timskega dela, pa tudi morebitne konflikte in razloge za njihov nastanek. V članku razpravljamo o timskem delu kot pomembnem segmentu kakovostnega vzgojno-izobraževalnega dela v vrtcih. Zanimalo nas je, kako nastane oziroma se oblikuje tim in morebitne težave pri njegovem delovanju, s poudarkom na primerjavi med delom Slovenije in delom Avstrije. Raziskava je pokazala, da se določene stvari pojmovanja tandema in timskega dela v Pomurju in na avstrijskem Štajerskem razlikujejo, kar je predvsem razvidno v pojmovanju samega tandema in vzrokov za oblikovanje tima.

Ključne besede: timsko delo, vloga posameznika, neučinkovito izvajanje, konflikti, kakovost vzgojno-izobraževalnega procesa

In modern society, full of everyday challenges and many innovations, team (co)operation to achieve quality educational work is essential. The theoretical part presents teamwork and tandem work in all dimensions, i.e., their design, problems that occur within the above, and describes the role of members. The research on teamwork was conducted among educators and assistant educators of kindergartens in Pomurje and Styria, Austria. We investigated the factors that lead to team formation, the frequency of occurrence of various causes of team inefficiency or inefficiency in the implementation of activities within teamwork, and possible conflicts and reasons for their affair. In this article, we discuss teamwork as an important segment of quality educational work in kindergartens. We were interested in the reasons of team formation and possible problems in teams functioning, emphasizing the comparison between the work of Slovenia and the work of Austria. The research showed that certain things about tandem and teamwork in Pomurje and Austrian Styria differ, mainly evident in the concept of the tandem itself and the reasons for team formation.

Keywords: teamwork, the role of the individual, inefficient implementation, conflicts, quality of the educational process

## Multimodalna pismenost študentov predšolske vzgoje

### Multimodal literacy of pre-school education students

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Najpogostejša oblika knjige, s katero se srečujejo otroci v predšolskem obdobju, je slikanica. Slikanica združuje dva koda sporočanja, in sicer literarni in likovni kod sporočanja. Uvrščamo jo med multimodalna sporočila in lahko predstavlja temeljno izhodišče za razvoj vizualne in multimodalne pismenosti. Velikokrat opazamo, da predšolski otroci v slikanicah razberejo več pomenov kot odrasli, saj poslušajo besedilo in ob tem opazujejo ilustracije. Naloga vzgojitelja je, da otroke usmerja v sprejemanje sporočil iz obeh kodov sporočanja. Pri tem pa se postavi vprašanje, kako razbirajo pomen iz multimodalnega sporočila bodoči vzgojitelji predšolskih otrok. Izvedli smo raziskavo, v katero smo vključili študente prvega letnika predšolske vzgoje (N = 96). Študentje so morali razbrati sporočilo iz podanega multimodalnega dela in ga zapisati. Besedila smo analizirali tako, da smo izvedli kodiranje, kode pa nato združevali v kategorije. Rezultati kažejo, da so študentje pri razbiranju pomena izhajali predvsem iz napisanega besedila in veliko manj iz ilustracij. Rezultati raziskave lahko predstavljajo izhodišče za načrtovanje pristopov k razvijanju multimodalne pismenosti bodočih vzgojiteljev.

Ključne besede: slikanica, multimodalna pismenost, študentje predšolske vzgoje

Picture books constitute the most frequently encountered book type by children of pre-school age, combining both the literary and visual art communication modes. Picture books are classified as multimodal messages and can serve as the fundamental starting point for the development of visual and multimodal literacy. It has been frequently observed that children of pre-school age discern a larger number of meanings in picture books than adults by listening to the text and observing the illustrations at the same time. The role of the educator is to guide children towards accepting messages originating from both communication codes. The question then arises of how the meaning of a multimodal message is discerned by future educators of children of pre-school age. A survey involving first-year pre-school education students was conducted (n=96). Students were asked to discern the message of the multimodal work provided and to write it down. Texts were analysed through coding and the merging of codes into categories. The results of the survey showed that the meaning of the above was discerned primarily from the written text and to a smaller degree from the illustrations. The results thereof thus constitute a starting point for planning approaches for the development of multimodal literacy of future educators.

Keywords: picture book, multimodal literacy, pre-school education students

## Spremembe pogojev predšolske vzgoje na Češkem v povezavi s pandemijo virusa COVID-19

### Pre-primary education in the Czech Republic and its changes as a result of measures responding to the Covid pandemic

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V povezavi s pojavom virusa COVID-19 so se v čeških vrtcih močno spremenili nekateri pogoji izobraževanja predšolskih otrok, ki so v skladu z nacionalnim kurikularnim dokumentom zavezujoči.

Izvedena je bila kvalitativno usmerjena raziskava, da bi ugotovili te spremembe v izobraževalnih pogojih in izvedeli, kakšne izkušnje bodo z izobraževanjem v spremenjenih pogojih pridobili ravnatelji in učitelji.

Anketa, v kateri so anketiranci odgovorili na vprašanje: V čem in kako so se spremenili pogoji izobraževanja predšolskega otroka zaradi pandemije in kakšne izkušnje z izobraževanjem ste v njih pridobili?

Raziskovalno skupino sestavljajo ravnatelji in usposobljeni vzgojitelji.

Ugotovljene so bile spremembe pogojev izobraževanja na naslednjih področjih: sodelovanje vzgojiteljev s starši, oblike izobraževanja otrok, organizacija dneva predšolskih otrok. Učitelji so pridobili npr. izkušnje s spletnim izobraževanjem otrok.

Razprava se osredotoča na vprašanja, katere spremenjene pogoje v izobraževanju otrok lahko označimo kot pozitivne, katere kot negativne; katere izkušnje učiteljev, pridobljene pod spremenjenimi pogoji, se lahko uporabljajo za izboljšanje in inovacije v predšolski vzgoji v vrtcih.

Ključne besede: predšolski otrok, učitelj, izkušnje, pogoji, spremembe

The Covid-19 outbreak resulted in dramatic changes to some conditions regarding the education of pre-school children in Czech kindergartens. According to the national curriculum document, these conditions are mandatory.

A qualitative research approach was conducted with the aim of identifying these changes under the education-related conditions and finding out the education-related experiences the teachers and headmistresses gained under the changed conditions.

A survey in which respondents answered the question: In what ways and how have the conditions of education for pre-school children changed due to the pandemic, and what education-related experiences of education have you gained?

The sample consisted of headmistresses and qualified pre-school teachers. Changes in education-related conditions were identified in the following areas: cooperation of kindergarten teachers with parents, forms of children's education, organisation of the pre-school children's day. Teachers gained, for example, experience with the online education of children. We discuss about which of the changed conditions in children's education can be seen as positive, which as negative; which of the teachers' experiences gained under the changed conditions can be used to improve and innovate children's pre-school education in kindergartens.

Keywords: Pre-school child, teacher, experience, conditions, change.

## Preprečevanje motenj v komunikaciji pri predšolskih otrocih in težave pri njenem izvajanju z vidika vzgojiteljev v vrtcih

### Prevention in Communication Sciences and Disorders with Preschool Children and Difficulties in its Implementation from the Point of View of Teachers in Kindergartens

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V prispevku smo pozorni na izbrane vidike izvajanja preprečevanja motenj komunikacije otrok v vrtcu. Uspešno izvajanje preprečevanja motenj komunikacije otrok zahteva določeno stopnjo usposobljenosti učiteljev. Cilj prispevka je bralca seznaniti z ugotovljenimi poklicnimi težavami vzgojiteljev v vrtcu v smislu izvajanja preprečevanja motenj komunikacije pri predšolskih otrocih. Podatki so bili pridobljeni tako s kvantitativnimi kot kvalitativnimi raziskavami. Medtem ko je bila pri kvantitativnem pristopu uporabljena metoda vprašalnika, smo za kvalitativni pristop uporabili intervjuju. Raziskovalno skupino so sestavljale usposobljene vzgojiteljice v vrtcu. Omenjene težave pri izvajanju preprečevanja motenj komunikacije pri delu v vrtcu bodo osnova za oblikovanje izobraževalnega orodja, ki ga bo mogoče uporabiti za vadbo v posebnih vzgojnih situacijah in dejavnostih s predšolskimi otroki.

Ključne besede: predšolski otrok, preprečevanje, komunikacija, učitelj, težave

This paper pays attention to selected aspects of the implementation of prevention in communication sciences and disorders in the kindergarten. The successful implementation of prevention in communication sciences and disorders requires a certain degree of competency on the part of teachers. The aim of this paper is to acquaint the reader with the identified professional difficulties of kindergarten teachers in terms of the implementation of prevention in communication sciences and disorders in preschool children. Data was obtained through both quantitative and qualitative research. While the questionnaire method was used in the quantitative approach, the interview method was used in the qualitative approach. The research group consisted of qualified kindergarten teachers. Said identified difficulties in the implementation of prevention in communication sciences and disorders in the work of kindergarten teachers will be the basis for the creation of an educational tool that can be used in practice, in specific educational situations and activities with children in kindergarten.

Keywords: pre-schooler, prevention, communication sciences, teacher, difficulties

## Analiza dnevnikov praktičnega usposabljanja za didaktiko družboslovja: kakšna je usposobljenost študentov predšolske vzgoje za poučevanje družboslovja?

## Analysis of practical internship diaries for didactics of social sciences: How competent are students of preschool education for teaching social sciences?

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V prispevku je predstavljena analiza dnevnikov praktičnega usposabljanja za didaktiko družboslovja na študijskem programu Predšolska vzgoja 1. stopnja, s katero smo želeli za področje družboslovja ugotoviti: a) kako dobro študenti v vrtcu prepoznavajo didaktične pripomočke in sredstva, b) kako ocenjujejo delo mentorjev, c) kako zahtevne teme si izbirajo za aktivnosti, ki jih vodijo sami in d) kako poglobljene so refleksije študentov glede izvedbe lastnih dejavnosti. V analizo smo zajeli 169 dnevnikov študentov, ki so opravljali praktično usposabljanje za didaktiko družboslovja v letih 2016–2019. Za analizo dnevnikov smo uporabili kontrolni seznam, s pomočjo katerega smo ocenili dnevnike. Rezultati so pokazali, da je 20 % študentov delno ustrezno prepoznalo didaktične pripomočke, večina študentov ocenjuje mentorjevo izvajanje dejavnosti za družboslovje kot odlično, 75,7 % študentov si je izbralo za nastop enostavne teme in le 1,8 % zahtevne teme za področje družboslovja. Le 32 % študentov pa je zapisalo odlično refleksijo iz vidika poglobljenosti opazovanja lastnega dela in uporabe strokovne terminologije. Rezultati nakazujejo, da so študenti delno usposobljeni za poučevanje družboslovja, da je treba spodbujati kompetence poučevanja za zahtevnejše teme ter večjo sposobnost samorefleksije.

Ključne besede: didaktika družboslovja, praktično usposabljanje, visokošolsko izobraževanje, študenti predšolske vzgoje

In this article we present an analysis of practical internship diaries for didactics of social sciences in study programme Preschool education, 1st level. The purpose of the study was to determine: a) How well students recognise didactical aids and tools. b) How they evaluate their mentors' work. c) How demanding are the topics they chose for their activities and d) How in-depth are the reflections of their activities. The analysis included 169 diaries of students included in practical training for social sciences didactics in the years 2016-19. We used checklist for evaluation and analysis. The results showed that 20% of students partially recognised didactic aids, most students rated the mentor's teaching of social sciences as excellent, 75.7% of students chose a simple topic and only 1.8% a demanding topic for the social sciences, only 32% of students wrote an excellent reflection in terms of an in-depth observation of their own work and the use of professional terminology. The results indicate that students are partially qualified to teach social sciences, and that teaching competencies for more demanding topics and greater ability to self-reflect should be promoted.

Keywords: didactics of social sciences, practical internship, higher education, preschool education students.

## Značilnosti starševske vključenosti v pripravo otroka na šolo

### Attributes of parental involvement in children's school preparation"

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V sedanjem šolskem sistemu je partnerstvo med starši in šolo dobrodošlo, sistem pa računa tudi na sodelovanje staršev pri samem izobraževanju in pri pripravi učencev doma. Kakovost vključenosti staršev v priprave otrok doma je individualna tudi glede na našo opredelitev značilnosti akterjev priprave na poučevanje: starost, spol, stanje, družinski odnos z otrokom, izobrazba, zaposlitev.

Predstavljen projekt obravnava lastnosti staršev kot akterjev pri pripravi otrok na pouk na domu. Na starše (družino) mislimo kot na aktivne akterje, katerih cilj je vplivati na otroka z jasnim ciljem, da doseže najboljše možne rezultate v izobraževanju, spremljamo pa tudi lastnosti materialne in tehnične priprave na značilnosti starševske udeležbe pri pripravi učenca na učni proces. Kvalitativna raziskava bo izvedena v enem letu, med katerim bomo izvedli strukturiran razgovor s 15 starši iz vsakega letnika prve stopnje različnih osnovnih šol. Podatke bomo analizirali v okviru paradigmatičnega modela osnovane teorije z uporabo aksialnega kodiranja.

Ključne besede: akter, domača naloga, priprava na pouk

In the current school system, the partnership between parents and the school is welcome, and it also counts on the cooperation of parents in the education itself and in the home-school preparation of students. The quality of the parents' involvement in home-school preparation is also individual depending on the characteristics of the activity of preparation for teaching; definition of the characteristics of the act of preparation for learning; and the age, gender, condition, family relationship with the child, education, employment. The presented article deals with the attributes of parental involvement in the home school preparation of children. We think of the parent as an active actor (s) whose aim is to influence the child with a clear goal of achieving the best possible results in education and thus we look at the attributes of parental involvement through the attributes of material and technical preparation and preparation of the student for the teaching process. Qualitative research will be carried out in May and June, during which we will conduct a structured interview with 15 parents from each year of the 1st grade of various primary schools. The data will be analysed in the context of a paradigmatic model of grounded theory using axial coding.

Keywords: actor, homework, preparation for teaching



## Izvori in komponente poklicnega stresa iz učiteljske perspektive

### Sources and components of occupational stress from the teachers' perspective

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Učiteljski poklic je pogosto povezan s stresom, ki negativno vpliva na posameznika, prav tako lahko negativno vpliva na akademske dosežke učencev.

V raziskavi, v kateri je sodelovalo 538 učiteljev, smo želeli določiti elemente posameznih vidikov poklicnega stresa. Pri raziskovalnem delu smo uporabili kvalitativno metodologijo in tematsko analizo. Z raziskavo smo želeli pridobiti vpogled v posamezne vidike izkušenj s stresom glede na vire stresa ter pridobiti vpogled v dejanske težave učiteljev in njihovo razmišljanje o stresu, za katerega so raziskovalci domnevali, da presega poklicni stres na delovnem mestu.

Poklicni stres je najpogosteje povezan s študenti, starši, strokovnimi sodelavci, s prevelikim obsegom administrativnih nalog ter s pomanjkanjem strokovnega usposabljanja. Učitelji so izrazili tudi nezadovoljstvo s socialnim statusom svojega poklica in ga dojemali kot pomemben vir stresa.

Pri interpretaciji rezultatov smo izhajali iz Bronfenbrennerjeve ekološke teorije človekovega razvoja.

Pomembno je, da so vsi odgovorni (ministrstva, fakultete, ustanovitelji) seznanjeni z rezultati te študije, jih upoštevajo ter učiteljem zagotovijo ustrezno podporo pri zaščiti njihovega duševnega zdravja in dobrega počutja otrok.

Ključne besede: učitelji, stres, podpora, tematska analiza

The teaching profession is often associated with stress, which has a negative impact on the individual and can have negative consequences on the academic achievements of students.

To determine the components of individual sources of occupational stress on a sample of 538 teachers, a qualitative methodology and a thematic analysis was conducted. The research problems were gaining an insight into the components of the experience of stress in relation to individual sources of stress and gaining an insight into teachers' actual difficulties and their thinking on it, which the researchers assumed went beyond the sources of occupational stress in the workplace.

Components of individual sources of occupational stress were most often related to students, parents, expert associates and principals, excessive administrative tasks, and a lack of professional training. The teachers also expressed their dissatisfaction with the social status of their profession and saw it as a significant source of stress.

The obtained results are considered in the context of Bronfenbrenner's ecological theory of human development. All those responsible (ministries, faculties, founders) are invited to respect these findings and ensure adequate support to teachers in order to protect their mental health and the well-being of children.

Keywords: teachers, stress, support, thematic analysis

## Spodbujanje in razvijanje čuječnosti pri bodočih vzgojiteljih in učiteljih

### Encouraging and developing mindfulness in future preschool and elementary education teachers

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V zadnjem desetletju beležimo skokovit porast v zanimanju za koncept čuječnosti in prakticiranje le-te. Redno izvajanje čuječnostne prakse prinaša za posameznika številne ugodne (telesne, psihološke, kognitivne in psihosocialne) učinke, zato je vse več teženj po vključevanju čuječnosti v študijsko, pa tudi v predšolsko in šolsko okolje. V raziskavi smo s skupino študentov pedagoških smeri izvedli vodeni program spodbujanja in razvijanja čuječnosti ter preverili njihove odzive nanj. V študiji je sodelovalo 65 študentov pedagoških smeri, ki so bili v času epidemije COVID-19 vključeni v 8-tedenski program izvajanja tehnik čuječnosti. Program je potekal na daljavo. Sestavljen je bil iz uvodnega srečanja, rednih tedenskih srečanj, namenjenih izvajanju tehnik čuječnosti, in zaključnega srečanja. Udeleženci so pred začetkom in ob zaključku izvedbe programa izpolnili spletni vprašalnik, s katerim so ocenili svoje poznavanje koncepta čuječnosti, smiselnost uvajanja čuječnosti v študijski in vzgojno-izobraževalni proces ter učinke, povezane z izvajanjem redne čuječnostne prakse. Rezultati raziskave so pokazali pozitivne učinke izvajanja programa razvijanja čuječnosti. Večina udeležencev prepoznava smiselnost vključevanja čuječnosti v reden študijski program, kot tudi v njihovo nadaljnje poklicno delo vzgojiteljev oz. učiteljev.

Ključne besede: čuječnost, študenti, razredni pouk, predšolska vzgoja, COVID-19

In the last decade, we have seen a sharp increase in interest in the concept of mindfulness and its practice. Regular implementation of mindfulness practice brings many positive (physical, psychological, cognitive and psychosocial) effects for the individual, so there is an increasing tendency to include mindfulness in the higher education system, as well as in the preschool and school environment. In this research, we implemented a guided mindfulness programme with a group of pedagogical students to promote and develop mindfulness and see their responses to it. The study involved 65 students of teachers' higher education programmes, who were at the time of the covid-19 epidemic included in an 8-week mindfulness programme. The programme was held online, consisting of an introductory meeting, regular weekly meetings dedicated to the implementation of mindfulness techniques, and a closing meeting. Before and at the end of the programme, participants completed an online questionnaire to assess their knowledge of the concept of mindfulness, the feasibility of introducing mindfulness in the study and educational process and the effects associated with the implementation of regular mindfulness practice. The results of the research showed positive effects from the implementation of the mindfulness programme. Most of the participants recognise the sense of including mindfulness within the regular study programme as well as in their further professional work as preschool and elementary education teachers.

Keywords: mindfulness, students, elementary education, preschool education, covid-19

## Socialno-emocionalne kompetence in motivacija za poklic bodočih učiteljev v predšolskih ustanovah in učenje v razredu v treh sosednjih državah

### Socio-emotional competence and motivation for the profession of future teachers in preschool institutions and classroom teaching in three neighbouring countries.

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Cilj pilotne raziskave je bil ugotoviti socialno-čustveno usposobljenost in motivacijo za poklic pri bodočih učiteljih v vrtcih in šolah v treh sosednjih državah, ki si delijo kulturni in zgodovinski razvoj, tranzitne odnose in migracije prebivalstva. Raziskava je bila izvedena na učiteljskih na Reki (N = 267), v Beogradu (N = 240) in Zenici (N = 199) z uporabo anonimnega in prostovoljnega vprašalnika, v katerem so študentje samooocenili 1) vzorce vedenja v medosebnih konfliktih (kompromis, prilagajanje, izogibanje in zmaga), 2) agresivnost (jeza, fizična agresija in sovražnost), 3) tesnobo v medosebnih odnosih, 4) sposobnost timskega dela in 5) motivacijo za študij (praktični zunanji razlogi in notranja zavzetost). Pridobljene so bile pričakovane vrednosti in korelacije med spremenljivkami. Implicirani socialno-čustveni profili bodočih učiteljev so nekoliko skrb vzbujajoči in nakazujejo potrebo po spremembah in posodobitvi študijskih programov učiteljev, ki bodo vzgajali otroke v najbolj ranljivi starosti, pa tudi nadaljnje raziskave na tem področju. Strokovnjaki za vzgojo in izobraževanje otrok v zgodnji razvojni dobi v vrtcih in osnovnih šolah so izjemno pomembne osebe v otrokovem razvoju, saj predstavljajo pomemben model vedenja otroka in sodelujejo pri usmerjanju otrokovega razvoja.

Ključne besede: pedagoške fakultete, socialno-emocionalne kompetence, motivacija za poklic

The aim of the study was to determine the socio-emotional competence and motivation for the profession of future teachers in preschools and classroom teaching in three neighbouring countries that have a common cultural and historical development, transit relationship and population migration. Research was conducted at teacher training colleges in Rijeka (N = 267), Belgrade (N = 240) and Zenica (N = 199), using an anonymous and voluntary questionnaire in which students self-assessed 1) Patterns of behaviour in interpersonal conflicts (cooperation/compromise, adjustment, avoidance, and winning); 2) Aggression (anger, physical aggression, and hostility); 3) Anxiety in interpersonal relationships; 4) Ability to work in teams, and 5) Motivation to study (practical external reasons and intrinsic commitment profession). Expected values and correlations between variables were obtained. The implied socio-emotional profiles of future teachers are somewhat worrying and suggest the need for changes and modernisation of the study programmes of teachers who will raise children at the most vulnerable age, as well as further research. Professionals in the upbringing and education of children of early developmental age in kindergartens and primary schools are extremely important people in the child's development because they represent an important model of behaviour to the child and a person who will guide the child's development.

Keywords: teacher training colleges, socio-emotional competence, motivation for the profession

## Ali izobražujemo bodoče učitelje za delo v interesnih dejavnostih?

### Do we educate future teachers to work in extracurricular activities?

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Interesne dejavnosti so sestavni del programa osnovne šole. Učencem nudijo možnost kakovostnega preživljanja prostega časa. Delo v interesnih, svobodno izbranih dejavnostih učencem omogoča, da stopajo v socialne stike ter gradijo svojo osebnost. Različne organizacijske oblike interesnih dejavnosti prispevajo k boljšim socialnim odnosom. Ker lahko te dejavnosti prispevajo k preprečevanju nastanka različnih oblik neprimerne vedenja, je organizacija teh pomembna in nujna. Do zdaj opravljene raziskave opozarjajo, da realne možnosti in ustvarjalni potenciali učencev v interesnih dejavnostih niso v celoti izkoriščeni, metode, ki jih uporabljajo učitelji, pa ne prispevajo v dovoljšnji meri k razvoju ustvarjalnosti učencev.

Pri tem se postavlja vprašanje, koliko smo bodoče učitelje med študijem pripravili na organizacijo interesnih dejavnosti, koliko so učitelji kompetentni prepoznati interes, motivacijo, nadarjenost učencev, da bi jih lahko vključevali v te dejavnosti. Poudariti je treba, da imajo učitelji pomembno nalogo, kako narediti te dejavnosti zanimive. V prostem času so lahko učenci izpostavljeni številnim nevarnostim, zato moramo pedagoško delovanje usmeriti v prevencijo.

V prispevku bodo analizirani programi interesnih dejavnosti v osnovnih šolah Zadarske in Osješko-baranjske županije. Pripravljena bo analiza študijskih programov pedagoških fakultet na Hrvaškem in analiza učnih načrtov posameznih predmetov, ki prispevajo k razvoju kompetenc za delo v interesnih dejavnostih.

Ključne besede: interesne dejavnosti, prosti čas, programi pedagoških fakultet, kompetence učiteljev

Extracurricular activities are an integrated part of the elementary school curriculum. They offer pupils the possibility of spending quality leisure time. In participating in extracurricular activities during their leisure time, children have social contact and build their personality. Organisational forms of extracurricular activities contribute to better social contacts. Leisure time activities can prevent the occurrence of various manifestations of unacceptable behaviour, whereby their organisation is important and necessary.

However, research conducted so far has shown that the real possibilities and creative potential of students in extracurricular activities have not been fully used, and the methods used by teachers are still not conducive to encouraging and developing creativity.

The question arises as to how much we have prepared future teachers in organising extracurricular activities during their studies, how competent they are in recognising interest, motivation, and individual talents in pupils to be able to include them in extracurricular activities. It is to be pointed out that it is the task of the teacher to make extracurricular activities more interesting for pupils than leisure and hedonism. Numerous dangers lurk during leisure time, and pedagogical time must be directed to their prevention.

The present work analyses the curriculum of extracurricular activities in Zadar and Osijek County elementary schools. There will also be an analysis of study programmes at teacher training colleges in Croatia and an analysis of syllabus courses that determine the development of competencies for work in extracurricular activities.

Keywords: extracurricular activities, leisure time, teacher colleges curricula, teacher competencies

## Upravljanje vzgojno-izobraževalne ustanove – perspektiva ravnatelja

### Management of educational institutions - the perspective of the headmaster

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Teoretično izhodišče v prispevku so kompetence in ključne naloge direktorjev zavodov za zgodnjo in predšolsko vzgojo. Za kakovostno opravljanje direktorskih nalog je nujen razvoj številnih strokovnih kompetenc, zato vseživljenjsko izobraževanje ravnateljev postane nedvomna obveznost.

V prispevku so predstavljeni rezultati raziskav, izvedenih na vzorcu direktorjev zavodov za zgodnjo in predšolsko vzgojo, zasebnih in mestnih ustanoviteljev iz Šibensko-kninske in Zadarske županije, ki se nanašajo na ocenjevanje kompetenc in predpisane ključne naloge pri vodenju zavoda.

Anketiranci kompetence ocenjujejo kot izjemno pomembne za kakovostno izvajanje procesa vodenja in vodenja zavoda za zgodnjo in predšolsko vzgojo. Rezultati kažejo, da anketiranci ocenjujejo večino ključnih nalog, namenjenih organizaciji vzgojno-izobraževalnega dela, pa tudi nalog in dejavnosti, namenjenih zaposlenim, staršem in skupnosti, pomembnih pri opravljanju njihovega dela.

Zato je vsekakor treba vztrajati pri novih oblikah izobraževanja direktorjev zavodov za zgodnjo in predšolsko vzgojo, kjer bodo ravnatelji s pomočjo različnih primerov, kazalnikov in konkretnih situacij iz prakse pridobili novo znanje in kompetence za boljše upravljanje.

Ključne besede: direktor, vodstvo, vseživljenjsko učenje, kompetence, izobraževalna ustanova

The theoretical starting point in the paper is the competencies and key tasks of the directors of institutions for early and preschool education. The development of many different professional competences is necessary to help us deal with complicated headmaster's tasks. In such a process that aims towards the improvement of the quality of educational work, lifelong learning has almost become a mere obligation for headmasters.

The paper presents the results of research conducted on a sample of headmaster of institutions for early and preschool education, private and city founders from the Šibenik-Knin and Zadar counties, relating to the assessment of competencies and prescribed key tasks in the management of the institutions.

Respondents assessed all competencies as extremely important for the quality implementation of the process of leading and managing an institution for early and preschool education. The results showed that the respondents assessed most of the key tasks aimed at the organisation of educational work, as well as tasks and activities aimed at employees, parents and the community, significant in the performance of their work.

Therefore, it is certainly necessary to continue to insist on new forms of education for directors of early and preschool education institutions, where with the help of various examples, indicators and concrete situations from practice, principals will get the necessary dose of new knowledge and competencies for better management.

Keywords: headmaster, management, lifelong learning, competences, educational institution

## Pomen učne analitike v izobraževanju

### The Importance of Learning Analytics in Education

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Digitalizacija učenja vse bolj pridobiva veljavo, z razširjenostjo pa se v praksi vse bolj očitno izrisujejo njene prednosti in slabosti. Ena ključnih prednosti digitalizacije je možnost večjega prilagajanja učnih procesov posamezniku, t. i. personalizacija učenja. Za njeno udejanjanje v praksi potrebujejo učitelji čim več informacij o specifikah učenja posameznika – vloga učne analitike je, da jim te informacije priskrbi in nazorno prikaže.

Razvili smo platformo za učno analitiko, katere glavni cilj je pomagati učitelju, da bolje spozna svoje učence s specifičnimi učnimi preferencami; dodana vrednost pa je možnost vpogleda v njihove socialne interakcije. Platformo smo preizkusili pri naravoslovnih predmetih (N = 66), in sicer v 8. in 9. razredu osnovne šole. Uporaba aplikacije na študiji primera je pokazala, da lahko pri učencih prepoznamo različne strategije reševanja težav. Ugotavljamo, da je uspešnost posameznika povezana z njegovo aktivnostjo in vpetostjo v socialne interakcije. Na podlagi mrežne analize socialnih interakcij smo prepoznali tudi posamezne skupnosti učencev in posameznike kot ključen vir informacij.

Informacije o različnih strategijah reševanja težav in socialni dinamiki v razredu, ki jih pridobimo na podlagi učne analitike aplikacije, lahko pomembno pripomorejo k prilagajanju učnega procesa posamezniku in s tem dvigu kakovosti poučevanja.

Ključne besede: digitalizacija izobraževanja, personalizacija, učna analitika

Digitalisation in learning is gaining in popularity. Its advantages and disadvantages are becoming increasingly evident in practice. One of the key advantages of digitisation is the adaptation of learning processes to the individual, i.e., personalisation of learning. To put personalisation into practice, teachers need as much information as possible about the specifics of an individual's learning - the role of learning analytics is to provide and visualise this information to teachers.

A learning analytics platform was designed and developed. Its main goal is to help teachers better understand their students with specific learning preferences. Its potential is also the possibility of an insight into their social interactions. The platform was tested in science lessons (N=66), in the 8th and 9th grade of primary school.

The use of the platform in a case study showed that we could identify different problem-solving strategies in students. We found that an individual's progress was related to his activity and involvement in social interactions. Based on the network analysis of social interactions, we also identified individual communities of students and individuals as a critical source of information.

Information on different problem-solving strategies and social dynamics in the classroom, acquired on a learning analytics platform basis, can significantly help adapt the learning process to the individual and improve teaching quality.

Keywords: digitalisation in education, personalisation, learning analytics.

## EXPERT – videorazlage in strategije kriznega poučevanja na daljavo

### EXPERT – Educational Explanations and Practices in Emergency Remote Teaching

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V prispevku bomo predstavili prve rezultate projekta EXPERT. Namen projekta je priprava visokokakovostnih odprtih izobraževalnih virov za naravoslovje, tehniko in matematiko. Slovenija že ima odprte i-učbenike, ustvarjen je tudi portal videorazlag. Žal so vsa gradiva v slovenščini in imajo zato omejene možnosti uporabe izven našega šolskega sistema. V EXPERTU bomo zato že razvita slovenska gradiva nadgradili in prevedli v angleščino z uporabo naprednih modelov strojnega prevajanja. Gradiva bomo v nadaljevanju vključili v sisteme za upravljanje učenja (LMS) in raziskali nove modele za uporabo v učilnicah v mednarodnem okolju (predvsem na Finskem, v Nemčiji, Španiji in Turčiji). Gradiva bodo evalvirana na vzorcu 500 slovenskih, turških in nemških učencev. Uporabljena bo kombinirana kvantitativna in kvalitativna metodologija. Rezultati projekta bodo pomagali učencem razviti poglobljeno znanje pri učenju na daljavo z odprtimi izobraževalnimi viri. Rezultati bodo prenosljivi na druge šolske predmete (zlasti na hierarhične predmete, kot so jeziki) in sisteme (npr. nevronski model strojne transkripcije in prevajanja). Pričakujemo pozitivni vpliv projekta na osmišljeno uporabo IKT pri poučevanju in spodbudo odločevalcem, da dosežemo višjo stopnjo digitalne pismenosti vseh deležnikov v šolskem sistemu.

Ključne besede: odprti izobraževalni viri, naravoslovje, tehnika in matematika, videorazlage, krizno poučevanje na daljavo, strojno prevajanje

The paper presents the first results of the EXPERT project. The project aims to create high quality open educational resources (OER) for STEM. In Slovenia OER i-textbooks and video explanation repositories have already been made. All materials are in Slovenian and have limited possibilities for use. EXPERT will upgrade and translate the already developed Slovenian materials into English using advanced machine translation models. Afterwards the materials will be embedded in learning management systems (LMS) and new models for classroom use in an international setting (particularly in Finland, Germany, Spain and Turkey) will be explored. We will evaluate the materials on a sample of 500 Slovenian, Turkish and German students. A combined quantitative and qualitative methodology will be used. The results of the project will help students to develop in-depth knowledge in distance education with OERs. The results will be transferable to other school subjects (especially hierarchical subjects like languages) and systems (e.g. the neural model of machine transcription and translation). We expect the project to positively impact the meaningful use of ICT in education and provide an incentive for policymakers to achieve higher digital literacy levels for all stakeholders in the school system.

Keywords: OER, STEM, video explanations, emergency remote education, machine translation

## Analiza videorazlag za matematiko na razredni stopnji

### Analysis of video lectures in elementary school mathematics

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Učinkovitost videorazlage je odvisna od številnih značilnosti. Obstaja več študij in predlogov, kako se lahko ljudje iz učnega videoposnetka bolje naučijo. Združimo jih lahko v štiri načela: načelo dinamičnega risanja, načelo usmerjanja pogleda, načelo generativne dejavnosti in načelo perspektive videoposnetka. V študiji smo preučevali značilnosti matematičnih videografov, namenjenih učencem prvih petih razredov osnovne šole.

Za potrebe raziskave je bila ustvarjena podatkovna baza za evidentiranje prej omenjenih dejavnikov. Vsak avtor je neodvisno kodiral videorazlage; drugi avtor je dvakrat preveril vsako 10. videorazlago. Bazo podatkov so sestavljale videorazlage, objavljene na [www.razlagamo.si](http://www.razlagamo.si), ki so bile namenjene poučevanju matematike prvih petih razredov osnovne šole. Za analizo je bilo upoštevanih 210 videorazlag. Za analizo smo uporabili opisno in naključno statistiko s SPSS 27.

Pri izvedeni raziskavi smo ugotovili, da ni bilo statistično pomembnih razlik v trajanju videoposnetka. Ugotovljene so bile statistično pomembne razlike v perspektivi posnetka, prenasičenosti, principu generativne aktivnosti. Tehnika 'voice over', ki je opredeljena kot tehnika z najnižjo učno uspešnostjo, prevladuje v skoraj polovici videoposnetkov, razlike med triadami so bile statistično pomembne. Rezultati videoanalize kažejo, da je še veliko prostora za izboljšave, zlasti v tehnični izdelavi videoposnetkov in pri upoštevanju načel.

Ključne besede: poučevanje na daljavo v sili, videorazlage, obrnjena učilnica

The effectiveness of video explanation (VE) depends on many characteristics. There have been several studies and suggestions on how people could learn better from an instructional video and we can combine them into four key principles: dynamic drawing principle, gaze guidance principle, generative activity principle and perspective principle. This study determines the characteristics of materials on mathematics intended for students in the first five elementary school grades.

For the research, a spreadsheet was created to record the VEs' aforementioned characteristics. Each author coded VEs independently; the other author double-checked every 10th VE. The database consisted of VEs published on [www.razlagamo.si](http://www.razlagamo.si) that were intended to teach mathematics in the first five years of elementary school. For the analysis, 210 VEs were considered. We used descriptive and inferential statistics with SPSS 27 for analysis.

There were no statistically significant differences in video duration between years. Statistically significant differences were found for the perspective principle, seductive details principle, and generative activity principle. Voice-over, which was the type with the lowest learning performance, dominated in almost half of videos, differences among triads were statistically significant.

The video analysis results show that there is still much room for improvement, especially in the technical part of the videos and in following the principles.

Keywords: emergency remote teaching, video lectures, flipped classroom



## Kako učencem približati poklic kemijskega inženirja?

## How to bring the profession of chemical engineering closer to pupils?

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V okviru projekta smo se s študenti Fakultete za naravoslovje in matematiko v povezavi s študenti Fakultete za kemijo in kemijsko tehnologijo v študijskem letu 2019/2020 lotili raziskave, na kakšen način mladim približati poklic kemijskega inženirja in jih spodbuditi k študiju te discipline, saj so potrebe gospodarstva po kemijskih inženirjih velike.

Med študenti Kemijskega inženirstva, Kemije in usmeritve Izobraževalna kemija v okviru študijskega programa Predmetni učitelj smo izvedli tudi anketo, saj nas je med drugim zanimalo, od kod odločitve za njihov študij.

S študenti FNM smo se osredotočili na poznavanje poklica med osnovnošolci. Lotili smo se analize učnih načrtov osnovnošolskih predmetov (tehnika in tehnologija, naravoslovje, kemija) ter srednješolskih predmetov – kemija (gimnazije in druge srednje šole), v katerih smo poiskali teme/vsebinske sklope in cilje, povezane s kemijskim inženirstvom.

Odločili smo se, da bomo za osnovnošolce pripravili primer naravoslovnega dne, v sklopu katerega bodo lahko spoznali poklic kemijskega inženirja ter obnovili že obnovljeno kemijsko znanje, ki se nanaša na kemijsko inženirstvo. V načrtovanje izvedbe naravoslovnega dne smo se odločili vključiti aplikacijo CŠOD Misija, s pomočjo katere lahko učenci samostojno spoznavajo poklic tudi v času epidemije.

Ključne besede: kemijsko inženirstvo, osnovna šola, aplikacija CŠOD Misija

As a part of the project, students and mentors from the Faculty of Natural Sciences and Mathematics in cooperation with the students of the Faculty of Chemistry and Chemical Engineering were researching how to bring the profession of chemical engineer closer to pupils and encourage them to study this discipline, considering the needs of industry for chemical engineers.

Among the students of Chemical Engineering, Chemistry and Educational Chemistry within the subject teacher programme we conducted a survey to find out where the decisions for their study came from. Together with the FNM students we focused on the knowledge of the profession among pupils, we made an analysis of primary school curricula for the subjects Engineering and Technology, Natural Sciences, Chemistry, and secondary school curricula of chemical subjects in which we were looking for topics and goals related to chemical engineering. We decided to prepare an example for a science day for primary school pupils, during which they would get to know the profession of chemical engineering and renew already known topics of chemistry related to chemical engineering. We decided to include the CŠOD Misija application with the help of which pupils can independently get acquainted with the profession, even during the epidemic.

Keywords: chemical engineering, primary school, CŠOD Misija application

## Razvoj tehniške ustvarjalnosti pri študentih razrednega pouka v času pandemije virusa COVID-19

### Development of technical creativity among elementary education students during the Covid 19 pandemic

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Popolno zaprtje države in posledično tudi študija na univerzi je ustvarilo neenakovredne pogoje dela tako med študenti kot med zaposlenimi na študijskih smereh, kjer je velik poudarek na praktičnem delu. Pri predmetu Didaktika naravoslovja in tehnike II so se vsebine predmeta prilagodile in zasnovale tako, da je bila v ospredju, namesto vnaprej pripravljenih vaj in izdelkov, tehniška ustvarjalnost in mesečni projekti, ki so izravnali neenakosti in omejitve med študenti. Vaje so bile sestavljene iz štirih mesečnih projektov, kjer so študentje izdelovali različne izdelke in ob koncu vsakega projekta tudi poročali in predstavili svoje rezultate. Na podlagi analize izdelkov mesečnih projektov je bila zasnovana raziskava, katere namen je bila evalvacija uspešnosti izvedbe predmeta iz perspektive udeležencev. Evalvacijski vprašalnik, sestavljen iz treh delov, je bil posredovan vsem študentom predmeta. Vprašalnik je v celoti izpolnilo 57 študentov od 88. Rezultati raziskave kažejo, da je zasnova predmeta, ki je temeljila na tehniški ustvarjalnosti, v celoti izpolnila in preseгла pričakovanja študentov ter predvsem izravnala neenakosti in omogočila vsakemu posamezniku uspešno opravljanje obveznosti.

Ključne besede: naravoslovje in tehnika, tehniška ustvarjalnost, evalvacija predmeta

The lockdown of the state, and with it the closure of the university, has created unequal working conditions among both students and staff in those areas of study where much emphasis is placed on practical work. In the course Didactics of Science and Technology II, the content of the course was adapted and designed to focus on technical creativity and monthly projects instead of prefabricated exercises and products, which compensated for the inequalities and limitations among students.

The exercises consisted of four monthly projects in which students produced different products and also reported and presented their results at the end of each project. Based on the analysis of the products of the monthly projects, a survey was designed whose purpose was to evaluate the success of the implementation of the course from the students' point of view. An evaluation questionnaire consisting of three parts was distributed to all participants of the course. The questionnaire was completed by 57 of the total 88 students.

The results of the study show that the design of the course, based on technical creativity, fully met and exceeded the expectations of the students and, most importantly, compensated for inequalities and enabled each individual to successfully fulfil the obligations.

Keywords: science and technology, technical creativity, course evaluation

## Primeri dobrih praks poučevanja tehnike in tehnologije na daljavo v osnovni šoli

### Good practice examples of distance teaching technical subjects in lower secondary school

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Poučevanje na daljavo v času zaprtja šol je zaradi specifičnosti predmeta tehnike in tehnologije (TIT) predstavljalo poseben izziv. TIT je predmet, ki ima poudarek na razvijanju učenčevih ročnih spretnosti, ustvarjalnosti ipd. Namen raziskave je bil analizirati potek poučevanja TIT na daljavo v času prvega vala epidemije virusa COVID-19.

Pričujoč prispevek je del širše raziskave, ki je bila izvedena na vzorcu 108 učiteljev predmeta TIT. Na odprto vprašanje je primer dobre prakse poučevanja predmeta TIT na daljavo navedlo 65 učiteljev. Pridobljene podatke smo analizirali s kombinacijo kvantitativnih in kvalitativnih metod.

Rezultati so pokazali, da je bilo pri poučevanju na daljavo 32 primerov praks teoretično naravnanih, 28 praktično, petih odgovorov pa nismo mogli uvrstiti v nobeno skupino. Med praktičnimi metodami je prevladovalo izdelovanje izdelka, sledita ji metodi demonstracije in projektne dela. Metode za doseg višjih učnih ciljev je uporabljalo manj kot polovica anketiranih učiteljev. Iz rezultatov lahko zaključimo, da je pri poučevanju predmeta TIT na daljavo prevladovalo individualno delo učencev, kar sicer omogoča individualizacijo, a niti inovativni načini vključevanja IKT v pouk TIT ne morejo nadomestiti pouka v delavnici in razvijanja številnih spretnosti.

Ključne besede: osnovnošolsko izobraževanje, tehnika in tehnologija, poučevanje na daljavo, primeri dobre rabe

Distance teaching while educational institutions were closed, was especially challenging due to the specificity of technical subjects (TIT). TIT is a subject that emphasises developing students' manual skills, creativity, etc.

The purpose of this study was to analyse the course of distance teaching technical studies during the first wave of covid-19. This paper is part of a broader study, conducted on a sample of 108 teachers of TIT. To an open-ended question, 65 teachers gave a good practice example of teaching TIT at a distance. The obtained data was analysed with a combination of quantitative and qualitative methods. The results showed that 32 of good practice examples of distance teaching were theoretical in nature, 28 practical and five could not be classified as either. Among practical methods, manufacturing a product from a certain material prevailed, followed by the demonstration method and project work. Less than half of the surveyed teachers used methods to achieve higher learning goals. Based on the results, we can conclude that the prevailing method when teaching TIT at a distance was individual studying, which allowed individualisation. However, even innovative ways of including ICT in TIT classes cannot replace teaching and working in the classroom and thus developing many different skills.

Keywords: elementary education, technical studies, distance learning, good practice examples

## Evalvacija samostojnih izdelkov v domačih delavnicah pri predmetu tehnika in tehnologija

### The evaluation of self-made products at home during online technology lessons

Uroš Ozmec<sup>1</sup>

<sup>1</sup>*OŠ Selnica ob Dravi, Selnica ob Dravi, Slovenija*

Izobraževanje na daljavo je pri predmetu tehnika in tehnologija teoretično in praktično delo prestavilo iz opremljenih šolskih delavnic v različno opremljena domača okolja učencev in učitelja. Namen izvedene raziskave je analiza in evalvacija pogojev dela za izdelovanje izdelkov učencev. Glavno raziskovalno vprašanje je, ali so izdelke izdelovali samostojno, na kakšen način in kje so dobili material ter orodje. Raziskava je potekala na primestni osnovni šoli pri predmetu tehnika in tehnologija, in sicer na vzorcu 80 učencev 6. in 7. razreda. Podatki o delovnem okolju in materialih so bili pridobljeni s pomočjo analize ustvarjene tehnične in tehnološke dokumentacije ter ankete, ki so jo izpolnili učenci. Raziskava je pokazala, da so učenci, ki so bili samostojni že v šoli, kljub pomanjkljivim pogojem dela samostojno izdelali boljše in inovativnejše izdelke kot učenci, ki niso bili samostojni. Ti učenci so večinoma izdelali površne izdelke z izdatno pomočjo staršev. Iz raziskave je razvidno tudi, da so učenci, ki so imeli boljši dostop do orodja in različnih materialov, izdelovali kompleksnejše izdelke kot učenci, ki tega dostopa niso imeli.

Ključne besede: tehnika, pouk na daljavo, praktično delo

During remote schooling the theoretical and practical work of technology lessons was moved from the school workshops to students' and teachers' home environments.

The purpose of this research was the analysis and the evaluation of the working conditions needed for making products. The main research question was whether the product was actually made by the students, as well as how and where they got the materials and tools from. The research was carried out at a suburban school with a sample of 80 students from classes 6 and 7. The data about the working conditions were gathered on the basis of analysed technical and technological documents as well as on the questionnaire, completed by the students. The research showed that the students who usually do well and independently at school were able to create better and more innovative products despite the bad working conditions. On the other hand the students who were usually less independent at their schoolwork very often made poor products. The research also indicated that the students who had an easier access to tools and materials made more complex products than the students who did not have this privilege.

Keywords: technology, online schooling, practical work.

## Ideja + SketchUp + CNC = Končni izdelek

## Idea + SketchUp + CNC = Final product

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Zaradi epidemije virusa COVID-19 je bilo treba vzpostaviti inovativne pristope pri poučevanju predmeta tehnika in tehnologija, še posebej pri praktičnem delu učencev. Ker je bil dostop do tehnične učilnice, delavnice ter tudi računalniške učilnice omejen, nas je zanimalo, ali lahko s spremembo pristopa in vključevanjem sodobnih IKT-naprav izvedemo pouk v matičnih učilnicah.

V študiji je sodelovalo 59 učencev 7. razredov, ki so po razredih v dodeljenih matičnih učilnicah izdelovali izdelek iz umetnih snovi. Učenci so na podlagi določenih ter dogovorjenih meril oblikovali, skicirali idejo in narisali tehnično risbo za preprost predmet. S pomočjo programskega orodja SketchUp so narisali model, ga izvozili v vektorsko slikovno datoteko in nato uvozili v napravo CNC.

Čeprav učenci niso imeli dostopa do delavnice in računalniške učilnice, so kljub danim omejitvam v matičnih učilnicah lahko ustvarili končni izdelek.

Primer izvedenega inovativnega pristopa prikazuje, da je možno uspešno izdelati izdelek in doseči cilje iz učnega načrta tudi brez dostopa do delavnice in računalniške učilnice. Treba je le dobro načrtovati in predpripraviti vsebine, stroje in orodje. Takšen pristop pa je mogoče uporabiti tudi pri izvedbi drugih obdelav gradiv, pa tudi na tehniških dnevih.

Ključne besede: SketchUp, naprava CNC, slikovna vektorska slika

Due to the Covid-19 epidemic it was necessary to establish innovative approaches in teaching the subject of Engineering and Technology, especially in consideration of the students' practical work. As access to technical classrooms, workshops, and computer classrooms were limited, we were interested whether changing the approach and integrating modern ICT devices could assist us in teaching within general purpose classrooms.

The study involved 59 7th graders who made plastic products in assigned general purpose classrooms. Based on commonly determined and agreed-upon criteria the students designed and sketched an idea and then drew a technical drawing of a simple object. Using the SketchUp software tool they drew the model, exported it to a vector image file, and then imported it into a CNC machine.

Although students did not have access to the workshop and computer room, they were able to create the final plastic product.

The example of the implemented innovative approach shows that it is possible to successfully create a product and achieve the goals from the curriculum without access to a workshop and computer room. All it takes is good planning and preparation of content, machines, and tools. Such an approach can also be used in the implementation of other processing of materials, as well as on technical days.

Keywords: SketchUp, CNC device, image vector image.

## Integracija matematike in drugih področij kurikulumuma v slovenskih vrtcih, kot jo zaznavajo bodoči vzgojitelji predšolske vzgoje

### Prospective teachers' perceptions of the integration of mathematics and other curriculum areas in Slovenian Kindergartens

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Številni raziskovalci poudarjajo in zagovarjajo pristop integracije področij kurikulumuma v predšolski vzgoji, vendar je v praksi pogosto drugače. Glavni cilj raziskave, predstavljene v tem prispevku, je bil raziskati integracijo matematičnih dejavnosti z drugimi področji kurikulumuma v slovenskih vrtcih. V raziskavi je sodelovalo 73 študentov zadnjega letnika visokošolskega programa Predšolska vzgoja. Udeleženci raziskave so navedli, v kolikšni meri so v času svojega praktičnega usposabljanja v vrtcih zaznali povezovanje matematike z drugimi področji. Rezultati so pokazali, da so najpogosteje zaznali integracijo matematike in naravoslovja, medtem ko je bila od možnih parov integracij najredkeje zaznana integracija matematike in umetnosti. Želeli smo tudi preveriti, ali obstajajo razlike v zaznavanju integracije matematike z drugimi področji kurikulumuma med rednimi in izrednimi študenti predšolske vzgoje in ali je njihovo zaznavanje integracije matematike z drugimi področji kurikulumuma povezano z njihovim odnosom do matematike. Zaznavanje (ne)integracije različnih področij kurikulumuma v vrtcih je pomemben korak k izboljšanju trenutnega stanja. Prispevek obravnava tudi druge možne pristope dela z bodočimi vzgojitelji predšolske vzgoje, ki bi lahko prispevali k večji integraciji kurikularnih področij v praksi.

Ključne besede: učenje in poučevanje matematike, predšolska vzgoja, celostno učenje

The approach of integrating curriculum areas in early childhood education is emphasised and advocated by many researchers, however practice often differs. The main aim of the study presented in this paper was to investigate the integration of mathematics activities with other curriculum areas in Slovenian kindergartens. A total of 73 pre-service kindergarten teachers, who were in the final year of their studies, participated in the research. The participants indicated the extent to which they perceived the integration of mathematics with other curriculum areas during their practical training in kindergartens.

Findings revealed that the integration of mathematics and science was perceived most frequently, while the integration of mathematics and art was perceived least frequently of all possible pairs of integrations. In addition, we examined differences in perceptions of integration of mathematics with other areas between full-time and part-time pre-service kindergarten teachers and whether perceptions of integration of mathematics with other areas were related to pre-service kindergarten teachers' attitudes toward mathematics.

Identifying the (non)integration of curriculum areas in kindergartens is an important step towards improving the current situation. The paper also discusses other possible approaches aimed at prospective kindergarten teachers that could contribute to a greater integration of curriculum areas in practice.

Keywords: mathematics education, early childhood education, holistic learning.

## Izobraževalni pristop poučevanja jezika CLIL pomembno prispeva k poznavanju trajnosti in trajnostnega turizma

### The CLIL educational approach to language teaching makes an important contribution to knowledge about sustainability and sustainable tourism

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Čeprav veliko slišimo o trajnostnosti in trajnostnem razvoju, je razumevanje teh pojmov še vedno slabo, kar potrjuje tudi počasno uveljavljanje teh načel v načinu življenja ljudi. Odličen način za obravnavo trajnostnih vsebin predstavlja Content and Language Integrated Learning (CLIL), ki je dvojno usmerjen izobraževalni pristop, pri katerem se tuji jezik uporablja za učenje in poučevanje tako vsebine kot jezika. V okviru projekta Erasmus+ 'Problemorientierter Soft CLIL Ansatz für nichtenglischen FS Unterricht' smo pripravili več učnih enot na temo trajnostni turizem, pri čemer je bila trajnost povezana z dobrimi trajnostnimi praksami v turizmu. Pri tem so bile teme izbrane tako, da so se povezovale s cilji pri predmetih biologija in geografija. Med projektom smo opravili raziskavo o razumevanju trajnostnosti ter trajnostnega turizma med dijaki 2. letnikov v okviru nemškega jezika. Izpeljali smo jo dvakrat, in sicer pred uporabo modula Trajnostni turizem na gimnazijah v Sloveniji, Avstriji, Litvi in na Slovaškem in po njem, da ugotovimo učinek teh vsebin na razumevanje trajnosti pri dijakih. Tako pripravljene učne enote CLIL so pomembno prispevale k večjemu razumevanju trajnostnosti in trajnostnega turizma ter doseganju ciljev pouka tujih jezikov, biologije in ekologije.

Ključne besede: trajnostnost, trajnostni turizem, nemški jezik

Although we hear a lot about sustainability and sustainable development, the understanding of these concepts is still low, which is also confirmed by the slow implementation of these principles in people's way of life.

An excellent way to engage with sustainable content is Content and Language Integrated Learning (CLIL). CLIL is a dual-oriented approach to education, where an additional language is used to learn and teach both content and language. In the framework of the Erasmus + 'Problemorientierter Soft CLIL project, Approach to non-English FS teaching', we prepared several teaching units on the topic of sustainable tourism. The topics were chosen to be related to the goals in the subjects of biology and geography.

During the project we conducted a survey on the understanding of sustainability and sustainable tourism among second year students. We conducted it twice, before and after the use of the module, Sustainable Tourism, with the aim of assessing the impact of this content on students' understanding. The CLIL learning units prepared in this way have made an important contribution to the better understanding of sustainability and sustainable tourism and to the achievement of the goals of foreign language teaching, biology, and ecology.

Keywords: sustainability, sustainable tourism, German language

## Vključenost gibanja v jezikovno usvajanje: na primeru italijanskih pravilnih in nepravilnih glagolov

### The inclusion of movement in language acquisition: the case of Italian regular and irregular verbs

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V prispevku predstavimo, kako gibanje izboljšuje učenje jezikov na primeru ponavljanja italijanskih glagolov. Gibanje je umeščeno v učenje jezikov, vendar je iz primerov dobre prakse razvidno, da se takšni koncepti žal ustavijo v osnovni šoli, in sicer okoli 12. leta starosti. Pomanjkanje vključevanja gibanja in učenja jezikov, ki se osredotoča samo na majhne otroke, predlaga razširitev raziskave na mlade odrasle, in sicer na študente, ki so vključeni v raziskavo.

Raziskava je bila izvedena na podlagi analize ANOVA in t-testa, vanjo je bilo vključenih 60 deležnikov. Kot je bilo dokazano pri treh skupinah študentov, ki so sodelovale v eksperimentu in so ponavljale italijanske glagole z gibanjem in v povezavi s kontrolno skupino, ki je ponavljala glagole brez gibanja, je iz rezultatov jezikovnega preverjanja razvidno, da so bili boljši rezultati tistih, ki so ponavljali glagole z gibanjem, v primerjavi s tistimi, ki so ponavljali brez gibanja.

Rezultati raziskave so pokazali, da gibanje izboljšuje učenje jezikov in osredotočenost tematike, kot je navedlo 96 % respondentov, in pozitivno vpliva na razumevanje glagolov, kot je navedlo 87 % vprašanih. 57 % respondentov bi koncept gibanja uvedlo v univerzitetne kurikule drugih predmetov.

Ključne besede: gibanje, jezikovno usvajanje, italijanščina, glagoli

The aim of the paper was to present how movement improves language learning in the case of rehearsing Italian verbs. Movement and physical activity have been incorporated into language learning, but examples of good practice show that such concepts unfortunately stop in primary school, around age 12. This lack of introduction of movement and language learning, which only seems to take into consideration young children, suggested we extend our research to young adults, namely students, as presented in our survey. The research was based on an ANOVA analysis and t-tests and included 60 respondents. Three groups of students took part in the experiment and rehearsed Italian verbs with movement, as well as a control group that rehearsed the verbs without movement. From the results of the language testing we saw that better results were obtained by the students who rehearsed the verbs with the introduction of movement, compared to those who did not rehearse with movement.

The results of the survey proved that movement improves language learning and topic focus, as stated by 96% of respondents and positively affects the comprehension of verbs, as stated by 87% of respondents. 57% of respondents would introduce the concept of movement into the university curricula of other subjects.

Keywords: movement, language acquisition, Italian, verbs



## Na zanimiv in igriv način do znanja angleščine v 1. Triadi

### Learning English in first triad in interesting and vivid way

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Pri poučevanju tujih jezikov na zgodnji stopnji je vključevanje zanimivih in dinamičnih didaktičnih oblik v pouk izrednega pomena, saj vodi k večji motiviranosti učencev za učenje, lažjemu pomnjenju učne snovi, globlji povezanosti učitelja in učencev ter do boljših učnih rezultatov. Da bi pouk angleščine, še posebej v prvi triadi, potekal učencem na zanimiv in privlačen način, vključevanje igre v pouk ni samo zaželeno, temveč nujno. V svoji predstavitvi bom prikazala konkretne, že preizkušene primere različnih didaktičnih iger (gibalne igre, pesmi, izštevanka), ki jih uporabljam pri svojem pouku. Pri tem se bom navezala tudi na uporabo in prilagoditve le-teh v času izobraževanja na daljavo ter na vključitev igre v izvajanje videokonferenc z učenci. Petje, ples in druge didaktične igre morajo biti zastavljeni tako, da so učencem v veliko zabavo, medtem ko učitelj skozi njih uresničuje določene učne cilje, tako vsebinske kot jezikovne. Pri organiziranju in podajanju učne snovi mora biti učitelj pozoren na to, da je učna snov podana na čim bolj konkreten in nazoren način, prilagojen psihofizičnemu razvoju otrok. Glede na navedeno lahko zaključim, da se je skozi igro mogoče ogromno naučiti.

Ključne besede: angleščina v 1. triadi, dinamičen pouk, zanimive didaktične igre, izobraževanje na daljavo

In teaching foreign languages at an early stage, the inclusion of interesting and dynamic didactic forms in teaching is extremely important, as it leads to greater motivation of students, easier memorisation, deeper teacher-student connection and better learning outcomes. In order for English lessons, in the first triad, to be conducted in an engaging way for students, the inclusion of play is not only desirable, but also necessary. In my presentation, I will show practical examples of various didactic games (movement and counting games, songs) that I use in my lessons. I will also link to the use and adaptation of these during distance learning and the inclusion of games in videoconferencing with students. Singing, dancing and other didactic games should be set up in such a way that they are a great entertainment for the students, while the teacher achieves certain learning goals through them. When organising and presenting the learning material, the teacher must pay attention to the fact that the learning material is given in the most concrete and vivid way possible. I can conclude that a lot can be learned through games.

Keywords: English in the 1st triad, dynamic lessons, interesting didactic games, distance learning

## Učenje in poučevanje tujega jezika v zgodnjem obdobju s pomočjo IKT: vpogled v stališča mlajših učencev tujega jezika v Sloveniji

### Teaching and learning a foreign language at an early age through ICT: An insight into the attitudes of young language learners in Slovenia

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V prispevku predstavljamo rezultate kvantitativne raziskave stališč do učenja prvega tujega jezika s pomočjo informacijsko-komunikacijskih tehnologij (v nadaljevanju IKT) pri mlajših učencih. Uporaba IKT je pri pouku tujih jezikov v preteklosti dokazano popestrila poučevalne metode in pristope ter bistveno izboljšala učne izide. Pripravili smo vprašalnik, oblikovan po vzorcu 7-stopenjske Likertove lestvice stališč, sestavljen iz enajstih trditev ter ga v tiskani obliki uporabili na vzorcu 406 osnovnošolskih učencev v starostnem obdobju od 7 do 12 let (od 2. do 4. razreda), ki so se odzvali na vabilo za sodelovanje v raziskavi, pri čemer smo 138 učencev četrtega razreda vprašali, ali IKT uporabljajo med poukom tujega jezika in pri pisanju domačih nalog. Rezultati raziskave so pokazali, da smo v primeru spremenljivke 'spol' s preizkusom Chi-kvadrat ugotovili določene statistično značilne razlike v stališčih do uporabe mobilnih telefonov pri tujejezičnem pouku in pri pisanju domačih nalog, česar v primeru spremenljivke 'starost' nismo ugotovili. Na osnovi takšnih rezultatov učiteljem tujih jezikov in ustvarjalcem šolskih politik vsekakor priporočamo nadaljnje raziskovanje ter previdno vpeljevanje sprememb učnih metod pri tujejezičnem pouku, priporočamo tudi sproščanje uporabe IKT pri pouku tujih jezikov.

Ključne besede: IKT, mlajši učenci, stališča, učenje in poučevanje tujega jezika, zgodnje obdobje

The following study presents the results of a quantitative research into the attitudes of young Slovenian foreign language learners. The use of Information and Communication Technology (ICT) has proven to boost the possibilities in language teaching and has thus enabled much better learning outcomes. The quantitative research paradigm was used to carry out the research. Results were obtained by administering a printed 11-item questionnaire in the form of a 7-point Likert scale to a 406-strong sample of state elementary school pupils, aged 7 to 12 (grades 2 to 4) who agreed to participate, 138 of whom (4th graders) were asked whether they used ICT during their English lessons and for homework. The results showed that with regard to gender, the chi square test results showed a statistically significant difference in attitudes towards the use of mobiles during English lessons and during homework, whereas with regard to age no statistically significant differences were detected. Such results should motivate foreign language teachers to reconsider their teaching methods for young language learners, and policy makers to allow the careful use of ICT in foreign language classes.

Keywords: attitudes, early age, foreign language teaching and learning, ICT, young learners.

## Izobraževanje otrok z ADHD v gozdnem okolju

### Educating children with ADHD in forest surroundings

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Tema izobraževanja in vzgoje učencev v naravnem okolju sodi med aktualne teme sedanjosti. Narava je naravno okolje, v katerem smo se razvijali milijone let, in potreba po tem, da ostanemo v naravnem okolju, je tako naša evolucijska potreba. Vendar v današnjem tehnološko usmerjenem svetu stiki z naravo zelo hitro izginjajo. Številne študije razkrivajo upadanje stopnje življenja zunaj. Številne študije potrjujejo pomen bivanja na prostem, a je bivanje na prostem koristno za vse otroke in učence? Kako se učenci s posebnimi izobraževalnimi potrebami odzivajo na bivanje zunaj? Študija vključuje zanimive zaključke o izobraževanju učencev z vedenjskimi motnjami v gozdu, na primer kakršen koli negativni odziv učencev na naravo ali nasprotje med inkluzivnim izobraževanjem in izobraževanjem v gozdu.

Ključne besede: otroci, ADHD, gozd, izobraževanje, učitelji

The topic of education and upbringing of pupils in the natural environment belongs in the current topics of the present. Nature is a natural environment in which we have evolved over millions of years, and the need to stay in the natural environment is thus an evolutionary need of ours. However, in today's technology-oriented world, contact with nature is disappearing very quickly. A number of studies reveal a declining rate of living outside. The importance of being outdoors has been verified by a number of studies, but is being outdoors beneficial to all children and pupils? How do pupils with special educational needs react to staying outside? The study includes interesting conclusions about educating pupils with behavioural disorders in forests. For example, any negative reactions of pupils to natural surroundings or the contradictions between inclusive education and education in forests.

Keywords: children, ADHD, forest, education, teachers

## Inkluzivno pedagoško delo predmetnega učitelja z učenci, ki kažejo čustvene in vedenjske težave

### Inclusive pedagogical work in subject teaching with students manifesting emotional-behavioural disorders (EBD)

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Namen prispevka je bil vzpostaviti inkluzivno pedagoško delo s hrvaškimi učenci, ki kažejo čustvene in vedenjske težave (ČVT) pri predmetnem pouku (5–8. razred) in (1) ugotoviti, ali se uporabljeno inkluzivno pedagoško delo razlikuje glede na to, ali učenec zaradi razvojnih težav obiskuje redni izobraževalni program (ROP) ali drugo ustrezno individualizirano obliko izobraževanja (IOI); (2) analizirati napovedovalce uporabe postopkov in strategij v ROP. Podatki so bili anonimno in prostovoljno zbrani na 125 osnovnih šolah, in sicer na podlagi samoocene pedagoškega dela z učenci s ČVT (N = 662 učencev, 11 % deklet; 2/3 učencev ROP). Rezultati so pokazali, da učitelji pri učencih s ČVT v IOI pogosteje uporabljajo pohvale in spodbudno komunikacijo, prilagojeno vrednotenje napredka učencev in strategije vedenjskega upravljanja. Pogostejšo uporabo teh oblik pedagoškega dela v rednem programu lahko napovedujejo nekatere značilnosti učiteljev in nekatere značilnosti učencev, vendar je njihov najpomembnejši napovedovalec občutek samoučinkovitosti učiteljev. Potrjuje se dosedanje znanje o potrebi po boljšem začetnem in vseživljenjskem izobraževanju predmetnih učiteljev za inkluzivno pedagoško delo z učenci s ČVT. Učitelji morajo biti opolnomočeni v svojih inkluzivnih kompetencah.

Ključne besede: osnovna šola, čustvene in vedenjske težave, inkluzivno izobraževanje, samoučinkovitost, učitelji

The aim was to determine inclusive pedagogical work with subject teachers (5th-8th grade) in Croatia with pupils who show emotional and behavioural disorders (EBD). (1) Determine whether the applied inclusive pedagogical work differed depending on whether the pupil attended a Regular Educational Program (REP) or some other appropriate Individualised Education Programme (IEP) due to developmental difficulties. (2) An analysis of the predictors of the application of procedures and strategies in the REP.

Data were collected anonymously and voluntarily in 125 primary schools by self-assessment of pedagogical work with pupils with EBD (N = 662 pupils, 11% girls; 2/3 pupils (REP). Teachers more often gave praise and encouraged communication, customised the evaluation of students' progress as well as used inclusive behaviour management strategies when a student with EBD had an IEP.

More frequent application of these forms of pedagogical work in REPs could be predicted by some characteristics of the teachers and students, but the most important predictor of them was the feeling of self-efficacy of teachers. Previous knowledge about the need for better initial and lifelong education of subject teachers for inclusive pedagogical work with pupils with EBD was confirmed. Teachers need to be empowered in a sense of competence for inclusion.

Keywords: Croatian primary schools, emotional-behavioural difficulties EBD, inclusive education, self-efficacy, teachers

## Strokovno izpopolnjevanje učiteljev za delo z otroki s težavami v razvoju v Franciji, Nemčiji, na Danskem in Škotskem

### Professional development in teaching students with special educational needs in France, Germany, Denmark, and Scotland

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V sodobnem poučevanju je med drugim poudarjena naloga krepitev inkluzivnega izobraževanja učencev s težavami, predpogoj za krepitev inkluzivnosti poučevanja pa je učitelj, ki je ustrezno usposobljen, kar potrjujejo praktična znanja in številne znanstvene ugotovitve (Kudek Mirošević, 2016; Vlah i Grbić, 2018; Vlah, Velki, Kovačić, 2020). Začetno izobraževanje učiteljev ne razvija v celoti kompetence za inkluziven pouk, zato se lahko kakovostno izobraževanje izvaja, če se učitelji nenehno strokovno izpopolnjujejo. Cilj je analizirati sistem poklicnega razvoja učiteljev za delo z učenci s težavami in predstaviti programe za poklicni razvoj učiteljev na tem področju. Za vzorec so bile izbrane Francija, Nemčija, Danska in Škotska, ker so njihovi sistemi strokovnega izpopolnjevanja učiteljev za delo z učenci s težavami dobro razviti. Analiza je odkrila nekatere podobnosti, povezane z zakonodajo, decentralizacijo sistema za izpopolnjevanje učiteljev, heterogenostjo platform, vrstami programov, programsko vsebino, nosilci programov, predavatelji, oblikami dela in delovnimi metodami ter formalizacijo certificiranja strokovnega izpopolnjevanja učiteljev. Na podlagi rezultatov analize je treba premisliti o tem kateri načini pridejo v poštev za izvajanje ugotovljenih primerov dobre prakse v državah iz raziskovalnega vzorca na Hrvaškem, pri čem je potrebno upoštevati splošni kontekst strokovnega izpopolnjevanja učiteljev za delo z učenci s težavami na Hrvaškem.

**Ključne besede:** učitelji, strokovno izpopolnjevanje, učenci s težavami, Francija, Nemčija, Danska, Škotska

Contemporary teaching, among other things, emphasizes the importance of inclusive education for students with special educational needs. The prerequisite for strengthening inclusive teaching is a teacher who is adequately trained, which is confirmed by both practical experience and numerous scientific findings (Kudek Mirošević, 2016; Vlah and Grbić, 2018; Vlah, Velki, Kovačić, 2020). Since initial teacher training does not entirely develop competencies for inclusive teaching, quality education can be implemented if teachers are continuously professionally trained. The aim of this paper is to analyse the teacher professional development system for working with students with special educational needs and present professional development programmes for teachers in this field. France, Germany, Denmark, and Scotland were sample countries selected for the analysis, all of which have well-developed professional development systems for teaching students with special educational needs. The analysis identified certain similarities regarding legislation, decentralization of teacher professional development systems, heterogeneous platforms, programme types, programme content, programme holders, lecturers, forms of teaching, teaching methods, and formalizing professional development certification for teachers. Based on the results of the analysis, it is necessary to consider ways to implement in Croatia the identified examples of good practice from the sample countries, taking into account the overall context of professional development for teachers working with students with special educational needs in Croatia.

## Literarna dela o otrocih s posebnimi potrebami

### Literary works about children with special needs

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Učitelji se zaradi inkluzije v izobraževanju pri svojem delu pogosto srečujejo z učenci s posebnimi potrebami. Pri delu s temi učenci je za učitelja izjemno pomembna empatija, ki jo ta težko doseže, če ni seznanjen z načinom razmišljanja in čustvovanja teh učencev. Ena od možnosti za seznanjanje s posebnimi potrebami je védenje o njihovem razmišljanju, zlasti o čustvenih odzivih.

Prispevek predstavlja literarne vire, povezane s temo, viri bodo ovrednoteni, kakovostna dela bodo analizirana. Ob metodi analize (glavni liki, stranski liki, književni prostor, književni čas, snov, tema, motivi, pripovedovalec, zgradba in zgodba) bosta uporabljeni še deskriptivna metoda za predstavitev teoretičnih izhodišč, v sklepnem delu pa metoda sinteze.

V prispevku bodo predstavljene posebne potrebe literarnih likov, ki vplivajo na jezikovno in čustveno delovanje otrok ali mladostnikov, na primer: slepota – Kermauner: Berenikini kodri, gluhotata – Kermauner: David, motnje v duševnem razvoju, Vidmar: Moja Nina in Fant, ki vidi samoroga iz kratkoprozne zbirke Otroci sveta, Möderndorferja: Kit na plaži; avtizem – Haddon: Skrivni primer ali kdo je umoril psa, Dowd: Uganka Londonskega očesa.

Ključne besede: otroška književnost, literarni liki s posebnimi potrebami, govorno-jezikovne motnje, slepota, gluhotata

With inclusive education, teachers often encounter pupils with special needs. What is extremely important for any teacher working with these pupils is empathy. This is difficult to achieve if the teacher is not familiar with the way these pupils think and experience emotions. One of the options for becoming familiar with special needs pupils is to gain knowledge on their thought processes, and particularly their emotional responses.

The article presents literary sources that address the subject. These sources are evaluated, and quality works analysed. Beside its method of analysis (characters, the narrative space and time, the subject matter, theme, motifs, narrator, structure and story) the article also uses a descriptive method of presenting the theoretical basis, and a method of research synthesis in its conclusion.

The article looks at the special needs of the fictional characters in the analysed works and the way these affect the linguistic or emotional functioning of children or teenagers, for example: blindness in Kermauner's *Berenice's Hair*; deafness in Kermauner's *David*; disturbances in mental development in Vidmar's *My Nina and The Boy Who Sees a Unicorn (Children of the World)*, and in Möderndorfer's *The Whale on the Beach*; autism in Haddon's *The Curious Incident of the Dog in the Night-Time*, and in Dowd's *The London Eye Mystery*.

Keywords: children's literature, literary figures with special needs, speech-language disturbances, blindness, deafness

## Integracija mednarodnih učiteljev z migrantsko izkušnjo v evropske izobraževalne sisteme

### Integration of international teachers with migrant experience into European education systems

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Kulturna raznolikost je ena pomembnih značilnosti evropskega izobraževalnega sistema. Kljub temu je poklicna integracija mednarodnih učiteljev (vključno z učitelji z migrantsko izkušnjo) polna različnih izzivov. V prispevku predstavljamo delne rezultate obširne raziskave, ki poteka v okviru evropskega projekta z naslovom Mednarodni učitelji šole prihodnosti – Sprememba sistema kot priložnost za medkulturno sobivanje v šoli in vzajemno učenje (dostopen na <http://itts-europe.org/blog>). Glavni cilj projekta je podpirati strokovno integracijo mednarodnih učiteljev z migrantsko izkušnjo v izobraževalne institucije in s pomočjo novih kolegov omogočiti razvoj medkulturnih odnosov in kompetenc v šoli.

V raziskavi nas je zanimalo, v kolikšnem obsegu in v kakšni obliki so učitelji priseljenci vključeni v izobraževalni sistem posameznih držav v projekt (Belgija, Nemčija, Grčija, Islandija, Poljska, Slovenija in Turčija). Podatke smo pridobili s pomočjo anketnega vprašalnika. V prispevku se bomo analitično osredotočili na rezultate, ki zajemajo slovenski izobraževalni prostor, in predstavili možnosti integracije in usposabljanja teh učiteljev v vzgojo in izobraževanje.

Ključne besede: učitelji, migrantska izkušnja, integracija, izobraževanje

Cultural diversity is one of the important features of the European education systems. Nevertheless, the professional re-integration of international teachers (including teachers with migrant experience) is full of various challenges.

The paper presents partial results of an extensive research carried out within the European project entitled International Teachers for Tomorrow's School – System Change as an Opportunity for Intercultural School Development and Mutual Learning (available at <http://itts-europe.org/blog>). The main objective of the project is to support the professional re-integration of international teachers with migrant experience in educational institutions and, with the help of new colleagues, to enable the development of intercultural relations and competencies in schools.

The research focuses on the scope, shape, and perspective of immigrant teachers integrated in the education system of individual countries involved in the project (Belgium, Germany, Greece, Iceland, Poland, Slovenia, and Turkey). Data were obtained using a questionnaire. In this paper, we will analytically focus on the results that cover the Slovenian educational environment and present the possibilities of integration and training of these teachers in education.

Keywords: teachers, migrant experience, integration, education.

## Vpliv stališč učiteljev do stereotipnih tem na oblikovanje učnega okolja na primeru uporabe stripa pri pouku slovenščine

### The impact of teachers' attitudes towards stereotypical themes on the formation of the learning environment with the use of comics in Slovenian language classes

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Stališča učiteljev do tem, na katere v večji meri vplivajo posameznikova stereotipna pojmovanja, lahko pomembno vplivajo na učno okolje, ki ga učitelji zavedno ali nezavedno oblikujejo. Ena od teh je tudi strip, ki si po desetletjih predsodkov še vedno utira pot v šolski prostor in še danes vzbuja nelagodje med nekaterimi učitelji. Kakšen vpliv imajo stališča učiteljev do stereotipnih tem na oblikovanje učnega okolja, smo na vzorcu 139 učiteljev s pomočjo deskriptivne in kavzalno-neeksperimentalne metode empiričnega pedagoškega raziskovanja preverili na področju stališč učiteljev do uporabe stripa pri pouku slovenščine. Uporabljeni so bili kvantitativni raziskovalni pristopi. Podatke za spremenljivke smo pridobili s pomočjo anketnega vprašalnika za učitelje slovenščine v obdobju osnovnega šolanja, ki se je osredotočal na 17 načinov in namenov uporabe stripa pri pouku. Statistično značilne razlike so se pokazale pri 11 postavkah. Rezultati kažejo, da na uporabo stripa pri pouku nima tolikšnega vpliva to, kakšna so stališča učiteljev do stripa oz. kako sami radi berejo stripe, temveč neoblikovanost odnosa do stripa. Prispevek poudarja pomen izobraževanja in usposabljanja učiteljev na vseh področjih učenja in poučevanja, še posebej na področjih, bolj nagnjenih k oblikovanju stereotipnih stališč.

Ključne besede: stališča učiteljev, stereotipne teme, učno okolje, strip

Teachers' attitudes towards themes, largely impacted by individual stereotyped perceptions, may have an important impact on the learning environment consciously or unconsciously formed by teachers. One of these perceptions is related to comics, which even after decades of prejudice are still finding their way into classrooms and are still a source of discomfort for some teachers. 139 teachers participated in a quantitatively designed study. We used a descriptive and non-experimental causal method of empirical pedagogical research to verify the sort of impact teachers' attitudes towards stereotypical themes have on learning environment formation in the field of teachers' attitudes towards the use of comics in Slovenian language classes. Variable data were obtained through questionnaires for Slovenian language teachers in primary schools, focusing on 17 ways and purposes of the use of comics in class. Statistically significant differences were present in 11 points. The results show that comics' use in classes is not particularly influenced by the teachers' attitudes towards comics or their fondness for comics, but mostly by the unformed relationship towards comics. This work emphasises the meaning of teacher education and training in all learning and teaching areas, where a greater inclination for forming stereotypical attitudes exists.

Keywords: teachers' attitudes, stereotypical themes, learning environment, comics



## Inkluzivna praksa v odnosu do učencev in staršev priseljencev v prilagojenem osnovnošolskem vzgojno-izobraževalnem programu

### Inclusive practice in relation to children and parents of immigrants in the special needs primary education program

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Konvencija ZN o otrokovih pravicah je v vzgojno-izobraževalni proces vnesla nekatere ključne mednarodne dokumente, ki zahtevajo od slovenske države, in s tem tudi od vzgojno-izobraževalnega sistema, zavezo o spoštovanju različnosti, inkluzivnem ravnanju ter o uresničevanju demokratičnih vrednot. V okviru teoretične analize nekaterih strateških dokumentov o inkluziji učencev in staršev priseljencev smo raziskovalno vprašanje podkrepili in usmerili v mnenja staršev učencev o priseljencih, ki obiskujejo šolo s prilagojenim vzgojno-izobraževalnim programom. Zanimala so nas tudi njihova mnenja o vlogi šole in s tem različnih možnostih inkluzivne vzgojno-izobraževalne prakse. Rezultati mnenj so nakazali, da se bo treba v prihodnje v družbi nasploh še truditi, da bomo premagovali predsodke in stereotipe. Vloga šol pa bo v prihodnje vedno bolj pomembna v smislu zagotavljanja inkluzivnega ravnanja do učencev in njihovih družin ter aktivnega spodbujanja partnerstva z družinami.

Ključne besede: Konvencija ZN o otrokovih pravicah, učenci priseljenci, inkluzivna vzgojno-izobraževalna praksa, partnerstvo z družinami

The UN Convention on the Rights of the Child has introduced some key international documents, which were demanded by the Slovenian state, into the educational process, and thus also from the educational system, a commitment to have respect for diversity, inclusive behaviour and the realisation of democratic values. As part of the theoretical analysis of some strategic documents on the inclusion of students and parents of immigrants, we supported the research question and focused on the opinions of parents of students about immigrants attending a school with an adapted educational programme. We were also interested in their opinions on the role of the school and thus the various possibilities for inclusive educational practice. The results of the opinions indicated that we would have to continue our efforts in the future to overcome prejudices and stereotypes in society as a whole. However, the role of schools will become increasingly important in the future in terms of ensuring inclusive treatment of students and their families and actively promoting partnerships with families.

Keywords: UN Convention on the Rights of the Child, immigrant pupils, inclusive educational practice, partnership with families

## Odražanje multikulturalnosti učencev 1. razreda pri pisanju črk in besed

### Reflection of the Multiculturalism of 1st Grade Students in Writing Letters and Words

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Vključevanje tujcev v slovensko okolje je še zmeraj aktualno. Posledično imajo nekatere osnovne šole bistveno več učencev tujcev kot druge. Zakoni in priporočila ne nudijo učencem in učiteljem dovolj konkretnih navodil za učinkovito integracijo. Inkluzija multikulturalnosti učencev prinaša predvsem težave v poznavanju slovenščine in prav tako pomanjkljivo predznanje na področju opismenjevanja. V raziskavi, v kateri je sodelovalo 190 učencev, smo uporabili komparativno metodo, s katero smo proučevali na nivoju opisovanja dejstev ter z namenom odkrivanja podobnosti in razlik v pisanju črk in besed učencev 1. razreda. V ta namen smo oblikovali dve skupini. V prvo skupino je vključenih več učencev tujcev kot v skupino dve. Rezultati -testa odražajo statistično značilno razliko med skupinama v pisanju črk in besed različne težavnostne stopnje. Učenci skupine ena so bili pomembno manj uspešni. Inkluzija multikulturalnosti učencev vpliva na pouk slovenščine v 1. razredu. Prav tako se odraža v učiteljevi organizaciji in izvedbi pouka.

Ključne besede: pisanje črk, pisanje besed, 1. razred, multikulturalnost učencev

The integration of foreigners into the Slovenian environment is still topical. As a result, some primary schools have significantly more foreign students than others. Laws and recommendations do not provide students and teachers with enough concrete instructions for effective integration. The inclusion of students' multiculturalism brings mainly problems in the knowledge of Slovenian language and also a lack of prior knowledge in the field of literacy. In a study involving 190 students, we decided on a comparative method, which we studied at the level of describing facts and with the aim of discovering similarities and differences in the writing of letters and words of 1st grade students.

For this purpose, we formed two groups. The first group included more foreign students than group two. The results of the test reflect a statistically significant difference between the groups in writing letters and words of different levels of difficulty. Students in group one were significantly less successful. The inclusion of students' multiculturalism influences the teaching of Slovene in the 1st grade. It is also reflected in the teacher's organization and implementation of lessons.

Key words: letter writing, word writing, 1st grade, multicultural students

## Razlike izobraževanja učiteljev klavirja: koncepti v petih državah

### Differences of education for piano teachers: concepts in five countries

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Izobraževanje na področju umetnosti je specifično. V prispevku so predstavljeni koncepti izobraževalnih kvalifikacij na glasbenih akademijah v petih državah: na Hrvaškem, v Sloveniji, Italiji, Avstriji in Srbiji. Osredotočili smo se na instrumentalne oddelke in natančneje na rezultate pridobljenega znanja učiteljev klavirja.

Raznolikost številnih kompetenc je bila preučena v primerjalni analizi različnih programov diplomiranih učiteljev klavirja na več glasbenih akademijah. Težišče raziskave so pedagoški predmeti: pedagogika, didaktika in psihologija v izobraževanju.

Standardi usposobljenosti so odvisni od visokošolskih zavodov, ki oblikujejo učne načrte za instrumentalno pedagogiko. Rezultati znanja bodočih učiteljev klavirja se med akademijami razlikujejo. Izobraževanje in učni načrt z najvišjo kakovostjo in vsebino se izvajata na akademiji za glasbo v Beogradu ter Univerzi za glasbo in uprizoritvene umetnosti na Dunaju.

Ob upoštevanju konkurenčnosti ter nacionalnih in kvalifikacijskih standardov v vsaki ustanovi so bili raziskani učni načrt, uspešnost, rezultati znanja ter sodobne metode poučevanja, vključene v izobraževanje bodočih pianistov in učiteljev klavirja.

Ključne besede: učitelji klavirja, instrumentalna pedagogika, klavirska metodologija, klavirska pedagogika

The artistic field is a special field in the educational area. In this paper, we present concepts of educational qualifications from music academies in five countries: Croatia, Slovenia, Italy, Germany and Serbia. More specifically, we focus on instrumental departments and the knowledge outcomes of piano teachers.

The diversity of various competencies have been studied in a comparative analysis of different programmes for the profession of graduate piano teachers at Music Academies. The focus of consideration and research were pedagogical subjects: pedagogy, didactics, psychology of upbringing and education.

The qualification standards depended on higher education institutions that created the higher education curricula for instrumental pedagogy. The knowledge outcomes of future piano teachers were different from one music academy to another. The most comprehensive teacher training and curricula were found at the Music Academy in Belgrade, Serbia as well as at the University of Music and Performing Arts in Vienna.

We considered competitiveness, national standards and qualification standards in each institution.

Performance and knowledge outcomes were explored, as well how many different modern subjects and contemporary teaching models were involved in the education of future pianists and piano teachers.

Keywords: piano teachers, instrumental pedagogy, didactics, piano pedagogy

## Analiza načrtovanja ciljev glasbene vzgoje študentov razrednega pouka pri praktičnem usposabljanju na daljavo

### Analysis of music education objectives planning for students in distance internship

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Namen študije je bil ugotoviti porazdelitev in morebitne razlike v načrtovanju glasbenih ciljev na prevladujočem afektivnem, psihomotoričnem in kognitivnem področju, pri praktičnem usposabljanju študentov razrednega pouka v študijskem letu 2019/2020. Z uporabo t-testa in Kruskal-Wallisovega testa smo ugotavljali statistično pomembne razlike med dvema skupinama študentov razrednega pouka. V raziskovalni vzorec je bilo vključenih 70 študentov 4. letnika, ki so v parih izvajali ure glasbene umetnosti na daljavo po videorazlagah, in 70 študentov 1. letnika magistrskega programa Razredni pouk, ki so samostojno poučevali glasbeno umetnost na daljavo v okviru strnjene praktičnega usposabljanja, in sicer pod mentorstvom učitelja na razredni stopnji osnovne šole. Podatke smo pridobili na podlagi analize učnih priprav. Rezultati raziskave so pokazali porazdelitev glasbenih ciljev in statistično pomembne razlike pri uravnoteženju načrtovanja glasbenih ciljev na preučevanih področjih med proučevanima skupinama. Razlike so se pokazale tudi v primerjavi glede na razred. Ugotovljene razlike lahko pripišemo različni količini pridobljenih glasbeno-strokovnih in didaktičnih kompetenc med obema skupinama študentov, specifični poučevanja na daljavo, kot tudi dejstvu, da so študenti 4. letnika opravljali praktično usposabljanje pod okriljem predmetnega didaktika, študenti magistrskega programa pa pod okriljem mentorjev na šoli. Ključne besede: afektivno, psihomotorično in kognitivno področje, načrtovanje glasbenih ciljev, razredni pouk

The purpose of the study was to determine the distribution of music objectives planning in the predominant affective, psychomotor and cognitive domain, in the internship of elementary education students in the academic year 2019/20. Using the t-test and the Kruskal-Wallis test, we found statistically significant differences between the two groups of elementary education students. The research sample included 70 4th-year undergraduate students who conducted distance music lessons in pairs via video explanations, and 70 1st-year students in the elementary education master's degree programme who taught distance music instruction independently under the supervision of a general education teacher at the elementary school level as part of a condensed practicum. Data were obtained from an analysis of lesson plans. The results of the study revealed the distribution of musical objectives and statistically significant differences in the consideration of planning musical objectives in the domains studied between the observed groups. Differences were also noted in the comparison by grade level. The detected differences can be attributed to the different scope of acquired musical-professional and didactic competences between the two groups of students, the peculiarities of distance learning, as well as the fact that the 4th-year students completed an internship under the guidance of the professional didactics at the faculty and the students of the master's programme under the guidance of mentors at the school. Keywords: affective, psychomotor, and cognitive domains, music objectives planning, elementary education.

## Nekateri vidiki izvajanja glasbene ustvarjalnosti v učni praksi na primerih Črne gore in Slovenije

### Some aspects of the implementation of musical creativity in teaching practice using the example of Montenegro and Slovenia

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Prispevek bo predstavil nekatere rezultate, pridobljene z obsežno raziskavo o izkušnjah in odnosu učiteljev glasbe do izvajanja glasbene ustvarjalnosti v osnovni šoli v Črni gori in Sloveniji.

Raziskava je bila izvedena z učitelji glasbe v osnovnih šolah v Črni gori in Sloveniji (N = 154) po deskriptivni in kavzalno-neeksperimentalni metodi pedagoškega raziskovanja. Večina vprašanj v raziskavi je bila sestavljena po petstopenjski Likertovi lestvici.

Učitelji v obeh državah visoko ocenjujejo stopnjo obvladovanja uresničevanja glasbeno-ustvarjalnih dejavnosti, določene s kurikulumom. V pedagoški praksi posvečajo več pozornosti ustvarjalnemu procesu kot ustvarjalnemu izdelku. Navajajo, da so učenci najbolj kreativni v drugem triletju osnovne šole. Učenci pridobljeno znanje pri ustvarjalnih dejavnostih uporabljajo na srednji ravni.

Raziskava je omogočila boljši vpogled v učiteljev odnos do glasbene ustvarjalnosti. Z rezultati smo tako zapolnili primanjkljaj ugotovitev na področju odnosa učiteljev do glasbene ustvarjalnosti v kontekstu sodobnega glasbenega izobraževanja

Ključne besede: pedagoška praksa, uresničevanje glasbene ustvarjalnosti, osnovna šola, Črna gora, Slovenija

This paper will present some of the results obtained by extensive research into the attitudes and experiences of primary school music teachers in Montenegro and Slovenia, in order to investigate the teaching practice regarding the implementation of musical creativity.

The research was conducted with music teachers in primary schools in Montenegro and Slovenia (N=154) according to the descriptive causal non-experimental method of quantitative pedagogical research. Most of the questions in the survey were constituted on a five-point Likert-type scale.

Teachers in both countries highly valued their level of mastery in terms of realisation of creation as a curriculum-defined musical activity. In their teaching practice, they paid more attention to the creative process than to the creative product, they stated that pupils were most creative in the second three-year educational cycle, and that they used the acquired knowledge in creative activities at intermediate level. The research provided a better insight into the attitudes of teachers about musical creativity, which is one of the aspects that is lacking in modern research on musical creativity in education.

Keywords: teaching practice, realisation of musical creativity, primary school, Montenegro, Slovenia.

## Digitalne kompetence v okviru predšolske glasbene vzgoje

### Digital competencies in the context of preschool music education

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Glede na digitalizacijo sodobne družbe in način, kako otrok pridobiva glasbene izkušnje, naj bi izvajalci uporabljali različne medije v vsakdanji izobraževalni praksi.

Teoretični okvir dokumenta Technological pedagogical content knowledge (TPACK) (Kabakçi Yurdakul et al., 2012) ponuja pristop povezovanja pedagoških znanj vzgojiteljev z informacijsko-komunikacijsko tehnologijo (IKT), trenutno razvijajočih digitalno podprtih pedagoških znanj in integracijo tehnologije v izobraževanje.

Cilj prispevka je raziskati samooceno vzgojiteljev lastnih digitalnih kompetenc in njihovo vključevanje v glasbene dejavnosti s predšolskimi otroki. Anketiranci so redni in izredni podiplomski študentje študijskega programa najzgodnejšega otroštva in predšolske vzgoje s fakultet na Hrvaškem. Pridobljeni rezultati kažejo, da 90 % vprašanih ni imelo formalne IKT-izobrazbe, 60 % pa ni imelo dodatne oblike glasbenega izobraževanja, razen med študijem. Kljub temu več kot polovica vprašanih zelo dobro ocenjuje svoje digitalne, glasbene, pedagoške in IKT-kompetence. Glede na pridobljene rezultate lahko sklepamo, da je med študijem treba nameniti dodatno pozornost razvoju digitalnih kompetenc, ki bodo uporabne tako na glasbenem kot na drugih področjih izobraževanja.

Ključne besede: digitalne kompetence, glasbena predšolska vzgoja, Technological pedagogical content knowledge (TPACK), informacijska in komunikacijska tehnologija (IKT), samoocenjevanje digitalnih kompetenc.

Given the digitalisation of modern society and the way a child acquires musical experiences, practitioners are expected to apply various media in everyday educational praxis. The theoretical framework of technological pedagogical content knowledge (TPACK) (Kabakçi Yurdakul et al., 2012) is an approach that connects the knowledge of educators with Information and Communications Technology (ICT), concurrently developing technology-supported pedagogical knowledge and integration of technology into education. The aim of the paper was to investigate educators' self-assessment of their digital competencies and their implementation in musical activities with preschool children. The respondents were full-time and part-time graduate students of the Early Childhood and Preschool Education study programme from faculties of teacher education in Croatia. The obtained results indicated that 90 % of respondents didn't have any formal ICT education while 60 % of them didn't have any additional form of music education except that gained during their studies. Nevertheless, more than a half of the respondents rated their digital, music, pedagogic and ICT competencies very highly. Considering the results obtained, it can be concluded that additional attention should be given to the development of digital competencies during studies that will be applicable in both music and other areas of education.

Keywords: digital competencies, music preschool education, technological pedagogical content knowledge (TPACK), Information and Communications Technology (ICT); self-assessment of digital competencies.

## Ko spregovori glasba: učiteljeva pot do uspešnega glasbenega pouka

### When music begins to speak: the teacher's path to joyful music lessons

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Številni učitelji se pri poučevanju glasbe veselijo vživetosti učencev v glasbene dejavnosti. Ob tem raziskave trdijo, da je stanje glasbenega zanosa v razredu težko doseči zaradi pomanjkanja izkušenj igranja in ustvarjanja z glasbenimi parametri.

Cilj študije primera je bil raziskati zavedanje bodočih učiteljev razrednega pouka o pomembnosti skupnega muziciranja. Z odgovori na raziskovalna vprašanja smo želeli spoznati, kako ga vključujejo v priprave, kako ga opisujejo v samorefleksijah in kako ga vrednotijo v medvrstniških opisih.

Analize podatkov kažejo, da ob zastavljenih ciljih in metodah bodoči učitelji skrbno načrtujejo izvedbo glasbenih vsebin, a se slabše zavedajo dejavnikov, ki med glasbenim izvajanjem prispevajo k stanju skupinskega zanosa.

Bodoči učitelji poudarjajo pomanjkanje veščin nebesednega sporočanja v glasbenem jeziku in dobro izvedbo učne ure ob pogojih, da so enakovredno vključeni k doseganju skupnega cilja, da je učitelj sposoben zaznavanja zamisli s strani učencev in da v skupini vlada zbranost – ob elementih skupinskega zanosa. Študija omogoča načrtovanje izobraževanja učiteljev tako, da bodo sposobni omogočiti otrokom kakovostno pridobivanje glasbenih izkušenj.

Ključne besede: glasbeni jezik, poučevanje glasbe, skupinski zanos

Many elementary school teachers enjoy the state of pupils' immersion in musical activities during music lessons. However, researchers claim that a state of complete pupil engagement is difficult to achieve due to the lack of experience in playing and creating with musical parameters.

The aim of this illustrative case study was to explore the awareness of future teachers about music making. In answering the research questions, we wanted to find out how they included it in their preparations, how they described it in self-reflections, and how they evaluated it in peer descriptions.

Analysis of the data revealed that in addition to the goals and methods set, future teachers carefully planned the implementation of the musical content, but they were less aware of the factors which in group performance contributed to the achievement of group flow.

The participating future teachers emphasised a lack of nonverbal communication skills in musical language and carrying out the lesson well. When everyone is equally involved in achieving a common goal, the teacher is able to perceive ideas of the pupils and the group is focused - all elements of group flow.

The study enables the planning of teachers' education in such a way that they are able to provide children high quality acquisition of musical experiences.

Keywords: group flow, music language, music teaching

## Vokalno-tehnično izobraževanje študentov na učiteljski fakulteti

### Vocal-technical education of students at the faculty of teacher education

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Učitelji so prvi glasbeni komunikatorji in uporabljajo svoj glas kot osnovno orodje za strokovno delo. Zaradi tega je vokalno-tehnično izobraževanje študentov Učiteljske fakultete izjemno pomembno za njihov poklic, zlasti pri poučevanju glasbene kulture. Med študijem pridobijo študentje glasbeno izobraževanje iz glasbene kulture, igranja inštrumentov, petja in metodike poučevanja. Cilj tega prispevka, ki temelji na vprašalniku, je bil raziskati, kako dobro so študentje četrtega in petega letnika Učiteljske fakultete v Zagrebu (N = 250) seznanjeni z vokalno tehniko in njenim pomenom za poklic. Rezultati potrjujejo naslednje hipoteze: 1) večina anketirancev (64 %) ne ve, kaj je vokalna tehnika. Prav tako menijo, da med študijem niso pridobili dovolj znanja o vokalni tehniki; 2) večje število anketirancev (66 %) ne ve, kaj je vokalna higiena, čeprav je pravilno odgovorilo (74 %), da je vokalna higiena skrb za glas, ozaveščanje in opazovanje dejavnikov, ki vplivajo na glas; 3) večina anketirancev redko izvaja glasbene vaje (52 % sploh ne, 22 % pa enkrat na mesec). Rezultati kažejo nezadovoljstvo anketirancev s stopnjo pridobljenega znanja o vokalni tehniki med študijem. To kaže na potrebo po razmisleku o reviziji in strukturiranju novih študijskih programov v skladu s kompetencami študentov Učiteljske fakultete.

**Gljučne besede:** študenti učiteljskega študija, vokalna tehnika, vokalna higiena

Teachers are first music communicators and use their voice as a basic means of professional work. Hence the vocal-technical education of FTE students is extremely important for their professional activities, especially in teaching music culture. During studies students gain music education from music culture, playing, singing and teaching methodology. The aim of this work, based on the questionnaire, was to examine how students in the 4th and 5th year of Teacher Study (N=250) were acquainted with vocal techniques and the importance for their profession. Results confirmed following hypotheses: 1) Most examinees did not know what vocal technique was and considered that during studying they did not gain enough knowledge regarding vocal technique (64%). 2) A larger number of examinees considered that they did not know what vocal hygiene was (66%), although (74%) answered that vocal hygiene was caring for the voice, awareness and perception of factors affecting the voice. 3) Most examinees rarely conducted vocal exercises (52% not at all, 22% once a month).

The results showed the visible dissatisfaction of the examinees with their level of gained knowledge regarding vocal technique during their studies. This indicates the need to reconsider the audit and structure of new study programmes in accordance with the necessary competencies of Teacher Study students.

**Keywords:** students of teacher study, vocal technique, vocal hygiene



## Ekološka zavest učiteljev o pomenu dvoživk (Amphibia) in njihovih življenjskih okolij kot učnega okolja (značilnosti in ogroženost)

### Ecological Awareness of Teachers about the Importance of Amphibians (Amphibia) and their Habitats as Teaching Environments (Characteristics and Endangerment)

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Leta 2020 je na podlagi spoznanj o pomenu in ogroženosti dvoživk (zlasti žab, Anura) izveden anketni vprašalnik. V anketnem vprašalniku je sodelovalo 70 učiteljev razrednega pouka (N = 70), ki so zaposleni v osnovnih šolah na območju severozahodne Hrvaške. Cilj raziskave je bil ugotoviti, v kakršni meri osnovnošolski učitelji poznajo osnovne značilnosti, pomen in ogroženost dvoživk, zlasti žab in njihovih življenjskih okolij. V večini primerov se izumrtje dvoživk odraža kot neposredna posledica antropogene dejavnosti na določenem območju. Raziskava je skušala ozavestiti anketirance o nevarnosti in zaščiti, jih motivirati za sodelovanje v prostovoljnih reševalnih akcijah ('črne pike' na cestah) in jih tako ozavestiti o pomenu ohranjanja habitatov in vrst. Pridobljeni rezultati kažejo, da učitelji v razrednem pouku ločijo med nekaterimi vrstami dvoživk, ne pa tudi pomena in ogroženosti habitatov in vrst oziroma ekosistemov. Slišali so za reševalne akcije, vendar na splošno vanje niso bili aktivno vključeni. Z izobraževanjem, ozaveščanjem narave in okolja je treba razen učiteljev in učencev spodbujati tudi drugo lokalno prebivalstvo, da sodeluje v reševalnih akcijah.

Ključne besede: bioindikatorji, človeška dejavnost, raziskave, učitelji, žabe

Based on the knowledge about the importance and endangerment of amphibians (especially frogs, Anura), a survey questionnaire was conducted in 2020. Seventy classroom teachers (N = 70) working in primary schools in north-western Croatia participated in the survey questionnaire. The aim of the research was to determine the extent to which primary school teachers knew the basic characteristics, importance and endangerment of amphibians, especially frogs and their habitats. In most cases, the extinction of amphibians is reflected as a direct consequence of anthropogenic activity in a particular area. The research also sought to raise respondents' awareness of endangerment and protection, motivate them to participate in voluntary rescue operations ("black spots" on roads) and thus make them aware of the importance of preserving habitats and species. The obtained results suggested that teachers in the classroom distinguished between certain species of amphibians, but not the importance and endangerment of habitats and species, i.e. ecosystems. They had heard of rescue operations but were generally not actively involved. Through education, awareness of nature and the environment, in addition to teachers and students, the rest of the local population should also be encouraged to participate in rescue operations.

Keywords: bioindicators, human activity, research, teachers, frogs

## Poučevanje matematike v zgodnjih letih

### Teaching Maths in the Early Years

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Matematično izobraževanje ima pomembno vlogo pri izvajanju miselnih dejavnosti, povečanju prožnosti mišljenja, razvijanju konstruktivnih sposobnosti in ustvarjalnosti. V zgodnjem otroštvu je učenje stalna, spontana in organizirana dejavnost, ki jo omogočajo učitelji in podpira razvoj celotne osebnosti. Ne zoži se na pridobivanje znanja, temveč poteka v situacijah, ki se pojavljajo ves dan, v naravnem in simuliranem okolju, na pobudo učiteljev. Ta raziskava prispeva k tej razpravi sodobnega interesa z raziskovanjem, kako učenci opisujejo svoje izkušnje in odnos do matematike. Cilj naše raziskave je bil raziskati odnos do poučevanja matematike, ki je v osnovi osredotočen na 'metodo predavanja' v primerjavi s 'pristopom odkrivanja', in kazalnike tesnobe pri matematiki, ki lahko temeljijo na njihovi prejšnji šolski karieri. Uporabili smo analizo metafor in dokumentov (N = 90) ter kvalitativne intervjuje z učenci (N = 25). Naši rezultati so pokazali, da je bil odnos učencev do matematike na splošno negativen na podlagi dejavnikov, povezanih z dejavniki matematične anksioznosti, ki so se pojavili v njihovi prejšnji šolski karieri. Sklepamo, da bi bilo treba izdelati sodelovalne in na izkušnjah temelječe učne tehnike in metode poučevanja, da bi povečali pozitiven odnos in motivacijo učencev za zgodnje učenje matematike.

Ključne besede: učenje na podlagi dejavnosti, matematična anksioznost, stališča učencev, na izkušnjah temelječe učne tehnike

Mathematical education plays an important role in practicing thought activities, increasing the flexibility of thinking, developing a constructive ability and creativity. In the early years learning is a permanent, spontaneous and organised activity that is facilitated by teachers and supports development of the entire personality. It is not restricted to the acquisition of knowledge but takes place in situations that occur throughout the day, in a natural and simulated environment, initiated by teachers. This research contributes to this discussion of contemporary interest by investigating how students characterised their experiences and attitudes towards mathematics. The aim of our research was to explore the attitudes towards teaching maths basically focused on the "lecture method" vs. "discovery approach" and the indicators of maths anxiety that could be based on their previous school career. We used a metaphor and document analysis (N=90) and qualitative interviews with students (N=25). Our results demonstrated that students' attitudes towards maths were generally negative based on factors related maths anxiety that had emerged in their previous school careers. We concluded that cooperative and experience-based learning techniques and teaching methods should be worked out to increase students' positive attitudes and motivation to early childhood maths education.

Keywords: activity-based learning, maths anxiety, students' attitudes, experience-based learning techniques.

## Ekскурzije kot pomemben dejavnik pri razvoju okoljske pismenosti učencev

### Excursions as an important factor in the development of students' environmental literacy

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Pozitiven odnos do okolja in varstva okolja posledično pozitivno vpliva tudi na raven okoljske pismenosti vsakega človeka. Vključevanje sprehodov v izobraževalni proces sovpada s potrebo študentov po kritičnem razmišljanju o njihovem bližnjem naravnem okolju. V okviru raziskave smo preučili vpliv različnih izbranih spremenljivk na odnos študentov do narave. Anketiranci v raziskavi so bili študentje Pedagoške fakultete Katoliške univerze v Ružomberoku. Njihova povprečna starost je bila 20,6 leta. Podatki so bili pridobljeni s pomočjo lestvice Nature relatedness. Slednja je sestavljena iz 21 postavk, na katere anketiranci izrazijo svoje mnenje s pomočjo petstopenjske Likertove lestvice. Zanesljivost uporabljene lestvice je bila določena s pomočjo Cronbachovega koeficienta  $\alpha$  in je znašala 0,77. Na osnovi rezultatov raziskave zavračamo ničelno hipotezo o normalni porazdelitvi pridobljenih podatkov ( $W = 0,98$ ,  $p = 0,02$ ) in posledično načrtujemo, da bomo v prihodnji raziskavi uporabili neparametrične metode induktivne statistične analize, in sicer Mann Whitneyjev U-test, Kruskal-Wallis ANOVA in Spearmanov korelacijski koeficient. Večina spremenljivk, uporabljenih v raziskavi, ima zanemarljiv vpliv na odnos študentov do narave. Za razliko od slednjih se je izvajanje rednih prostočasnih dejavnosti izkazalo za zelo pomembno spremenljivko.

Gljučne besede: okoljska vzgoja, odnos študentov, varstvo okolja

A positive attitude towards the environment and environmental protection also positively affects the level of environmental literacy of each person. Integration of walks into the educational process meets with the students' needs to critically examine their natural environment. As part of our research, we investigated the influence of selected variables upon the relationship of university students towards nature. The respondents were students at the Catholic University in Ružomberok. The average age was 20.6 years. The data were obtained via the nature relatedness scale. It consisted of 21 items, to which the respondent expressed his opinion through the five-step Likert scale. The reliability of the used scale was determined by the Cronbach coefficient  $\alpha$  and it was 0.77. We rejected the zero hypothesis on the normal distribution of the obtained data ( $W = 0.98$ ,  $p = 0.02$ ) and, as far as the next analysis were concerned, we used non-parametric methods of inductive statistical analysis, namely the Man Whitney U test, Kruskal Wallis ANOVA and Spearman's correlation coefficient. Most of the variables in our research had a negligible influence on the relationship of students towards nature. The implementation of regular leisure activities proved to be a significant variable.

Keywords: environmental education, attitudes of students, environmental protection.

## Ali bodoči učitelji razvijejo tehnološko pedagoško vsebinsko znanje med študijskim izobraževanjem?

### Does future teachers' TPACK develop during their college education?

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Tehnološko pedagoško vsebinsko znanje (TPACK), ki sta ga leta 2006 predlagala Keller in Mishra, predstavlja eden od ključnih okvirjev pri vpeljevanju tehnologije v poučevanje. Ker je vključevanje tehnologije del učiteljevega poučevanja, bi ta morala biti sestavni del študijskega izobraževanja učiteljev. Vprašanje je, ali jim univerzitetno izobraževanje zagotavlja dovolj znanja s tega področja. Študija primerja TPACK študentov na začetku in na koncu njihovega univerzitetnega izobraževanja. Raziskava je bila izvedena na Pedagoški fakulteti v Osijeku na Hrvaškem z isto generacijo študentov v letu 2015 (N = 71) in 2020 (N = 43) z uporabo ankete o znanju bodočih učiteljev na področju učenja in tehnologije, ki jo je leta 2009 razvil Schmidt. Rezultati so pokazali, da je na tehnološkem, pedagoškem in vsebinskem znanju statistično značilna razlika, vendar ni bilo statistično značilnih razlik v celotnem znanju o tehnološko pedagoški vsebini (TPACK) pred in po izobraževalnem procesu.

Ključne besede: izobraževanje, pedagogika, bodoči učitelji, tehnologija, TPA

The Technological Pedagogical Content Knowledge (TPACK), proposed in 2006 by Keller and Mishra, is one of the most important frameworks related to the integration of technology in teaching. Since the integration of technology is a part of teachers' work, it should also be an integral part of their college education. The question is whether their college education provides them with sufficient knowledge in that area. This study compared students' TPACK at the beginning and at the end of their college education. Research was conducted at Faculty of Education in Osijek, Republic of Croatia, with the same generation of students, in 2015 (N=71) and 2020 (N=43) by the use of the Survey of Preservice Teachers' Knowledge of Teaching and Technology (SPTKTT) developed by Schmidt in 2009. Results showed that the difference in Technological (TK), Pedagogical (PK) and Content Knowledge (CK) separately was statistically significant, but that there was no statistically significant difference in overall TPACK before and after their college education.

Keywords: education, pedagogy, pre-service teachers, technology, TPACK.

## Modeli sodobnega poučevanja v poučevanju tehnične kulture

### Models of modern teaching in the teaching of technical culture

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Glede na hitrost sprememb, ki se dnevno pojavljajo v tehniki in tehnologiji, je treba poučevanje tehnične kulture narediti učinkovitejše, kar lahko dosežemo z uporabo naprednih učnih modelov. Cilj tega prispevka je bil preučiti in razložiti, kako se sodobne oblike poučevanja uporabljajo pri pouku tehnične kulture. Z obrazcem Google Forms je bil sestavljen spletni vprašalnik z devetimi vprašanji. Prvi del vprašalnika se nanaša na socialnoekonomska vprašanja in zadovoljstvo z delom. Drugi del vprašalnika je obravnaval vprašanja o vsakem sodobnem modelu posebej (učinkovitost določenega modela pri pouku tehnične kulture, kako ga uporabljajo). V raziskavi je sodelovalo 36 učiteljev.

Ugotovljeno je bilo, da so učitelji, ki pri svojem delu uporabljajo sodobne modele, zadovoljni, učenci pa s takšnimi modeli bolje sprejemajo učne vsebine. Veliko učiteljev med poučevanjem tehnične kulture uporablja sodobne modele, med katerimi sta najpogostejši skupinsko in projektno poučevanje.

Učitelji si prizadevajo za uporabo inovativnih modelov, saj verjamejo, da učenci bolje razumejo učno vsebino, in si tudi postavljajo nove cilje, saj jim novi modeli predstavljajo izzive v primerjavi s prejšnjim tradicionalnim poučevanjem.

Ključne besede: inovativni modeli, poučevanje, tehnična kultura

Given the rate of change that occurs daily in engineering and technology, there is a need to make the teaching of technical culture more effective, and this can be achieved through the use of advanced teaching models. The aim of this paper was to investigate and explain how advanced teaching models have been used in the teaching of Technical Culture.

An online questionnaire with nine questions about Google Forms was created. The first part of the questionnaire was related to socio-economic aspects and job satisfaction. The second part of the questionnaire asked questions about each modern model separately (the effectiveness of a particular model in teaching Technical Culture, how they applied this model). 36 teachers participated in the study. It was found that teachers who used modern models during their work were satisfied and students accepted the teaching content better through such models. A large number of teachers used modern models while teaching Technical Culture, the most common of which were team teaching and project teaching.

Teachers made efforts to use innovative models because they believed that students understood the teaching content better and also set new goals because the new models were challenging for them compared to the previous traditional teaching.

Keywords: innovative models, teaching, technical culture.

## Analiza slikovnega gradiva v učbenikih za predmet družba v 4. in 5. razredu osnovne šole

### Analysis Of Visual Materials in Textbooks for the Subject of Social Studies in Fourth and Fifth Grades of Elementary School

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Učbenik je učno sredstvo, ki ga sestavljajo različne komponente, med katere spada tudi slikovno gradivo. Po mnenju nekaterih avtorjev (Hibbing, Rankin-Erickson, 2003) učenci najprej vizualizirajo in razumejo besede med ilustracijami v učbenikih, šele pozneje samo besedilo. V prispevku predstavljamo raziskavo, katere namen je bil preučiti kakovost slikovnega gradiva v učbenikih za predmet družba v 4. in 5. razredu osnovne šole. Slikovno gradivo v učbenikih smo analizirali glede na zastavljena merila. Ugotovili smo, da razmerje med besedilom in slikovnim gradivom v učbenikih pri vseh založbah ni ustrezno. Prav tako se kakovost slikovnega gradiva razlikuje glede na razred. V vseh analiziranih učbenikih so od slikovnega gradiva najbolj zastopane fotografije. V učbenikih za družbo 5. razreda je slikovno gradivo ustrežnejše opremljeno z naslovom in opisom kot v učbenikih za 4. razred. Delež slikovnega gradiva v učbenikih za družbo, ki ne predstavlja avtentične situacije, je malo prisoten. Rezultati še kažejo, da je v učbenikih 5. razreda več slikovnega gradiva, ki ni aktualizirano. Smiselno bi bilo več pozornosti namenjati ustreznemu izboru slikovnega gradiva v učbenikih.

Ključne besede: učbenik, slikovno gradivo, osnovna šola, družba

A textbook is a learning tool that combines various components, including visual material. According to some authors (Hibbing, Rankin-Erickson, 2003), students first visualise and understand the words during the illustration in textbooks, and only later the text itself. In this paper, we present a study whose aim was to research the quality of visual material in textbooks for Social Studies in the fourth and fifth grades of elementary school. The visual material in the textbooks was analysed according to the established criteria. We found that the ratio between text and visual materials in textbooks was not correct in all publications. Also, the quality of the visual material varied according to the grade. In all the textbooks analysed, the most represented visual materials were photographs. In textbooks for the fifth grade of Social Studies, the visual material was more appropriately titled and described than in textbooks for Social Studies in fourth grade. The proportion of pictorial material in textbooks for Social Studies was not often present. The results also showed that there were more non-updated visual materials in fifth-grade textbooks for Social Studies. It is recommended to pay more attention to the appropriate selection of visual material in textbooks.

Keywords: Textbook, visual materials, elementary school, social studies

## Slikovno gradivo v učbenikih za predmet spoznavanje okolja v prvem triletju osnovne šole

### Visual Materials in Textbooks for the Subject of Environmental Studies in the First Three Years of Elementary School

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V prispevku se osredotočamo na slikovno gradivo, ki ga vsebujejo učbeniki za predmet spoznavanje okolja v prvem triletju osnovne šole. Diamond (2008) meni, da so slike v učbenikih izrednega pomena, saj se učenci z njihovo uporabo učijo bolje in lažje. Otroci pogosto povezujejo slike s svojimi življenjskimi izkušnjami in na podlagi tega kreirajo pomen slike. V prispevku predstavljamo raziskavo, s katero smo želeli proučiti kakovost slikovnega gradiva v učbenikih za spoznavanje okolja. Slikovno gradivo v učbenikih za predmet spoznavanje okolja v prvi triadi smo analizirali glede na zastavljena merila. Rezultati analize kažejo, da so v analiziranih učbenikih od slikovnega gradiva najbolj zastopane fotografije. Ugotovili smo tudi, da je bilo pri vsakem analiziranem merilu nekaj slikovnega gradiva, ki ni bilo ustrezno. Glede na aktualnost slikovnega gradiva ugotavljamo, da je slikovno gradivo v učbenikih za 3. razred najbolj aktualizirano in najmanj v učbenikih za 1. razred. Prav tako je v učbenikih za spoznavanje okolja zaslediti nekaj primerov, da ponekod slikovno gradivo ne podpira besednih informacij. Slikovno gradivo najbolj kakovostno prispeva k izboljšanju razumevanja vsebine v učbenikih za tretji razred in najmanj v učbenikih za drugi razred.

Ključne besede: učbenik, osnovna šola, spoznavanje okolja, slikovno gradivo

This paper focuses on visual materials in textbooks for the subject of Environmental Studies in the first three years of elementary schools. Diamond (2008) believed that images in textbooks were of great importance as students learn better and easier using them. Children often associate images with their life experiences based on that image. In this paper, we present a study aimed at investigating the quality of visual materials in textbooks for learning the subject of Environmental Studies. The visual materials in textbooks in the first triad were analysed according to the criteria. The results of the analyses showed that photographs were the most represented visual material. We also found that in each criteria analysis, there were visual materials that were not correct. Looking at the visuals' timeliness, we found that the visuals were most updated in the 3rd grade textbooks and the least updated in the 1st grade textbooks. It could be seen that in some places, the visual material did not support the verbal information. The visual material contributed the most to improving the understanding of the content in the textbooks for the third grade and the least in the textbooks for the second grade.

Keywords: Textbook, Elementary School, Environmental Studies, Visual Materials

## Evalvacija slovenskih učbenikov s kazalniki kakovosti

### Evaluation of Slovenian textbooks with quality indicators

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V okviru projekta Za kakovost slovenskih učbenikov je bila med letoma 2018 in 2020 s pilotno različico kazalnikov kakovosti učbenikov (KKU), verzija 1.0, opravljena analiza kakovosti 31 potrjenih in veljavnih slovenskih učbenikov za naravoslovne, družboslovne in humanistične predmete za osnovne in srednje šole, opravljeni pa so bili tudi intervjuji s šestimi izbranimi učitelji, ki so v drugem delu raziskave izvajali evalvacije učbenikov s pomočjo KKU. S KKU smo učbenike analizirali na petih področjih: splošno in celostna struktura, oblika besedila, struktura besedila, jezik in slog pisanja ter slikovno gradivo in grafične ponazoritve. Ugotovitve raziskave kažejo, da so analizirani učbeniki glede na KKU ustrezni oz. večinoma ustrezni, možne in priporočljive pa bi bile izboljšave na področju splošne in celostne strukture učbenika ter oblika besedila. S pripravljenimi kazalniki kakovosti učbenikov so zadovoljni tudi intervjuvani učitelji, ki so z evalvacijo učbenikov postali bolj pozorni na nekatere pomembne značilnosti učbenika, kot so barvno ozadje besedila, kakovost papirja, dolžina povedi ter predvsem celostna podoba učbenika. Rezultati raziskave in KKU bodo v pomoč državni komisiji pri potrjevanju učbenikov in založnikom pri pripravi učbenikov ter za boljšo ozaveščenost učiteljev pri izbiri učbenikov in drugih učnih gradiv.

Ključne besede: kazalniki kakovosti, osnovna šola, srednja šola, učbenik

Within the project on the Quality of Slovene Textbooks, a pilot version of Textbook Quality Indicators (TQI), version 1.0, was used between 2018 and 2020 to analyse the quality of 31 validated and current Slovenian textbooks for natural sciences, social sciences and humanities for primary and secondary schools. Interviews were also conducted with six selected teachers who conducted textbook evaluations with TQI in the second part of the study. Using TQI, we analysed textbooks in five areas: general and integrated structure, text format, text structure, language and writing style, and visual and graphic illustrations. The results of our study showed that the textbooks analysed were adequate or mostly adequate in terms of TQI.

Improvements, in the general and integrated structure of the textbooks and in the text format, would be possible and recommended. The teachers interviewed were also satisfied with the TQI produced. When evaluating the textbooks, they became aware of some important features of the textbooks, such as the background colour of the text, the paper quality, the sentence length, and especially the general appearance of the textbooks. The results of the survey and the TQI will help the state commission in approving textbooks, publishers in producing textbooks, and provide teachers with better awareness in selecting textbooks and other teaching materials.

Keywords: quality indicators, primary school, secondary school, textbook



## Težavnost besedil v šolskih učbenikih: Kako jo lahko določamo z merami berljivosti in očesnega sledilca?

### The difficulty of texts in school textbooks: How can it be determined using readability and eye-tracker measurements?

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Težavnost besedil v učbenikih je pomembno merilo ustreznosti in uspešnosti učenja z njimi. V opisani metodološki študiji poudarjamo dva pristopa k ocenjevanju berljivosti učbeniških besedil: mere berljivosti in sledenje očem z očesnim sledilcem. Kot primer uporabe smo analizirali besedilo iz osnovnošolskega učbenika za naravoslovje po obeh metodah. Za odkrivanje posameznih značilnosti berljivosti smo uporabili različne mere berljivosti, kot so povprečna dolžina stavka, odstotek težkih besed, povprečno število znakov na besedo, število zlogov na besedo, odstotek glagolov itn. Za oceno splošne berljivosti besedila smo uporabili formule berljivosti besedila, ki združujejo različne vidike berljivosti, pa tudi trenutne najsodobnejše pristope strojnega učenja, ki temeljijo na globokih nevronskih mrežah. Za določitev vizualne pozornosti osnovnošolcev do različnih besedil bomo uporabili dve metriki za sledenje očem: trajanje fiksacije in število fiksacij. Metodi kažeta visoko skladnost (korelacijo) v rezultatih. Izsledki nam pomagajo prepoznati sestavne dele poglavij v učbenikih, ki najbolj prispevajo k težavnosti besedila.

Ključne besede: kakovost učbenikov, mere berljivosti, sledenje očem, naravoslovno izobraževanje

The difficulty of texts in textbooks is an important criterion of their appropriateness and the success of learning with them. In the described methodological study, we highlight two approaches to assessing the readability of textbook texts: readability measurements and eye-tracking measurements. As a use case, a text from a primary school science textbook in Slovene was analysed to compare the text difficulty with both methods. The following readability measures to detect individual features of readability were used: the average sentence length, percentage of difficult words, average number of characters per word, number of syllables per word, percentage of verbs, etc. To assess the overall text readability, we applied text readability formulas that combined different readability aspects, as well as current state-of-the-art machine learning approaches based on deep neural networks. To determine primary school students' visual attention towards various texts, two eye-tracking metrics were used: fixation duration and fixation count. The two approaches showed a high consistency (correlation) in results. These findings help us to identify the components of text that most contribute to the text difficulty.

Keywords: textbook quality, readability measure, eye tracking, science education

## INSHIP: Za kakovostno pedagoško prakso prihodnjih učiteljev

## INSHIP: Towards quality in the teaching practice of pre-service teachers

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V prispevku predstavimo rezultate nacionalne študije primera o pedagoški praksi v izobraževanju prihodnjih učiteljev. Študija je bila izvedena v okviru mednarodnega projekta INSHIP, katerega namen je izdelati inovativen model komplementarnega partnerstva na področju praktičnega pedagoškega usposabljanja prihodnjih učiteljev.

S pomočjo analize SWOT smo raziskali poglede univerzitetnih učiteljev, mentorjev prihodnjih učiteljev, študentov in pomočnikov ravnateljev o izvedbi pedagoške prakse na dveh študijskih programih Pedagoške fakultete Univerze v Ljubljani.

Rezultati so pokazali, da so udeleženci prepoznali tako prednosti (npr. študenti pridobijo praktične izkušnje in vpogled v učni proces, šole spoznajo potencialne bodoče kadre) kot slabosti (npr. razkorak med teorijo in prakso) obstoječe izvedbe pedagoške prakse. Zaznave udeležencev glede priložnosti in nevarnosti so bile usmerjene predvsem v izboljšanje kakovosti organizacijskih (npr. trajanje in urnik prakse) in sistemskih (npr. izbor mentorjev) vidikov pedagoške prakse, pa tudi na vsebinski vidik ter medosebne odnose med različnimi akterji, ki so vključeni v izvajanje pedagoške prakse.

Ugotovitve kažejo, da je treba poskrbeti za večjo vključenost šol pri sistemskih, organizacijskih in vsebinskih izzivih izvedbe pedagoške prakse. Partnerski model sodelovanja med fakultetami in šolami je ključnega pomena za kakovostno izvajanje pedagoške prakse.

Ključne besede: izobraževanje učiteljev, zagotavljanje kakovosti, praktično pedagoško usposabljanje, analiza SWOT

We present the results of a national case study about teaching practice in pre-service teacher education. The study is part of the international project INSHIP, which aims to develop educational innovation through a complementary partnership model for teaching practice.

Using the SWOT technique, we explored the views of university teachers, teacher mentors, students, and deputy head teachers about the teaching practice in two study programmes at the University of Ljubljana, Faculty of Education.

The results showed that participants expressed both strengths (e.g. students gained experience and insight into the teaching process; schools met potential future employees) and weaknesses (e.g. the gap between theory and practice) of the existing teaching practice. Participants' perceptions of opportunities and threats were directed toward improving the quality of the organisational (e.g. duration and schedule) and systemic (e.g. mentor selection) elements of teaching practice, as well as its content and interpersonal relationships among different stakeholders involved in the teaching practice.

The findings suggest that greater involvement of schools in the systemic, organisational, and content issues of teaching practice is needed. Collaborative partnerships between faculties and schools are crucial to the effective implementation of teaching practice.

Keywords: teacher education, quality assurance, teaching practice, SWOT analysis

## Sodelovanje, izziv in nuja sodobne šole

### Cooperation, Challenges and the Necessities of the Contemporary School

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Slovenski šolski sistem svetovalni službi namenja posebno mesto in ji hkrati nalaga odgovornost za sodelovanje z vsemi akterji vzgojno-izobraževalnega procesa.

V prispevku prikazujemo rezultate raziskave, ki smo jo opravili s pomočjo kvalitativne študije. S polstrukturiranimi intervjuji smo preverjali, pri katerih nalogah specialni pedagog in vodstvo šole sodelujeta, kako pogosto je to sodelovanje in s kakšnimi težavami se pri tem srečujeta. V raziskavi so sodelovale štiri specialne pedagoginje iz različnih regij. V raziskavo smo vključili vsakdanje primere, ki zaradi svoje tipičnosti predstavljajo proučevano situacijo (Vogrinc, 2008). Vse anketirane specialne pedagoginje so del aktiva svetovalnih delavcev.

V okviru kvalitativne študije smo ugotovili, da so specialne pedagoginje deležne zaupanja vodstva. Iz rezultatov je mogoče razbrati področja delovanja šolske svetovalne službe, na katerih je prisotno sodelovanje med specialnim pedagogom in vodstvom šole in področja, iz katerih je ta profil izvzet, če so na šoli zaposleni še drugi profili svetovalnih delavcev. Zaznali smo razlike med specialnimi pedagoginjami, ki so zaposlene le kot učiteljice dodatne strokovne pomoči, in tistimi, ki opravljajo tudi delo svetovalne službe. Rezultati raziskave predstavljajo podlago za nadaljnje znanstveno raziskovanje odnosa med vodstvom in svetovalno službo.

Ključne besede: šolska svetovalna služba, vodstvo šole, specialni pedagog, programske smernice za svetovalno službo

The Slovenian education system assigns a special importance to counselling services and simultaneously imposes on them the responsibility for cooperation with all actors in the educational process.

The following article shows the results obtained with our qualitative research. With the aid of semi-structured interviews, we examined what tasks the special education teachers and the school management cooperated on, how often they cooperated and the challenges they faced. Four special education teachers from different regions were included in the study. We focused on ordinary, everyday situations (Vogrinc, 2008). All surveyed special education teachers were members of counselling groups. Based on our qualitative research results we found that management places confidence in special education teachers. The obtained results illustrate both, the areas of work where special education teachers and the school management collaborated, as well as the areas lacking collaboration, especially if the school employed counsellors other than from the field of special education. In addition, we found that there were differences between special educators working as teachers of additional professional assistance and special educators, who also performed the works of the counselling service.

The results obtained from the research form the basis for further scientific investigation of the relationship between school management and counselling services.

Keywords: school counselling service, school management, special education teacher, counselling service programme guidelines.

## Mnenje učencev tretje triade o izobraževanju na daljavo v času epidemije virusa COVID-19

### Opinion of third triad students on distance learning during the covid-19 epidemic

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Zaradi epidemije se pouk odvija na daljavo. Učenci pogrešajo socialnost in razlago učitelja, a jim je všeč, da so si boljše razporedili čas.

V raziskavi je sodelovalo 44 učenk in 33 učencev Osnovne šole Cirkovce, ki obiskujejo 7., 8. in 9. razred (12–15 let). Osnovnošolci so izpolnjevali anketo na spletni strani 1ka. Zbrane podatke smo prikazale s pomočjo programa SPSS. Informacije smo iskale v znanstvenih revijah in na GOV.SI.

Povezava med ocenami učencev in mnenjem o pouku: 42 % učencev je odgovorilo, da je pouk na daljavo kar v redu in da zaradi novega načina učenja nimajo slabših ocen. 27 % anketirancev se ne strinja, da imajo pri izvajanju pouka veliko tehničnih težav. 47 % osnovnošolcev se popolnoma strinja, da so učitelji na voljo za razna vprašanja. 28 % učencev se strinja, da naloge s težavo posredujejo učitelju.

Učenci, ki se jim zdi pouk na daljavo kar v redu, imajo posledično tudi boljše ocene. Učenci nimajo veliko tehničnih težav, saj posledično lahko komunicirajo z učitelji. Učenci so poudarili pomanjkanje socialnih stikov, kar se ujema z raziskavo Ministrstva za izobraževanje, znanost in šport. V isti raziskavi si 20 % anketirancev računalnik deli z družinskimi člani, v naši pa le 6 %.

Ključne besede: COVID-19, osnovnošolsko izobraževanje, izobraževanje na daljavo

Due to the epidemic, school has been online. Pupils missed socialisation and teachers' live explanations but could manage their time more efficiently.

The study involved 44 female and 33 male pupils from Cirkovce primary school, who attended 7th, 8th and 9th grade (12-15 years). Pupils completed the survey on the 1ka website. Collected data was shown with the SPSS programme. We searched for information in scientific journals and GOV.SI.

Connection between pupils' grades and opinion on lessons: 42% answered online classes were fine and were not the cause of worse grades. 27% of respondents did not agree that they faced a lot of technical difficulties. 47% of them completely agreed that teachers were available for various questions. 28% agreed they had problems handing in assignments.

Pupils who thought distance learning was fine also tended to have better grades. They did not have many technical difficulties, therefore could communicate with teachers normally. Students pointed out the lack of social connections which matched the survey by the Ministry of Education, Science and Sport. In that same survey, 20% of respondents shared a computer with other family members, while only 6% of them did in ours.

Keywords: COVID-19, primary education, online school

## Stališča in doživljanje vsiljenega izobraževanja na daljavo bodočih učiteljev v času pandemije

### Views and perceived experiences of prospective teachers on forced remote education during the pandemic

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V času zaprtja univerze zaradi pandemije virusa COVID-19 spomladi 2020 smo avtorji izvedli raziskavo na populaciji študentov Univerze v Mariboru, v kateri smo raziskovali njihove učne izkušnje in mnenja o učnih izkušnjah. Na osnovi teh odgovorov je bil pozneje ustvarjen nov vprašalnik, ki smo ga v času ponovnega zaprtja univerze, jeseni 2020, razdelili študentom, bodočim učiteljem. Študenti treh fakultet Univerze v Mariboru so na 30 vprašanj odgovarjali po 7-stopenjski lestvici. 215 (88,1 %) anketirancev (N = 244) je bilo žensk, 27 (11,1 %) moških in 2 (0,8 %) sta navedla drugo. 168 (68,9 %) je bilo bodočih razrednih učiteljev, vsi z ene fakultete, vpisani v en program, 76 (31,1 %) pa eno- in dvopredmetnih bodočih učiteljev iz preostalih dveh fakultet. Najpomembnejša je bila ugotovitev, da je bila količina dela pri študiju na daljavo veliko večja. Preostale odgovore lahko razdelimo v skupine. V prvi skupini so bili odgovori, v katerih so učenci prepoznali pozitivne vidike izobraževanja na daljavo, v drugi negativne vidike, v tretji pa mešane vidike. Odzivi bodočih razrednih in predmetnih učiteljev so lahko vodilo za organizacijo študija ali predmetov na daljavo, tudi v primerih, ko fakulteta k temu ni prisiljena.

Ključne besede: COVID-19, zaprtje, bodoči učitelji, vsiljen študij na daljavo

During the first lockdown due to the COVID-19 outbreak, a group of authors launched a survey among university students about various aspects of their experiences and opinions about their learning. Based on the responses a new questionnaire was created with 30 declarative questions to be answered on a 7-point scale. The new questionnaire was sent to prospective teachers from three faculties of the University of Maribor, Slovenia. 215 (88.1%) of the respondents (N = 244) were female, 27 (11.1%) were male, and 2 (0.8%) indicated other. 168 (68.9%) were prospective elementary teachers, all from one faculty, enrolled in one programme, and 76 (31.1%) were one- and two-subject prospective teachers. The most important was the finding that the quantity of work during the lockdown was much higher. The rest of the responses could be divided into groups. In the first group were responses in which students recognised positive aspects of distance education, in the second were negative views, and in the third were mixed views. The responses of prospective elementary and subject teachers can be a guide for organising study programmes or courses for prospective teachers on distance education, even in situations where a faculty is not forced to do so.

Keywords: COVID-19 lockdown, forced remote education, prospective teachers

## Izobraževanja učiteljev za potrebe poučevanja na daljavo

### Education for teachers for distance teaching needs

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Ob pojavu novega virusa in izobraževanju na daljavo v letu 2020 smo se začeli spraševati, kako kompetentno so se v tem času počutili učitelji ter kakšne možnosti izboljšave so jim bile na voljo. Večina učiteljev je bila prepuščena lastni organizaciji dela, brez dolgotrajnega načrta. To je bil izredni čas, ko so se iz tedna v teden spreminjala načela in potek vzgojno-izobraževalnega dela, oblike in metode dela pa so bile popolnoma drugačne. V prispevku se zato osredotočamo na izkušnje in izobraževanja učiteljev za potrebe poučevanja na daljavo. Za zbiranje empiričnih podatkov smo izvedli kvantitativno raziskavo. Podatke smo pridobili z vprašalnikom, ki je bil za ta namen oblikovan. V okviru raziskave smo ugotovili, da se razredni učitelji s krajšo delovno dobo, 6 do 10 let ( $M = 3,63$ ), in mlajši učitelji, do 30 let ( $M = 3,45$ ), čutijo bolj usposobljeni za poučevanje na daljavo. Ugotovili smo tudi, da se je večina učiteljev (64,8 %), ki so sodelovali v raziskavi, počutila negotovo med tovrstnim načinom poučevanja in da si v prihodnje želijo konkretnjših usmeritev s področja učenja in dela na daljavo. Učitelji si želijo biti slišani in deliti svoje izkušnje.

Ključne besede: izobraževanje, učitelji, poučevanje na daljavo, IKT

With the appearance of the new virus and distance education in 2020, we began to wonder how competent teachers felt during that time and how they were able to improve the situation.

Most teachers were left to their own organisation of work, without a lengthy plan. We must be aware that this was an extraordinary time, when the principles and course of educational work changed from week to week, and the forms and methods of work were completely different.

In this paper, we focus on the experience and education of teachers for the purposes of distance learning. To collect empirical data, we conducted a quantitative study. The data were obtained with a questionnaire designed for this purpose. As part of the research, we found that teachers with a shorter working period, 6 to 10 years ( $M = 3.63$ ) and younger teachers, up to 30 years ( $M = 3.45$ ), felt more qualified for distance teaching. We also found that most of the teachers (64.8 %) who participated in the research felt insecure during this type of teaching and that they wanted more concrete orientation in the field of distance learning and work in the future. According to the research, we can conclude that teachers want to be heard and share their experiences.

Keywords: Education, teachers, distance teaching, ICT.

## Raba učnih metod pri pouku in poučevanju po spletu

### Use of teaching methods in classes and teaching online

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Pandemija je zaradi številnih omejitev močno vplivala na šolstvo, ki se je čez noč preselilo na svetovni splet. Učitelji smo se znašli pred izzivi prenosa rabe didaktičnega znanja in poučevanja v spletnih učilnicah, kar je precej vplivalo tudi na izbor učnih vsebin, ciljev, oblik in metod dela.

Spremljali smo raznolikost in časovno rabo učnih metod na videokonferencah 2. in 4. razreda v izvedbi učiteljic Osnovne šole I Murska Sobota, in sicer v obsegu 56 učnih ur izobraževalnih predmetov. Spremljanje je potekalo ob koncu 1. prekinitve in ob začetku ter koncu 2. prekinitve pouka.

Raziskava je pokazala, da smo učitelji uporabljali različne učne metode. Najpogosteje sta bili uporabljeni metodi pogovora in razlage. Časovno sta obsegali tudi čez 80 % porabljenega časa za poučevanje po spletu. Pri uporabi učnega pogovora ugotavljamo, da so se spremenile tudi nekatere značilnosti te metode.

Pouk na daljavo se je spreminjal s pridobivanjem izkušenj. Na začetku sta bili v ospredju metodi pogovora in razlage, pozneje smo učitelji vse pogosteje uporabljali tudi druge učne metode. Pri rabi vseh je bilo opaziti nekatere omejitve in sčasoma prilagoditve novemu načinu dela.

Ključne besede: osnovna šola, pouk na daljavo, učne metode

The pandemic has had a major impact on education, which has moved to the World Wide Web overnight, due to a number of constraints. Teachers have faced the challenges of transferring the use of didactic knowledge and teaching to online classrooms, which has also had a significant impact on the choice of learning content, goals, forms and methods of work.

We monitored the diversity and time use of teaching methods at videoconferences of 2nd and 4th grade performed by teachers at Murska Sobota Primary School I, in the scope of 56 teaching hours of educational subjects. Monitoring took place at the end of the 1st interruption and at the beginning and end of the 2nd interruption.

The research showed that teachers used different teaching methods. The most commonly used methods were conversation and explanation. These also accounted for over 80% of the time spent teaching online. With the use of learning conversations, we found that some features of this method have also changed. Distance learning has changed with the acquisition of experience. In the beginning, the methods of conversation and explanation were at the forefront, later on, teachers increasingly used other teaching methods as well. There were some limitations in the use of all of them and with time there were adaptations to the new way of working.

Keywords: primary school, distance learning, teaching methods

## Identiteta, splet in šola na daljavo

### Identity, Internet and distance learning

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Spletno nasilje se pojavlja v različnih oblikah, od kogar koli. Izobraževanje na daljavo je za osnovnošolce prineslo dodatne težave, povezane s spletno identiteto. Namen prispevka je prikazati način, kako se lahko zlorabi identitete na spletu izognemo z ozaveščanjem otrok in uporabo sodobnih metod pri pouku.

V prispevku bo predstavljena transmedijska pripoved kot alternativna metoda, s katero lahko ozavestimo težavo spletnega nadlegovanja med osnovnošolci.

Učenci od 7. do 9. razreda so pri uri LUM delali v parih. Drug drugemu so na roke naslikali dele obraza, z rokami pa so potem zakrili glavne dele svojega obraza, da niso bili prepoznavni. Potem so naredili profilno fotografijo. Originalne fotografije so poslali drug drugemu in jih še dodatno obdelali. K umetniško preoblikovani profilni fotografiji so lahko dodali sporočilo. Za delo so potrebovali tempera barve in čopiče ter svoj pametni telefon z nameščenim urejevalnikom fotografij.

Ob nastalih izdelkih smo naredili končno evalvacijo novih profilnih fotografij, ki bi jih učenci lahko uporabili na družbenih omrežjih. Ugotovili smo, da takšne fotografije ne predstavljajo groženj za posameznika in da se z njimi ne more ugotoviti otrokova identiteta ter da se tako lahko na inovativen in na varen način predstavijo na spletu.

Ključne besede: nasilje na spletu, identiteta, profilna fotografija, transmedijska pripoved

Online violence comes in many forms and can be perpetrated by anyone. Distance learning has brought additional problems related to online identity for elementary school students. The purpose of this paper is to show how online identity abuse can be avoided by raising children's awareness and using modern teaching methods.

The paper will present a transmedia narrative as an alternative method by which we can raise awareness of the problem of online harassment among primary school children.

Pupils from 7th to 9th grades worked in pairs in an art class. They painted parts of their faces on each other's hands, and then covered the main parts of their faces with their hands to make them unrecognisable. Then they took a profile photo. The original photos were sent to each other and further processed. They were able to add a message to the artistically transformed profile photo. They needed tempera paints and brushes to work, and their smartphone with installed photo editors.

Along with the created products, we made a final evaluation of the new profile photos that students could use on social networks. We found that such photographs do not pose a threat to the individual and that they cannot be used to establish a child's identity, and that they can be presented online in an innovative and safe way.

Keywords: online violence, identity, profile picture, transmedia narrative



## Vpliv obdobja COVID-19 na pridobljene kompetence študentov predšolske vzgoje na področju gibanja

### The influence of the COVID-19 period on preschool students' acquired competencies in the physical activities' area

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Gibalni razvoj v predšolskem obdobju predstavljajo dinamične spremembe v motoričnem obnašanju, ki se kažejo v razvoju posameznih gibalnih sposobnosti. V tem procesu otrok pridobiva gibalne spretnosti in gibalne vzorce kot rezultat interakcije genskih in okoljskih vplivov. Predšolskemu otroku pomemben del okolja predstavlja vzgojitelj.

V raziskavi je uporabljena kavzalno-eksperimentalna metoda. Neslučajnostni vzorec predstavljajo študenti zaključnega letnika študijskega programa Predšolska vzgoja. Merski instrument (Vprašalnik o pridobljenih in želenih kompetencah na področju gibanja v vrtcu) predstavlja kompetence vzgojitelja na področju gibanja, kakor so jih ocenili študenti pred obdobjem in v obdobju virusa COVID-19.

V raziskavi so predstavljene ocene študentov o pridobljenih, želenih in dejanskih specifičnih kompetencah vzgojitelja na kurikularnem področju gibanja. Narejena je primerjava ocen med študenti, ki so celoten študij opravili pred obdobjem virusa COVID-19, in študenti, ki so drugo polovico študija opravili v obdobju virusa COVID-19. Izračunana je tudi jakost učinka (Effect Size) vpliva obdobja virusa COVID-19 na oceno teh kompetenc.

Ključne besede: predšolska vzgoja, gibalne dejavnosti, kompetence vzgojitelja, COVID-19

Motor development in the preschool years is characterised by dynamic changes in motor behaviour that are reflected in the development of individual motor abilities. In this process, the child acquires motor skills and motor patterns as a result of the interaction of genetic and environmental influences. An important part of the environment for a preschool child is the kindergarten teacher.

In the research, the causal-non-experimental method was used. A non-random sample from a given population was represented by final year undergraduate students in Preschool Education.

A questionnaire on acquired and desired competencies in the area of physical activities in kindergarten represented the competencies of kindergarten teachers, as assessed before and during COVID-19.

The study presents the students' assessments of acquired, desired, and actual specific competencies of the kindergarten teacher in the physical activities' area. A comparison is made between students who completed the entire study prior to the COVID-19 and students who completed the second half of the study during the COVID-19.

The results of the research can help in the preparation of the content of the study programme Preschool Education and in the preparation of programmes of continuous professional development for kindergarten teachers.

Keywords: preschool education, physical activities, kindergarten teacher competencies, COVID-19.

## Generiranje preizkusov s pomočjo programske kode

### Generating tests with programme code

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Prispevek se nanaša na ocenjevanje vsebin iz programiranja v programu Tehnik računalništva. Rešitve nalog pri ocenjevanju znanja so v obliki digitalne kode izbranega programskega jezika. Težava nastopi pri delu na daljavo, saj dijaki lahko oddajo dokument, ki ni plod njihovega dela, temveč goljufanja s kopiranjem. Rešitev težave so preizkusi z različnimi vprašanji za vsakega dijaka.

Preizkusi znanja so generirani s pomočjo aplikacije Visual C#. Iz pripravljenega nabora vprašanj aplikacija naključno izbira vprašanja ter generira toliko različnih preizkusov, kolikor je dijakov. Preizkusi vsebujejo enako število vprašanj in preverjajo enake kompetence.

Ocenjevanje znanja z individualiziranimi preizkusi znanja je bilo izvedeno v dveh oddelkih 3. letnika, kjer je skupno 45 dijakov. Ocene, ki so jih dijaki pridobili na ta način, so bile pri 31 dijakih enake njihovemu povprečju prejšnjih ocen, pri petih dijakih je bila ocena za eno nižja, pri devetih dijakih pa za oceno višja. Dijaki izkoriščajo digitalne tehnologije tudi za pridobivanje nezasluzenih ocen. Z individualiziranimi preizkusi so se te možnosti bistveno zmanjšale. Vsak preizkus je drugačen, zato je moral vsak dijak oddati svoje rešitve. Dijaki niso imeli dovolj časa, da bi najprej rešili svoj preizkus, nato pa pomagali z rešitvami še sošolcu.

Ključne besede: ocenjevanje znanja, individualizirani preizkusi, Visual C#

The paper refers to the evaluation of programming in the Computer Technician programme. The solutions for assessing knowledge are in the form of digital codes of the selected programming language. The problem arises when working remotely, as students can submit a document that is not their work instead of cheating by copying. The problem can be solved with different questions for each student.

Tests are generated using an application in Visual C#. From the prepared set of questions, the application randomly selects questions and generates as many different tests as there are students. The tests contain the same number of questions and check the same competencies.

Assessment of knowledge with individualised tests was carried out in two classes of the 3rd year, where there were a total of 45 students. The grades obtained by the students in this way were equal to the average of their previous grades in 31 students, one grade lower in five students and one grade higher in nine students.

Students also take advantage of digital technologies to obtain undeserved grades. With individualised tests, these possibilities were significantly reduced. Each test is different, so each student had to submit their own solutions. The students did not have enough time to first solve their test and then help their classmates with the solutions.

Keywords: knowledge assessment, individualised tests, Visual C#

## Ocenjevanje znanja na daljavo – tudi v prihodnje?

### Distance grading - also in the future?

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Učenci in učitelji ocenjujejo, da je bilo učenje na daljavo med epidemijo novega koronavirusa zahtevnejše, a uspešno, kaže raziskava zavoda za šolstvo (RTV SLO, 2020). Iz raziskave je razvidno, da so učitelji pri ocenjevanju uporabljali ustno ocenjevanje po videokonferencah, ocenjevali so praktične izdelke ... Glede na raznolikost uporabljenih metod je smotrno razmisliti, kaj od pridobljenega znanja uporabiti tudi v prihodnje. V ta namen je 84 dijakov višjih letnikov izpolnilo spletni vprašalnik, v katerem so odgovarjali o vrstah uporabljenih spletnih orodij in njihovi pogostosti ter o potencialni rabi teh pri ocenjevanju v šoli.

Polovica dijakov je ocene pridobila s spletnim kvizom, tretjina tudi z ustnim spraševanjem. 27 odstotkom so bile ocenjene domače naloge. Klasični pisni preizkus je pisalo le 14 odstotkov dijakov. Ob vrnitvi v šolo bi nekatera orodja še vedno radi uporabljali: 70 odstotkov dijakov si želi pisnih preizkusov v obliki spletnega kviza, tretjina bi naloge raje oddajala v spletno učilnico, kjer prejmejo zanesljivejšo povratno informacijo. Ustne ocene raje pridobivajo na klasičen način.

Zaradi dolgotrajno odsotnih dijakov se bodo še uporabljala orodja za ocenjevanje na daljavo. Zakaj pa ne bi pouk na daljavo vsaj za kak dan v mesecu postal sestavni del našega izobraževalnega sistema?

Ključne besede: koronavirus, ocenjevanje na daljavo, spletna učilnica, spletni kviz, videokonferenca

Research conducted by the National Education Institute (RTV SLO, 2020) showed that both students and teachers saw distance learning during the COVID-19 pandemic as a more difficult, but overall successful endeavour. According to the study, teachers used verbal grading using videoconferencing tools, graded practical products, etc. A variety of methods was applied in grading, and we should consider which might also be useful in the future.

To explore this question further, 84 students filled out an online questionnaire concerning the types of online tools, their frequency of use, and whether the students considered these tools useful in the future. Half of the students used online quizzes and a third received verbal grades. 27% received grades based on their homework, and only 14% sat a classic written exam. Back in the classroom, they would like the following tools to continue to be used: 70% written tests in the form of an online quiz and a third would prefer online assignments.

Because individual students will be absent for prolonged periods of time, these grading tools will still be in use in the future. And finally, why shouldn't distance learning for a day or two per month become a regular part of our education system?

Keywords: coronavirus, distance grading, online classroom, online quiz, videoconference

## Spletna aplikacija za računalniško analizo berljivosti besedil

### A web application for computer analysis of text readability

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V članku predstavljamo spletno aplikacijo, ki z računalniškimi metodami ovrednoti vneseno besedilo na podlagi statistik in mer berljivosti. Po končani analizi aplikacija poudari dele besedila, ki bi lahko bili težko berljivi, kot so dolge povedi, povedi brez glagolov ali ponavljajoče se besede. Besedilo oceni z različnimi merami berljivosti (npr. LIX), ki združijo več različnih meril v eno oceno berljivosti povedi. Poleg klasičnih mer berljivosti uporabimo tudi nov pristop k berljivosti, ki temelji na metodah strojnega učenja in nevronske mreže. Naš nevronske mreže model je bil naučen na veliki množici slovenskih besedil in doseže rezultate, primerljive z modeli, naučenimi na angleških besedilih. Aplikacijo smo evalvirali na dveh ključnih primerih: množici besedil iz slovenskega korpusa Gigafida, razporejenimi v pet različnih skupin (otroška besedila, časopisi, revije, tehnične revije in seje državnega zbora), in na korpusu slovenskih učbenikov. V obeh primerih je bila aplikacija zmožna razlikovati med besedili različnih težavnosti in slogov. Uporabniki aplikacije lahko vneseno besedilo primerjajo z različnimi skupinami slovenskih besedil in preverijo, kateri je po različnih merah berljivosti najbližje. Aplikacija je javno dostopna in omogoča analizo slovenskih besedil do 5000 znakov.

Ključne besede: berljivost, analiza besedil, obdelava naravnega jezika, strojno učenje, nevronske mreže

We present a web application that is capable of evaluating text using statistics and readability measures. The application is capable of detecting parts of the text that can present problems from the viewpoint of readability, such as long sentences, sentences without verbs, or words that are repeated too often. It evaluates the text using various readability measures (e.g., LIX), which combine multiple features into a single readability score. In addition to classical readability measures, we used a novel approach based on machine learning and neural networks. Our neural network was trained on a large set of Slovene text and achieved results comparable to models designed for English. We analysed the readability measures used by the application on two key cases: a dataset of texts from the Slovene corpus Gigafida, split into five groups (children's magazines, general magazines, newspapers, technical magazines, and national assembly sessions) and a corpus of Slovene textbooks. The application managed to differentiate between texts of different styles in both cases. When using the application, users can see which group of Slovene texts most closely matches the entered text. The application is publicly available and can analyse Slovene texts of up to 5000 characters.

Keywords: readability, text analysis, natural language processing, machine learning, neural networks

## Razvijanje prostorske inteligence pri poučevanju na daljavo

### Developing Spatial Intelligence in distance teaching

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Epidemiološke razmere in ukrepi vlade so privedli k zaprtju šole in selitvi pouka na splet. Poseben izziv pa je poučevanje tehnike in tehnologije v 7. razredu, saj je poleg teoretičnega podajanja vsebin iz pravokotne projekcije nujno tudi praktično delo in demonstracije.

Primer dobre prakse poučevanja na daljavo je potekal v 7. razredu, kjer je sodelovalo 42 učencev, in je trajal 8 šolskih ur. Sočasno se je izvajalo teoretično in praktično podajanje vsebin tako za pravokotno kot za izometrično projekcijo. Praktično delo so učenci izvajali v programu SketchUp, teoretično pa po videokonferenčnem sistemu ZOOM. Pridobljeno znanje se je v obliki preizkusa preverilo ob vrnitvi v šolo. Izkazalo se je, da so učenci v 8 šolskih urah in dodatnem praktičnem delu izven rednega pouka usvojili vsebine risanja v pravokotni in izometrični projekciji v programu SketchUp. Rezultati preizkusa pa so pokazali, da znajo učenci poleg risanja v računalniškem programu SketchUp prenesti to znanje tudi na vsakdanje življenje in risanje na papir.

Primer dobre prakse nakazuje, da je mogoče tudi pri šolanju na daljavo krepiti prostorsko inteligenco in usvojiti nova znanja in veščine, ki so opredeljene v učnem načrtu.

Ključne besede: prostorska inteligenca, pravokotna in izometrična projekcija, pouk na daljavo

Epidemiological conditions and government measures have led to the closure of schools and the relocation of lessons online. A special challenge is the teaching of Engineering and Technology in the 7th grade. In addition to the theoretical presentation of content from the rectangular projection, practical work and demonstrations are also necessary.

An example of good distance teaching practice took place in the 7th grade, where 42 students participated, and which lasted for 8 school hours. At the same time, a theoretical and practical presentation of content for rectangular as well as for isometric projection was performed. The practical work was performed by the students in the SketchUp programme, and the theoretical through the videoconferencing system ZOOM. The acquired knowledge was tested in the form of a test upon the return to school.

It has been shown that in 8 school hours and with additional practical work outside of regular classes, the students mastered the contents of drawing in rectangular and isometric projection in the SketchUp programme. The results of the test showed that in addition to drawing in the computer programme SketchUp, students could also transfer this knowledge to everyday life and drawing on a paper.

An example of good practice suggests that it is also possible to strengthen spatial intelligence in distance learning and to acquire new knowledge and skills, which are defined in the curriculum.

Keywords: spatial intelligence, rectangular and isometric projection, distance learning

## Možnost uporabe virov znanja in učnih pripomočkov pri poučevanju po televiziji

### The Possibilities of Using Sources of Knowledge and Teaching Aids in Teaching on Television

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Vsekakor si bomo leto 2020 zapomnili kot leto hitrih sprememb, ki si jih je bilo težko predstavljati, kaj šele uresničiti. V tem smislu bi se moral celoten izobraževalni sistem hitro prilagoditi učenju na daljavo. Poleg učenja na daljavo za učence predmetne stopnje so na Hrvaškem za osnovnošolce organizirali televizijske ure pod imenom Šola na tretjem. Vsebine so se izvajale skladno z učnim načrtom, zjutraj po eno uro na pouk. Med poukom naj bi učitelji uporabljali različne vire znanja in učna sredstva.

Da bi ugotovili možnost uporabe virov znanja in učnih pripomočkov pri poučevanju po televiziji, smo izvedli raziskavo. V raziskavi so bili podatki zbrani s tehniko opazovanja pouka Šola na tretjem v letu 2020. Rezultati so pokazali možnosti, ki jih učitelji uporabljajo pri izbiri virov znanja in učnih pripomočkov. Hkrati je bila med učitelji osnovnih šol izvedena anonimna raziskava o prednostih in slabostih, ki so jih opazili med izobraževanjem po televiziji s programom Šola na tretjem.

Ključne besede: pandemija COVID-19, osnovnošolci, učna sredstva, poučevanje na televiziji, uporaba virov znanja

The year 2020 will certainly be remembered as a year of rapid changes that were hard to imagine, let alone realise. In this sense, the entire educational system had to be quickly adapted to distance learning. In the Republic of Croatia, subject teaching was organised in the form of distance learning, while TV lessons were broadcast for lower grades of primary school in the form of a program called Škola na trećem. The classes were conducted according to the curriculum, in the morning, and lasted 1 hour per grade. During the lessons, teachers were expected to use different sources of knowledge and teaching aids.

Our research was conducted to determine the possibilities of using sources of knowledge and teaching aids in teaching on television. The research data were collected during one month in 2020 using the technique of observing TV lessons organised as Škola na trećem. The results showed the possibilities the teachers used in choosing sources of knowledge as well as teaching aids. Furthermore, an anonymous survey was conducted among class teachers about the advantages and disadvantages they noticed while watching the programme Škola na trećem.

Keywords: COVID-19 pandemic, primary school students, teaching aids, teaching on television, using sources of knowledge