



# ANDRAGOŠKA SPOZNANJA

## Studies in Adult Education and Learning

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Izobraževanje in digitalna preobrazba:  
Vloga IKT v izobraževanju prihodnosti  
Education in the Digital Transformation:  
Reflections on the Role of ICT in Future Education

Pedagoški odnosi v digitalnem  
izobraževanju odraslih

Evalvacija izkušenj visokošolskih  
učiteljev zdravstvene nege, pridobljenih  
na digitalnem modularnem tečaju

Kako uporabno je mikroučenje  
v visokošolskem izobraževanju?



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## UVODNIK

# IZOBRAŽEVANJE IN DIGITALNA PREOBRAZBA: VLOGA IKT V IZOBRAŽEVANJU PRIHODNOSTI

Tokratna tematska številka Andragoških spoznanj se posveča digitalizaciji izobraževanja in vključevanju sodobnih tehnologij v procese učenja. To temo smo v reviji že večkrat obravnavali – z razlogom. Uvajanje IKT v izobraževalni proces je namreč področje in proces, ki se nenehno razvija – teoretsko, pa tudi v praksi –, spoznanja pa se hitreje kot v različne strategije vpeljujejo kar v samo prakso poučevanja. »Digitalna preobrazba« je pojem, s katerim se predvsem na politični, odločevalski ravni opisujejo različni procesi in priporočila vladam glede vključevanja tehnologije v šole. V zadnjem času te procese usmerja zlasti *Akcijski načrt za digitalno izobraževanje*, ki ga pripravlja Evropska komisija (2021). V tej in podobnih strategijah je treba ločevati med procesi »digitizacije« (angl. *digitisation*), digitalizacije in pa »digitalne preobrazbe« (Schmidt in Tang, 2020). O digitizaciji govorimo takrat, ko gre za proces preoblikovanja fizičnih vidikov izobraževanja v digitalne oblike (npr. izvedba delavnic v elektronski obliki, opremljenost razredov z IKT-opremo) – v našem okolju bi jo najlaže razumeli kot informatizacijo šolstva. Digitalizacijo avtorja opredeljujeta predvsem kot prehod na digitalne procese prenosa in obdelave podatkov, digitalna preobrazba pa ima globlji in trajni vpliv na družbene in poslovne procese ter v našem kontekstu pomeni preoblikovanje sedanjih procesov izobraževanja s pomočjo digitalnih tehnologij (Schmidt in Tang, 2020). Ključni namen digitalne preobrazbe v izobraževanju torej ni le »prehod na digitalno«, temveč vključuje tudi razmislek o tem, kako s pomočjo sodobnih tehnologij izboljšati (spreminjati) procese poučevanja in učenja, narediti izobraževanje bolj inkluzivno ipd. Lahko rečemo, da ima digitalna preobrazba dosti širše cilje od same informatizacije, s tem pa je za stroko na tem področju toliko bolj pomembna, saj spreminja makro, mezzo, pa tudi mikro raven izobraževanja.

Pandemija covida-19, ki se v teh mesecih (upajmo) izteka, bo pustila sledove na mnogih področjih, močno pa bo (je) zaznamovala tudi izobraževanje. Posledice (fizičnega) izostanka iz izobraževanja, hitrega prehoda na digitalno izobraževanje, ob tem pa digitalnega razhajanja ter pomanjkljivih IKT-spretnosti in didaktični znanj za organizacijo učenja in poučevanja na spletu bomo raziskovali še mnoga leta. Različna poročila sicer kažejo, da so se določeni kazalniki digitalnega razhajanja v zadnjih letih hitro zmanjšali, drugi pa se niso spreminali v enakem tempu. To je tudi razlog, da se nekatere države, družbene skupine ali

posamezniki niso mogli tako hitro prilagoditi zahtevam digitalne preobrazbe, ki jo je povzročila pandemija covid-a-19. Zadnje evalvacije, ki so jih opravili na Andragoškem centru Slovenije, kažejo, da je pandemija covid-a-19 pomenila hud udarec ne samo v mladinskom izobraževanju, temveč tudi za določene skupine udeležencev izobraževalnih programov za odrasle in izobraževalce odraslih (Možina, 2021). Podatki kažejo, da je pandemija najbolj vplivala na zmanjšano udeležbo, zlasti med populacijami, ki že veljajo za ranljive in se težje vključujejo v izobraževanje. Te skupine so starejši, priseljenci, brezposelni, Romi, odrasli z nižjo stopnjo izobrazbe, mlajši odrasli in tisti, ki nimajo dostopa do računalniške opreme ali pa jim primanjkuje digitalnih spremnosti (Možina, 2021). Na podobne težave, ki bodo spremljale digitalno preobrazbo, kaže tudi študija, ki so jo leta 2021 opravili na Eurostatu in ki ugotavlja, da je dostopnost interneta in računalnikov v EU sicer zelo visoka (v povprečju med 80 in 90 odstotki), vendar pa številna gospodinjstva z nizkimi dohodki nimajo dostopa do računalnikov in interneta. Analize, ki jih opravlja Eurostat, kažejo tudi na problematiko digitalnih spremnosti, ki jo bo morala vsaka reforma šolstva najprej reševati. Rezultati namreč kažejo, da ima v EU več kot petina mlađih težave z osnovnimi digitalnimi spremnostmi, še večji pa je ta delež v populaciji starejših (Eurostat, 2021).

Proces digitalne preobrazbe se je v času pandemije začel oz. pospešil in brez večjega tveganja lahko trdimo, da se trend v izobraževanju ne bo več obrnil nazaj ali upočasnil. Na to opozarja tudi poročilo OECD (2020) *Digital Economy Outlook 2020*, v katerem avtorji poudarjajo naraščajoč pomen digitalnih tehnologij in komunikacijskih infrastruktur ter ugotavljajo, da vlade digitalne strategije vse bolj postavljajo v središče svojih političnih agend. Kot je bilo omenjeno uvodoma, je Evropska komisija na področju digitalizacije šolstva zelo aktivna. Septembra 2020 je po javnem posvetovanju dopolnila svoj akcijski načrt za digitalno izobraževanje z namenom, da bi spodbudila proces razvoja izobraževanja in usposabljanja v digitalni dobi ter pripomogla k okrevanju izobraževanja v obdobju po pandemiji. Novi akcijski načrt Evropske komisije (2021) ima dva glavna strateška cilja: (1) spodbujanje razvoja visoko zmogljivega digitalnega izobraževalnega ekosistema – torej informatizacijo ter (2) krepitev digitalnih spremnosti in kompetenc za digitalno preobrazbo. Za izobraževalce je pomemben predvsem ta cilj, saj zadeva razvoj digitalnih spremnosti od zgodnjega otroštva naprej, digitalno opismenjevanje, razvoj medijske pismenosti ter razvoj digitalnih spremnosti učiteljev.

Ob tem je seveda treba biti pozoren na vplive, ki jih ima uvajanje tehnologije v izobraževanje. Rezultati raziskav so različni. Že leta 1986 je Larry Cuban, profesor na Univerzi Stanford, pregledal zdajovino vključevanja novih tehnologij v šolski prostor (radia, filma ter televizije) in ugotavljal, zakaj te tehnologije niso v samem temelju spremenile izobraževanja, tako kot je bilo predvideno. Cuban (1986) je ugotovil, da so, prvič, zagovorniki uvažanja novih tehnologij trdili, da je mogoče vsako tehnologijo uporabiti za učinkovitejše in uspešnejše poučevanje; drugič, te trditve so bile podprte z dvomljivimi raziskavami (ki so jih pogosto finančno podprli ravno proizvajalci tehnologij) in, tretjič, kupljena IKT- oprema se je zaradi majhnega ali celo negativnega učinka kmalu prenehala uporabljati. Kot sklene Cuban (1986), je to cikel, ki se v izobraževanju ponovi z vsako novo tehnologijo,

ki se uveljavi v družbi – začetnemu navdušenju nad nekim novim tehnološkim orodjem sledi streznitev in/ali razočaranje. Nekoliko svetlejšo prihodnost uporabi tehnologije v izobraževanju so nedavno napovedali Tamim idr. (2011). V svoji obsežni metaanalizi, ki je zaobjela raziskave zadnjih 40 let, so ugotovili, da ima uporaba računalniške tehnologije v razredu prednosti v primerjavi s poučevanjem v živo, brez tehnologije. Rezultati, ki temeljijo na vzorcu 109.700 udeležencev (iz 1.055 študij), kažejo na pozitivne učinke uporabe tehnologije, vendar s pridržkom: tehnologija ima pozitivne učinke predvsem takrat, ko se uporablja kot podpora pouku, ne pa takrat, ko je edino sredstvo učenja. To pomeni, da je uporaba tehnologije najprimernejša kot učiteljev didaktični ali učni pripomoček, ne pa kot orodje, ki bi lahko nadomestilo učitelja. Pomembno sporočilo in opozorilo v času, ko veliko strokovnjakov (predvsem s področja računalništva) stavi na moč umetne inteligence, strojnega učenja, avtomatizacije ter (strojne) individualizacije učenja.

Mogoče lahko delno rešitev oz. odgovor na te dileme ponudi poročilo Svetovne banke, v katerem so analizirali negativne in pozitivne izkušnje iz časa pandemije ter šolanja na daljavo v 17 državah (Munoz-Najar idr., 2021). V tem poročilu avtorji predlagajo konceptualni okvir, po katerem mora izobraževanja na daljavo nujno vključevati tri komplementarne elemente, da bi bilo uspešno: usposobljene učitelje, ustrezno tehnologijo in angažirane (motivirane) udeležence izobraževanja (Munoz-Najar idr., 2021). Če torej želimo, da bo izobraževanje na daljavo uspešno in sprejeto, moramo upoštevati vse tri elemente in jih skladno razvijati. To ugotovitev lahko posplošimo tudi na področje digitalne preobrazbe izobraževanja nasploh. Digitalizacija torej ne sme biti razumljena kot opremljanje izobraževalnih institucij iz izobraževalno tehnologijo, temveč je to šele prvi korak, ki ga morata spremljati razvijanje ustreznih pedagoških in IKT-kompetenc učiteljev in učencev (vseh starosti) ter ustrezna uporaba te tehnologije med izobraževanjem.

V številki, ki jo berete, objavljamo pet tematskih prispevkov, v katerih avtorice in avtorji predstavljajo nekatere izzive ali novosti v tovrstnem izobraževanju. Bernhardt Schmidt-Hertha in Marius Bernhardt v svojem članku preučujeta odnos med izobraževalcem in udeležencem ter njegov vpliv na uspešno poučevanje in učenje – tako v analognih kot v digitalnih okoliščinah oz. izobraževanju na daljavo. Anetta Basca-Bán raziskuje izkušnje madžarske visokošolske skupnosti v času pandemije covid-19. V svoji analizi preučuje nekatere vidike učenja na daljavo med pandemijo ter težave in ovire, s katerimi so se učitelji in študenti soočali med izobraževanjem na daljavo. Sabina Ličen, Igor Karnjuš in Mirko Prosen predstavljajo rezultate raziskave, v kateri so evalvirali izkušnje visokošolskih učiteljev zdravstvene nege v Sloveniji, pridobljene na podlagi devettedenskega modularnega spletnega tečaja o oblikovanju, izvajaju in vrednotenju spletnih učnih enot, ki je bil pripravljen na podlagi standarda kakovosti za digitalno izobraževanje. Tudi naslednji prispevek prihaja s področja zdravstva. Metka Skubic in Tita Stanek Zidarič v njem predstavljata izvedbo pilotnega projekta s področja babištva na temo virtualne priprave na porod in starševstvo. Velik poudarek je bil namenjen evalvaciji projekta in izvedbi nastopa na način kvalitativnega raziskovanja z uporabo fokusnih skupin. Zadnji tematski članek sta prispevali Lea Bregar in Jasna Dominko Baloh. Avtorici predstavljata možnosti uporabe mikroučenja v visokošolskem izobraževanju. Prispevek v ospredje

postavlja dva vidika uporabnosti mikroučenja za visokošolsko izobraževanje, in sicer za omogočanje avtentične učne izkušnje ter za pridobivanje kompleksnejših znanj in spretnosti.

V reviji objavljamo tudi nekaj netematskih prispevkov. Corinne Brion piše o vplivu kulture na prenos učenja v Burkini Faso in Gani, Sabina Ograjšek s sodelavci pa o pomenu učiteljevega učenja v kontekstu poučevanja nadarjenih učencev.

Številko zaključujeta dve recenziji nedavno objavljenih znanstvenih monografij. Barbara Samaluk piše o monografiji, posvečeni pokojni dr. Sabini Jelenc Krašovec, ki so jo uredili Borut Mikulec, Sonja Kump in Tadej Košmerl (*Premisleki o izobraževanju in učenju odraslih: Andragoška dediščina Sabine Jelenc Krašovec*, Znanstvena založba Filozofske fakultete Univerze v Ljubljani), Sanja Zgonec pa o knjigi, ki jo je leta 2020 uredila Eeva K. Kallio in v kateri so objavljeni multidisciplinarni prispevki na temo kognitivnega razvoja v odraslosti (*Development of Adult Thinking: Interdisciplinary Perspectives on Cognitive Development and Adult Thinking/Razvoj mišlenja odraslih: Interdisciplinarni pogledi na kognitivni razvoj in mišlenje odraslih*, Routledge).

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## EDITORIAL

# EDUCATION IN THE DIGITAL TRANSFORMATION: REFLECTIONS ON THE ROLE OF ICT IN FUTURE EDUCATION

This issue focuses on the digitalisation of education and on utilising technology in teaching and learning. This is not a new topic for the magazine – and with good reason. Both in theory and practice, incorporating ICT into education is a constantly developing field and process; new knowledge and developments are introduced into the practice of teaching more quickly than they are into various official strategies. “Digital transformation” is a term used in politics and at the decision-making level to describe the various processes and recommendations to governments about incorporating technology use in schools. Recently, these processes have been guided by the European Commission’s (2021) *Digital Education Action Plan*. In this and similar strategies, it is important to distinguish between the processes of “digitisation”, “digitalisation” and “digital transformation” (Schmidt & Tang, 2020). Digitisation refers to the process of transforming the physical aspects of education into digital forms (e.g., delivering a workshop in electronic form, supplying classrooms with ICT equipment, etc.) – in our environment, it is easiest to see it as the computerisation of education. Schmidt & Tang (2020) define digitalisation as the transition to digital transferring and processing of data, while digital transformation has a deeper and more lasting impact on social and business processes and in our context signifies the transformation of our current education processes with the help of digital technology (Schmidt & Tang, 2020). The main goal of digital transformation in education is therefore not only “going digital”, it also means thinking about how modern technology can help us improve (change) the processes of teaching and learning, make education more inclusive, etc. We might say that digital transformation has much broader goals in mind than mere computerisation and is more important for the educational profession as it affects the macro, mezzo and micro levels of education.

The Covid-19 pandemic, now hopefully coming to an end, will leave obvious traces in many fields, and has and will continue to have a strong impact on education. The consequences of school closures, the rapid transition to digital education, combined with the digital divide and underdeveloped ICT competences and didactic skills to organise teaching and learning online will be studied for years to come. Reports suggest that certain indicators of the digital divide have rapidly decreased in the last few years, while others

have not been changing at the same pace. This is also why some countries, communities or individuals were unable to adjust to the demands of the digital transformation triggered by the Covid-19 pandemic as quickly as others. The latest evaluation reports by the Slovenian Institute for Adult Education indicate that the pandemic dealt a severe blow not only to youth education but to participants in adult education and adult educators as well (Možina, 2021). The data indicates that the pandemic impacted participation rates the most, particularly among vulnerable populations that find it more difficult to take part in education. These groups include older people, immigrants, the unemployed, the Roma population, adults with a lower level of education, younger adults and those that do not have access to a computer or lack the necessary digital skills (Možina, 2021). A 2021 Eurostat study found that while access to the Internet and to computers is very high in the EU (between 80 and 90% on average), many low-income households do not have access to either. Eurostat's analyses also point to the issue of digital competences and these will have to be a priority for education reform. The results show that more than a fifth of young people and an even higher proportion of older people struggle with basic digital competences (Eurostat, 2021).

The process of digital transformation began or accelerated during the pandemic. It is safe to say that in education, there is no turning back or even slowing down. The *Digital Economy Outlook 2020* report by the OECD (2020) highlights the increased importance of digital technology and communication infrastructure; it also points out that governments are increasingly placing digital strategies at the centre of their political agendas. As previously mentioned, the European Commission has been very active when it comes to the digitalisation of education. In September 2020, after public consultation, it supplemented its action plan for digital education with the view of encouraging the further development of education and training for the digital age and contributing to the recovery of education after the pandemic. The new action plan of the European Commission (2021) has two main strategic goals: (1) fostering the development of a high-performing digital education ecosystem – in other words, computerisation, and (2) enhancing digital skills and competences for the digital transformation. The latter is particularly important for educators as it affects the development of digital competences from early childhood onwards, digital and media literacy, and digital competences education for teachers.

All of this also requires that we are mindful of the effect introducing technology into education has had or might have. Research results vary. In 1986, Larry Cuban, professor at Stanford University, researched the history of bringing new technology (radio, film, television) into the classroom and found that they did not – as had been predicted – impact the very essence of education. Cuban (1986) discovered, first, that the defenders of new technologies claimed that any form of technology could be used to make teaching more effective and successful; second, that these claims were backed by questionable research (often financially endorsed by companies producing the technology), and third, that because it had little effect or even a negative one, the acquired ICT equipment soon went out of use. Cuban (1986) came to the conclusion that this is a cycle that repeats

itself whenever a new form of technology becomes available: initial enthusiasm for a new gadget is followed by realism and/or disappointment. More recently, Tamim et al. (2011) predicted a brighter future for technology in education. In their meta-analysis, which encompassed research from the past forty years, they discovered that using computer technology in the classroom had more advantages than teaching without using technology. The results, based on a sample of 109,700 participants (in 1,055 studies) show the positive effects of using technology, however, with the stipulation that technology has a positive effect when it is used to support a lesson and not when it is the only means of learning. In other words, technology is best used as a didactic supplement or teaching accessory, not as a tool that could replace the teacher. It is a relevant message and warning at a time when many experts (particularly in computer technology) are betting on artificial intelligence, machine learning, automatization and the (machine) individualisation of learning.

A partial solution to this dilemma might be found in the World Bank report on the positive and negative experiences of distance learning in 17 countries (Munoz-Najar et al., 2021). The authors recommend a conceptual framework, where distance learning needs to include three complementary elements in order to be successful: trained teachers, the necessary technology and engaged (motivated) learners (Munoz-Najar et al., 2021). If we want distance learning to work, all three elements must be working together and we must develop all three. This finding can be applied to the digital transformation of education in general. Digitalisation must not merely mean equipping educational institutions with technology. It must be seen as the first step only, one that also requires the development of pedagogical and ICT competences of the teachers and learners (of all ages), as well as the proper use of technology during the education process.

The current issue includes five thematic contributions that deal with the specific challenges or new developments when it comes to using ICT in education. Bernhardt Schmidt-Hertha and Marius Bernhardt look at the relationship between the educator and the learner and how it affects successful teaching and learning both in an analogue and digital environment, i.e., distance learning. Anetta Basca-Bán focuses on how the higher education community in Hungary was affected by the Covid-19 pandemic. Her analysis centres on certain aspects of distance learning during the pandemic, the difficulties and obstacles distance learning posed to both teachers and students. Sabina Ličen, Igor Karnjuš and Mirko Prosen present the research results of a study on the experiences of higher education healthcare teachers in Slovenia taking part in a nine-week modular online course on designing, implementing and evaluating online learning units, based on the quality standards required in digital education. The next contribution also concerns healthcare education. Metka Skubic and Tita Stanek Zidarić present a pilot project from the field of midwifery education, a virtual course on childbirth and parenting. Their main focus is the evaluation of the project's execution using a qualitative research approach (focus groups). The final thematic article comes from Lea Bregar and Jasna Dominko Baloh and concerns the possibility of using microlearning in higher education. It particularly

focuses on two aspects: the authentic learning experience and acquiring more complex skills and knowledge.

The issue includes two non-thematic contributions. Corinne Brion writes about how culture affects learning transfer in Burkina Faso and Ghana. Sabina Ograjšek and colleagues examine the importance of teachers as learners when it comes to teaching talented students.

Finally, we have two reviews of recently published works. Barbara Samaluk reviews *Reflections on Adult Education and Learning: The Adult Education Legacy of Sabina Jelenc Krašovec* (Ljubljana University Press, Faculty of Arts), edited by Borut Mikulec, Sonja Kump and Tadej Košmerl. Sanja Zgonec brings this issue to a close with her review of *Development of Adult Thinking: Interdisciplinary Perspectives on Cognitive Development and Adult Thinking* (Routledge), edited by Eeva K. Kallio

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Bernhard Schmidt-Hertha, Marius Bernhardt

## PEDAGOGICAL RELATIONSHIPS IN DIGITISED ADULT EDUCATION

### ABSTRACT

*With the COVID-19 pandemic the education sector is facing major new challenges and opportunities, e.g., changes in the pedagogical relationships between teachers and learners. Various publications have already inquired into the importance of pedagogical relationships in primary and secondary education, but not in adult education. Therefore, a closer look should now be taken at pedagogical relationships in adult education and their impact on successful teaching – both in the analogue and the digital realm. The person-centred approach as well as the approach of professional proximity and distance are relevant concepts in this field. From the perspective of person-centred pedagogy, respectful interaction with one another and the facilitation of an equal dialogue between teachers and learners are of great importance. The relevance of relationships between teachers and learners in adult education should not be underestimated – also with regard to enabling successful relationship building in distance learning.*

**Keywords:** *distance learning, constructivist didactics, person-centred approach, closeness and distance, digitisation, pandemic*

### PEDAGOŠKI ODNOSSI V DIGITALNEM IZOBRAŽEVANJU ODRASLIH – POVZETEK

*Izobraževanje se zaradi pandemije covid-19 sooča z novimi izzivi in hkrati odpira vrata novim priložnostim. Eden velikih izzivov tega časa je pedagoški odnos med učitelji in učencevimi. Številne publikacije so se že posvetile pomenu pedagoških odnosov v osnovnih in srednjih šolah, ne pa tudi v izobraževanju odraslih. Članek ponuja bližnji pogled na pedagoške odnose v izobraževanju odraslih in na vpliv, ki ga imajo ti odnosi na (uspešno) poučevanje tako v analognem kot digitalnem okolju. Na posameznika osredotočen pristop, strokovna bližina in distanca so na tem področju izredno relevantni pojmi. Spoštljivo sodelovanje in spodbujanje enakopravnega dialoga med učitelji in učencevimi sta izredno pomembna elementa poučevanja, ki se osredotoča na posameznika. Pomena odnosov med učitelji in učencevimi v izobraževanju odraslih ne gre podcenjevati – tudi ko gre za grajenje dobrih odnosov med izobraževanjem na daljavo.*

**Ključne besede:** *izobraževanje na daljavo, konstruktivistična didaktika, na posameznika osredinjen pristop, bližina in distanca, digitalizacija, pandemija*

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## INTRODUCTION

The COVID-19 pandemic has caused widespread changes in the daily lives of all humanity. Almost out of nowhere, the task of transferring the processes that had previously been largely analogue to the digital realm has arisen. This presents a challenge to adult education, in particular as it changes the relationships between learners and adult educators – relationships which have as yet not been dealt with extensively. In this article, we briefly reflect on the situation of adult education during the pandemic. This will be followed by a summary of some central ideas on pedagogical relationships in the particular field of adult education. These ideas are derived from constructivist learning philosophy, from Rogers' person-centred approach, from adult education theory, as well as from distance education research. Finally, we try to connect and combine these different ideas and approaches by formulating some general principles of successful relationships between adult educators and learners.

## CURRENT SITUATION AND RECENT DEVELOPMENTS IN ADULT EDUCATION IN PANDEMIC TIMES

With the beginning of the first lockdown in spring 2020, many adult education institutions began to convert ongoing or planned events into online offers (Christ & Koscheck, 2021), often without the required infrastructure and with hardly any previous experience with such digital formats (cf. Christ et al., 2020). The focus here was not on the use of new or expanded didactic possibilities offered by digital media, but on the attempt to somehow continue current face-to-face courses as distance learning offers. Following the so-called RAT model (Hughes, 2005), which differentiates between three stages in the use of digital media, it could be said that what happened here was a simple replacement, in the sense of a mere transfer of offer format into the virtual space (possibly accepting a loss of quality) (cf. Scharnberg & Krah, 2020), or a transformation in the sense of a fundamental change in teaching-learning processes, including the roles of teachers and learners, as they are achievable and appropriate in digital learning environments (cf. Reinmann & Mandl, 1998). However, a large proportion of adult education events – at least as is shown by surveys in Germany – were cancelled without replacement or postponed indefinitely (Christ & Koscheck, 2021). The reasons for this are likely to be, on the one hand, a lack of infrastructure and a lack of experience in designing digital educational offers on the part of the teachers (Rohs et al., 2019), and on the other hand, the unwillingness of various target groups to engage with digital distance learning offers. Especially for target groups with little experience in further education and strong dependency on the support of teachers, digital technologies as a medium of delivery represent a considerable additional hurdle (Schmidt-Hertha & Rott, 2021). Also, for learners with low digital literacy, the focus on online offers is tantamount to extensive exclusion from adult education (e.g., Garcia et al., 2021). Furthermore, in some countries, a collapse in educational activities in the area of continuing vocational education and training can be assumed due to the (temporary) closure of companies and the considerable waves of redundancies as a result of the pandemic (Boeren et al., 2020).

A decisive aspect in the changeover to digital learning opportunities, which many teachers and learners were not able to grasp so quickly, seems to have been the fact that it was not primarily about the didactically well thought-out use of digital media, but about the short-term introduction of distance learning formats that could be implemented relatively efficiently with the help of digital media (in this context, see Schmidt-Hertha, 2021). This was not a question of what opportunities and possibilities digital media offer that traditional face-to-face formats in adult education cannot. Rather, a choice had to be made between online formats, analogue distance learning (e.g., via teaching letters or similar methods), however designed, or the temporary complete discontinuation of educational activities (cf. also Kohl & Denzl, 2020). While analogue distance learning would probably have required a significantly longer preparation time and a discontinuation of teaching was not an option for most institutions, neither from an economic nor from a professional point of view, the only option was to resort to digital formats of distance learning (Santos, 2020). This form of learning is particularly demanding for adult learners, as is reflected in the higher dropout rates (Park & Choi, 2009).

As useful as they have undoubtedly been, the simulacra of virtual technologies that have helped bring us together while keeping us safely apart, are ersatz; a poor substitute for the embodied human interaction and touch that are a cornerstone of our humanity. (Brennan, 2020, para. 7)

The demands on learners associated with online distance learning relate, for example, to the self-organisation of the learning process (especially securing time resources), dealing with technical problems, interacting with teachers, or dealing with learning material (cf. Kara et al., 2019). Against this background, it is not surprising that different forms of distance learning have so far been discussed primarily in the context of university education and continuing academic education (cf. Zawacki-Richter & Naidu, 2016). However, there are also individual examples of the successful use of internet-based distance learning with rather educationally disadvantaged groups. For example, Kaiper-Marquez et al. (2020) report positive experiences from a family literacy program that had to be converted to purely online teaching during the pandemic. Nevertheless, it is precisely the area of adult basic education that seems to have been affected the most during the pandemic, for example, by numerous course failures and cancellations (Bickert et al., in press). Representative data from the UK, on the other hand, even points to an overall increase in adult learning activities during the pandemic, with informal learning in particular playing a key role (Aldridge et al., 2021). At the same time, this data also suggests an increase in social disparities in educational participation. A Delphi study carried out by Käpplinger and Lichte (2020), who surveyed adult education experts worldwide on the impact of the pandemic, also underscores the greater social inequality that will continue to grow significantly against the backdrop of the pandemic's consequences. At the same time, the experts interviewed in the study – like many voices from academia and practice – see the pandemic as an accelerator of digital transformation in adult education. Even if

face-to-face events are possible again without restrictions, online formats will continue to play an essential role in adult education. Blended learning offers in particular, which combine face-to-face and online teaching in different rhythms, are likely to increase. At the same time, continuing education providers will presumably continue to realise part of their educational offers as online courses – also because many learners appreciate the spatial and temporal independence or even depend on it.

No matter whether online or face to face, pedagogical professionalism in adult education – as in other areas of education – cannot be limited to the transmission of knowledge and the determination of learning progress. Professional pedagogical action includes, not least, the personal encounter of teachers and learners, which is elementary for educational processes in the sense of a change in the relationship to oneself and to the social and material environment (Koller, 2012; see also Schmidt-Hertha & Lindemann, 2021). This raises the question of the importance of personal encounters for the relationship between teachers and learners and of how learning opportunities that take place in physical co-presence differ in this respect from purely online teaching formats.

## **CONSTRUCTIVIST APPROACH AND PEDAGOGICAL RELATIONSHIPS**

When looking at the effects of pedagogical relationships in education, it becomes apparent that a large part of the relevant research focuses mainly on the primary and secondary education sector. Kleine et al. (2013), for example, emphasize the importance of positive social relationships between students (just before completing elementary school) and their social environment (classmates, teachers, and family). It is possible to strongly influence academic performance through competence beliefs not only during the first years of school. Only if students are specifically supported by their learning environment in believing in their own abilities can they build up a positive attitude to learning. In this respect, it is possible to conclude that teachers have the opportunity to influence students' self-concept and to thus even partly compensate for a lack of family support, for example.

Relationships thus seem to have a great influence on learners, and the quality of pedagogical relationships is therefore considered a prerequisite for learning that is both sustainable and expedient. Some studies, for example, show that increased quality of relationships in the classroom has a positive impact on school effectiveness (Fischer & Richey, 2021).

In this context, it is important to enquire what defines the quality of pedagogical relationships in analogue and digital learning environments respectively. It is not assumed that analogue relationships are inherently better or worse than digital ones. In this context, too, it is above all crucial that learners are seen as subjects who need to be treated with dignity, sensitivity, and mindfulness. Viewing them just as a member of a classroom, and not as an individual person leads to a negative learning climate and damages the relationship between teachers and learners (Steinl & Vogelsaenger, 2020).

As early as 2005, Kersten Reich described the changing concept of learning in relation to constructivism. The constructivist philosophy of learning aims not merely at producing

or mapping knowledge, rather, its objective is to enable an increase in learning. Thus, the focus is no longer merely on subjective competencies, but above all on the development of relational, methodological, and social competencies. Accordingly, learners should be enabled to independently apply methods of learning that allow them to learn in a highly effective manner. The technique of knowledge transfer emphasized by the cognitivist approach forms, according to the constructivist view, part of that list of competences, but loses in significance.

**Figure 1**  
Change in the understanding of learning

| Old perspectives  | New constructivist perspectives   |
|---|---|
| <ul style="list-style-type: none"> <li>- teacher-centred</li> <li>- chalk-and-talk teaching</li> <li>- objectified through experts</li> <li>- given by experts</li> <li>- bureaucratised</li> <li>- postulate of completeness</li> <li>- rationalised</li> <li>- text-oriented</li> <li>- control-oriented</li> <li>- linear perspective</li> <li>- individualised</li> <li>- superficial reproduction</li> <li>- low-risk and adapted</li> </ul> <p>Underlying this approach is a predominantly causal notion of learning based on mapping, stimulus-response, instructive transmission.</p> | <ul style="list-style-type: none"> <li>- learner-centred</li> <li>- multimedia teaching</li> <li>- objectified through action</li> <li>- participatory elaboration</li> <li>- self-organised</li> <li>- postulate of viability</li> <li>- relational</li> <li>- multimedia</li> <li>- growth-oriented</li> <li>- systemic perspective</li> <li>- subjectivised within the team</li> <li>- constructive action</li> <li>- willing to take risks and rebellious</li> </ul> <p>Underlying this approach is a situated concept of learning based on action, growth, constructive learning in an appropriate learning environment.</p> |

Note. Adapted from "Konstruktivistische Didaktik: Beispiele für eine veränderte Unterrichtspraxis," by K. Reich, 2005, *Schulmagazin 5–10*, 73(3), p. 6.

Looking at the above table depicting the different concepts of learning, it quickly becomes clear that the constructivist view focuses on the learners. Of particular interest to our study is the emphasis on relationship orientation.

In the context of the pandemic and of distance learning, too little attention has been given to pedagogical relationships in particular. From one day to the next, students were faced with the task of deciding for themselves what content to work on, when to do it and, above all, how to do it. If up to the beginning and during the early stages of the pandemic, a cognitivist didactic became dominant in online teaching, it quickly became apparent that, with a purely teacher-centred, illustrative and instructional transmission-based chalk-and-talk form of teaching (Reich, 2005), it is not possible to, even subsequently, establish a functioning relationship between teachers and learners (and their parents). Without this

relationship, however, purely content-based didactics and learning in a digital framework is hardly feasible (Bremm & Racherbäumer, 2020).

If we now turn our attention to the field of adult education, we can see similar developments with regard to constructivist learning. Siebert, for example, criticised as early as 1980 that relational aspects are often neglected in favour of content-related aspects in pedagogy for adults, too. It is emphasized here that, at the relational level, the focus is not on establishing friendly relationships with learners, but on incorporating these relationships into an understanding of andragogic professionalism. These ideas are even more relevant today (Siebert, 1980; Wolf, 2006).

It is therefore evident that in the field of adult education, too, relational ability ought to be promoted since it is a major factor in enabling educational processes. Wiltrud Gieseke (2002) sees the key to this in distanced proximity as a basic attitude to be practiced professionally. In this context, it is important to differentiate clearly between learning situations and personal relationships (which the former are not) and to avoid creating distorted experiences for the learners. Nor is it, according to Gieseke, the task of the pedagogue to touch the learners' privacy either. Attention is drawn to the fact that successful processes (communication, learning, problem solving) can have a strong influence on personal development. However, this ignores the fact that failed learning processes, in turn, may also be of personal significance, especially if they are related to negative experiences such as social decline or unemployment (Wolf, 2006).

Previous learning experiences, including experiences of learner-teacher-relationships, are therefore relevant for current learning attempts. This underlines the importance of pedagogical relationships for successful or unsuccessful learning processes. In literacy processes, for example, past learning experiences can have an impact on the learners' self-image and on their external image, both of which enter into and determine their relational structures. These experiences thus virtually precede the learning process (cf. Crossan et al., 2003). Although there is no indication that this phenomenon can only be related to literacy processes, it seems possible to conclude that – especially in the case of learning deficits – functioning pedagogical relationships are of great importance. This, in turn, leads us to assume that successful learning situations usually occur when conspicuously problematic relationships are absent and that this is possibly due to the existing relationship competence of all participants – or to sufficient positive experiences with the way former relationships proceeded. Accordingly, it is important to focus on relationship aspects not only when learning situations fail or become problematic (cf. also Katzenbach, 2004; Wolf, 2006). Given these insights, the extent to which a person-centred approach emphasizing values of appreciation, empathy and authenticity may have a positive impact on effective (digital) adult education ought to be investigated.

## **THE PERSON-CENTRED APPROACH**

The person-centred approach, conceived by the American psychologist Carl R. Rogers (1980) in the course of many years of educational and psychological practice, can be

summarised as follows: “We think we are listening, but it is very rarely done with real understanding and empathy. Yet this kind of listening is one of the most powerful forces of change I know” (p. 116).

Rogers gained notoriety in the professional community more for his approach to psychological counselling and psychotherapy than for his contributions to educational practice and theory. Nevertheless, he was deeply involved with issues of education and learning processes, as is shown by his autobiographical writings (Cornelius-White, 2012; Kunze, 2013; Rogers, 1969).

With the concept of person-centred adult education, Rogers shaped a radical paradigm shift in learning and development. Sustained learning as opposed to purely technical instruction is of great relevance in this new approach to learning. Person-centred educational experiences allow for more comprehensive learning combined with whole-person growth and development. Rogers (1961) also called this “significant learning”.

According to Rogers, the teacher is seen as a facilitator who not only imparts pure knowledge, but also promotes the learning process. Thus, learners are stimulated and encouraged to search for solutions independently, to develop their own learning strategies, and to make their own decisions regarding content or methodological approach. The focus is not on the abilities or learning deficits of learners, but on the positive highlighting of existing potentials and experiences and, above all, on the learners themselves (Kunze, 2013). Since the concept of lifelong learning relativises the supposed differences between learning in childhood and learning during adulthood, many personal or even professional experiences can also be integrated into the self-concept of one’s own learning in adulthood. According to Siebert (2011), although experiences relating to learning awareness are primarily gained in childhood and have a formative impact on lifelong learning, in combination with experiences gained later, adults still develop different preferences, interests, and learning styles (see also Arnold et al., 1999; Kunze, 2013).

A more detailed look at the person-centred theory makes it possible to subdivide it into a personality theory, a group theory, and a theory of interpersonal relationships. These are interdependent and are, in turn, also part of the person-centred learning theory (Rogers, 1959). The theory’s main focus is to create opportunities for learners to grow personally. This can only be achieved in a learning environment free of threat or fear in combination with a conducive relationship, both of which need to be provided by the teacher. Likewise, it is of great importance to develop trust with the learners and to let the learning processes unfold within social relationships. Learning processes are intrapsychic and self-initiated and, accordingly, cannot be controlled from the outside (Jarvis, 2006). Another of its foci is on learning in freedom. Only if learners have learned to learn freely will they be able to supplement their own self-concept with sustainable and congruent self-experiences (Rogers, 1959).

With the great importance of Rogers’ approach to successful learning in mind, the following section looks at similar ideas in adult education theory and in research on distance education.

## PEDAGOGICAL RELATIONSHIPS IN ADULT EDUCATION

As mentioned above, the relationship between learners and teachers in adult education has so far received little attention in adult education research or has been addressed but indirectly. In the classical theories of adult learning put forth by Knowles, Dewey or Tough, for example, there are references to the importance of the emotional level of learning in general, and to its significance for the interaction of teachers and learners with one another in particular (for an overview, see Knowles et al., 2005, p. 75). On the one hand, this involves the acceptance of an affective connection between teachers and learners by the participants themselves, combined with an egalitarian relationship between the two. On this basis, learners and teachers act equally as speakers and listeners and engage in a joint learning process in which the experience of the learners is recognised as being as valuable as the knowledge of the teachers. On the other hand, trust between learners and teachers plays a central role. Not only does the learner need a basic trust in the abilities and positive intentions of the teacher, but the latter also needs to trust in the learner's abilities of self-direction and self-regulation.

The teacher seeks to build relationships of mutual trust and helpfulness among the students by encouraging cooperative activities and refraining from inducing competitiveness and judgementalness. [...] The teacher exposes his own feelings and contributes his resources as a co-learner in the spirit of mutual inquiry. (Knowles et al., 2005, p. 93)

Building on the concept of transformative learning, which can be traced back to Mezirow (1978), Daloz (2012) describes the relationship between teachers and learners in adult education primarily as a mentoring relationship, one characterised by openness and mutual respect. The authenticity and presence of the mentor in the learning process plays a crucial role (Misawa & McClain, 2019, p. 55), although physical presence is not explicitly referred to here. Of equal importance is the reflexivity of the actors with regard to their relationship, especially with regard to power relations, which may be rooted not only in the institutionalised roles of teacher or learner, but also in gender relations, sexual orientation, ethical origin, or other dimensions of inequality (Misawa & McClain, 2019, p. 58).

## EXPERIENCES IN THE FIELD OF DISTANCE EDUCATION

Formats of distance learning in adult education have been discussed and studied for many decades. For the past two decades, the focus has been on different forms of online distance learning. The various theoretical models and empirical studies deal primarily with diverse forms of delivery, didactic concepts, and the interaction of learners with one another or with the technical environment. The relationship with teachers – who are often referred to as tutors – is rarely addressed or they are reduced to their function as learning guides available on demand. The importance of the relationship between teachers and learners is often rather implicit in the empirical material and is rarely reflected theoretically. An

exception to this is a contribution by Miyazoe and Anderson (2010), who, building on a theoretical model by Anderson (2003), assume three central relationship levels in teaching-learning contexts: the relationship between learners and content, between the learners themselves, and between learners and teachers. In the synopsis of various studies, the authors conclude that the different levels can be weighted differently, but at least one of the three must be at a high level to enable deep and meaningful learning. Thus, the relationship between teachers and learners seems to be only one of several aspects relevant to successful learning. The thesis that this relationship can be compensated by a positive dynamic between the learners or a high intrinsic interest in the subject matter, however, seems doubtful against the background of other studies.

It is not only in online distance learning environments that teachers are seen as playing a central role in developing positive interaction between learners and in mediating between learners and content (e.g., Guilar & Loring, 2008). In this context, some central quality features of tutorial support are repeatedly pointed out as an essential prerequisite for successful learning (see overview in Kara et al., 2019, p. 15). In particular, this concerns the quality but also the quantity of the interaction between tutors and learners. Tutors should communicate regularly with learners, respond promptly to queries, provide feedback, and use both asynchronous and synchronous communication channels to ensure learner satisfaction and motivation (see also Dzakiria, 2012). If this communication is not deemed sufficient or if it is experienced as not being supportive enough, learners feel left alone and isolated and are less able to identify with their role as learners. The interaction between learners and tutors should ensure “a climate of mutual respect, collaboration, mutual trust, supportiveness, openness, authenticity and pleasure” (Gravani, 2019, p. 202). In this way, the experiences of distance learning programs are directly linked to fundamental andragogic principles, such as those described by Weiss (2000): “As an instructor, it’s crucial that you set up the learning situation in a manner that arouses learners’ feelings of security, well-being, and self-confidence. It’s equally important to challenge them without threats, intimidation, or pressure” (p. 3).

Such a learning atmosphere allows for an open approach even to sensitive topics and to one’s own learning difficulties, while the feeling of closeness between learners and teachers may still vary (Gravani, 2019, p. 210). A case study by McDougall (2015) reveals how, in a distance learning environment, teachers succeed in creating an open work atmosphere characterised by mutual trust, in which they encourage the participants to share personal perspectives and experiences and at the same time do not place themselves in the foreground as experts but, rather, meet the learners at eye level. Nevertheless, especially for learners who have little experience with internet-based learning environments, the lack of a direct encounter with the teacher poses a particular challenge, which is why Dzakiria (2012), for example, recommends enabling face-to-face encounters between teachers and learners, at least at the beginning of a course.

It therefore seems sensible to take a closer look at the possibilities that arise in the field of adult education with regard to functioning pedagogical relationships.

## **LESSONS LEARNED WITH REGARD TO RELATIONSHIPS IN ADULT EDUCATION SETTINGS**

On the basis of the ideas outlined in the constructivist learning theory, Rogers' person-centred approach, as well as experiences and evidence from the field of distance education, we can assume some key factors for a positive relationship between learners and adult educators, regardless of whether they see themselves as teachers or as tutors.

### **Congruence**

Following Rogers' concept of congruence, Boshier (1973) emphasizes the learners' self-congruence as well as the congruence of learners and teachers in adult education. Congruence, in this context, can be conceived of as a relationship based on acceptance and on a certain level of sympathy for one another. For adult educators, this could imply an open-minded approach to the learners' views, a willingness to accept their attitudes and opinions and to approach them without ingratiation.

### **Empathy**

The willingness and ability to see the world through the learners' eyes can be considered one of the crucial prerequisites for being a successful adult educator. Empathy is relevant not only for knowledge transfer, but also for building a positive relationship between learners and educators. The feeling of being understood is an excellent starting point for learning and should therefore be promoted by adult educators.

### **Trust**

From a constructivist point of view, adult educators are above all facilitators who enable and support learning. On that basis, adult educators can also be seen as gatekeepers who unlock new knowledge for the learners. For them to be efficient in that role, however, they need their learners to trust in their facilitators and their guidance. Trust can be seen as a key component of a productive learner-teacher relationship, in general, and Rogers' ideas of congruence and empathy may well be the best means of achieving it.

### **Positive regard**

Not only unconditional positive regard, but also a general belief in the human organism can be seen as a further prerequisite for the facilitation of learning and for a successful relationship between adult educators and learners. Only if there is a strong belief in the capabilities and potentials of learners as well as a basic sympathy and respect for them will adult educators be able to motivate and support learners in an appropriate manner. However, this includes also the willingness to accept learners' personal problems or disagreements and the ability to cope with conflicts that may arise during the learning process, including role conflicts (Sipitanou & Foukidou, 2012).

## CONCLUSION

The ways in which relationships are built may well differ between the classroom and an online environment, but the decisive factors remain the same. These are related to congruence, empathy, trust, and positive regard. The use of digital media in pandemic times also provides opportunities for the creation of more democratic structures in learning contexts of all kinds (Steinl & Vogelsaenger, 2020). For adult education to be able to meet the challenges of the pandemic, the building of successful pedagogical relationships is required. However, only little is known about how such relationships may be built and deepened in an online learning environment. It seems that the relationship between learners and educators has been largely neglected in research, not only in the field of adult education. Thus, one positive outcome of the pandemic could well be that the awareness for the significance of these relationships has now increased significantly.

In order to implement the aspects discussed in the previous chapter in digitalised adult education in the future, the following things should be considered:

- The creation of an appreciative learning atmosphere is the basis of all successful learning and a central indicator for high-quality adult education.
- Creating a relationship based on the values of acceptance and a certain sympathy between teachers and learners could also be supported by adult education institutions.
- An empathetic view of learners in terms of knowledge transfer and building trusting relationships could be seen as a key competence of professional adult educators.
- Building learners' trust in themselves and in the teacher should be seen as a general learning goal and desirable outcome of educational programs.

Nevertheless, research on relationships in adult education is poor and many open questions remain, in particular related to the development of learner-tutor relations in an online environment.

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Anetta Bacsa-Bán

## HIGHER EDUCATION IN HUNGARY IN THE TIME OF THE PANDEMIC

### ABSTRACT

*In the spring of 2020, the coronavirus pandemic presented the world with new challenges. In the first half of March, parallel to the spread of COVID-19, teaching and lecture halls, colleges and other facilities in universities and university campuses were emptied almost simultaneously. Almost overnight, all higher educational institutions switched from face-to-face teaching to online teaching, namely absentee or distance learning. In our study, we surveyed students (both Hungarian and English-speaking students) and higher education faculty at the end of the second semester of the 2019/2020 academic year to explore their experiences with online education during the pandemic. In our analysis, we explore some aspects of distance learning during the pandemic that we consider important, and we seek to compare the student and teacher views. The results show that the introduction of fully online teaching during the pandemic was relatively smooth, but this period was not without challenges and difficulties that manifested themselves in the learning and teaching process, in the availability of learning materials, in the digital skills of students, and in the work overload of teachers. In summary, however, the response of higher education to digitalisation today, besides its inevitability, is to prioritise the incorporation of past experiences in determining the focus of further development.*

**Keywords:** higher education, digital education, online education, empirical examination, pandemic

### VISOKOŠOLSKO IZOBRAŽEVANJE NA MADŽARSKEM MED PANDEMIJO – POVZETEK

Spomladi 2020 je pandemija covid-a-19 svetu prinesla nove izzive. V prvi polovici marca so se izpraznile učilnice in predavalnice, fakultete, kampusi in drugi univerzitetni prostori. Skoraj čez noč so visokošolske ustanove morale narediti prehod na izobraževanje prek spleteta, torej na daljavo. Prispevek predstavlja rezultate raziskave, ki je bila ob koncu drugega semestra šolskega leta 2019/20 opravljena med (tako madžarsko kot angleško govorečimi) študenti in visokošolskimi učitelji o njihovih izkušnjah s spletnim izobraževanjem med pandemijo. V analizi se osredotočamo na nekatere vidike izobraževanja na daljavo, ki se nam zdijo še posebej pomembni, primerjamo pa tudi poglede študentov in učiteljev. Rezultati kažejo, da je prehod na povsem spletno obliko poučevanja med epidemijo potekal relativno brez težav, vendar pa to obdobje ni bilo brez izzivov v procesu učenja in poučevanja, dostopu do učnih gradiv, pri digitalnih kompetencah študentov in preobremenjenosti učiteljev. Kljub temu je v visokem šolstvu odnos

*do digitalizacije danes, poleg tega, da je ta neizogibna, osredotočen na prednostno nalogu učenja iz preteklih izkušenj pri določanju prihodnjih usmeritev.*

**Ključne besede:** visokošolsko izobraževanje, digitalno izobraževanje, spletno izobraževanje, empirična študija, pandemija

## INTRODUCTION

The coronavirus pandemic posed new challenges for the world in spring 2020. In the first half of March, in parallel with the spread of the pandemic, teaching and lecture halls, colleges and other university institutions as well as college campuses were emptied almost simultaneously. Almost overnight, all higher education institutions switched from attendance education to online, absence or distance education (Gonda, 2020)

The pandemic has certainly accelerated the use of online tools in education, but the expansion of digital education has been an important task in education for more than a decade. The education system faced challenges not only in Hungary but all over the world. However, higher education institutions were in the best situation among the actors in the education system, as this was not without precedent for them, and distance learning in higher education could already serve as a precursor and experience for the rapid transition in any form. The aim was given: a smooth return to education as soon as possible, where, considering the preparedness and assistance of the students, the educational technology had to be considered, since the success and professionalism of the previous lecture hall/ classroom education had to be ensured for the students, but neither could the educational methods, the tools and the technological preparedness of the instructors be ignored (Bacs-Bán, 2021).

## LITERATURE REVIEW

The digital transformation experienced over the last few years has transformed society and the economy and is having an increasing impact on everyday life. However, before the COVID-19 pandemic, digitalisation had a much more limited impact on education and training (International Association of Universities, 2020). Overall, we found that the pandemic has demonstrated that an education and training system that is appropriate for the digital age is essential today. While pointing out the need for a higher level of digital capacity in education and training, it has also amplified several existing challenges and further increased the existing inequality between those who have access to digital technologies and those who do not (European Union [EU], 2021).

The pandemic has posed even more challenges for the education and training systems in relation to the digital capacities of education and training institutions, of teacher training as well as the overall level of digital skills and competences (Benedek, 2020). According to a 2019 study of the OECD, on average less than 40% of educators in the EU felt

sufficiently proficient in using digital technologies in teaching, but there are differences between EU Member States in this respect. In an International Computer and Information Literacy Study (ICILS) (National Center for Education Statistics, 2019), more than a third of 13–14-year-old participants did not have the most basic level of proficiency in digital skills. Furthermore, a pre-pandemic study found that a quarter of low-income households do not have computers and broadband internet. In this respect, there are differences all over the EU depending on household income (Eurostat, 2020).

The pandemic has accelerated the direction of development of the education system towards online and hybrid learning. And this change has also revealed new and innovative ways for students/learners and educators/trainers to organise their educational and learning activities and to communicate on the internet in a more personal and flexible way (Szűts, 2020).

These changes require strong and coordinated efforts at EU level, as recognised and formulated by the European Commission in the Digital Education and Action Plan in 2021 (EU, 2021).

Digitalisation has become one of the most explored topics of the last two years, not only in education, but also pervading many areas of science and social analysis. Numerous publications, workshops and conferences have been held on the subject and it is right to express concerns about whether it is still possible to say, create or show something new in this field. Yes, it certainly can be possible, because it has affected each sphere in a different way, and one of the most important topics of our present discourse is how to continue, what is it that can be taken forward from digitalisation, and what makes us, the actors of higher education, predestined by the digital education (Bereczki et al., 2020; Hargitai et al., 2020; Námesztovszki et al., 2020; Sipos et al., 2020).

New concepts have also been created or highlighted during the pandemic (Námesztovszki et al., 2020; Sipos et al., 2020). Distance learning or online education was introduced into education; however, the two concepts are somewhat different, and it is also worth separating their foundations if we focus on the role of the educator.

Distance learning is a form of education in which teachers and students are not in the same location. Students study alone, independently for most of the training period, and take part in consultations for a shorter period. The courseware for home study is offered by educational institutions to students, while during consultation – where any form of contact can be used, from face-to-face meetings to the internet to telephone, etc. – the student deepens his/her knowledge gained during self-study. So, in this case, education takes place by bridging some distances, so students must learn how to learn independently. Only those students who can adapt to this new role, have the proper motivation, are ready to continue their studies, and can take full advantage of two-way communication will be successful in distance learning. The role of educators must also be reconsidered as students are now at the centre of the learning process, while teachers become guides and helpers (Gonda, 2020).

Online education is distance learning too, but in this case simultaneity and synchronicity are the focus. Teachers and students are together in real time using software and IT devices (laptop, tablet, mobile phone, etc.). In addition to presentations, there are opportunities for comments, questions, project assignments, discussions, additional films and videos, task solving, group work, and more (Gonda, 2020).

Distance education introduced in higher education is somewhere in between: it is a hybrid form of education. The fact that it attempts to implement e-learning-based distance learning without a physical presence offers many opportunities but of course also has its limitations.

As opportunities, we can mention the following: flexibility in time; it is not linked to localisation; allows the development of individual learning paths; cost-effectiveness; owing to the micro-contents, it supports the filling-in of dead times and can be studied and completed even in smaller units; supports the creation of recorded courses that can be retrieved later; supports the planning of transparent and recorded learning processes; supports the breaking of geographic limitations and the creation of virtual learning communities.

The following can be considered as limitations: low level of digital proficiency of the instructor and/or student; lack of equipment; lack of personal, direct contact; skill development and practical training involves more investment of time by the instructor (Bereczki et al., 2020).

All higher education institutions experienced this period differently, they had different starting points and foundations for their educational system and online education, which also meant countless solutions and related routes for digital education (Perényi, 2020; Serfőző et al., 2020). For the rest of our study, we would like to summarize the experiences of a Hungarian University of Applied Sciences.

## **THE CASE OF A HUNGARIAN UNIVERSITY OF APPLIED SCIENCES**

The University of Dunaújváros (UOD), being the one and only higher educational institution in a dynamically developing town in the centre of Hungary, plays a leading role in the higher education of the region. Currently there are about 1500 students studying at UOD. The University of Dunaújváros has seen rapid development during the past few years and has launched foreign language undergraduate and graduate education for students enrolled in different Engineering and Communication programs.

Since the 1990s the UOD has been conducting metallurgical and mechanical engineering, technical management, engineer-teacher training, and information technology courses. At the beginning of the 2000s communications and media studies became available as well.

Our students can choose from about forty specializations of nine basic majors during full-time and part-time study in the Hungarian language. Some programs are also offered in English, including the Technical Management BSc, Engineering Information Technology BSc, Business Administration BA, Communication and Media BA, Material Engineering

BSc, Mechanical Engineering BSc plus MSc, and Engineering Teacher MA programs, for instance (UOD, n.d.).

The University of Dunaújváros has been developing the conditions for online and digital education for years to increase the number of distance learning students and to support student success (Szabó et al., 2017). Online education received a lot of attention from both teaching colleagues and students during the university's trainings. Nearly 10 years ago, the University of Dunaújváros established its own organisational unit called Online Studium, which is responsible for the development of online educational content. Owing to this, for more than 100 subjects, fully online courses are available to students. In addition to the fully online courses, the University of Dunaújváros has also been using the Moodle e-learning framework for years to support traditional education (UOD, 2020).

In line with these foundations, the transition to absence education took place relatively smoothly and quickly in March 2020, but it also posed a challenge to all actors, not only in terms of teaching methods but also of new educational opportunities and opportunities offered by the technology, as well as the imposed constraints (Rajcsányi-Molnár & Bacsa-Bán, 2021).

For nearly a decade, our institution has flagged the promotion of student success, which has meant many steps towards reducing student dropouts, as well as towards student mentoring, the establishment of a specialist mentoring system, the possibilities offered by a monitoring system for teachers and students, and training programs for trainers. In addition to quality online education, we also considered the success of students and wanted to continue to support this, and, as a result, we sought out long-term opportunities for incorporating the experience of digitalisation into our education system. In other words, we have set ourselves the goal of finding the place, role, and weight of digital education within the traditional education system.

## METHOD

Our research, which took place in the second half of the 2019/2020 academic year among students and teachers of our higher education institution, was carried out with the help of a mirror questionnaire, i.e., in countless cases we sought to get an answer to the given question from both teachers and students, looking for a comparison of how the two most important actors of education experienced online education, giving guidance on how to incorporate these experiences in the development of the system. The latter was confirmed also by the United Nations Educational, Scientific and Cultural Organization's (UNESCO, 2020) call formulated within the framework of the programme Memory of the World (MoW), in which the organisation called on institutions from countries all over the world to better document and preserve data and documents related to the COVID-19 pandemic. In addition to gathering experiences and addressing problems, it was the contribution to this goal that launched the summarizing of the experiences of online education in our institution.

## Research questions

Our research questions were as follows:

- R1 – How did/do the lecturers and students at the University of Dunaújváros relate to online education?
- R2 – How have our students and educators experienced digital education?
- R3 – What difficulties and problems did they face?
- R4 – How do they see the future of online education?

## Sample

### *Student sample*

The population of the study was 1134 Hungarian and 167 foreign students active in our institution in June 2020, and besides this, the 125-person active teaching base. Based on the returned answers, our sample was as follows: our questionnaire was filled out by 223 of our Hungarian students and 29 of our foreign students, which means a total of 19.3% survey, while 43 of our instructors responded, resulting in a 34% survey. From the comparison of the population and the sample, we can conclude that the sample represents the entire multitude well in several respects. In terms of the distribution by gender of the population and the sample, women showed a higher willingness to respond among Hungarian students, so their number is higher in the sample (34.7%) than in the population (25.1%); at the same time, in the case of foreign students, the sample represents the population well. In terms of the distribution by study section, we can speak of a representative sample since the population and the sample displayed the opinions of full-time and correspondence students in almost the same proportions. The sample follows the proportions of the population in the field of majors as well as in terms of training levels. Looking at the age distribution of our participating students, the highest proportion, 46.43%, were 18-25 years old, followed by those aged 26-35 (30.16%) and 36-45 years (17.06%), with the lowest number of people aged 46-55 (6.35%) in our survey.

### *Teacher sample*

In terms of distribution by gender, 45% of the surveyed teachers are women and 55% are men. In terms of their age distribution, our responding teachers follow the curve of normal distribution, shifting toward higher age groups. Most of them are in the 36-45 and 46-55 age groups. In terms of their position, the same number (29-30%) was answered by teaching assistants and associate professors, while a smaller number (14-15%) was represented by assistant professors and college/university teachers. In terms of their fields of study, the surveyed colleagues represent primarily the fields of social sciences (25%), engineering (19%), and economics (16%) in accordance with our training/specialisations. Our surveyed colleagues taught this semester mainly at the BA/BSc level (54%) and at the MA (19%) and higher vocational education level (21%).

## Instruments

During the study, we compiled an online questionnaire for both students and teachers at the university. When we asked these questions, we aimed to make a full-range questioning: we contacted both students and teachers with the help of the Neptun information system data register via e-mail, where they received the link to our online questionnaire, which we supported with our personal e-mail.

The questionnaire questions had the following structure:

- the student/instructor's prior experience with online education,
- the experience of online education during COVID-19,
- the future of online education,
- background variables.

The questionnaire was prepared in Hungarian and English. In the case of the English questionnaire, a correct language adaptation was made. Students/teachers had 2 weeks to complete it during the exam period of the 2nd semester of the 2019/20 academic year, when the experience of online education was still fresh for the respondents.

## RESULTS

We will try to present the results of the investigation based on some of the aspects that are taken out of place but are important for online education, displaying both the student and the teacher side. Only the questions that were examined from the perspective of both groups were included in the analysis of our present study.

### **Level of digital competences of the respondents and their encounter with online education**

Our surveyed teachers evaluate the level of their own digital competences as follows (Table 1). In terms of information search, the majority consider themselves master-level users, while in other areas they mostly consider themselves to be independent users. They are most unsure about online problem solving; some of them have no problem with this, while about the same proportion were those who have only basic knowledge here.

**Table 1**  
*Level of digital competence of teachers*

|  | Basic level user | Independent user | Master level user |
|--|------------------|------------------|-------------------|
| Search/processing of online information                | 2                | 18               | 23                |
| Creation of online content                             | 5                | 23               | 14                |
| Online communication and cooperation                   | 2                | 23               | 18                |
| Online problem solving (in case of technical problems) | 14               | 15               | 14                |
| Online safety (e.g., data management, etc.)            | 13               | 21               | 9                 |

In the case of our students the same question developed as follows: a significant majority, 59.92%, consider themselves experienced users, 22.62% of students call their level of digital competences average, and nearly 15% consider themselves professional.

A significant majority of students have already used a form of online education, most notably the Moodle interface, which our institution introduced in its trainings very early, already in 2012. But some of our students had not yet engaged in online education, mostly first-year and distance learning students. It was immediately stated here that introduction to online education was essential for first-year students and especially for distance learning students.

Many of the online forms of education have long-term traditions in our institution, so when asked what online educational activity they have regularly carried out in the past, a large majority of our teaching colleagues answered that these were their previous online teaching experiences, either in the form of contact lessons, exams, or consultation classes.

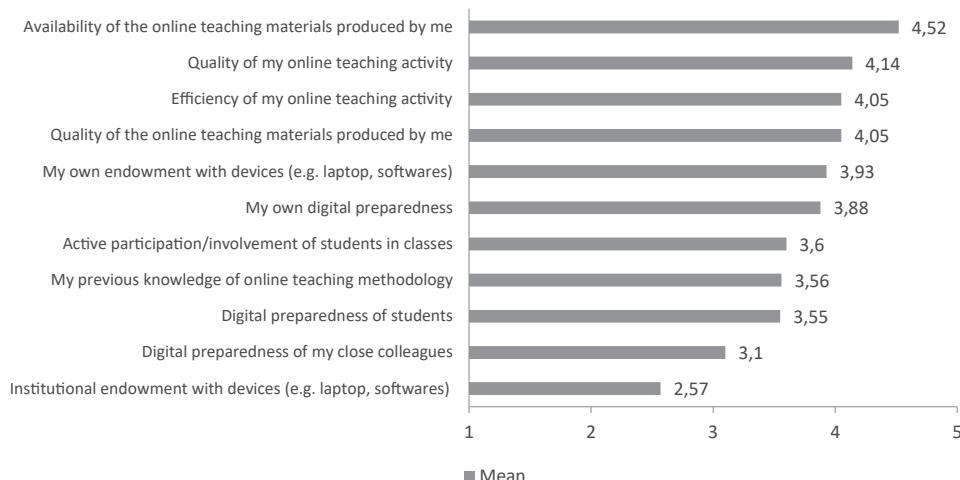
One of the outstanding aims of our study was to examine the effects of the state of emergency to our online education and digitalisation at the university. It was therefore important to see the daily burden this activity meant for both our colleagues and students. We found that in both groups, the majority spent more than 8 hours a day working in the digital space, and it was only a very small number for whom this represented only 3-5 hours of online activity. It was also important for us to find out whether the daily duration of their activity spent in the digital space for learning/working has changed compared to the period before.

About 50% of students reported an increase, while all the teachers reported an increase in online work. Generational differences are certainly also the cause of the change in students' online living space over time, but it also indicates that the workload of teachers has increased dramatically.

### **Experience concerning online education**

In the following, we asked our instructors to evaluate their experiences and impressions of online education in some respects (Figure 1). The availability of their own curricula, the quality and efficiency of their online education obviously have come in first place. Unfortunately, the point of the institutional asset provision and the digital preparedness of staff and students were ranked last. Upon these experiences, we took several measures already during the semester, such as appealing for the help of pattern courses and digital competence training courses at the university.

**Figure 1**  
**Teaching experiences/impressions connected with online education**



Note. Participants responded to the following statement: "Please evaluate your impressions and experiences gained during the semester during the state of emergency on a scale of 1 to 5 in the following areas"; (1=insufficient; 5=excellent).

Our students were able to evaluate the experiences of the semester in relation to digital education by giving grades (Table 2), and in this evaluation, of course, their own endowment with devices was given the best grade, together with their digital preparedness and the endowment with online learning materials. The average given grade of 4.07 can be considered a very nice result on a scale of 1 to 5.

**Table 2**  
**Assessment of the student experience of the semester in relation to online education/training**

|   | M    | SD    |
|---|------|-------|
| Digital preparedness of teachers  | 3.74 | 1.049 |
| Digital preparedness of fellow students   | 3.80 | 0.902 |
| My own digital preparedness   | 4.16 | 0.902 |
| Institutional endowment with devices of the University of Dunaújváros (e.g., assurance of interfaces) | 4.00 | 1.016 |
| My own endowment with devices (e.g., laptop, smart phone)   | 4.56 | 0.752 |
| Quality of online teaching materials  | 3.78 | 1.073 |
| Availability of online teaching materials   | 4.07 | 0.999 |
| Efficiency of online teaching materials   | 3.64 | 1.256 |
| Quality of online teaching materials  | 3.67 | 1.184 |

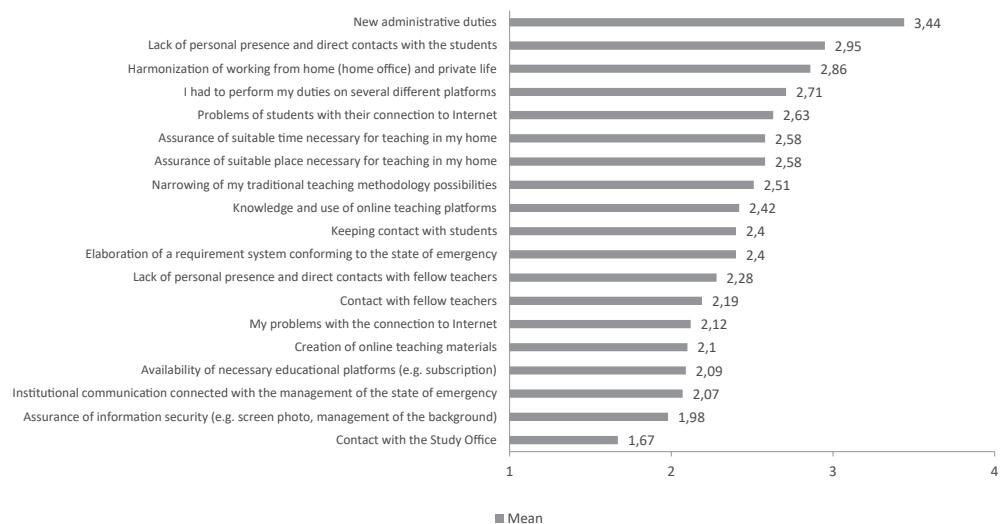
Note. 1 = insufficient; 5=excellent.

While the quality and effectiveness of online education was the worst, together with the digital preparedness of the instructors, they all received a rating above 3.5. These lessons urged the university's leadership to take steps towards quality and efficiency through trainings and tutorials, looking ahead to the semesters of the next online education.

In a subsequent question, we asked our instructors to evaluate the criteria listed below (Figure 2) as factors causing difficulties that were challenging for them during the online semester.

The new administrative burdens clearly caused the greatest challenges and problems for all of them, besides the fact that there was no possibility of direct, personal contacts, and slipping together of the world of work and their family life was also a big problem because of working from home. The least difficulties were to maintain contact with the study office or to ensure information security.

**Figure 2**  
*Difficulties in online education based on the opinions of teachers*



Viewing satisfaction from a different perspective, from the students' point of view, we also focused on which areas caused them difficulties (Table 3). Thus, the lack of personal contact with educators was the most difficult since keeping contact was not easy, as well as the use of various educational platforms or the harmonisation of their work (learning) and private life, which is a problem for many, even educators. Access to devices or internet were rated as least problematic.

**Table 3**  
*Difficulties in online education (students)*

|   | N  | F    |
|---|----|------|
| Availability of study materials                                   | 39 | 4.7  |
| Understanding of the learned items                                | 73 | 8.8  |
| Contact with the teachers   | 96 | 11.6 |
| Contact with fellow students of the same year                     | 50 | 6    |
| Contact with the institution                                      | 63 | 7.6  |
| Assurance of appropriate time for studies                         | 75 | 9.1  |
| Assurance of appropriate space for studies                        | 47 | 5.7  |
| (More) independent preparation                                    | 60 | 7.2  |
| Use of ICT tools (e.g., PC, laptop, mobile applications)          | 11 | 1.3  |
| Availability of ICT tools (e.g., PC, laptop, mobile applications) | 18 | 2.2  |
| Access to the internet or limited connection                      | 36 | 4.3  |
| Finding the way on the different platforms use by the teachers    | 91 | 10.9 |
| Harmonisation of studying at home and private life                | 91 | 10.9 |
| Online education did not cause any difficulty                     | 57 | 6.8  |
| Other: .....  | 24 | 2.9  |

We also wanted to know what the students need in terms of online learning materials, and how we could make their training more effective during the semester in digital-only form (Table 4). It can be concluded that the teacher's explanation is clearly the primary and necessary factor, followed by a series of practice tasks for the application of the study material. The existence of written course material only was seen to be the least help in terms of efficient learning. In other words, we have reached a point towards blended learning.

**Table 4**  
*The easiest way for me to learn online/digital study material is if...*

|   |     |
|---|-----|
| the written study material is sufficiently detailed to understand without explanation | 130 |
| the teacher explains what is written (I can hear)                                     | 152 |
| the teacher can be seen and explains the study material (video, podcast)              | 142 |
| video helps you understand what you've learned (film, animation)                      | 137 |
| I have to apply the study material during the tasks I receive (I will try it)         | 146 |
| Others: .....   | 10  |

We asked our teachers whether in the majority of their online (live) classes they sought to involve students in some form, as they would in classroom education. The answers of our teachers showed that they primarily gave the students an independent task, opportunities

to ask questions, discuss topics or use cooperative learning techniques to process the given topic.

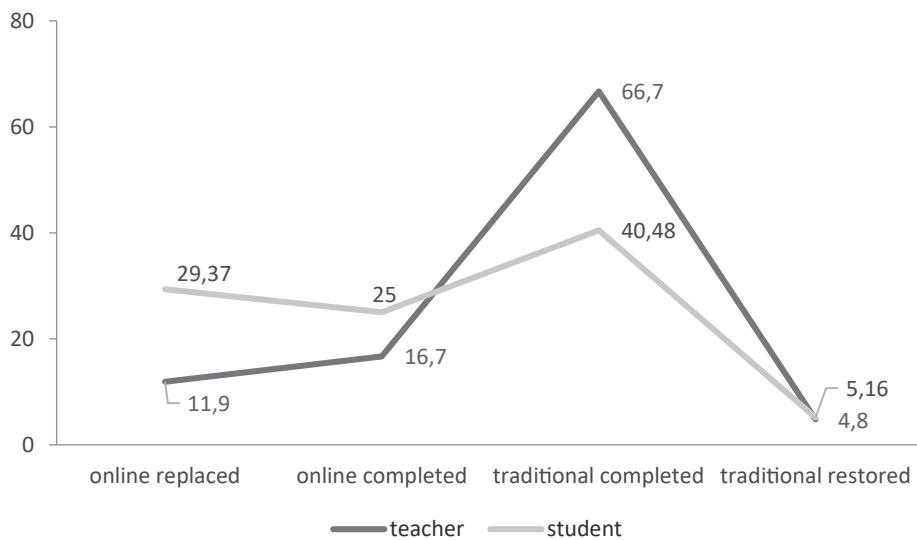
### The future of online education

We considered it important to ask how they see online education as part of higher education (Figure 3). Although students still see traditional education as their priority, more and more people feel that this trend is about to reverse: either online training will take over the leading role in higher education, or this will be done by supplementing it with traditional classroom education. Obviously, the students also felt the importance of the latter, e.g., in the context of exercises or lab lessons.

In the case of teachers, too, the rise of online education from their responses was clearly visible. However, it is noticeable that they still expect the supremacy of traditional education. While students have responded to this question by suggesting that we are moving towards replacing traditional (classroom) education, educators think the role of traditional education is much stronger.

**Figure 3**

*Future impact of the pandemic on higher education according to educators and students (%)*



### DISCUSSION

In traditional higher education, the primary source of learning is frontal classroom education, where the teacher is active, the transmitter of information, and the students learn the study material as passive recipients. This is complemented by working independently, individually, in pairs or in groups. In contrast, today's university students are characterised

by an intensive use of the internet, both as a source of communication and entertainment (Bessenyei, 2010). In Anglo-Saxon countries, it is believed that the thinking, perception and with it the learning perception of today's net generation of digital natives differ significantly from those of previous generations (Hargitai et al., 2020; Prensky, 2001). Meanwhile, Schulmeister (2009) refers to the same generation as the media generation in Germany because the internet only gives them the opportunity to stay connected with others and be entertained; they do not use it at all for their learning activities. That is, they do not have different ways of thinking or different learning habits but use the internet only as a medium (Hargitai et al., 2020; Schulmeister, 2009). In our study, too, it was considered as a point of view whether the students and teachers at our university belong to the next generation or the media generation, and whether this can determine their relationship to online education, i.e., whether online education has appeared as a defeasible difficulty or opportunity for them.

Over the past two decades, the number of online courses and programmes has increased significantly in higher education practice, which has been a natural part of the globalisation of education due to the gaining ground of the online world. Due to the increased demand for online education and the interest of higher education institutions in creating diversified educational opportunities, this growth is expected to continue in the future (Allen & Seaman, 2008). The question of the future of online education is a legitimate question for all higher education educators/researchers or students. This aspect was also one of the focuses of our questionnaire survey, assuming and experiencing a difference in the opinions of teachers and students.

Online education as a form of education includes computer-based educational platforms and methods of sharing educational material, as well as a wide range of forms of educational material, such as multimedia educational materials, simulations, games, and their application even on mobile platforms. Using all this, the emphasis in online higher education is on collaborative learning (Hargitai et al., 2020). Therefore, these issues, both in terms of platforms and educational material, have been included in the empirical study. Heuer and King (2004) have already found that ICT is transforming students' expectations; the emphasis was placed on the fact that although online education resembles traditional education in many of its characteristics, it also has its own characteristics: flexibility (available anywhere, anytime); reflexivity (i.e., the possibility of feedback on the study material) and the possibility of anonymity; the latter is mostly not possible in the traditional educational process. This was complemented by further findings by Dabbagh and Bannan-Ritland (2005), who listed the following as the top four characteristics of traditional education: restriction to location and student presence, real-time quality, teacher-driven/controlled, and employment of exclusively linear educational solutions. And as Keengwe and Kidd (2010) indicate, in the online education and learning environment, asynchronous and real-time communication is possible, which can thus be the basis for informal, dynamic and diverse pedagogical practices, i.e., active learning, to help the pedagogical activities move from an educational paradigm to student-centred learning.

In accordance with the Hungarian higher education strategy document *Fokozatváltás a felsőoktatásban/Change of degree in higher education* (Hungarian government, 2016), according to the higher education vision, a unified online digital environment is emerging in Hungarian higher education, offering personalised learning opportunities tailored to age, interest, and individual life situation. An online learning space and learning community are created where members of the community receive support for their lifelong learning and development. In this online space, the higher education institutions display and further develop their training offers in a flexible response to training needs. Along with this, it has become a strategic goal that the digital preparedness of higher education graduates must be of an international standard, with breakthroughs in three main areas.

Firstly, a transformation of the current methodology and approach to education and learning, a paradigm shift in higher education is needed, encouraging institutions to implement student-centred learning and exploit the full potential of ICT in education and learning. In addition, it is essential to build a learning space, university life and, beyond it, to build a digital learning community that helps students and educators alike. Finally, the development, maintenance, and efficiency improvement of the infrastructure necessary for the paradigm shift is also essential (Perényi, 2020).

According to the results of a wide-ranging survey, most of the world's higher education institutions would like to keep the traditional forms and methods of education for convenience. But it is also clear to them that there may be new epidemics or other globally unpleasant events in the world at any time, for which education must be prepared and transit smoothly. Only universities and colleges that can adapt quickly to new circumstances and manage costs flexibly and efficiently can survive, also in the longer term (Gonda, 2020).

## **CONCLUSIONS**

In our research we examined the problems and difficulties of the first semester of online education resulting from the epidemic, both on the teaching and student side. We tried to summarise which useful experiences can be transferred to further online semesters, what problems we need to solve in terms of online education, both in terms of the need for technology tools and their training, development, methodological requirements and impacts for all actors in education.

Our findings to the research questions asked at the beginning of the study are as follows:

*R1 How did and do the teachers and students of Dunaújváros University relate to online education? R2 How did our students and teachers experience digital education?*

The students and teachers of the University of Dunaújváros already had a grasp of online teaching and learning, as our institution has a history of nearly a decade in these activities, thus the transition to full online education was handled relatively smoothly. But this period was not without the challenges and difficulties that were manifested in the learning-teaching process; in addition to the availability of learning materials and the

digital preparedness of students, the burden on teachers was significant, having to meet the demands of the education methodology and specially digital education, as well as facing issues in the supply of equipment.

### *R3 What difficulties and problems did they face?*

Although their relationship with digital/online education was positive, the most significant problem they perceived was the lack of personal contact and excessive administrative burdens (instructors), while the students also mentioned the lack of personal relationships in the first place. Both groups had a significant problem with the overlapping of work and private life, the two areas resulted in significant additional burdens not only in terms of space but time as well, and in the activity of both our students and instructors surveyed at the same time.

### *R4 How do they see the future of online education?*

Regarding the future of online education, the conception of students points towards replacing traditional education with online education; while the teachers also see this expansion as real for online education, but, assuming this as a slower process, they feel that the preponderance of traditional education remains a characteristic of higher education as a whole in the longer term. The experience gained through the study confirmed the need for both, and this, as we have experienced since then, can be best embodied in hybrid solutions, in so-called blended learning. Teaching in a non-traditional form facilitates adaptation to different life situations, the student learns the study material at a time that meets his or her own needs, using methods other than traditional ones, which promotes the success of participation in the training.

Of course, the information revealed during our study confirms the limited nature of the generalizability of the results due to the local nature of the sampling and without control measurements. However, to also assess the success of putting the findings of the study into practice, further research is planned among students and teachers.

During the questionnaire survey and based on our own experience in higher education and other similar institutional studies (Grajczjár et al., 2021; Serfőző et al., 2020; Sipos et al., 2020), we can say that the hybrid approach will be the dominant aspect of the uncertainty caused by the pandemic worldwide in the future. The essence of the solution is that although many students and higher education institutions strongly prefer personal/attendance education and learning, health and safety concerns force higher education institutions to use personal and online teaching methods together. Previous studies have already shown good results in terms of its effectiveness (Forgó, 2013; Hargitai et al., 2020; Sipos et al., 2020). We found that support for hybrid systems, a similar way of teaching to blended learning to be organised in the future, is significant.

For nearly two years, the pandemic has shown that online education (whatever you call it: digital, absence, distance learning) is the basis of future higher education and is also justified in the higher education of the present. At the same time, it is expected that there

will be a methodological transformation, which means rethinking methods, techniques, teaching materials, accountability, etc., and its planned placement in a new system (Deés, 2020; Rajcsányi-Molnár & Bacsa-Bán, 2021; Serfőző et al., 2020). We consider our presented teacher-student examination in our higher education institution as an addition to this transformation.

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# **AN EVALUATION STUDY OF NURSE EDUCATORS' LEARNING EXPERIENCE IN A DIGITAL MODULAR COURSE**

## **ABSTRACT**

*The Covid-19 pandemic poses a new challenge in the adoption of ICT in education. The need for educational institutions to develop standards and implement quality assurance in digital education has suddenly gained new significance. The aim of this study is to evaluate the learning experiences of nurse educators in Slovenia acquired during a nine-week modular online course on the design, delivery and evaluation of online study units, based on a quality standard for digital education developed for this purpose. A mixed methods approach was used. The evaluation of the nurse educators' learning experiences was examined quantitatively (cross-sectional study) and qualitatively (focus group). The Cronbach's alpha for the entire questionnaire was 0.921, indicating that the internal consistency of the questionnaire developed for evaluation was excellent. The thematic analysis identified three main themes. At the end of the course, the nursing teachers expressed their desire for additional courses in which they could gain and deepen their knowledge of the preparation, implementation, and evaluation of the educational unit with the help of digital technology.*

**Keywords:** *e-learning, online learning, nursing teachers, quality, higher education*

## **EVALVACIJA IZKUŠENJ VISOKOŠOLSKIH UČITELJEV ZDRAVSTVENE NEGE, PRIDOBLENIH NA DIGITALNEM MODULARNEM TEČAJU – POVZETEK**

*Pandemija covid-19 je prinesla nov izziv za uvajanje IKT v izobraževanje. Hkrati se je pokazala tudi potreba izobraževalnih ustanov po razvijanju standardov in na podlagi teh zagotavljanju kakovosti pri načrtovanju uporabe digitalne tehnologije. Namen raziskave je bil evalvirati izkušnje visokošolskih učiteljev zdravstvene nege v Sloveniji, pridobljene na devettedenskem modularnem spletinem tečaju o oblikovanju, izvajanju in vrednotenju spletnih učnih enot, ki je bil pripravljen na podlagi standarda*

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*kakovosti za digitalno izobraževanje. Uporabljen je bil pristop mešanih metod dela. Evalvacija izkušenj učiteljev zdravstvene nege je potekala s kvantitativno (presečna raziskava) in kvalitativno (fokusna skupina) metodo. Cronbachov koeficient alfa za celoten vprašalnik je bil 0,921, kar nakazuje na odlično notranjo skladnost vprašalnika, razvitega za namen evalvacije. Na podlagi tematske analize smo opredelili tri teme. Ob zaključku tečaja so učitelji zdravstvene nege izrazili željo po dodatnih tečajih, na katerih bi pridobili in poglobili znanje o pripravi, izvedbi in evalvaciji izobraževalne enote s pomočjo digitalne tehnologije.*

**Ključne besede:** e-izobraževanje, spletno učenje, učitelji zdravstvene nege, kakovost, visokošolsko izobraževanje

## INTRODUCTION

In March 2020, over one billion learners were affected by school or university closures, with Covid-19 cases being confirmed worldwide. Eighty percent of learners were excluded from their educational institutions when physical campuses closed due to social distancing measures (UNESCO, 2020b). Moreover, UNESCO (2020a) reports that higher education closures have affected over 91 percent of students worldwide and that in the 2021 academic year, 23.8 million students were at risk of abandoning their studies or not gaining admission to schools. Digitally mediated teaching and learning have gradually been demanded and implemented, especially in the context of higher education. To alleviate the education crisis, schools around the world have adopted online teaching methods to preserve educational opportunities and protect the health and lives of students.

## Background

Digital education has allowed educational institutions to continue functioning during the global pandemic (Yeo et al., 2021). Many years of slow progress in digital education have recently experienced a sudden shift. At the outbreak of the pandemic, proponents of online learning, who had invested considerable time and energy in convincing stakeholders, quality standards committees, funders, and academic staff of the benefits of digital education and the need to develop new approaches to teaching and learning in order to meet the needs of 21st century learners, immediately gained global support (Barbour, 2021). Online designers, developers, teachers, and researchers were sought out, and evidence-based benefits of online education were touted as equal to or better than face-to-face learning (Zalat et al., 2021). Academics with previous digital experience managed to quickly embrace e-learning and took advantage of its flexibility, accessibility, and adaptability in transferring their course content from face-to-face classes to online platforms (Coman et al., 2020).

Today, teachers and academics are well aware of the fact that quality, rigour and high levels of student engagement and satisfaction can be achieved in well-designed online environments (Alqurashi, 2019). Because of Covid-19, online learning abruptly shifted from being a convenient option to becoming a necessity. Educators who were less

technologically savvy found themselves in a stressful situation, having to convert face-to-face learning sessions into online learning sessions without sufficient knowledge on how to design or deliver digital content. However, despite some initial reservations, online learning came to the rescue of educational institutions overnight with an unprecedented adoption of online educational solutions (Rapanta et al., 2020). In some cases, online learning has been seen as emergency remote teaching rather than effective e-learning due to a certain sense of desperation or lack of appropriate knowledge, skills and training. Emergency remote teaching refers to a teaching modality carried out partially or entirely online due to circumstances of crisis (such as natural disasters, wars, or health emergencies) (Slapac et al., 2021). This includes the use of distance-only teaching methods to replace established face-to-face teaching methods, as well as hybrid or combined teaching methods for the duration of the emergency situation (Ličen, 2021; Misirli & Ergulec, 2021). Either way, since the outbreak of the pandemic, many educational institutions have been forced to review and change their existing policies and procedures in need of clear and comprehensive long-term strategies for implementing digital education. Suddenly, compelled by overwhelming pressure on higher education institutions to provide appropriate infrastructure which would enable quality digital education experiences through a targeted development of interactive pedagogical tools, effective online student engagement tools, and training for their academic staff (Rapanta et al., 2020), a new teaching paradigm began to emerge. The emergence of this new teaching paradigm means that all educational institutions need to develop a focused implementation strategy and revise their quality assurance protocols, extending them to include digital education methods and ensuring that they focus on appropriate inputs, processes and outcomes (European Commission, 2020).

One of the possible solutions, which is in line with the reforms in higher education that focus on providing flexible approaches to education and training, could be an interactive framework which includes the best practices from existing frameworks and models in the literature from around the world, together with the experiences of digital education researchers from different countries, namely the Digital Education Quality Standard Framework (MacDonald, Backhaus, et al., 2021). This framework includes definitions of variables and sub-variables to facilitate context and understanding and has been proposed as a quality standard to guide the design and delivery of effective online learning (MacDonald, Backhaus, et al., 2021).

The aim of the study is to use the Digital Education Quality Standard Framework to assess the learning experiences of nurse educators in Slovenia acquired in a digital modular course.

## METHODS

A mixed methods approach was used. Quantitative and qualitative methods were used to assess the nurse educators' learning experiences. We adopted a convergent parallel design

as proposed by Creswell and Plano Clark (2017), in which quantitative and qualitative data are collected simultaneously and both approaches are prioritised. The results of both analyses are then compared and/or combined into a unified whole. This type of research design supports triangulation, in which the researcher attempts to balance the weaknesses of the qualitative and quantitative approaches by taking advantage of the strengths of both. Quantitative data were collected using an online survey and qualitative data were collected using the focus group method.

### **Settings**

Based on the Digital Education Quality Standard Framework (MacDonald, Ličen, et al., 2021), a nine-week modular online course was offered to nurse educators in Slovenia. The nine-week training series “Designing, Delivering and Evaluating Online Study-Units” for nurse educators was divided into practical topics: Introduction; Content; Delivery; Support, Structure, Community, and Outcomes. One topic was covered each week except for Delivery, which was covered in two weeks. The purpose of the modular online course was to provide learners with the basic knowledge and skills needed to design, deliver and evaluate an e-learning session. After completing the course, participants completed a questionnaire to evaluate their learning experience. The questionnaire was divided into two parts. The first part consisted of a total of 57 items divided into six sections (content, delivery, support, structure, community, and outcomes) based on the modular course domains (MacDonald, Ličen, et al., 2021). Participants rated these items using a Likert scale with 5 alternatives for each item, ranging from Strongly Disagree (1) to Strongly Agree (5). The final section of the survey included the participants’ demographic data: gender, age, education level, and length of service.

### **Participants**

The modular online course, which was based on the Digital Education Quality Standard Framework (MacDonald, Ličen, et al., 2021), was only offered to a limited number of nurse educators. Therefore, the purposive sample consisted of 24 nurse educators from tertiary educational institutions in Slovenia who had registered for the course. The sample consisted of 2 men (8.3%) and 22 women (91.7%). The age of respondents ranged from 31 to 61 years ( $\bar{x} = 43.50$ ,  $SD = 8.113$ ) and their total years of employment in higher education ranged from 1 to 40 years ( $\bar{x} = 14.63$ ,  $SD = 11.294$ ). They indicated that they had never participated in e-learning courses before, but described their computer skills as mostly average, despite having incorporated computer technologies into their teaching/work activities (e.g., they reported that they had used the virtual learning environment or Moodle to share their course readings and organise discussion groups, etc.) (Table 1).

**Table 1**

*The level of computer literacy and daily use of computer technologies in the classroom/work setting*

| Which of the following best describes your level of computer literacy:                            | n | %    |
|---|---|------|
| Novice - I have attempted to use computer technologies, but I still need help on a regular basis. | 1 | 4.2  |
| Beginner - I am able to perform basic functions in a limited number of computer applications.     | 2 | 8.3  |
| Average - I have general skills in a number of computer applications.                             | 9 | 37.5 |
| Advanced - I have the ability to competently use a wide range of computer technologies.           | 7 | 29.2 |
| Expert - I am highly proficient in using a wide range of computer technologies.                   | 5 | 20.8 |
| How often do you use computer technologies in teaching/work:                                      | n | %    |
| Rarely  | 3 | 12.5 |
| Occasionally  | 5 | 20.8 |
| Frequently  | 4 | 16.7 |
| Almost always   | 6 | 25.0 |
| All the time  | 6 | 25.0 |

### **Quantitative data collection and analysis**

After completing the digital modular course, the participants received an email invitation to complete an online survey (1ka.si). The questionnaire contained information about the aim of the study and their rights as participants. The study was conducted in compliance with the Declaration of Helsinki – Ethical Principles for Medical Research. The participants had the opportunity to complete the questionnaire by the end of May 2021. During data collection, a database of the participants' responses was created, excluding their surnames, first names and email addresses so as to ensure anonymity. The data were then exported to the IBM Statistical Package for the Social Sciences (SPSS) Version 26 for macOS for analysis. The quantitative data were analysed using descriptive statistics and linear regression. A p-value  $\leq 0.05$  was considered significant.

### **Qualitative data collection and analysis**

In the second part of the study, prior to the focus group interviews, all 24 participants were emailed an informed consent form detailing the aims of the study, the method of data collection, and the measures taken to ensure anonymity and confidentiality. The participants were given the opportunity to select several possible dates for the focus group session. Based on the dates selected by the participants, two focus groups were formed, which is considered adequate to generate sufficient evidence (Guest et al., 2017). The focus groups, which took place in June 2021, were conducted via Zoom® and audio-recorded.

Data were collected in a semi-structured interview. The topic guide used in the focus groups consisted of thematic sections related to the content, delivery, and support provided during the course, the structure of the course and its outcomes, based on the Digital Education Quality Standard Framework (MacDonald, Ličen, et al., 2021). Both focus groups lasted approximately one hour and were transcribed verbatim. During the preparation, organisation and reporting phases of the study, several considerations were taken into account regarding credibility and trustworthiness according to the trustworthiness checklist proposed by Elo et al. (2014). The qualitative analysis was conducted separately by two authors who then merged their reflective notes and individual findings to produce the final results. These results were then triangulated with the quantitative results and the results of the literature review. This analysis was conducted using the qualitative data analysis software NVivo ver. 12 (QRS International).

### **Mixed method approach**

Data analysis and integration in the convergent design consists of merging the qualitative and quantitative results. This is done in three phases: (1) analysis of the qualitative data by coding the data and grouping the codes into general themes; (2) statistical analysis of the quantitative data; (3) a mixed methods data analysis (Creswell & Creswell, 2018). According to Creswell and Creswell (2018), there are several ways to do this. After careful consideration and elaboration, we opted for the “side-by-side” comparison where researchers make the comparison within the discussion after first reporting the quantitative results and then the qualitative results which either confirm or refute the quantitative results. During the analysis, much attention was devoted to the importance of integrating both perspectives.

## **RESULTS**

### **Quantitative findings**

The ratings of the digital modular course by the 24 participating nurse educators ( $\bar{x} = 4.42$ ,  $SD = 0.419$  [95% CI 4.24, 4.60],  $p = 0.000$ ) indicate that the learning experience was perceived as very good. The Cronbach's alpha for the entire questionnaire was 0.921, indicating that the internal consistency of the questionnaire developed for evaluation purposes was adequate. Table 2 shows the descriptive statistics of respondents based on the questionnaire domains.

The results show that the participants rated the Outcomes, Structures, and Community domains highest ( $\bar{x} = 4.63$ , 4.42, and 4.42, respectively) and the Support domain lowest ( $\bar{x} = 4.28$ ), but still very high. Moreover, the highest rated items were those stating that as a result of their participation in the modular online course, they were now able to organise the course content for an effective online learning session ( $\bar{x} = 4.75$ ;  $SD = 0.442$ ), establish a discussion forum to facilitate learning and reflection ( $\bar{x} = 4.74$ ;  $SD = 0.449$ ), and create learning activities to effectively deliver online content and engage learners ( $\bar{x} = 4.71$ ;  $SD = 0.464$ ). Even the lowest rated items, such as those stating that the amount

**Table 2***Digital Education Quality Standard Framework assessment questionnaire (n = 24) - descriptive statistics*

| Domains   | N of items | $\bar{x}$ | 95% CI |       | p     | Cronbach $\alpha$ |
|-----------|------------|-----------|--------|-------|-------|-------------------|
|           |            |           | Lower  | Upper |       |                   |
| Content   | 13         | 4.41      | 4.21   | 4.61  | 0.000 | 0.896             |
| Delivery  | 9          | 4.30      | 4.07   | 4.52  | 0.000 | 0.883             |
| Support   | 6          | 4.28      | 4.01   | 4.56  | 0.000 | 0.867             |
| Structure | 11         | 4.42      | 4.21   | 4.63  | 0.000 | 0.899             |
| Community | 8          | 4.42      | 4.21   | 4.62  | 0.000 | 0.861             |
| Outcomes  | 10         | 4.63      | 4.43   | 4.83  | 0.000 | 0.925             |

Note. Participants rated the questionnaire on a 5-point Likert scale ranging from 5 - Strongly Agree to 1 - Strongly Disagree;  $\bar{x}$  = Mean Value; SD = Standard Deviation.

of time allocated for this modular online course was adequate ( $\bar{x} = 3.87$ ; SD = 1.191), that the modular online course included (provided) useful and regular feedback from other learners ( $\bar{x} = 4.00$ ; SD = 1.103), that the modular online course included (provided) collaborative learning opportunities ( $\bar{x} = 4.08$ ; SD = 0.830) and that learning occurred through discussion, reflection, collaboration and by taking initiative and responsibility to listen, question and think critically within the community of fellow learners ( $\bar{x} = 4.08$ ; SD = 0.925), still scored very high.

Further, we assumed that participants with longer tenure would perceive the course more favourably and therefore rate it higher. Therefore, a linear regression analysis was conducted to estimate the relationships between the participants' overall length of service and their course ratings. Although the results show that those with low seniority rated the modular course higher, no significant regression equation was found ( $p > 0.05$ ).

## Qualitative findings

Using a descriptive approach to qualitative analysis (Doyle et al., 2020), the codes were reviewed and grouped into three overarching themes concerning the participants' experiences of attending a nine-week modular online course, namely (1) perceptions of content structure and delivery, (2) perceived support and interaction, and (3) impact on professional development.

### *Perception of the content, structure, and delivery*

The participants reported that they were pleased with the content of the modular course and found it helpful in learning how to design, deliver and evaluate online lectures. All participants described their experience as very positive and very well organised with relevant resources and examples of best practice guiding them through the course. One of the participants stated: "The course content was very interesting; my experience was very positive, and I think this was a very well-organised course." The course was

perceived by the participants as interactive and engaging, and they felt that it gave them enough autonomy to follow their own learning needs and further polish their teaching style. Furthermore, it was recognised as balanced in terms of learning activities within each module:

The number of assignments was reasonable and the tasks were interactive. I do not feel that anything else could have been added to the content or that anything was left out.

The course was well-balanced and gave me enough space to follow my own teaching needs. At the beginning I was worried that we would be overwhelmed because of COVID, but in the end it was manageable. It followed a progressive approach that I liked and included several tips on how to keep me further motivated.

Even though some participants had already been familiar with some of the e-tools used in the modular course, the course provided them with a new perspective and approach to using these tools in online teaching:

[...] I was familiar with the e-tools I used in preparing my online lecture, however, I had never used them before, because I had only given face-to-face lectures. For me, this was an excellent opportunity to explore them to their full extent. I really enjoy learning new things, and am trying to improve my skills and competencies.

#### *Perceived support and interaction*

The participants found the level of support and timely and constructive feedback highly motivational. During the modular course, technical and media support was available. They also received support and feedback on their assignments from the course instructors, which was perceived as timely, focused, constructive and motivating.

Some participants commented thus:

I think the feedback was very friendly and very supportive and constructive. The course instructors provided us with timely feedback after our tasks. [...] [O]verall, the feedback I received was well-balanced and appropriate.

[...] [T]he instructors encouraged us and kept us motivated throughout the course.

I think the instructors did their job perfectly, especially in terms of letting us work on our own assignments based on our practice. [...] I felt that this was a highly autonomous way of learning. [...] Their support motivated me to finish the assignments.

Despite the mostly positive feedback from the participants, some of them missed face-to-face interaction between the participants and the course instructors: "I was very pleased with the recorded voice introduction at the beginning of each module, but I missed human interaction between fellow participants. I think more live interaction would have made a big difference."

#### *The impact on professional development*

Overall, the participants felt that the course met their needs and expectations and would help them improve their pedagogical work as teachers. For example, one of the participants remarked:

I joined the course because I wanted to improve my teaching methods and techniques [...]. I felt that I needed to obtain more knowledge about e-learning, especially because we were forced to adopt e-learning due to the COVID situation. I think that my expectations have clearly been met, and I feel confident in using this knowledge and skills in preparing my online lectures.

It was also evident that the course contributed to the participants' critical analysis of their own teaching (style, methods, and practice), as well as empowered them to explore e-learning approaches on their own and share this knowledge with their colleagues who did not attend the course. Furthermore, the course was recognised as an important step in their personal and professional development:

The course gave me the opportunity to reflect on my own teaching practice and helped me improve my teaching approach. It opened up a whole new dimension of teaching for me.

Learning new pedagogical methods and techniques of e-learning has given me the confidence to prepare my own e-courses and empowered me to share this knowledge with my colleagues as well.

The modular course was a trigger for me to transfer my usual face-to-face teaching to online teaching. By the end of the course, I was able to do this independently. For me, this was also an excellent opportunity in terms of my personal and professional development.

## **DISCUSSION**

Education is often perceived as a sector that resists change while struggling through a productivity and efficiency crisis (OECD, 2016). The transition from mostly traditional or teacher-centred pedagogy to learner-centred pedagogy is a long and slow process that depends on a number of factors. With this in mind, our aim was to evaluate the learning experiences of nurse educators in Slovenia acquired through a digital modular course based on a quality standard for digital education. In addition, we also aimed to fill the gap

in the literature, which has focused mainly on the quantitative perspective and included few studies dealing with the evaluation e-learning experiences using other methodological approaches (Frazer et al., 2017).

The data from our questionnaire supports the data from our focus group interviews related to the course content, structure and delivery. The results show that participants liked the course, that the course was relevant, useful and helpful, and that they improved their learning skills in online teaching. They found the content of the modular course practical and the learning outcomes very clear. They felt that the course included relevant readings and practical tips. The participants were very satisfied with the course content, even those with previous experience in online teaching. However, there are a few things which need to be modified in the future. Some participants found the course very demanding, especially during the COVID crisis, as they were heavily burdened with workload associated with the transition from face-to-face to online teaching. Nevertheless, they rated individual items very positively.

Nursing education today is in a constant state of change when it comes to new learning and teaching methods. The number of online nursing education programmes is rapidly increasing and faculty must keep up with the needs, desires, and demands of new generations of students, while also taking into account the standards of professional regulation, as nursing is one of the most regulated professions in the European Union. Therefore, one of the greatest challenges for educational institutions is to integrate innovative e-learning methods which will strengthen and support both teaching and learning (Coman et al., 2020). To date, many studies have investigated online learning. However, few have examined the learning effects before and after online learning (Kim et al., 2021). As nurse educators need to be competent in their professional roles and possess the necessary skills to positively influence student learning outcomes (Frazer et al., 2017), it is necessary to provide them with adequate training to support them in this process. At the same time, effective teaching strategies have been shown to enhance student learning, satisfaction, and achievement of outcomes (Authement & Dormire, 2020; Frazer et al., 2017). Recent studies have identified several variables which may intervene in the process of online education, such as the proper adaptation of teaching to the online format, including the correct delivery of course content (Baltà-Salvador et al., 2021).

Although participants scored high on the “Community” domain in the quantitative study, the qualitative study revealed that some participants missed face-to-face interaction, especially as this modular course was their first more comprehensive e-learning experience. The learning environment can undoubtedly have an impact on the effectiveness of e-learning, especially in terms of internal factors such as learning motivation, personal preferences, etc. (Wang et al., 2021). However, immersion in e-learning and the acquisition of its principles is an ongoing process of connection, adaptation, guidance and feedback that needs to take place between the instructor and the student through an online platform, and this takes time (Frazer et al., 2017), especially if it is one’s first experience with e-learning. Future design of such modular courses should take this into account.

Attention should also be paid to the implementation of different e-learning strategies which would support different types of interaction, in particular in the context of nursing (e.g., the patient-nurse relationship) in terms of the necessary competencies to be acquired. It is also important to note that other studies (Zalat et al., 2021) conducted among healthcare or medical students have reached similar conclusions regarding the lack of face-to-face interaction.

This study confirms that the modular course promoted participant engagement and, in conjunction with ICT, stimulated professional and, in some cases, personal development. The course increased nurse educators' confidence and enabled them to use the acquired knowledge and skills in their own teaching and adapt it to the learning needs of their students. This also contributes to the development of competencies required for effective online teaching in the future. Key competencies include communication skills, technological literacy, provision of informative feedback, administrative skills, responsiveness, learning monitoring and provision of support (Roddy et al., 2017). Overall, e-learning provides teachers with the opportunity to take control of their teaching and learning process, deepen their understanding of the content, and improve their pedagogical skills, especially their skills in using technology in teaching and learning (Ahmad et al., 2014).

The study has certain limitations which need to be taken into account. The sample of the quantitative study is not representative of all teachers in higher education, but is relevant to nursing teachers in Slovenia and therefore allows for certain conclusions to be drawn that explain teachers' experiences with e-learning. In addition, the teachers' prior experience of using ICT varied, which could have had an impact on their perceived experience of the modular course. Similarly, their learning experience might have been influenced by the Covid-19 pandemic and the overnight shift to online teaching, which had forced many to become familiar with e-learning before enrolling in the modular course. Another related limitation is the socio-cultural context of the study and the level of adoption of e-learning in higher education, which must also be considered when interpreting the results. Two focus groups were used in the qualitative study, which is still considered acceptable (Guest et al., 2017). However, we would suggest forming at least three focus groups in the future to stimulate greater group dynamics and to glean different perspectives. Future studies should therefore include a more representative sample in the quantitative part and explore the perspectives highlighted in the present study (the impact of different types of interaction during e-learning, teachers' competencies for e-learning, etc.). It is also evident that research in this field must be interdisciplinary.

## CONCLUSION

The Covid-19 pandemic has forced teachers worldwide to shift from physical classrooms to online learning environments, thus drastically changing the way we teach and learn. This study used a systematic and structured modular approach to demonstrate the importance of preparing teachers for e-learning and encouraging them to adopt this "new" way

of teaching in higher education. The Digital Education Quality Standard Framework and its questionnaire also proved to be very useful for the development, implementation, and evaluation of e-learning.

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*Metka Skubic, Tita Stanek Zidarič*

# **VIRTUALNA PRIPRAVA NA POROD IN STARŠEVSTVO – PILOTNA ŠTUDIJA**

## **POVZETEK**

*Epidemiološke razmere v Sloveniji so vplivale tudi na izobraževalni proces, saj je bilo treba del izobraževalnega in svetovalnega procesa prenesti iz predavalnice in simulacijskega kabineta v spletno – virtualno okolje. V študijskem letu 2020/2021 je bil tako na Oddelku za babištvo izveden pilotni projekt z naslovom Virtualna priprava na porod in starševstvo. Gre za prvi poskus načrtovanja, oblikovanja, izvedbe in evalvacije virtualnega izobraževalnega programa na področju babištva, ki so ga izvedli študenti pod mentorstvom s prisotnostjo udeležencev – bodočih staršev. Poseben izziv je bilo dejstvo, da so bili študenti babištva postavljeni v dve vlogi, in sicer v vlogo študenta in vlogo zdravstvenega strokovnjaka, ki prvič samostojno (pod mentorstvom) izvaja virtualni izobraževalni program za bodoče starše za pridobitev lastnih strokovnih kompetenc. Velik poudarek je bil namenjen evalvaciji projekta in izvedbe nastopa na način kvalitativnega raziskovanja z uporabo fokusnih skupin. Rezultati kažejo, da se študenti zavedajo pomena in zahtevnosti oblikovanja virtualnega učnega okolja. Želijo si več časa za pripravo izobraževalnega progama, več usmeritev in več možnosti za izvedbo generalke pred nastopom. Posebej izpostavljen je bilo stresno svetovalno delo pri odgovarjanju na vprašanja bodočih staršev, ki je potekalo po končani izvedbi v živo on-line.*

**Ključne besede:** rojstvo, starševstvo, priprava na porod in starševstvo, izobraževanje, študenti babištva, evalvacija virtualnega učnega okolja

## **VIRTUAL PREPARATION FOR CHILDBIRTH AND PARENTHOOD – A PILOT STUDY – ABSTRACT**

*The epidemiological situation in Slovenia has led to part of the educational and counselling process taking place online. In the 2020/21 academic year, a pilot project entitled “Virtual Preparation for Birth and Parenthood” was implemented at the Department of Midwifery. This was the department’s first attempt to conceptualise, design and implement a virtual midwifery education programme delivered by midwifery students in the presence of the participants – future parents. A particular challenge was posed by the fact that the midwifery students simultaneously took on two roles, one as students and the*

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*other as healthcare professionals independently (under supervision) conducting a virtual educational programme for expectant parents for the first time. Much emphasis was placed on the evaluation of the project, which was conducted using focus groups. The results indicate that the students are aware of the importance and difficulty of creating a virtual learning environment. They would like more time to prepare for the educational programme, more instruction, and more opportunities to practise before the performance. The stress of counselling and answering the prospective parents' questions live online was particularly emphasised.*

**Keywords:** birth, parenthood, preparation for childbirth and parenthood, education, midwifery students, evaluation of a virtual learning environment

## UVOD

V Sloveniji obstaja veliko različnih oblik preventivnega dela z bodočimi starši. Najbolj razširjena je tako imenovana šola za starše, ki se izvaja tako v javnih zdravstvenovzgojnih ustanovah kot tudi v zasebnih, kjer se ponujajo programi za bodoče starše, najpogosteje v obliki predavanj in delavnic. Tradicionalne izvedbe izobraževalnih programov za pripravo na porod in starševstvo se le počasi prilagajajo naprednim spremembam, ki jih lahko zasledimo v tujini, kjer se vse bolj uveljavljajo modeli, ki poudarjajo individualiziran pristop v obravnavi žensk in družine. Izvajalce šole za starše v Sloveniji so denimo šele epidemiološke razmere prisilile, da so se tovrstne priprave in delavnice premaknile v virtualno okolje.

Delovanje šole za starše je opredeljeno v *Pravilniku za izvajanje preventivnega zdravstvenega varstva na primarni ravni* (1998), katerega del je tudi Predporodna zdravstvena vzgoja – šola za starše. Pravilnik določa vsebine, izvajalce in smernice za delo (točka 1.3.4), po katerih naj bi šole za starše potekale. Določila so dokaj natančna glede vsebin programa, vendar Skubic (2007) v svoji raziskavi ugotavlja pomankljivosti glede vsebin, ki obravnavajo odnos med partnerjem, vlogo očeta, odnos v prehodu iz diade v triado in pomen navezovanja stika po porodu. Pravilnik je usmerjen predvsem v zdravstvene vidike oziroma vidike fiziologije poroda, zato dodaja, da bi bilo v prihodnosti priporočljivo razmisiliti in razširiti predpisane toge okvire ter predlagati bolj fleksibilne možnosti glede vsebin, ki bi jih lahko načrtovalci in izvajalci programov izbirali glede na potrebe udeležencev.

Pripravo na porod in starševstvo izvajamo kot del učnega procesa v sklopu visokošolskega študijskega programa Babištvo Zdravstvene fakultete Univerze v Ljubljani, in sicer v 3. letniku študija pri predmetu Babištvo in babiška praksa 3; gre za predmetno vsebino *Šola za starše II*, ki je sestavljana iz 20 ur predavanj in 25 ur klinične prakse. V izobraževalni program babištva morajo biti poleg splošnih in strokovnih učnih predmetov vključene tudi vsebine priprave na porod in starševstvo, vključno s fiziološkimi vidiki. Izobraževanje bodočih diplomantov babištva mora namreč zagotoviti pridobitev znanj in veščin, ki diplomiranim babicam/diplomiranim babičarjem, med drugim, omogočajo izvajanje

programov šole za starše in popolne priprave na porod, vključno s svetovanjem o higieni in prehrani (Pravilnik o minimalnih pogojih usposobljenosti ..., 2017).

Babica ima pomembno vlogo pri zdravstveni vzgoji in izobraževanju ženske, družine in širše družbene skupnosti. Njeno delo vključuje perinatalno vzgojo, pripravo na odgovorno starševstvo, posega pa tudi na področje zdravja žensk, spolnega ali reproduktivnega zdravja ter zdravja otrok (International Confederation of Midwives, 2017). Odgovornosti poklicev v zdravstveni in babiški negi jasno določajo kompetence. Babice so tako zavezane, da delujejo v okviru poklicnih kompetenc, ki so opredeljene v dokumentu *Kompetence in poklicne aktivnosti izvajalcev v dejavnosti babištva* (Ažman, 2021). Dokument opredeljuje kompetence babic v prednosečnostnem obdobju in v zvezi z načrtovanjem družine. V njem je zapisano, da babice izvajajo visokokakovostno in posameznikom prilagojeno zdravstveno vzgojo in obravnavo v lokalni skupnosti, kjer delujejo z namenom promocije zdravega družinskega življenja, načrtovanja nosečnosti in odgovornega starševstva. V tem okviru imajo sposobnosti in spretnosti za individualno ali skupinsko izvedbo programov priprave na porod in starševstvo, fiziološke spremembe v času nosečnosti, poroda in poporodnega obdobja v okviru dispanzerja, šole za starše ali v domačem okolju s poudarkom na zdravem načinu življenja, jemanju folne kisline in identifikaciji dejavnikov tveganja v domačem ali delovnem okolju (Ažman, 2021). Tudi 55. člen Zakona o dopolnitvi Zakona o zdravstveni dejavnosti (2020) pravi, da »zdravstveni delavec lahko samostojno opravlja vsako delo, za katero ima ustrezno izobrazbo in je zanj usposobljen ter ima na voljo ustrezno opremo. Za svoje delo prevzema etično, strokovno, kazensko in materialno odgovornost«. Zato je izjemno pomembno, da oseba v okviru posameznega poklica sprejme samo tiste naloge, za katere ima ustrezno izobrazbo in je za njihovo izvajanje kompetentna. V tem primeru nosi tudi polno odgovornost.

Z namenom, da bodo bodoči diplomanti babištva ustrezno pripravljeni na prevzem odgovornosti v okviru svojih kompetenc in poklicnih aktivnosti, je v visokošolskem študijskem programu Babištvo vsebinska in izvedbena struktura predmetov in modulov skrbno načrtovana. Izobraževanje diplomantov babištva mora zagotoviti pridobitev številnih znanj, veščin in spretnosti. Kompetenten posameznik je praviloma tisti, ki ima zadosten obseg znanja in spretnosti ter jih zna uspešno integrirati, tako da učinkovito opravlja svoje delo. Ni več pomembna zgolj vsebinska struktura učnega procesa (kaj, kako, koliko ...), temveč rezultat, torej kaj posameznik zna in zmore ter kako to znanje uporabi v praksi.

Spremenjene epidemiološke razmere so vplivale tudi na izvedbo formalnega izobraževanja na visokošolski ravni in neformalnega izobraževanja, kot so preventivni programi, kamor sodi tudi priprava na porod in starševstvo. Želimo si *individualizirane kontinuirane babiške obravnave* z osebnim pristopom, vendar smo stopili korak nazaj, saj smo bili primorani vse vsebine prenesti v virtualno okolje, kar je pomenilo veliko tehničnih izzivov in izvedbo preventivnih delavnic brez osebnega stika z udeleženci.

V nadaljevanju je predstavljen pilotni projekt načrtovanja, oblikovanja, izvedbe in evalvacije virtualnega izobraževalnega programa na področju babištva, ki so ga izvedli študenti

pod mentorstvom s prisotnostjo udeležencev – bodočih staršev. Velik poudarek je bil namenjen evalvaciji projekta in izvedbi virtualnega nastopa za pridobitev lastnih strokovnih kompetenc. Z razpravo v fokusnih skupinah smo poskušali ugotoviti, kako so učno izkušnjo v praksi izobraževanja bodočih staršev v virtualnem okolju doživeli študenti.

### **Pilotni projekt Virtualna priprava na porod in starševstvo**

V sklopu visokošolskega študijskega programa Babištvo na Zdravstveni fakulteti Univerze v Ljubljani se v 3. letniku študija pri predmetu Babištvo in babiška praksa 3 izvaja tudi predmetna vsebina *Šola za starše II*. Ta obsega 20 ur predavanj, kjer so skupaj vključeni vsi študenti, in 25 ur klinične prakse, kjer študenti, razdeljeni v manjše skupine in pod mentorstvom, glede na izbrano temo načrtujejo, pripravijo, izvedejo in evalvirajo izobraževalni program Priprava na porod in starševstvo, ki ga v obliki predavanja in delavnic predstavijo uporabnikom bodočim staršem.

Za pridobitev kompetenc študenti vsako leto pripravijo in izvedejo preventivni program Priprava na porod in starševstvo, zaradi epidemiološke situacije pa je bil ta v študijskem letu 2020/2021 prvič postavljen v *virtualno okolje*. Priprava na porod in starševstvo je program, ki je sestavljen iz predavanj o teoretičnih vsebinah in praktične delavnice, utemeljen pa je na najnovejših domačih in tujih smernicah, ki izhajajo iz preverjenih izhodišč na področju babištva, porodništva in andragogike, predvsem pa iz potreb udeležencev po pridobivanju preverjenih informacij in veščin, krepitvi odnosov in zmanjševanju dejavnikov tveganja.

V nadaljevanju je podrobneje opisan preventivni program in pilotni projekt *Virtualna priprava na porod in starševstvo*, ki se izvaja s študenti babištva v sklopu študijskega procesa. Gre za program priprave na porod in starševstvo, namenjen bodočim staršem kot del priprave na porod in starševstvo. Zasnovana je na ideji individualne babiške obravnave, ki uporabnikom ponuja predavanja na temo priprave na porod in starševstvo, praktične delavnice in individualno svetovanje posameznim uporabnikom. Najpogostejše učne metode so predavanje, demonstracija na simulatorjih in diskusija, ki je za študente velik izziv. V preteklosti je program potekal v prostorih Zdravstvene fakultete v simulacijskem kabinetu, kamor smo povabili udeležence. V študijskem letu 2020/2021 smo vsebine zradi epidemioloških razmer prenesli v virtualno okolje, kar je bil velik vsebinski, organizacijski in logistični izziv, predvsem pa je pomenil drugačno študijsko izkušnjo za študente babištva.

Program pedagoške priprave predmetne vsebine Šola za starše II je razdeljen na teoretični in praktični del. V teoretičnem delu študenti v študijskem procesu poslušajo in absolvirajo naslednje vsebine: izobraževanje odraslih, priprava izobraževalnih programov, priprava avdio- in videoprezentacij, javno nastopanje in retorika. Teoretični del vključuje tudi poglobitev teoretičnih znanj, ki jih študent pridobi s pregledom najnovejših raziskav glede na izbrano temo. Praktični del vključuje trening praktičnih veščin, ki se nato v obliki delavnice glede na izbrano temo prikažejo v drugem delu srečanja s starši. Pomemben del priprave je tudi trening komunikacijskih in socialnih veščin, javnega nastopanja in retorike.

Nazadnje torej študenti pod mentorstvom vsebine prenesejo v prakso, tako da glede na izbrano temo načrtujejo, pripravijo, izvedejo in evalvirajo izobraževalni program. Gre za kontinuiran proces usvajanja znanja, ko so študenti najprej v pasivni vlogi, nato pa prehajajo v aktivno vlogo in samostojno izvedejo izobraževalni program. Pri tem sledimo andragoškemu ciklu kot enemu izmed možnih modelov za načrtovanje in izpeljavo izobraževalnega procesa. Kot navaja Ličen (2015), z izrazom andragoški ciklus (včasih se uporablja tudi širši pojem izobraževalni ciklus) označujemo zaporedje faz, ki so značilne za proces izobraževanja odraslih. Skupaj sestavljajo celoto, pri čemer sprotro spremeljanje in zaključna evalvacija hkrati pomenita podlago za ugotavljanje novih potreb. Faze andragoškega ciklusa so: raziskovanje in ugotavljanje potreb po izobraževanju, načrtovanje in programiranje izobraževanja, neposredna priprava in izvedba programa oziroma procesa, spremeljanje in evalvacija.

V študijskem letu 2020/2021 smo študente razdelili v tri skupne. Določili smo vodje skupin in pripravili »zemljevid dela«, ki je vseboval analizo stanja, načrtovanje, izvedbo in evalvacijo izvedbe. Predporodna izobraževanja imajo običajno podobne cilje. Ti so informiranje o obvladovanju bolečine in stresa med porodom, povečanje zaupanja žensk v sposobnost rojevanja, priprava žensk in njihovih partnerjev na porod in starševstvo ter razvoj socialne podporne mreže (Jaddoe, 2009). Glede na splošna priporočila in analizo potreb uporabnikov priprave na porod in starševstvo v preteklih letih smo opredelili tri jedrne teme, ki smo jih pripravili in postavili v virtualno okolje. Ta področja so bila:

- porod in porodna okolja,
- novorojenček,
- poporodno obdobje.

Glede na faze andragoškega cikla smo skupaj s študenti:

- raziskali in ugotavljali potrebe po izobraževanju z vidika bodočih staršev (po različnih družbenih omrežjih pošljemo povpraševanje, katere vsebine bi zanimale bodoče starše),
- načrtovali izobraževanje,
- neposredno pripravili in izvedli izobraževalni program,
- sprotro spremljali in evalvirali vmesne aktivnosti in izvedli končno evalvacijo.

Za sistematično spremeljanje dela študentov in optimalno izvedbo programa smo sledili naslednji organizacijsko-vsebinski strukturi (skupaj 20 ur predavanj in 25 ur praktičnega dela po skupinah):

- 5 pedagoških ur smo porabili za uvod, kjer smo predstavili načrt dela in si zastavili cilje, ki naj bi jih dosegli glede na postavljeno časovnico,
- 15 pedagoških ur smo porabili za teoretično predstavitev izhodišč glede izobraževanja odraslih, priprave izobraževalnih programov, dela s skupinami, retorike in javnega nastopanja, pripravo idejne zasnove glede na izbrano temo, pripravo vabil in anket za udeležence ter scenarijev za avdio- in videogradivo ....,
- 5 pedagoških ur smo za vsako skupino porabili za konzultacije – pregled zastavljenih ciljev in teoretičnega okvira ter izvedbo prvega srečanja fokusne skupine,

- 5 pedagoških ur smo za vsako skupino porabili za generalko 1,
- 5 pedagoških ur smo za vsako skupino porabili za generalko 2 pred izvedbo izobraževalnega programa in izvedbo drugega srečanja fokusne skupine,
- 5 pedagoških ur smo za vsako skupino porabili za izvedbo virtualnega izobraževalnega programa za bodoče starše,
- 5 pedagoških ur smo za vsako skupino porabili za zaključek in končno evalvacijo z izvedbo tretjega srečanja s fokusno skupino.

Razviti in oblikovani so bili naslednji dokumenti oziroma obrazci:

- dokument s pregledom literature in pripravo teoretičnih izhodišč, ki temeljijo na preverjenih najnovejših informacijah o določeni temi,
- formular, ki vsebuje ugotavljanje izobraževalnih potreb, načrt dela s časovnico, finančno konstrukcijo in marketinški načrt za oglaševanje ...,
- dokument z natančno razdelanim potekom pedagoške ure,
- prezentacija – uporaba drsnic,
- avdio- in videogradivo za izvedbo delavnice,
- zloženke in gradivo za bodoče starše,
- vabilo in potrdilo za udeležence izobraževalnega programa,
- ankete za udeležence ob zaključku izobraževanja.

V zadnjem, sklepnom delu izobraževalnega procesa smo uporabili izkustveni model učenja, saj so bili študenti postavljeni v vlogo zdravstvenega strokovnjaka, ki izobražuje bodoče starše ter jim v obliki svetovanja odgovarja na zastavljena vprašanja. Njihovi izkušnji so sledile refleksija, diskusija, analiza in evalvacija izkustva.

## **Evalvacija**

Namen evalvacije je spremjanje izvajanja projekta; ugotavljanje, kaj deluje in kaj ne; razvijanje dobre prakse z namenom popravljanja napak ter lažjega načrtovanja tekočega in prihodnjega projekta (Kobal Tomc idr., 2019). Evalvacija projekta kot del učnega procesa nam lahko pomaga odpravljati ugotovljene težave in načrtovati nadaljnje korake.

Za namen projekta je bila načrtovana in izvedena tako formativna (sprotna) kot sumativna (končna) evalvacija. Celoten evalvacijiški proces je obsegal nadzorno, informacijsko, preventivno in operativno funkcijo. Sprotna evalvacija je bila izpeljana z namenom pridobitve povratne informacije o napredku študentov, ugotavljanju, česa študenti še ne znajo, in doseganju etapnih ciljev, ki smo si jih zastavili. Pri končni evalvaciji pa je bil poudarek na ugotavljanju učne izkušnje študentov, primernosti programa za virtualno izvedbo, ustreznosti izpeljave programa, na potrebnih izboljšavah in pripravi sprememb načrtovanega izobraževanja v naslednjem študijskem letu.

## **METODA**

Raziskava temelji na kvalitativnem raziskovalnem pristopu. Fokusne skupine (angl. *focus groups*) so zaradi svoje široke uporabnosti pomembna metoda v raziskovanju tudi na

področju babištva. Fokusne skupine so družbeno oziroma skupinsko usmerjena kvalitativna raziskovalna metoda, s katero pridobimo vpogled v posameznikovo razmišljanje in mnenje o raznolikih področjih njegovega življenja. Gre za obliko skupinskega intervjuja, ki se za pridobivanje podatkov opira predvsem na interakcijo med udeleženci in ne med udeležencem in moderatorjem oziroma v našem primeru mentorjem. Poleg podatkov o tem, kaj študenti mislijo na primer o virtualni pripravi na porod in starševstvo, lahko s fokusnimi skupinami pridobimo tudi podatke o tem, kako razmišljajo in zakaj tako razmišljajo. Metodo fokusnih skupin smo izbrali, ker smo že leli obravnavano tematiko osvetlitvi z različnih zornih kotov ter ugotoviti različne poglede in interes. Izkazalo se je, da so razprave v manjših skupinah najprimernejše za evalvacijo in pridobitev poglobljenega uvida v splošno zadovoljstvo študentov z izvedbo pilotnega projekta *Virtualna priprava na porod in starševstvo*.

### **Opredelitev problema in raziskovalna vprašanja**

Članek predstavlja izvedbo in evalvacijo pilotnega projekta *Virtualna priprava na porod in starševstvo*, ki so ga pod mentorstvom visokošolskih predavateljic izvedli študentje 3. letnika visokošolskega študijskega programa Babištvo. Namen raziskave je bil pridobiti poglobljen uvid v doživljanje študentov, ki v procesu formalnega izobraževanja v okviru študija nastopajo v vlogi izobraževalca, ki načrtuje, izvede in evalvira izobraževalni program za uporabnike bodoče starše, in zbrati povratne informacije o izobraževalnem programu, ki bodo lahko v pomoč pri načrtovanju novih izobraževalnih programov.

Cilj raziskave je bil ugotoviti, kako študenti ocenjujejo izvedbo pilotnega projekta *Virtualna priprava na porod in starševstvo* za pridobitev kompetenc za samostojno načrtovanje, izvedbo in evalvacijo izobraževalnega programa za bodoče starše.

V skladu s ciljem so bila razvita naslednja raziskovalna vprašanja:

1. Kako študenti 3. letnika babištva ocenjujejo načrtovanje, pripravo in izvedbo ter evalvacijo pilotnega projekta *Virtualna priprava na porod in starševstvo*?
2. Kako študenti ocenjujejo medsebojno sodelovanje in pomen timskega dela v pilotnem projektu *Virtualna priprava na porod in starševstvo*?
3. Kako študenti ocenjujejo medsebojno sodelovanje in pomen pridobivanja kompetenc v pilotnem projektu *Virtualna priprava na porod in starševstvo*?
4. Kako študenti ocenjujejo pridobivanje znanja, veščin in učnih izkušenj v virtualnem okolju?

### **Udeleženci**

V kvalitativni raziskavi je sodelovalo 30 študentov 3. letnika visokošolskega študijskega programa Babištvo Zdravstvene fakultete Univerze v Ljubljani. Udeleženci so bili razvrščeni v tri skupine po 10 študentov, ki so bile homogene glede na število, izhodiščno znanje in izkušnje, letnik študija, spol, prvo izvedbo virtualnega izobraževanja in druge dejavnike. Vsaka skupina je imela vodjo, sicer pa so skupaj načrtovali, pripravljali in

izvedli virtualno izobraževanje na eno izmed treh tem, ki so bile zajete v pilotnem projektu *Virtualna priprava na porod in starševstvo*.

Na uvodnem srečanju so študenti prejeli v seznanitev in izpolnitve pristopno izjavo o prostovoljnem sodelovanju v raziskavi. Prav tako so prejeli pisna navodila, s katerimi so bili ustno seznanjeni že na informativnem srečanju, in v podpis informirano soglasje, ki je vsebovalo podatke v povezavi z varovanjem osebnih podatkov, soglasje za video- in avdiosnemanje ter etičnimi načeli.

Raziskavo je zaključilo vseh 30 študentov, ki so prispevali povratno informacijo o svoji študijski izkušnji, končno oceno in lastno mnenje ter predloge za izboljšavo virtualne priprave na porod in starševstvo ter nadaljnje načrtovanje pilotnih programov.

### **Merski pripomočki**

Merski pripomoček, ki smo ga uporabili v raziskavi, je bil fokusni intervju, tehnika zbiranja podatkov, pri katerih raziskovalec zbere manjšo skupino ljudi z namenom, da se pogovarjajo o določeni temi, ki je članom fokusne skupine znana že vnaprej (Fraenkel in Wallen, 2006). V raziskavi so bili vsi udeleženci fokusne skupine tudi izvajalci izobraževalnega programa in seznanjeni z raziskovalnim namenom, zato smo spodbujali skupinsko diskusijo ter vsakega posameznika, da se je vključil v diskusijo. Čeprav se fokusni intervju včasih enači s skupinskim intervijem, je med njima pomembna razlika: pri fokusnem intervjuju raziskovalec ne postavlja vprašanj vsakemu članu fokusne skupine posebej, ampak spodbuja skupinsko diskusijo, tako da spodbuja vsakega posameznega člana skupine h komuniciranju z drugimi člani (Vogrinc, 2013). Med intervijujem pa raziskovalec prevzame vlogo moderatorja diskusije: postavlja dodatna vprašanja, vzdržuje in spodbuja diskusijo in vsakemu posameznemu članu omogoča, da sodeluje v diskusiji (Barbour in Schostak, 2005). V naši raziskavi je vlogo moderatorja prevzela mentorica.

Uporabili smo fokusni intervju, ki je bil oblikovan za namen raziskave z vnaprej pripravljenimi sklopi okvirnih vprašanj, ki smo jih postavili pri izvedbi evalvacije s študenti. Uporabili smo osebni računalnik in evalvacijo izvedli s pomočjo spletnne platforme Zoom, ki omogoča avdio- in videokomunikacijo ter se uporablja za organiziranje sestankov, izobraževanj, delavnic in drugih oblik sodelovanj. Vsako posamezno srečanje smo z dovoljenjem udeležencev snemali in shranili za nadaljnjo uporabo in analizo.

Za kakovost podatkov, ki smo jih pridobili s fokusnim intervijem, smo poskrbeli tako, da je raziskavo vodil usposobljen mentor in da smo študente vnaprej pripravili na fokusne intervjuje vsebinsko (vnaprej pripravljene oporne točke ...) in izvedbeno (Barbour in Schostak, 2005).

Podatke smo prepisali, jih kategorizirali v tematske sklope glede na raziskovalna vprašanja, kategorije in podkategorije ter izluščili tudi nekaj pomembnejših dobesednih citatov za potrditev in razumevanje dobljenih kategorij in podkategorij, ki so bile oblikovane za doseganje ciljev kvalitativne raziskave, na podlagi katerih je potekala nadaljnja analiza.

Analiza je potekala na način, ki se uporablja za analizo podatkov v okviru kvalitativnega raziskovanja. Med intervjujem smo si delali tudi zapiske, ki so nam pomagali pri modeliranju intervjuja in pozneje pri oblikovanju končne interpretacije.

Rezultate smo predstavili z opisnim modelom, in sicer s kratkim povzetkom komentarjev. Zbiranje podatkov je trajalo tri mesece.

### **Postopek raziskave**

V nadaljevanju sta opisana raziskovalni del načrtovanja, priprave in izvedbe pilotnega projekta *Virtualna priprava na porod in starševstvo* ter postopek raziskave.

Glede na epidemiološko situacijo v Sloveniji se je tako študijska kot raziskovalna dejavnost prenesla v virtualno okolje. Pojavilo se je več možnosti, ki jih ponujajo informacijsko-komunikacijske tehnologije, prav tako se je razvil virtualni način izvedbe, na primer prek telefona ali spleta. V našem primeru se študenti z udeleženci bodočimi starši niso mogli srečati v živo »fizično«, kot smo izobraževalni program Priprava na porod in starševstvo izvajali v preteklih letih v obliki predavanj in delavnice, temveč so se srečali v virtualnem okolju. Prav tako kot predavanja in delavnice smo tudi fokusne skupine izvedli on-line.

Kot navajata Morgan in Hoffman (2018), spletni način izvedbe fokusne skupine lahko poteka prek številnih internetnih orodij, ki so na voljo za izvajanje videokonferenc. Ta oblika izvedbe je vse bolj razširjena, saj je možna hitra organizacija izvedbe, obenem pa omogoča, da se udeleženci med seboj vidijo. V naši raziskavi smo uporabili *spletno orodje Zoom*, saj je v tem obdobju celoten študijski proces potekal virtualno in so se študenti srečevali v virtualnem okolju, kjer so imeli možnost skupinske diskusije in izmenjave mnenj preko avdio- in videopovezave, podobno kot če bi se srečali v živo.

Za nas so bile fokusne skupine zelo primerne, saj se pogosto uporabljajo v evalvacijskih študijah. Kot navaja Hennink (2014), je fokusna skupina posebna kvalitativna metoda zbiranja podatkov, s katero raziskovalec pridobi podatke tako, da organizira in izvede skupinsko razpravo, v katero je optimalno vključenih pet do deset udeležencev.

V raziskavi smo fokusne skupine kot tehniko zbiranja podatkov izbrali, ker (Bryman, 2012):

- omogoča raziskovalcu, da pride do razumevanja, kako študenti v odnosu do drugih argumentirajo tisto, kar čutijo, mislijo ali izkušajo,
- si lahko v okviru fokusne skupine študenti v veliki meri določijo zanje pomembne vsebine pogovora glede na tematiko, ki jo je raziskovalec ponudil kot izhodišče njihovega pogovora,
- v fokusni skupini raziskovalec želi, da je skupina koherentna, da v njej ni prevelikih konfliktov, vendar pa drugi strani želi tudi, da nimajo vsi enakega mnenja in da se med njimi pojavijo razlike v percepciji, dojemanju in argumentih glede določene raziskovalne tematike,

- je ena od pomembnih prednosti fokusne skupine v primerjavi z individualnim poglobljenim intervjujem tudi, da pri fokusni skupini raziskovalec pridobi kolektivno dimenzijo obravnave problema ali problemov, ki so predmet raziskave, kar pomeni, da je mogoče priti do uvida skupinskih dinamik argumentacij in interakcije. Pri individualnem poglobljenem intervjuju pa tega elementa ni.

V okviru raziskave smo oblikovali tri fokusne skupine po 10 študentov in izvedli tri fokusne intervjuje z vsako skupino študentov posebej. Vsaka skupina se je sestala trikrat: *prvič* na koncu priprave teoretičnega dela pilotnega projekta *Virtualna priprava na porod in starševstvo*, kjer so diskutirali o doseganju zastavljenih ciljev pri pripravi teoretičnega dela izobraževalnega programa, krepitevi medsebojnega sodelovanja in učinkovitosti timskega dela v skupini ter doseganju kompetenc; *drugič* so se srečali po generalki 1 in generalki 2 pred izvedbo nastopa; *tretjič* pa po izvedbi virtualnega izobraževanja za bodoče starše, kjer so za namen končne evalvacije odgovarjali na intervju ter dali oceno in ovrednotili doseganje kompetenc v okviru načrtovanju, priprave in izvedbe izobraževalnega programa pilotnega projekta *Virtualna priprava na porod in starševstvo*.

Na vseh srečanjih sta bili poleg študentov navzoči tudi ena moderatorka, ki je bila tudi vodja skupine, in vsaj ena mentorica (raziskovalka).

Cilj fokusne skupine ni bil doseganje konsenza, temveč ugotavljanje, kako podobni oziroma različni so si pogledi in kakšna je skupinska dinamika, ter razprava o problemu. Diskusije so trajale od pol ure do ene ure, izhajale so iz vprašanj, ki so si sledila po sklopih od uvodnih do ključnih vprašanj s podvprašanji. Mentorica je postavljala vprašanja in skrbela, da so sodelovali vsi udeleženci. V našem primeru so bile fokusne skupine uporabljene za namen evalvacije izvedbe pilotnega projekta. Želeli smo pridobiti vpogled v razumevanje načrtovanja, priprave in izvedbe izobraževalnega programu z vidika študentov babištva.

Besedilo s posnetkov smo nato dobesedno prepisali in analizirali z uporabo tehnike kvalitativnega raziskovanja s fokusno metodo, in sicer s pomočjo vsebinske oziroma tematske analize v zaporedju: identifikacija raziskovalnega vprašanja, določitev kategorij, razvoj merit glede na kategorije, razporeditev podatkov v kategorije, pregled besedila in proučevanje vzorcev ter oblikovanje ugotovitev, podprtih z literaturo. Rezultate smo predstavili po opisnem modelu (Morgan in Hoffman, 2018).

Namen fokusnih skupin je bil vmesna in končna evalvacija in na tej podlagi sooblikovanje programa za optimizacijo dela s študenti, pridobivanje kompetenc za načrtovanje, pripravo in izvedbo izobraževalnega programa, javno nastopanje, ocenjevanje koncepta programa, pridobiti uvid, kaj je za študenta pomembno in kaj ne, ovrednotenje ter prepoznavanje idej za izboljševanje vodenja in mentoriranja študentov.

V fokusnih skupinah smo razpravljali o primernosti koncepta izobraževalnega programa, o oblikovanju vsebinskega dela programa, pridobivanju kompetenc, timskem delu, strokovnem znanju, učnih izkušnjah in pridobljenih veščinah.

Študenti so dobili tudi formativno oceno mentorja, kar je vsebovalo povratno informacijo o njegovem napredovanju med potekom in usmeritve za nadaljnjo delo.

Čeprav je izkušnja fokusne skupine za udeležence praviloma prijetna, je za fokusno skupino, ki bo zagotovila čim več uporabnih informacij, potrebna obsežna priprava, kar prepoznavamo kot omejitev, s katero smo se srečali pri projektu.

## **REZULTATI Z RAZPRAVO**

V nadaljevanju so predstavljeni rezultati fokusnih skupin:

- na prvi fokusni skupini po pripravi teoretičnega dela pilotnega projekta *Virtualna priprava na porod in starševstvo* so bili študenti enotnega mnenja, da so bili doseženi vsi zastavljeni cilji glede pregleda literature, določitve načina prezentacije, teoretične priprave gradiva oziroma formularja in oblikovanja vabil, anket, pedagoške ure, videosnemanja gradiva in tehničnih podrobnosti. Potreba po dodatnih konzultacijah in podpori mentorja ni bila prepoznana;
- na drugi fokusni skupini po prvi in drugi generalki so bili študenti enotnega mnenja, da bi bilo zelo dobrodošlo, da bi imeli možnost izvesti še dodatno generalko pred nastopom, ki bi jim pomagala pri samozavestnejšem nastopu in izvedbi izobraževalnega programa za bodoče starše;
- na tretji fokusni skupini po izvedbi nastopa so študenti svoje doživljjanje predstavili nekoliko bolj poglobljeno.

Sledijo rezultati tretje fokusne skupine, ki smo jo izpeljali po nastopu, in sicer po kategorijah in podkategorijah glede na vprašanja fokusnega intervjua in v skladu z že prej opisanimi merskimi pripomočki ter postopkom raziskave.

Študenti so odgovarjali na naslednja vprašanja:

- Kakšno je vaše mnenje o uvodnem srečanju ter predstavitvi načrta in časovnice izobraževalnega programa za pripravo na porod in starševstvo?
- Ali so bili načrti in cilji priprave in izvedbe izobraževalnega programa jasno postavljeni?
- Ali je bila vzpostavljena klima medsebojnega zaupanja (med študenti in do mentorja), tako da so lahko študenti svobodno komentirali svoje delo?
- Ali je ta izkušnja za vas pomembna v smislu krepitve medsebojnega sodelovanja in učinkovitosti timskega dela v skupini?
- Ali je ta izkušnja za vas pomembna v smislu krepitve medsebojnega sodelovanja in doseganja kompetenc za samostojno delo?
- Kaj bi postavili v ospredje kot pozitivno izkušnjo v celotnem projektu *Virtualna priprava na porod in starševstvo*?
- Kaj bi postavili v ospredje kot negativno izkušnjo v celotnem projektu *Virtualna priprava na porod in starševstvo*?
- Kaj menite, da ste se naučili?
- Kaj vam je pomenilo največji izziv ali vam povzročilo največji stres?
- Kako ste na splošno zadovoljni s projektom in končnim nastopom?

- Ali bi od mentorja potrebovali kakšne dodatne oblike pomoči in svetovanje?
- Kako ste zadovoljni z vodenjem in mentoriranjem?
- Kako ste na splošno zadovoljni s pridobljenimi veščinami?
- Kako ste na splošno zadovoljni s pridobljenimi izkušnjami?
- Kako ste na splošno zadovoljni z učnimi izkušnjami?

Pri nadaljnji analizi besedila smo oblikovali šest kategorij.

### **Načrtovanje in izvedba izobraževalnega programa**

Glede uvodnih navodil, načrtovanja in postavljenih ciljev izobraževalnega programa je splošno mnenje študentov, da je profesorica uvodno srečanje zelo dobro zastavila, da so bili jasno predstavljeni časovnica, cilji in protokol dela ter da je nadaljnje delo potekalo brez težav. Poudarili so, da so imeli dovolj časa za pisanje, pripravo in predstavitev. Študenti so posebej pohvalili sistematičnost in kljub naporom na koncu to ocenili kot čudovito izkušnjo, kot je napisala študentka: »najprej je bil velik napor, potem pa so se stvari speljale in je bila ena čudovita izkušnja za ta trenutek in naše nadaljnje izkušnje«, pa tudi: »načrt je bil na uvodnem srečanju jasno predstavljen (datumi generalk, predstavitev), menim, da nam je profesorica zelo dobro predstavila, kaj od nas pričakuje, in nam zelo dobro predstavila, kako naj bi celotno predavanje potekalo«. Nekateri so menili, da je bil projekt stresen in da bi si želeli več časa za premislek glede izbora teme, ki so jo predstavljali.

### **Zaupanje, sodelovanje in učinkovitost timskega dela**

Medsebojno zaupanje med študenti in mentorjem na način, da so študenti lahko svobodno komentirali svoje delo, je bilo po mnenju vseh udeležencev uspešno vzpostavljeno. Medsebojno sodelovanje in timsko delo sta na vseh področjih dela v babištvu bistvenega pomena, prav tako se je to potrdilo pri pripravi našega izobraževalnega programa. Študenti so medsebojno sodelovanje in timsko delo opisovali kot pomembno učno izkušnjo, kot pot do uspeha in dobrega rezultata. Poudarili so: »da, res je bila dobra izkušnja, saj smo poslušale druga drugo in skušale upoštevati predlog od vsake«, »se mi zdi zelo pomembna, saj je za dober rezultat pomemben dober tim«, »ja, to nam bo prišlo v prihodnje prav, saj smo se naučile, kako med sabo sodelovat in koliko timsko delo dejansko pripomore k samemu izidu naloge«. Nekateri so omenili tudi, da jih je izkušnja pripeljala so spoznanja, da je za dobro delo pomembno enakovredno sodelovanje vseh članov: »je pomembno, vendar le, če si vsi za vse prizadevamo in delo poteka organizirano« in »da smo lahko nekaj ustvarile skupaj na način, kot do sedaj še nismo, ker je vsaka morala doprinesti nekaj, da smo na koncu ustvarile takšno pripravo, kot smo jo«. V ospredje so postavili tudi medsebojno zaupanje in spoštovanje, ki sta temelj dobrih medčloveških odnosov in tudi timskega dela: »zelo, se mi pa zdi, da smo se v skupini doobile res same odgovorne in samostojne sošolke, saj nikoli nismo skrbele, da kaj ne bo narejeno, ni bilo treba večkrat opozarjati na naloge, kar se je zelo poznalo pri pripravah in kasneje pri izvedbi izobraževalnega programa«.

## Sodelovanje in doseganje kompetenc za samostojno delo

Izkazalo se je, da je izkušnja načrtovanja, priprave in izvedbe izobraževalnega programa za študente babištva pomembna v smislu krepitve medsebojnega sodelovanja in doseganja kompetenc za samostojno delo, saj so v razpravi v ospredje postavili naslednje vidike: samostojnost pri delu, strokovnost, etičnost, sposobnost soočanja z radovednimi bodočimi starši, kako poiskati relevantne informacije in strokovne vsebine bodočim staršem predstaviti na razumljiv način. Tako so recimo izjavili: »pomembna je predvsem za zdravstvenovzgojno delovanje in izobraževanje laične populacije«, poudarili so tudi priložnost, da so lahko preverili lastno znanje pri svetovanju bodočim staršem, kar jim pomaga, da so bolj samozavestni in čutijo manj strahu: »da, manj strahu pred javnim nastopanjem, uvid v to, kaj starši potrebujejo od informacij v tem času, kaj jim pride prav in kaj ne, preverjanje lastnega znanja in poglabljanje«. Dobili so potrditev lastne sposobnosti, si okrepili samozavest pri načrtovanju in izvedbi izobraževanja za odrasle ter pri javnem nastopanju, se naučili biti kritičen do napak, na primer: »boljša samozavest glede predstavljanja javnosti, kritično zavedanje glede napak in izboljšav«, »ja, pridobila sem veliko novih uporabnih stvari pri samem načrtovanju in delu tako velikega projekta, prilagajanja v skupini, timskega dela«.

## Splošno zadovoljstvo

Študenti so izrazili splošno zadovoljstvo s projektom in končnim nastopom. Kot pozitivno izkušnjo so soglasno navedli celotno izkušnjo od začetka do konca, ki jo je spremljalo odlično medsebojno sodelovanje in navdušenje nad dogodkom, poudarili so pomemben vidik druženja s sošolci in tudi profesorji, pridobivanje novega znanja: »sam proces in način, kako smo med seboj sodelovale, porazdelitev tem in nalog, sodelovanje in tudi sam zaključek in predstavitev«, »(so)delovanje v skupini, nabiranje novega znanja, občutek, da smo na koncu naredile kvaliteten in koristen izdelek«, »samo delo, druženje s sošolkami in profesorico, veliko na novo uporabnih informacij pri sami organizaciji šole za starše«.

Nekateri so kot negativen del te izkušnje navedli virtualno izvedbo, saj so menili, da bi se ob izvedbi izobraževalnega programa in delavnice v živo lahko bolj povezali z udeleženci: »negativni del te izkušnje je bila on-line izvedba, saj menim, da bi v živo govorile bolj sproščeno ter se bolj povezale s poslušalcji«, v ospredje so postavili tudi predlog za dodatno generalko in pozornejši pregled teoretičnega dela programa, da bi se izognili zastareli literaturi ter neupoštevanje navodil in zastavljenih ciljev.

## Največji izziv in spoznanja

Največji izziv in stres so študentom pomenili javno nastopanje, odgovarjanje na vprašanja bodočih staršev in timsko delo. Kot najpomembnejše v tej izkušnji pa so navedli še: »strpnost, prilagajanje, javno nastopanje, improvizacija«, potrebno tehnično znanje za uporabo informacijsko-komunikacijske tehnologije, sposobnost improvizacije ob pojavi tehničnih napak in usklajeno delovanje tima.

## Pomen mentoriranja

Študenti so prepoznali pomembno podporo profesorice in poudarili izjemno zadovoljstvo z mentoriranjem: »mislim, da nas je profesorica zelo dobro in celostno pripravila na vse izzive, ki so pri pripravi prišli na pot« ter v ospredje postavili točke, kjer bi si žeeli več dodatne pomoči in svetovanja profesorja, in sicer na področju svetovalnega dela in oblikovanja odgovorov za udeležence, saj jim je prav to povzročalo veliko stresa, pa na področju priprave teoretičnih vsebin in gradiv ter priprave pedagoške ure.

Študenti so tako kljub prestavitevi izobraževalnega programa v virtualno okolje izrazili visoko stopnjo zadovoljstva s pridobljenim znanjem, veščinami in učnimi izkušnjami.

## ZAKLJUČEK

Temeljni cilj visokošolskega šudijskega programa Babištvo je izobraževanje in usposabljanje kompetentnih strokovnjakov na področju ginekologije in reproduktivnega zdravstvenega varstva na predporodni, obporodni in poporodni ravni. Za bodoče diplomante babištva pa je pomembno tudi poznavanje osnov izobraževanja odraslih. Lastne učne izkušnje so učinkovita podlaga za učenje in izobraževanje. Epidemiološko stanje nas je pripeljalo do prenosa izvajanja učnega procesa v virtualno okolje. Glede na zastavljene raziskovalne cilje lahko potrdimo, da je bil pilotni projekt dobro načrtovan, pripravljen in izveden. Ostaja zavedanje, da je sicer prilagodljiv program priprave na porod in starševstvo možno kakovostno izvesti virtualno le s poznavanjem informacijsko-komunikacijske tehnologije, študenti se torej zavedajo pomena in težavnosti oblikovanja virtualnega učnega okolja. Za načrtovanje in izvedbo izobraževalnega programa je potrebno timsko delo, ki temelji na medsebojnem zaviranju in sodelovanju vseh udeležencev. Pri tem ima pomembno vlogo kvalitetno in usmerjeno mentoriranje. Vsako pridobljeno znanje ostaja brez vrednosti, če ni preverjeno, zato je bil naš evalvacijski proces namenjen tudi ugotavljanju, ali je bil dosežen končni cilj, in sicer ali je študent pridobil kompetence za svoje prihodnje delovanje na področju izobraževanja v babištву, in sicer z vidika samostojnega načrtovanja, izvedbe in evalvacije individualnih ali skupinskih izobraževalnih programov, seminarjev in delavnic za bodoče starše in druge ciljne skupine na različnih področjih babištva. Evalvacija je pokazala, kako pomembno je oblikovanje ustreznega učnega okolja, da lahko študenti dosežejo predvidene kompetence in s tem tudi kompetence za izvajanje omenjene aktivnosti v dejavnosti babištva.

Študenti kot največji izziv navajajo javno nastopanje in odgovarjanje na vprašanja bodočih staršev, kjer so se dokazovali tudi kot zdravstveni strokovnjaki, ki ob dobrem poznavanju medicinskih babiških vsebin lahko samostojno odgovarjajo na zastavljena vprašanja uporabnikov bodočih staršev brez predhodne priprave. Študenti so kot sklepno oceno izrazili visoko splošno zadovoljstvo s projektom in lastno učno izkušnjo. Poudariti pa je treba, da virtualno okolje ne sme postati edini način izvajanja izobraževalnega programa priprave na porod in starševstvo, saj naravi dela v babištву bolj ustrezajo praktične delavnice in stik z udeleženci v živo. Za razvoj novih pristopov pri izobraževanju, kamor lahko štejemo tudi izobraževanje v virtualnem okolju, smo v razpravi v fokusnih skupinah tako žeeli

pridobiti tudi informacije od študentov, ki bi nam pomagale pri pripravi kompetenčnega okvira in nadgradnje projekta *Virtualna priprava na porod in starševstvo*.

Čeprav je bila učna izkušnja za študente praviloma prijetna, naj omenimo tudi omejitve, s katerimi smo se srečali pri pripravi in izvedbi izobraževalnega programa. Kot najpomembnejšo omejitev ugotavljamo obsežno predhodno pripravo še pred začetkom načrtovanja izobraževalnega programa, saj je bil izobraževalni program v preteklosti pripravljen za izvedbo v živo, in nemožnost srečanja v živo s študenti pri načrtovanju in konzultacijah. Omeniti je treba tudi veliko tehničnih izzivov pri načrtovanju in izvedbi virtualnega izobraževalnega programa.

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*Lea Bregar, Jasna Dominko Baloh*

# **KAKO UPORABNO JE MIKROUČENJE V VISOKOŠOLSKEM IZOBRAŽEVANJU?**

## **POVZETEK**

*V zadnjem desetletju in pol je razmah mobilnih in digitalnih tehnologij omogočil razvoj mikroučenja, ki sega prek prvotnega koncepta učenja kratkih vsebin zaradi boljšega pomnjenja. Namen prispevka je raziskati potenciale tehnološko podprtega mikroučenja za visokošolsko izobraževanje; v primerjavi z usposabljanjem v podjetjih je namreč mikroučenje v visokošolskem izobraževanju manj raziskovano in manj razširjeno. Naše raziskovanje, ki temelji na pregledu literature ter lastnem raziskovalno-razvojnem in pedagoškem delu, v ospredje postavlja dva vidika potencialne uporabnosti mikroučenja za visokošolsko izobraževanje. Prvič, mikroučenje omogoča avtentično učno izkušnjo, ki je blizu realnim problemom in zdajšnjemu načinu usposabljanja v podjetjih ter načinu pridobivanja in uporabe informacij v digitalni družbi. Drugič, z ustreznim pedagoškim pristopom in smiselnou integracijo tehnologije lahko učeči se z mikroučenjem pridobivajo poleg osnovnih tudi bolj kompleksne kompetence. Preliminarno raziskovanje avtorjev kaže, da je za razvoj kompleksnih kompetenc in motiviranje študentov posebej obetaven pristop, ki temelji na samostojnem študentskem kreiranju mikroučnih virov.*

**Ključne besede:** mikroučenje, visokošolsko izobraževanje, tehnološko podprto izobraževanje, študentsko soustvarjanje učnih virov

## **HOW USEFUL IS MICROLEARNING FOR HIGHER EDUCATION? – ABSTRACT**

*In the last decade and a half, the expansion of mobile and digital technologies has enabled the development of microlearning that goes beyond the original concept of learning in bites aiming at improved knowledge retention. The purpose of this paper is to examine the potential of technology-enhanced microlearning in higher education. Compared to corporate training, microlearning in higher education has been less explored and is less widespread. Based on the literature review, research and development, and the pedagogical experiences of the authors, the study reveals two benefits of using microlearning in higher education. First, microlearning enables learning experiences that are close to real-world problems and current corporate training practices, as well as to the way information is acquired and processed in digital society. Second, through appropriate instructional design and technology integration,*

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*microlearning enables the development of not only basic competencies but also complex ones. The authors' exploratory research shows that students creating microlearning educational resources is a particularly promising approach in terms of both student motivation and the development of complex competencies.*

**Keywords:** *microlearning, higher education, technology-enhanced learning, student co-creation of learning materials*

## **UVOD**

Mikroučenje je na področju izobraževanja in usposabljanja precej nov pojem. Najbolj očitna značilnost mikroučenja je obseg učnih vsebin, ki se omejuje na eno samo temo ali idejo, ki jo je mogoče predstaviti v kratkem času (v nekaj minutah). Učenje po manjših vsebinskih sklopih je v pedagoški teoriji in praksi znano že dalj časa, pojem mikroučenje pa se je začel pojavljati pred slabima dvema desetletjema (Hug, 2005). Z naglim tehnološkim razvojem in nenehnimi družbenimi spremembami, ki zahtevajo tudi premike na področju izobraževanja odraslih, popularnost mikroučenja v zadnjih letih opazno narašča. Takšen trend potrjuje tudi raziskava Leonga idr. (2021) o obravnavi mikroučenja v literaturi in prisotnosti na spletu. Ta kaže, da se je v bazi SCOPUS število publikacij s povzetki ali članki o mikroučenju povečalo z 2 v letu 2006 na 94 v letu 2019.

V dvajseta leta tega stoletja vstopa mikroučenje kot eden vodilnih trendov na področju neformalnega usposabljanja (Pandey, 2021). K še večji razširjenosti in popularnosti mikroučenja za usposabljanje v podjetjih je v zadnjih dveh letih prispevalo tudi nenasno povečanje dela na daljavo kot eden od ukrepov za omejevanje pandemije covid-a-19 (Sneader in Singh, 2021).

V primerjavi s podjetniškim sektorjem se mikroučenje na področju visokošolskega izobraževanja uveljavlja precej počasneje in zadržano. Educause, združenje za razvoj tehnološko podprtga visokošolskega izobraževanja iz ZDA, je v poročilu za leto 2019 uvrstilo mikroučenje v povezavi z mobilnim učenjem med najpomembnejše tehnološke pristope za visokošolsko izobraževanje, ki jih je mogoče v kratkem času enega leta vpeljati v prakso (Alexander idr., 2019). Kljub obetavnim napovedim pa je uporaba mikroučenja v visokem šolstvu še vedno precej skromna in omejena na posamezna področja izobraževanja, predvsem na informatiko, poučevanje tujih jezikov ter zdravstvo in medicino (Leong idr., 2021; Shatte in Teague, 2020). Eden od razlogov za skromno prisotnost mikroučenja v pedagoški praksi je razumevanje mikroučenja kot enostavnega učnega pristopa, ki temelji na vedenjski teoriji učenja, ko učeči se prihaja do površinskega znanja s klikanjem brez posebne angažiranosti in refleksije (Jahnke idr., 2020). Pri tako pojmovanem mikroučenju se njegove prednosti omejujejo na boljše pomnenje učne snovi, integracija mobilne tehnologije v učni proces pa prinaša tudi nekatere praktične prednosti učečemu se, kot sta večja fleksibilnost učnega procesa v času in prostoru ter možnost sodelovanja, kar prispeva k večji motiviranosti in aktivnosti učečih se (Leong idr., 2021).

V zadnjih letih najdemo v literaturi opise inovativne uporabe mikroučenja, ki je povezana z doseganjem kompleksnejših učnih ciljev, kot je pomnjenje (Göschlberger, 2017; Major in Calandrino, 2018; Wang idr., 2021). Tudi naše preliminarne raziskave na področju uporabe mikroučenja v visokošolskem izobraževanju kažejo, da je kakovostno mikroučno gradivo lahko enakovredno uveljavljenim vrstam učnega gradiva in tudi vzvod za doseganje kompleksnih učnih ciljev, ki segajo prek ravnih pomnjenja.

Namen prispevka je na podlagi pregleda literature ter lastnega raziskovalno-razvojnega in pedagoškega dela identificirati potenciale sodobnega mikroučenja v visokošolskem izobraževanju. V prvem delu prispevka najprej postavimo konceptualni okvir za raziskovanje mikroučenja, s katerim smo skušali koherentno povezati dosedanja precej razpršena spoznanja iz literature. Na tej podlagi opredelimo uporabnost mikroučenja glede na doseganje učnih ciljev in vlogo v učnem procesu, najprej za doseganje primarnega cilja, to je pomnjenja, in nato še za doseganje kompleksnejših učnih ciljev. V drugem delu prispevka se na temelju pregleda literature in rezultatov evalvacije poskusne vpeljave mikroučenja v visokošolski ustanovi DOBA Fakulteta za uporabne poslovne in družbene študije Maribor (v nadaljevanju Doba Fakulteta) osredotočimo na nekatere posebej zanimive vidike uporabnosti mikroučenja za visokošolsko izobraževanje, to je možnost doseganja zahtevnnejših učnih ciljev z mikroučenjem. V zadnjem delu prispevku v razpravi postavimo v ospredje nekatere omejitve in izzive mikroučenja, v sklepu pa po povzetku glavnih ugotovitev damo nekaj iztočnic o prihodnosti mikroučenja.

## KONCEPTUALNI OKVIR MIKROUČENJA

### Kaj je mikroučenje?

Podobno kot velja za nove pojave, ki so rezultat tehnološkega razvoja in se skladno z njim tudi nenehno spreminja, tudi za mikroučenje ni enoznačne opredelitve. Avtorji praviloma omejujejo definicije mikroučenja na posamezne prvine, ki osvetljujejo določeno dimenzijo tega koncepta.

Nekateri avtorji prikazujejo mikroučenje kot učno strategijo, ki podaja informacije učečim se v *majhnih kosih* (Alqurashi, 2017; CommLab India, b. d.; Learning Seat, 2017); drugi pri mikroučenju poudarjajo kratke *učne aktivnosti*, ki potekajo z uporabo mikrovsebin (Lindner, 2006, v Buchem in Hamelmann, 2010; Hug, 2010, v Buchem in Hamelmann, 2010). Precej pogosto se definicija mikroučenja omejuje le na *dolžino učne enote*, kot na primer, da je mikroučenje učna vsebina optimalne dolžine glede na trenutne potrebe učečega se, ki naj ne presega 10 minut (Torgerson in Ianoone, 2020). Nekateri avtorji k razlagi posamezne prvine mikroučenja dodajo tudi podporo sodobnih tehnologij (Dolaminski in Reynolds, 2020; Göschlberger, 2017).

Kot kaže raziskovanje teoretskih osnov mikroučenja in njegovih pojavnih oblik v praksi, pa tudi naše izkušnje pri vpeljavi mikroučenja na Doba Fakulteti, je to kompleksen, večplasten fenomen, ki ga ni mogoče zadovoljivo opredeliti in tudi ne identificirati njegovih potencialov le z naštevanjem ali izpostavljanjem posameznih prvin.

V naših obravnavah razumemo *mikroučenje kot strategijo samostojnega učenja* kratkih, jasno opredeljenih vsebin z namenom pridobiti specifično znanje in kompetence glede na postavljeni učni cilj. Bistvena elementa, ki koncept sodobnega mikroučenja razlikujeta od učenja kratkih vsebin, sta:

- *osredotočenost* na jasno in ozko opredeljeno (specifično) učno vsebino in z njo povezan učni cilj, katerega uresničitev se običajno sprembla z merljivim učnim dosežkom učečega se;
- *smotrna uporaba tehnologije*, podrejena doseganju učnega cilja.

Mikroučenje (kot strategijo učenja) konkretiziramo z *mikroučno enoto*, ki zajema specifikacijo njenih elementov (opredelitev učnega cilja, vsebine, učnih aktivnosti, preverjanje naučenega, izbira formata mikroučenja in podporne tehnologije), ki šele v medsebojnem prepletu omogočajo realizacijo postavljenega učnega cilja. Mikroučno enoto pa udejanjimo z *mikroučnim gradivom*, ki je praviloma v elektronski obliki in dostopno udeležencu na mobilni elektronski napravi (prenosni računalnik, mobilni telefon, tablica) prek interneta ali pa shranjeno v napravi.

### Značilnosti mikroučenja

Večplastnost in kompleksnost mikroučenja se kažeta prek vrste značilnosti, ki usmerjajo zasnovno mikroučnih enot in razvoj mikroučnega gradiva. Literatura s področja mikroučenja ponuja številne opise značilnosti mikroučenja, ki so vsebinsko precej enotni (kljub neenotni terminologiji). Med njimi najdemo tudi nekatere specifične značilnosti, ki so v glavnem posledica posebnih okoliščin uporabe in vidikov raziskovanja mikroučenja (Allela, 2021; Buchem in Hamelmann, 2010; Commlab India, 2021; Major in Calandrino, 2018; Mattia, 2018; Peters, b. d.). Iz teh opisov smo izluščili tiste značilnosti, ki jih ocenujemo kot bistvene za realizacijo potencialov sodobnega, tehnološko podprtega mikroučenja. Udejanjanje koncepta mikroučenja se tako kaže z naslednjimi značilnostmi:

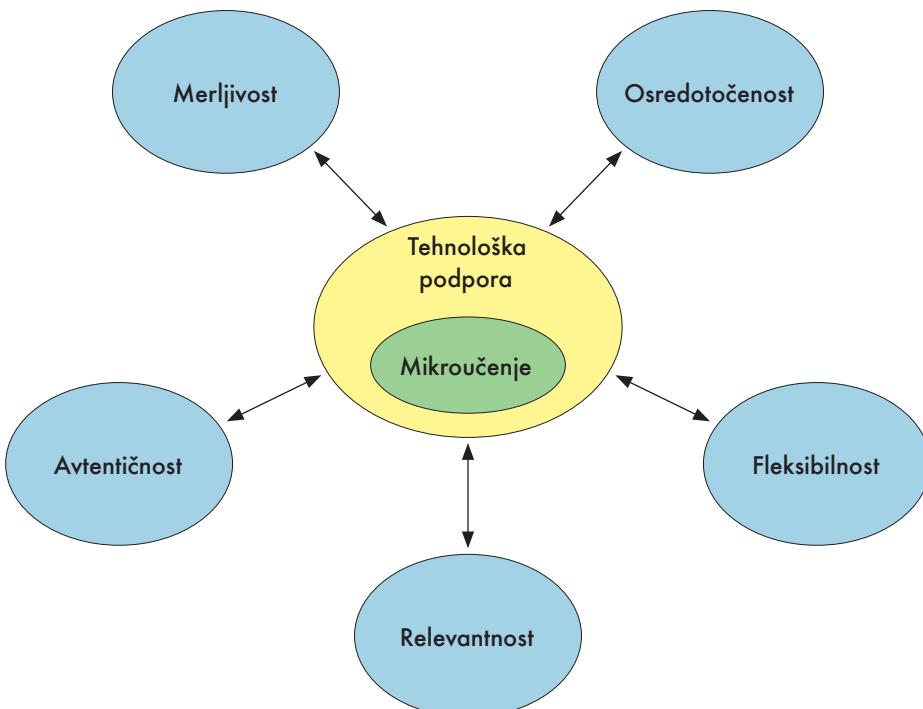
- *Osredotočenost*. Mikroučenje je kar se da *kratko in vsebinsko fokusirano*. Dolžina mikroučne enote ni predpisana, načeloma pa naj bo čim krajša in čim bolj zgoščena, tako da je zadoščeno kriteriju, da glede na učni cilj ni mogoče ničesar odvzeti in tudi ni treba ničesar dodati. Dolžine mikroučnih enot so najpogosteje v razponu od 5 do 7 minut, 10 minut je že skrajna zgornja meja, 2 minuti pa spodnja meja.
- *Fleksibilnost*. Mikroučno gradivo je ob pogoju *uporabe lastne mobilne naprave* učečemu se na voljo vsak trenutek, na zahtevo (*on demand*), neodvisno od prostora in časa. *Na ta način se mikroučenje naravno povezuje z mobilnim učenjem*. Danes si mobilnega učenja skoraj ne moremo zamisliti drugače kot v obliki mikroučenja, zato se vse bolj uporablja izraz *mobilno mikroučenje* (Jahnke idr., 2020; Lee, 2021). Fleksibilnost učenja v času in prostoru je ena pomembnih predpostavk za samostojno in samousmerjeno učenje (*self-regulated learning*), ki je eden vodilnih konceptov izobraževanja odraslih.
- *Relevantnost*. Vsebina mikroučne enote se nanaša na specifično temo in zajema praviloma *le eno vsebinsko vprašanje*, ki je relevantno za učečega se in povezano z učnim ciljem. Izbira relevantnih učnih vsebin za učečega se je pomemben vidik

*personalizacije* učenja. Relevantnost učnih vsebin vodi k *manjši kognitivni obremenitvi* udeleženca, hkrati pa prispeva k reševanju problema selektivnosti in učinkovite *izbire pravih informacij*. To je pomembno v zdajšnjih razmerah informacijskega preobilja, obremenjenega z nekakovostnimi informacijami ali celo njihovo zlorabo.

- *Avtentičnost*. Z mikroučenjem pogosto obravnavamo posamična pragmatična vprašanja, povezana s stvarnimi problemi, kot na primer kako čim hitreje osvojiti nov postopek v proizvodnji ali pri ponujanju storitev, kako v kratkem času priti do prave in natančne informacije, ki jo potrebujemo pri delu ali študiju, kako se ažurno seznanjati s posamičnimi strokovnimi novostmi, povezanimi z opravljanjem dela ali študija (na primer s področja zakonodaje, tehnične in družbene inovacije). *Avtentičnost učenja* spodbuja motiviranost in zanimanje za učenje ter prispeva tudi k boljši pripravljenosti za reševanje problemov na delovnem mestu, pri študiju in v drugih življenjskih situacijah.
- *Merljivost*. Uporaba mikroučenja v digitaliziranem okolju generira raznovrstne podatke, ki z metodami učne analitike omogočajo v realnem času spremljanje in merjenje napredka in dosežkov udeležencev učnega procesa. K merljivosti uspešnosti mikroučenja pripomore tudi povezanost učnega cilja s pričakovanimi učnimi dosežki.

Slika 1

Glavne značilnosti sodobnega mikroučenja (T-OFRAM)



Osredotočenost, fleksibilnost, relevantnost, avtentičnost in merljivost (na kratko: OFRAM) so značilnosti, ki označujejo koncept sodobnega mikroučenja in ki kvalificirajo mikroučenje kot strategijo učenja, primerno za izobraževanje in usposabljanje v digitalni družbi. Uporabnost sodobnega mikroučenja pa dobi še nove razsežnosti, če upoštevamo možnosti, ki jih mikroučenju daje *sodobna tehnološka podpora z izjemno raznovrstnostjo aplikacij in orodij*, ki so razpoložljivi ali pa dosegljivi na mobilnih napravah. Uporaba tehnologije je immanentna značilnost sodobnega mikroučenja; glede na to bistvene značilnosti konceptualnega modela mikroučenja skupaj s tehnološko podporo označimo s kratico T-OFRAM (Slika 1).

### Tehnološka podpora mikroučenja

Konceptualni model T-OFRAM se v praksi kaže v številnih izvedbenih različicah glede na to, kako in v kolikšni meri nam je v fazah zasnove in izpeljave mikroučenja uspelo konkretizirati značilnosti OFRAM. K izjemni raznovrstnosti pojavnih oblik mikroučenja pomembno prispeva tudi pestrost v izbiri tehnološke podpore (ki se kaže z izbiro digitalnih orodij, medijev in njihove kombinacije, s stopnjo interaktivnosti), torej z raznolikostjo formatov mikroučenja. Po cenovno ugodnih pogojih ali celo brezplačno lahko izbiramo med tehnološko enostavnejšimi ali naprednejšimi digitalnimi orodji, z značilnostmi posameznih avtorskih orodij (kot so MS PowerPoint, ActivePresenter, OBS Studio, ScreenCast-O-Matic, Edpuzzle, H5P, TedEd za pripravo mikroučenja v videoformatu) ali pa sistemov LMS (*learning management systems*) za upravljanje učenja (EdX, TalentLMS, Skillshare, WizIQ, EdApp).

Razvrstitev formatov mikroučenja v literaturi so precej neenotne. To ilustrira Preglednica 1, v kateri prikazujemo razvrstitev formatov mikroučenja treh uglednih združenj, ki se ukvarjajo z izobraževanjem odraslih (Association for Talent Development – ATD, Commonwealth of Learning – COL in LinkedIn Learning).

Osnovna kriterija razvrščanja formatov mikroučenja sta vrsta medija (tekst, slika, zvok, animacija) in možnost (vključenost) interakcije. V teh okvirih je mogoče razvrščati najrazličnejše tehnološko podprte različice mikroučenja. Vse bolj prodira tudi mikroučenje, nadgrajeno z naprednimi tehnološkimi rešitvami, kot so navidezna in nadgrajena resničnost, tehnike gamifikacije (igrifikacije) in simulacije (Chakraborty, 2021).

Pestrost izvedbenih variant konceptualnega modela mikroučenja daje možnost široke uporabe mikroučenja. Uporabljamo ga lahko v formalnem, neformalnem in priložnostnem izobraževanju, v različnih fazah procesa učenja in na različnih ravneh zahtevnosti. Pri odločjanju o konkretni obliki mikroučenja je bistveno, da postavimo v ospredje udeleženca učnega procesa, njegove značilnosti in učne cilje, ki jih želimo doseči, in tem *pedagoškim okvirom prilagodimo izbiro formata mikroučenja in ne obratno*.

V nadaljevanju bomo tako najprej osvetlili splošne vidike uporabnosti mikroučenja glede na doseganje učnih ciljev in po fazah učnega procesa ter nato predstavili še bistvene značilnosti uporabe mikroučenja v visokošolskem izobraževanju.

**Preglednica 1**  
**Formati mikroučenja**

| <b>Razvrstitev formatov mikroučenja</b>  |  |   |
|--|--|---|
| <b>Association for Talent Development (ATD)</b><br>Torgerson in Iannone (2020) | <b>Commonwealth of Learning</b><br>Allela (2021) | <b>LinkedIn Learning</b><br>Mattia (2018)   |
| tekstualno mikroučenje   | videoposnetki                                    | slikovni formati (infografike, procesni diagrami, opomniki (memi), GIF-slike z animacijami)                       |
| e-učenje   | interaktivni videoposnetki                       | zvočni formati (zvočni posnetki s podnaslovi, kratke zgodbe, podkasti)  |
| videoposnetki  | interaktivne prezentacije                        | videoformati (video učne kartice, posnetki ekrana, vlogi, demonstracijski videoposnetki, videoposnetki z zamikom) |
| infografika  | interaktivni PDF-formati                         |   |
| podkasti   | animacije  |   |
|  | infografike                                      |   |
|  | gamifikacije                                     |   |
|  | družbeni mediji                                  |   |
|  | navidezna in nadgrajena resničnost               |   |
|  | mikroučna gradiva na podlagi tiskanih virov      |   |

Prirejeno po Allela (2021); Mattia (2018); Torgerson in Iannone (2020).

## SPLOŠNI VIDIKI UPORABNOSTI MIKROUČENJA

### Domet mikroučenja pri doseganju učnih ciljev

Pri identifikaciji potencialov sodobnega mikroučenja izhajamo iz izvornega učnega cilja mikroučenja, to je boljše *pomnenje* naučenega s ponavljanjem kratkih učnih vsebin.<sup>1</sup> Ustrezno pedagoško načrtovanje (*instructional design*), ki se potrjuje z značilnostmi OFRAM skupaj s smotrno izbrano in integrirano tehnologijo, omogoča, *prvič*, da je doseganje izvornega učnega cilja lahko bolj učinkovito in uspešno, in *drugič*, da se tako dosegajo tudi učni cilji višjih kognitivnih ravnih.

<sup>1</sup> Mikroučenje je teoretsko utemeljeno s konceptom kratkih učnih vsebin, ki ga je konec 19. stoletja s krivuljo pozabljanja utemeljil nemški psiholog Ebbinghaus in je usmerjeno k izboljšanju pomnenja (Areh, 2004; Shail, 2019).

Za realizacijo potenciala mikroučenja, da je doseganje izvornega cilja mikroučenja (boljše pomnenje naučenega) učinkovitejše in uspešnejše kot s tradicionalnim pristopom ponavljanja vsebin, je s tehnološkega vidika *ključna uporaba mobilnih naprav in interneta*. Uporaba mobilnih naprav omogoča, da poteka učni proces bolj prilagojeno posamezniku in po njegovi meri, saj se lahko ta v miru loti ponavljanju in utrjevanju učne snovi, ki je zanj zanimiva, kadarkoli in kjerkoli ter kolikokrat želi (*fleksibilnost, osredotočenost*); tudi ni obremenjen z odvečnimi vsebinami (*relevantnost*), mobilnost daje možnosti za večjo *avtentičnost* učnih vsebin. V tem primeru gre pravzaprav za simbiozo mobilnega in mikroučenja. Zagotavljanje potrebne tehnološke podpore mikroučenja večini ne povzroča težav, saj so mobilne naprave, predvsem pametni telefoni, postali nepogrešljivo orodje našega vsakdanjika. Po podatkih Eurostata (2020) je leta 2019 kar 73 % prebivalstva v starosti od 16 do 74 let v Evropski uniji in v Sloveniji 76 % uporabljalo mobilne naprave za dostop do interneta zunaj doma ali delovnega mesta, v mlajših starostnih skupinah pa je ta delež še večji.

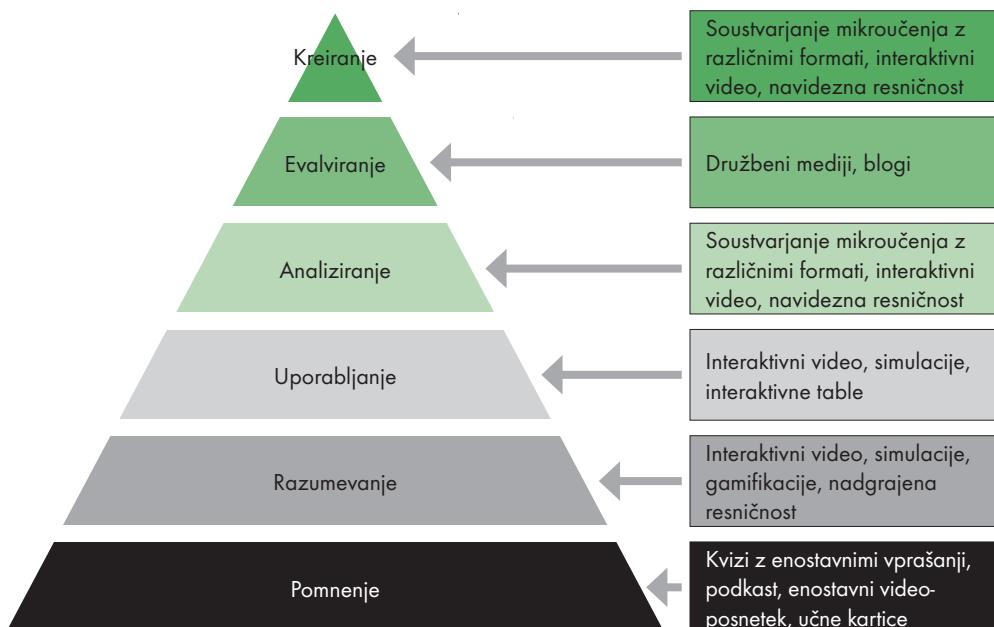
Potencial mikroučenja, da se pomnenje realizira uspešneje in učinkoviteje, je nedvomno relevanten za vse vidike uporabe v procesu učenja in usposabljanja ter tudi za vse izobraževalne segmente. A z razvojem tehnologije in dostopnostjo informacij kadarkoli in kjerkoli *cilj boljšega pomnenja* (predvsem faktografije) *izgublja pomen*. Danes pravzaprav ni več težava priklicati nekoč že znano dejstvo ali podatek, saj je rešitev dobesedno na doseg roke, v elektronskih napravah, ki hranijo neizmerne količine informacij. *Problem učenja in usposabljanja je danes drugje:* kako izbrati kakovostne in zanesljive vire znanja, kako te informacije povezovati in obravnavati, da bodo prispevale k novemu znanju in omogočale sprejemanje kakovostnih in družbeno primernih odločitev. To so izzivi in cilji učenja v sodobnih izobraževalnih sistemih, ki zahtevajo kompetence višjih kognitivnih ravni transverzalne narave, ki omogočajo kritično in analitično razmišljanje, odprtost za nove ideje in sposobnost njihove disseminacije, ustvarjalno sodelovanje v timih, pripravnost za drugačnost in etičnost.

Pri vrednotenju potencialov sodobnega mikroučenja je zato bistveno, da *pogledamo prek ravni pomnenja* inupoštevamo, da je mikroučenje danes lahko še marsikaj drugega kot kratko besedilo ali pa zvočni posnetek, shranjen v mobilnem telefonu. Orodja in aplikacije, ki so vgrajeni, naloženi ali dodani v (pametne) mobilne naprave, namreč ob premišljenem pedagoškem pristopu bistveno širijo potenciale mikroučenja prek doseganja primarnega cilja pomnenja ter omogočajo učinkovito in uspešno realizacijo učnih ciljev, ki so na lestvici kognitivnih zmožnosti uvrščeni višje od elementarne ravni pomnenja. To so predvsem cilji, ki se povezujejo z uporabo naučenega, evalvacijo različnih možnih rešitev in tudi spodbujanjem ustvarjalnosti učečih se v izobraževalni ustanovi ali na delovnem mestu. Za realizacijo teh potencialov mikroučenja pa je ob ustrezni pedagoški zasnovi s tehnološkega vidika ključnega pomena izbira primerenega *formata mikroučenja*.

V Sliki 2 na enostaven način prikazujemo, kateri formati mikroučenja so primerni za doseganje posameznih ravni učnih ciljev in z njimi povezanih kognitivnih kompetenc. Pri opredelitvi teh ravni izhajamo iz revidirane Bloomove taksonomije izobraževalnih ciljev (Anderson in Krathwohl, 2001).

**Slika 2**

Tipični formati mikroučenja po ravneh revidirane Bloomove taksonomije



Izhodišče za izbiro formata je učni cilj, ki ga želimo s pomočjo mikroučenja uresničiti. Pri izbiri formata za mikroučenje je treba zato najprej razmisli, kateri format je glede na svoje prednosti in omejitve najprimernejši za doseganje postavljenega učnega cilja. Poleg temeljnega smernika, to je učnega cilja, je treba seveda pretehtati še vrsto drugih okoliščin: značilnosti ciljne skupine ali posameznika, njegov učni stil, naravno učne vsebine, razpoložljive vire, tehnološke omejitve in podobno.

Z enim formatom je mogoče dosegati različne učne cilje, odvisno od nabora in kombinacije posameznih elementov v mikroučni enoti in od konteksta. Tako smo na primer v Sliki 2 navedli videoposnetek, ki je nasploh najpogosteje uporabljen format mikroučenja, kot primerno rešitev za večino od šestih ravn Bloombergove lestvice kognitivnih zmožnosti; seveda pa je način in kontekst uporabe videoposnetka različen in prilagojen zahtevam posameznih ravn.

Danes so na voljo že dokaj kakovostna orodja, ki nam pomagajo oblikovati mikroučne enote skladno s postavljenimi učnimi cilji različnih stopenj zahtevnosti. Na spletni strani prosto dostopnega učnega sistema za mikroučenje EdApp najdemo denimo enostaven primer, kako je mogoče z mikroučenjem postopoma napredovati po Bloombergovi lestvici od enostavnega poznavanja in razumevanja pojma »pogajanje« do ravni, ko učeči se samostojno evalvira pogajalske spremnosti v konkretni situaciji in razvije lastne pogajalske strategije (Nettleton, 2020).

## Področja uporabe mikroučenja

Zamisel o uporabi mikroučenja za doseganje učnih ciljev na različnih ravneh kompetentnosti je mogoče uresničiti v različnih izobraževalnih okoliščinah.

Če izhajamo iz osnovne opredelitve mikroučenja, gre pri mikroučenju za uporabo posamične kratke, vsebinsko zakrožene učne enote, ki omogoča samostojno (brez drugega učnega gradiva) doseganje jasno opredeljenega, konkretnega učnega cilja. Vendar se mikroučenje ne omejuje le na takšne pragmatične, vsebinsko ozko začrtane okvire uporabe. *Ob določenih pogojih in prilagoditvah* je mikroučenje mogoče uporabiti tudi pri obravnavi bolj kompleksnih tem učnega programa, in to v različnih fazah procesa učenja in v povezavi z drugimi deli učnih vsebin obsežnejših učnih programov. Torgerson in Iannone (2020) razvrščata uporabo mikroučenja v štiri sklope:

- samostojno mikroučenje (*standalone*),
- mikroučenje kot priprava na usposabljanje (*preparation*),
- mikroučenje kot podpora pri usposabljanju (*support*),
- mikroučenje za nadgradnjo usposabljanja (*follow-up*).

Mikroučne enote kot *samostojne, samozadostne učne enote* pridejo v poštev predvsem pri obravnavi praktičnih vprašanj, ki so običajno v ospredju pri neformalnem izobraževanju, kot *del učnih vsebin obsežnejših učnih programov pa so bolj zanimive pri formalnem izobraževanju*. Ta razmежitev seveda ne pomeni, da ni mogoče in tudi smiselno pri usposabljanju v neformalnem izobraževanju zasnovati mikroučne enote kot del obsežnejšega programa in obratno, tudi v formalnem izobraževanju lahko uporabimo mikroučenje kot samostojne učne enote.

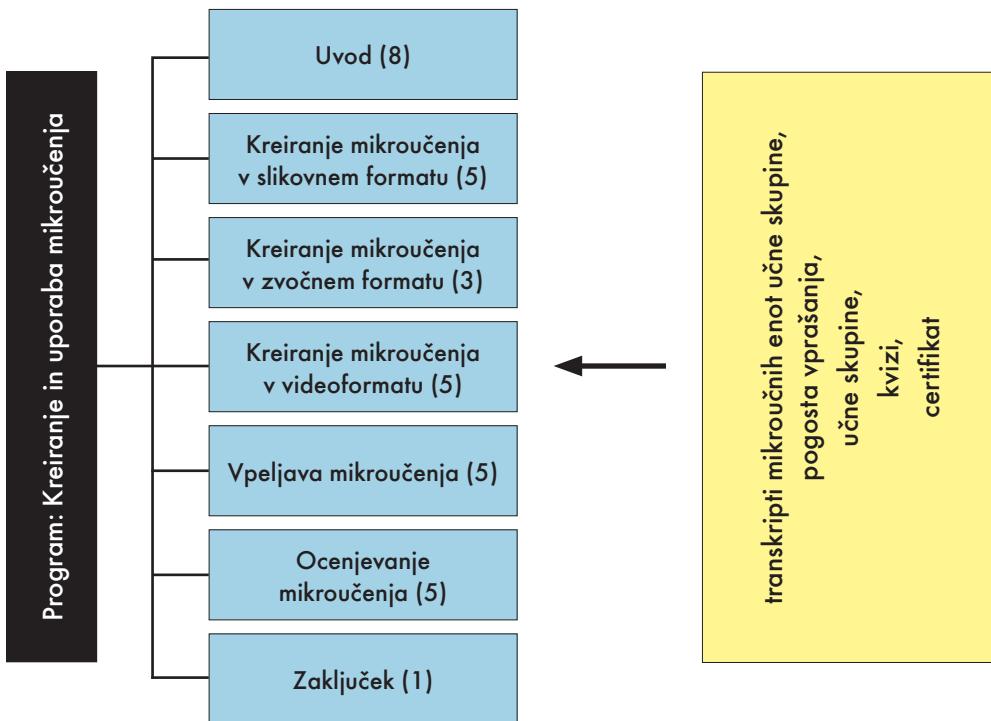
Če je tema, obravnavana v mikroučni enoti, del širše učne problematike, potem je treba poskrbeti, da bo imel učeči se dostop do drugih z obravnavano tematiko povezanih učnih vsebin. To lahko dosežemo tako, da razvijemo mikroučna gradiva za vse obravnavane vsebine izobraževalnega programa ali predmeta, ki jih lahko nato vključujemo v učni proces z različnim naborom (modularni pristop). Tako so oblikovani online programi, objavljeni na platformi LinkedIn Learning. Program za kreiranje in uporabo mikroučenja (Creating and Deploying Microlearning) je na primer sestavljen iz pregledno strukturiranega niza 32 mikroučnih enot (Slika 3).

Drug način vključevanja mikroučenja je, da ga uporabimo kot *dodatno učno gradivo* pri posameznih, med seboj povezanih vsebinskih sklopih obsežnejšega programa. Tak način uporabe smo med drugim preizkusili na Doba Fakulteti pri poskusni vpeljavi mikroučenja v učni proces.<sup>2</sup> Glavne rezultate tega poskusa predstavljamo v nadaljevanju prispevka.

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<sup>2</sup> Poskusna vpeljava mikroučenja na Doba fakulteti je bila ena od aktivnosti prve faze projekta nadgradnje online študija na Doba Fakulteti (Bregar idr., 2021).

Slika 3

Mikroučne enote v programu *Creating and Deploying Microlearning*<sup>3</sup>

Prirejeno po Mattia, C. (2018). Creating and deploying microlearning. LinkedIn Learning. <https://www.linkedin.com/learning/creating-and-deploying-microlearning/next-steps?autoAdvance=true&autoSkip=false&autoplay=true&resume=true>

## MIKROUČENJE V VISOKOŠOLSKEM IZOBRAŽEVANJU

### Empirične raziskave o mikroučenju v visokošolskem izobraževanju

V nasprotju z razmahom mikroučenja v podjetniškem sektorju se ta strategija učenja v izobraževalni praksi visokega šolstva počasneje uveljavlja. Četudi se zanimanje raziskovalcev za mikroučenje v zadnjih letih povečuje, pa je na voljo le malo celovitih empiričnih raziskav o uspešnosti in učinkovitosti mikroučenja v visokem šolstvu. Alqurashi (2017) povzema rezultate nekaterih zgodnejših raziskav (do leta 2016) in navaja ugotovitve o nekaterih posamičnih vidikih učinkovitosti in uspešnosti mikroučenja v visokem šolstvu:

<sup>3</sup> Dostop do vira je mogoč z registracijo. V sliki je v oklepajih navedeno število mikroučnih enot v posameznem vsebinskem sklopu. Mikroučne enote so pripravljene kot zvočni posnetki z dodanim besedilom in nekaj grafike na ekranu. Vendar niso edini element izobraževalnega programa o mikroučenju. Za vsako zvočno mikroučno enoto je na voljo pisni transkript. Uporabniki imajo na voljo tudi informacije v rubriki »Pogosta vprašanja«, lahko pa se tudi pridružijo učnim skupinam, rešujejo kvize in pridobijo certifikat za opravljeni program.

- mikroučenje pripomore k boljši in raznovrstnejši interakciji med študenti ter k poglobljenemu sodelovanju in razumevanju. Mikroučenje prispeva tudi k boljšemu učnemu okolju in večjemu zanimanju študentov za učenje (Liu idr., 2016, v Alqurashi, 2017);
- študentje so v splošnem zelo zadovoljni z mikroučenjem; mikroučna gradiva so relativno pogosteje uporabljali kot druga učna gradiva (Bruck idr., 2012, v Alqurashi, 2017; Zhamanov in Zhamapor, 2013, v Alqurashi, 2017);
- mikroučenje je prispevalo k večji fleksibilnosti pri izbiri učnih vsebin in učinkovitejšemu zapolnjevanju vrzeli v znanju (Kovachev idr., 2011, v Alqurashi, 2017).

Pregled teh raziskav kaže, da ostaja mikroučenje v visokem šolstvu na ravni osnovnih ciljev mikroučenja in nekaterih njegovih praktičnih prednosti, saj poudarjajo predvsem prispevek mikroučenja k boljšemu razumevanju in hitrejšemu pridobivanju manjkajočega znanja ter k večji motiviranosti, sodelovanju in bolj fleksibilnemu učenju.

V zadnjih letih se raziskovalna agenda na področju vloge mikroučenja v visokošolskem izobraževanju počasi širi k bolj kompleksnim učnim ciljem. Göschlberger (2017) je raziskoval, kako na uspešnost mikroučenja pri doseganju učnih ciljev višjih ravni vpliva uporaba družbenih omrežij. Mikroučenje se je pokazalo kot uporaben učni pristop v času zaprtja šol med pandemijo covid-19, posebej za tehnike študije pri razvoju praktičnih kompetenc; evalvacija je odkrila vrsto možnosti za izboljšave in smiselnost uporabe tega pristopa v postkoronskem obdobju (Wang idr., 2021). Major in Calandrino (2018) sta raziskovala možnost poglabljanja učne izkušnje tako, da študentje z mobilnimi napravami in mikroučenjem povezujejo učno snov s svojim vsakdanjikom in lastnim okoljem, ter ugotovila, da sodobno zasnovano mikroučenje lahko seže prek drobljenja (*chunking*) učnih vsebin.

## METODOLOGIJA

Na Doba Fakulteti smo uspešnost mikroučenja pri doseganju učnih ciljev empirično preverili prek rezultatov poskusne vpeljave mikroučenja v podiplomski predmet Trendi v inovativnem izobraževanju na magistrskem programu Menedžment v sociali in izobraževanju v študijskem letu 2020/2021. Študijski program, v katerega je vključen ta predmet, je organiziran kot izredni študij in je v celoti izpeljan online.

### Udeleženci raziskave

Pri vpeljavi je sodelovalo vseh 24 študentov, vpisanih na ta predmet (velika večina zaposleni, pretežno v javnem sektorju in ženskega spola, starost okrog 40 let).

Mikroučenje smo vpeljali v predmet po dveh poteh:

- prvič tako, da so bili študentje (*pasivni uporabniki* mikroučnih gradiv, s katerimi smo dopolnili osnovno študijsko gradivo);
- in drugič z *aktivno vlogo* študentov kot ustvarjalcev mikroučnih gradiv za učne vsebine, ki so vključene v magistrski program Menedžment v sociali in izobraževanju.

## Instrumentarij

Za spremjanje zadovoljstva študentov z mikroučenjem smo pripravili dve vrsti anket:

- sprotne anekte,
- končno anketo.

S *sprotnimi anketami* smo tedensko zbirali ocene študentov o njihovem zadovoljstvu z mikroučnim gradivom kot *dopolnilom učnemu gradivu* pri predmetu Trendi v inovativnem izobraževanju. Ta predmet se izvaja, tako kot vsi drugi predmeti magistrskega študija na Doba Fakulteti, v celoti online in modularno. Izvedba s poskusno vpeljavo mikroučenja je potekala spomladi 2021 v petih tednih s petimi vsebinskimi sklopi. K učnemu gradivu vsakega sklopa smo dodali še enoto mikroučnega gradiva. Vseh 5 enot je bilo v angleškem jeziku in v videoformatu. Njihova vsebina je na kratko opisana v Preglednici 2 in v opombah. Študente smo zaprosili, da takoj po ogledu posamezne mikroučne enote ocenijo stopnjo strinjanja z naslednjimi trditvami:

- Mikroučna enota mi je koristila pri utrjevanju učne snovi.
- Vsebina mikrouče enote je bila dobro razložena.
- Mikroučna enota mi je bila v pomoč pri razumevanju konkretnih učnih vsebin.
- S pomočjo mikrouče enote sem našel/našla ideje za izboljšave učenja in poučevanja v svojem okolju.
- Mikroučna enota me je spodbudila k nadaljnemu razmišljanju in raziskovanju tehnološko podprtga učenja in poučevanja.

S *končno anketo* smo po izvedbi predmeta pridobili podatke o stališčih študentov, povezanih z *njihovim ustvarjanjem mikroučnih gradiv* z naslednjih vidikov:

- ustreznost soustvarjanja mikroučnih gradiv s strani študentov kot pedagoškega pristopa v visokošolskem študiju nasploh;
- koristnost soustvarjanja mikroučnih gradiv za razvoj predmetnih kompetenc;
- koristnost soustvarjanja mikroučnih gradiv za razvoj digitalnih kompetenc;
- koristnost soustvarjanja mikroučnih gradiv za razvoj kompetenc 21. stoletja.<sup>4</sup>

Pri obeh vrstah anket smo uporabili petstopenjsko Likertovo lestvico ocenjevanja stališč študentov (Sploh se ne strinjam. V glavnem se ne strinjam. Niti se ne strinjam niti se strinjam. V glavnem se strinjam. Popolnoma se strinjam). Pri vsaki trditi smo dodali tudi možnost: Ne morem ali ni mogoče odgovoriti. Za izračun srednje vrednosti strinjanja (M) smo Likertovo lestvico pretvorili v numerično (1 – Sploh se ne strinjam ... 5 – Popolnoma se strinjam).

## Postopek

Uspešnost mikroučenja smo preučili z analizo kvantitativnih in kvalitativnih podatkov, ki smo jih zbrali z več evalvacijskimi metodami: s spletnimi anketami zadovoljstva in

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<sup>4</sup> V literaturi se kot kompetence 21. stoletja najpogosteje navajajo kritično razmišljanje, komunikacija, sodelovanje in ustvarjalnost (*Critical Thinking, Communication, Collaboration, and Creativity*) in so na kratko poimenovane kot kompetence 4C (Joyner idr., 2019).

refleksijami študentov, objavljenimi v blogih, ter z učno analitiko digitalnih podatkov o dosežkih študentov pri samostojnem razvoju mikroučnih gradiv. V tem prispevku povzemamo le glavne ugotovitve na podlagi analize spletnih anket zadovoljstva študentov z mikroučenjem. Prikazani rezultati so glede na značilnosti uporabljene metodologije na stopnji eksploratorne raziskave.<sup>5</sup>

Zaradi metodoloških omejitev (poskusna vpeljava, omejena na številčno majhno skupino študentov pri posameznem predmetu, nizke stopnje anketnih odgovorov, predvsem pri sprotnih anketah) so empirični rezultati eksploratorne narave in analitično omejeni na deskriptivne statistike.

## REZULTATI IN INTERPRETACIJA

V Preglednici 2 prikazujemo najprej, kako zadovoljni so bili študentje z *mikroučnim gradivom kot dopolnilom* učnemu gradivu glede na rezultate anket. Rezultati so prikazani po enotah mikroučnega gradiva zbirno, z izračunom srednje (povprečne vrednosti) stopnje zadovoljstva za vseh pet trditev o tem, kako uporabno je bilo to gradivo za študente.

### Preglednica 2

Ocena študentov o uporabnosti mikroučnega gradiva kot dopolnila učnemu gradivu

| Mikroučno gradivo   | Število aktivnih študentov (24) |                   |                      |                                 |
|---|---------------------------------|-------------------|----------------------|---------------------------------|
|   | Trajanje v minutah              | Izpolnjene ankete | Stopnja odgovora (%) | Srednja vrednost strinjanja (M) |
| SAMR <sup>6</sup> v 120 sekundah                                | 2,00                            | 7                 | 29,2                 | 3,7                             |
| Kratek pregled 4 teorij učenja                                  | 5,47                            | 10                | 41,7                 | 4,4                             |
| Umetna inteligenco v Gartnerjevem ciklu <sup>7</sup> navdušenja | 3,06                            | 5                 | 20,8                 | 3,8                             |
| Kako najti OER: <sup>8</sup> video in slike                     | 5,33                            | 7                 | 29,2                 | 4,6                             |
| Nadgrajena in virtualna resničnost za učenje                    | 2,31                            | 9                 | 37,5                 | 4,4                             |

5 Evalvacija vpeljave mikroučenja na podlagi vseh zbranih podatkov bo vključena v znanstveno monografijo o posodobitvi modela online študija na Doba Fakulteti. Objava je načrtovana za sredino leta 2022.

6 SAMR je kratica za 4-stopenjski model uporabe tehnologije v izobraževanju: substitucija (*substitution*), nadgradnja (*augmentation*), spremištanje (*modification*), redefiniranje (*redefinition*) (Puentedura, 2014).

7 Skupina Gartner od leta 2000 objavlja grafični prikaz stopnji pri uvajanju tehnoloških inovacij, ki je uporaben na različnih področjih diseminacije inovacij. Popularno je ta prikaz imenovan Gartnerjeva krivulja navdušenja ali Gartnerjev krog navdušenja (Gartner's Hype Cycle) (Blosch in Fenn, 2018).

8 OER je kratica za odprte izobraževalne vire (Open Educational Resources – OER). Gradivo dobi status OER, kadar ga je dovoljeno brezplačno za lastne potrebe večkrat uporabiti, spremiščati, predelati, deliti z drugimi – vse to ob navajanju izvirnega avtorstva. Več o OER v Bregar idr. (2020).

Pri vrednotenju rezultatov stališč študentov do koristnosti mikroučnih enot ne smemo spregledati nizkih stopenj odgovora in dejstva, da je bilo v pilotni projekt vpeljave mikroučenja vključenih razmeroma malo študentov (24).

Ne glede na te omejitve pa rezultati kažejo, da sta se pri študentih slabše »odrezali« tisti dve mikroučni enoti, ki nista bili neposredno povezani z izdelavo katere od nalog pri predmetu, pa tudi anketni stopnji odgovora sta nižji. Tematiki SAMR s povprečno oceno 3,7 in Gartnerjeva krivulja navdušenja (povprečna ocena 3,8) nista bili eksplisitno vključeni v učne vsebine predmeta. S temo dvema mikroučnima enotama smo želeli študentom ponuditi priložnost za bolj poglobljeno razumevanje in refleksijo o potencialih tehnologije za inoviranje izobraževanja.

Rezultati na ravni preliminarne raziskave opozarjajo, da mikroučna gradiva *lahko prispevajo k doseganju kompleksnejših kompetenc, a le ob pogoju*, da je vloga mikroučnega gradiva glede na učne cilje in z njimi povezane učne aktivnosti v učnem procesu jasno opredeljena in za študenta smiselna. Biti mora povezana z določeno učno aktivnostjo, ki jo podpira takšna ali drugačna oblika interakcije (na primer reševanje kratkega kviza s povratnimi pravilnimi odgovori, kratek blog in objava v učilnici, vir informacij za izdelavo raziskovalne naloge). Vsekakor pa je poskusna vpeljava mikroučenja kot dopolnilnega učnega gradiva odprla *vrsto drugih raziskovalnih vprašanj* (na primer kako se študentje odzivajo na različne formate mikroučenja, kako se mikroučenje kaže v učnih dosežkih in ne zgolj v zadovoljstvu), ki vodijo v bolj poglobljeno in razširjeno raziskovanje v vsebinskem in metodološkem smislu.

Bolj neposredne in prepoznavne učinke za doseganje višjih in najvišjih ravni učnih ciljev in z njimi povezanih kompleksnih kompetenc kažejo evalvaciji rezultati drugega pristopa, ko so bili študenti *vlogi aktivnih ustvarjalcev učnih virov*.

Zamisel, da preučimo potencial mikroučenja za razvoj kompleksnih kompetenc, kadar študentje sami ustvarjajo mikroučno gradivo, izvira iz koncepta odprte pedagogike in z njo povezane odprte izobraževalne prakse (Bates, 2019). Študentje so v odprti izobraževalni praksi lahko v vlogi predstavnikov, svetovalcev, soraziskovalcev ali pa soustvarjalcev učnega procesa (*students cocreating teaching and learning*). Poročilo *Innovating Pedagogy* Odprte univerze iz Združenega kraljestva je za leto 2021 uvrstilo sodelovanje študentov v učnem procesu (pri ustvarjanju učnih gradiv in načrtovanju programov) med 10 najbolj inovativnih pedagoških pristopov s potencialno zelo do srednje močnim vplivom na prihodnjo izobraževalno praks (Kukulska-Hulme idr., 2021).

Zamisel o doseganju kompleksnejših učnih ciljev s samostojnim ustvarjanjem mikroučnih gradiv študentov smo preverili s timskim delom študentov v okviru pilotnega projekta vpeljave mikroučenja. Študentje so se razvrstili v 6 timov.

Končni cilj vsakega od 6 timov s po 4 člani je bil izdelati *multimedijsko odprto mikroučno gradivo z naslednjimi zahtevami*: gradivo mora izpolnjevati pogoje OER in biti vsebinsko uporabno za enega od predmetov iz študijskega programa, na katerega so vpisani

študentje. Izpolnjevanje te zahteve kvalificira študente kot *soustvarjalce učnih gradiv* v okviru študijskega programa. Vse značilnosti in vsi koraki izdelave mikroučnega gradiva morajo biti strokovno utemeljeni in opisani. Mikroučno gradivo naj bo izdelano kot videoposnetek (vsaj s sliko in zvokom). Ocena<sup>9</sup> timske naloge, ki je zajemala opis zasnove in priprave ter izdelavo mikroučnega gradiva, je prispevala 30 % h končni izpitni oceni predmeta.

Po končani nalogi so študentje s spletno anketo ocenili smotrnost soustvarjanja mikroučnih gradiv kot učnega pristopa nasploh in koristnost tega pristopa za razvoj posameznih kompetenc.

V Preglednici 3 prikazujemo zbirne rezultate ankete *o koristnosti soustvarjanja mikroučnih enot* za študente s srednjo vrednostjo ocene strinjanja na lestvici od 1 do 5. Koristnost soustvarjanja mikroučnih enot so študentje ocenjevali po naslednjih 4 sklopih: kot pedagoški pristop v visokošolskem študiju, glede na razvoj predmetnih kompetenc, digitalnih kompetenc in kompetenc 21. stoletja.

V anketi je sodelovalo 12 od 24 študentov. Stopnja odgovora (50 %) je pri tej anketi torej precej višja kot pri sprotnih anketah (Preglednica 2).

Analiza rezultatov končne pilotne ankete kaže, da so študentje vlogo soustvarjalcev mikroučnih gradiv *zelo dobro sprejeli*. Povprečna stopnja strinjanja je samo pri eni od afirmativnih trditev o pomenu soustvarjanja učnih virov enaka 4 (od 5 možnih točk), vse ostale so višje. Študentje so ta pristop ocenili kot zelo koristen nasploh in tudi glede na to, koliko pomaga pri razvoju ključnih kompetenc, kakršne bodo zelo verjetno potrebovali na delovnem mestu (poleg predmetnih kompetenc še digitalne kompetence in kompetence 21. stoletja). Pri tem velja poudariti, da gre za razvoj kompetenc na višjih ravneh zahtevnosti: pri predmetnih in digitalnih kompetencah gre večinoma za sposobnost uporabe znanja, kompetence 21. stoletja pa se uvrščajo v vrh Bloomove taksonomije (analiza, evalvacija in ustvarjanje).

Zasnova kompleksne učne aktivnosti, ki temelji na aktivnem, samostojnem in hkrati sodelovalnem ustvarjanju mikroučnega gradiva ter zahteva povezovanje različnih učnih vsebin (na primer povezovanje koncepta mikroučenja z OER, uporabo medijev, načrtovanjem programov) in prenos teh znanj v prakso, omogoča doseganje *višje kompetentnosti sočasno na več področjih*. Mikroučenje se je v poskusni vpeljavi na Doba Fakulteti pokazalo kot zelo prikladna oblika za uresničevanje koncepta odprte pedagogike s študentskim soustvarjanjem učnih virov. Uporabljeni pristop je tudi učinkovit vzvod za doseganje kompleksnih kompetenc, ki bistveno presegajo domet mikroučenja na ravni boljšega pomnenja.

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<sup>9</sup> Pri ocenjevanju smo uprabili več kriterijev, razčlenjenih po metodologiji Rubrics. Osnovni kriteriji, ki smo jih v shemi Rubrics konkretizirali, dodatno razčlenili in točkovno ovrednotili, so bili: kakovost učne vsebine, sposobnost implementacije teoretskih konceptov v praksi, izraba tehnoloških potencialov, sodelovanje v timu, upoštevanje tehničnih navodil za strokovna dela.

**Preglednica 3**

Ocena študentov o koristnosti soustvarjanja mikroučnih gradiv

| Koristnost soustvarjanja mikroučnih gradiv za študente | Srednja vrednost strinjanja (M) | Koristnost soustvarjanja mikroučnih gradiv za študente  | Srednja vrednost strinjanja (M) |
|--|---------------------------------|---|---------------------------------|
| Pedagoški pristop na visokošolski ravni                |                                 | Kompetence 21. stoletja                                 |                                 |
| ni nalogu študentov                                    | 2,3                             | spodbuja kritično razmišljanje študentov                | 4,1                             |
| je izguba časa za študente                             | 1,8                             | omogoča večjo ustvarjalnost študentov                   | 4,4                             |
| je odlično motivacijsko sredstvo                       | 4,3                             | razvija komunikacijske in sodelovalne veščine študentov | 4,0                             |
| spodbuja plagiatorstvo                                 | 1,8                             |   |                                 |
| odvrača od študija                                     | 1,9                             |   |                                 |

| Predmetne kompetence  |     | Digitalne kompetence   |     |
|---|-----|--|-----|
| poglablja razumevanje koncepta odprtih licenc (Creative Commons)              | 4,3 | izboljšuje poznavanje in usposobljenost za uporabo digitalnih orodij | 4,3 |
| poglablja razumevanje koncepta odprtih izobraževalnih virov (OER)             | 4,3 | prispeva k večji digitalni pismenosti študentov                      | 4,3 |
| prispeva k učinkovitejšemu prenosu znanja in predmetnih kompetenc             | 4,3 |  |     |
| spodbuja razvoj kompetenc za samostojno oblikovanje programov e-izobraževanja | 4,4 |  |     |

**RAZPRAVA: OMEJITVE IN IZZIVI MIKROUČENJA**

Potencialne prednosti, ki jih je posameznik deležen z mikroučenjem, se seveda ne realizirajo v polnem obsegu pri vsakem primeru mikroučenja. To je odvisno od formata mikroučenja, njegove umestitve v učni proces, učne vsebine, značilnosti učečega se in drugih dejavnikov. Prvi pogoj za realizacijo prednosti je kakovost mikroučenja. Za kakovostno zasnovano mikroučne enote in izdelavo mikroučnih gradiv sta potrebni vsaj temeljno poznavanje problematike načrtovanja in razvoja programov e-izobraževanja in osnovno obvladovanje digitalnih orodij za kreiranje digitalnih mikroučnih gradiv (Allela, 2021; Bregar idr., 2021, str. 65–166). Mikroučna enota je ob določenih specifičnostih pač program e-izobraževanja v malem.

Mikroučenje je v praksi pogosto »žrtev« napačnega razumevanja in zmotnih predstav. V praksi se pogosto srečamo s primeri, ko se kratke učne vsebine v obsegu okrog 5 minut enačijo z mikroučenjem, ko se kratek videoposnetek opiše kot mikroučenje, ko se mobilno učenje obravnava kot sopomenka za mikroučenje. Mikroučenje se pogosto zaznava kot zelo privlačna oblika izobraževanja, ker naj bi ji bil kos vsakdo, ki zna razdrobiti učno vsebino in te drobce (koščke) spraviti v elektronski format, dostopen z mobilnimi napravami. Mikroučenje naj bi bilo zato tudi poceni. Morda so te poenostavitev, vsaj deloma, tudi posledica poimenovanja tega pristopa, kajti predpona »mikro« implicira preprostost, enostavnost. V resnici sta razvoj mikroučnih enot in izdelava kakovostnih mikroučnih gradiv strokovno delo, ki zahteva specifično znanje in kompetence.

Tudi za ustrezno umetanje mikroučenja v obsežnejše izobraževalne programe potrebujemo kompetence s področja načrtovanja izobraževalnih programov. Uporaba mikroučenja namreč prinaša precejšnje zagate, kadar je del vsebine iztrgan iz celote in obstaja nevarnost, da učeči se ne prepozna medsebojne povezanosti in soodvisnosti posameznih delov učne vsebine.

Vsekakor pa mikroučenje ni primerno za kompleksne in bolj zapletene učne vsebine, ki jih ni mogoče kakovostno in celovito (v enem kosu) predstaviti v nekaj minutah. Mikroučenje tudi ni dobra strategija učenja za obravnavo novih tematik, pri katerih je veliko odprtih vprašanj in nejasnosti ter pri katerih se pojavljajo novi koncepti, ki zahtevajo več razlage in celovito osvetlitev z različnih vidikov.

## ZAKLJUČEK

Naše raziskovanje mikroučenja na podlagi literature in lastne pedagoške prakse potrjuje, da je prodor tehnologije prek vse bolj zmogljivih in funkcionalnih mobilnih naprav in aplikacij omogočil razvoj mikroučenja, ki sega prek prvotnega koncepta učenja kratkih vsebin zaradi boljšega pomnenja. Potenciali mikroučenja se danes kažejo na dveh ravneh: prvič, omogočajo avtentično učno izkušnjo tudi v formalnem visokošolskem izobraževanju, ki je blizu realnim problemom in načinu dela v neformalnem izobraževanju in usposabljanju ter tudi blizu načinu pridobivanja in uporabe informacij v digitalni družbi. Drugič, z ustreznim pedagoškim pristopom in smiselno izrabo tehnoloških možnosti lahko z mikroučenjem pridobivamo tudi bolj kompleksne kompetence. Eksploratorno raziskovanje, ki temelji na poskusni vpeljavi mikroučenja na ravni enega predmeta na Doba Fakulteti, kaže, da dosegamo z mikroučenjem pri razvoju kompleksnih kompetenc in motiviraju študentov še posebej spodbudne rezultate, kadar uporabimo aktivni pristop, ko študentje s timskim delom samostojno kreirajo mikroučna gradiva, namenjena odprti uporabi (OER). Ocenujemo, da sama zamisel in izvedba poskusne vpeljave mikroučenja na Doba Fakulteti ter s tem povezani rezultati kljub eksploratorni naravi raziskovanja spodbujajo širše preverjanje uporabnosti prikazanega pristopa v pedagoški praksi in bolj poglobljeno raziskovanje.

V kakšni smeri se bo mikroučenje v prihodnje razvijalo, je težko napovedati. Kljub prednostim mikroučenje ni univerzalna rešitev, ki bi lahko izpodrinila druge oblike in

strategije izobraževanja in usposabljanja zaposlenih in še v manjši meri v formalnem izobraževanju. Vsekakor lahko pričakujemo, da se bo moral visokošolski sektor, če se želi približati izobraževalnim potrebam v podjetjih, v določenem obsegu oddaljiti od enovitih in obsežnih študijskih programov, razstaviti (*unbundling*) učne načrte in ponuditi izobraževalne programe na osnovi modulov in mikroučenja (Gallagher, 2017).

Pričakujemo, da bosta prodor umetne inteligenčne in možnost vključevanja virtualnih inteligenčnih tutorskih sistemov nadgradila dosedanji koncept mikroučenja, ki predpostavlja samostojno in samousmerjeno učenje ter usposabljanje brez pedagoške podpore. Zelo verjetno bo k širjenju mikroučenja v prihodnjih letih prispevalo tudi to, da na trg dela vstopa generacija milenijcev, ki je že od malega navajena sprejemati informacije po koščkih, nenehno, na zahtevo, kadarkoli in kjerkoli, s svojega »mobilca«. Mladim je treba ponuditi možnosti, da se bodo na podoben, a strokovno utemeljen način lahko učili in usposabliali ne le na delovnem mestu in priložnostno, temveč tudi v okviru formalnega izobraževanja ne glede na to, ali je to izpeljano tradicionalno, znotraj šolskih zidov, kombinirano ali pa na daljavo. Prvi korak v tej smeri je nedvomno ozaveščanje in ustrezno usposabljanje nosilcev izobraževanja.

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Corinne Brion

# THE IMPACT OF CULTURE ON LEARNING TRANSFER IN BURKINA FASO AND GHANA

## ABSTRACT

*Culture is a predominant force in people's lives that impacts learning and thus culture influences learning transfer. Because working across nations has become the norm and every year billions of dollars are spent on professional learning around the world, it is crucial for organisations to understand the role culture plays in the learning transfer process. Using a multidimensional model of learning transfer and the six dimensions of national culture model as conceptual frameworks, this qualitative study used a case study approach to examine the impact of culture on learning transfer in Burkina Faso and Ghana, West Africa. Interviews were conducted with 20 principals who attended leadership professional learning in Ghana and Burkina Faso. Data collection also included observations and document analysis. Findings indicated that several cultural factors influenced learning transfer in these two nations in the areas of pretraining and follow-up. Based on these findings, the author offers recommendations.*

**Keywords:** *six dimensions of national culture, training, learning transfer, professional development, professional learning*

## VPLIV KULTURE NA PRENOS ZNANJA V BURKINI FASO IN GANI – POVZETEK

Kultura je prevladujoča sila v življenju ljudi, ki vpliva na učenje in tako na prenos znanja. Ker je delo v mednarodnem okolju postalo ustaljena norma in se po svetu vsako leto milijarde dolarjev porabijo za strokovno učenje, je ključnega pomena, da organizacije razumejo vlogo kulture pri prenosu znanja. V članku je predstavljena kvalitativna študija, ki znotraj pojmovnega okvira večdimenzionalnega modela prenosa znanja in modela šestih dimenzijs nacionalne kulture v obliki študije primera raziskuje vpliv kulture na prenos znanja v Burkini Faso in Gani v Zahodni Afriki. Opravljeni so bili intervjuji z 20 ravnatelji, ki so se udeležili vodstvenega strokovnega izpopolnjevanja v Gani in Burkini Faso, zbiranje podatkov pa je vključevalo tudi opazovanje in analizo dokumentov. Rezultati so pokazali, da pri teh dveh narodih na prenos znanja vpliva več kulturnih dejavnikov, in sicer v začetni in naknadni fazi. Na podlagi rezultatov so bila pripravljena tudi priporočila.

**Ključne besede:** šest dimenzijs nacionalne kulture, usposabljanje, prenos znanja, strokovno izpopolnjevanje, strokovno učenje

## INTRODUCTION

In 2020, American organisations alone spent \$82.5 billion on professional learning (PL) to develop their employees' skills and knowledge base (Statista, 2020). Yet and despite the money invested, seminal scholars such as Ford et al. (2011) and Saks and Belcourt (2006) maintained that these investments yield low to moderate results because employees do not often transfer the newly acquired knowledge to their workplaces. Saks and Belcourt (2006) affirmed that in Canada the rate of transferring learning to the workplace is low, with estimates of 38% of trainees failing to transfer immediately after PL events and almost 70% faltering after a year.

Culture is a predominant force in people's lives that impacts learning and the implementation of that learning (Rahyuda et al., 2014; Yang et al., 2009). Because working across nations has become the norm and cultures are not homogeneous among nations, it is crucial for organisations to understand the role culture plays on the learning transfer process in order for organisations to get a return on their financial, time, and human investments (Raver & Van Dyne, 2017).

Being able to transfer newly acquired knowledge and skills is the ultimate goal of PL, yet it is the most challenging to achieve (Baldwin et al., 2017; Grossman & Salas, 2011). Despite the large amount of research on learning transfer, there are a limited number of empirical field studies (Choi & Roulston, 2015; Rahyuda et al., 2014). There are also few learning transfer models that account for cultural differences in the transfer of learning process (Rahyuda et al., 2014; Yang et al., 2009). To date, learning transfer models have outlined the importance of organisational culture (Ford, 2020; Gil et al., 2021) and specifically the role transfer climate plays in enhancing or hindering learning transfer (Blume et al., 2019; Grossman & Salas, 2011; Hughes et al., 2018) but none have taken into consideration the central influence of culture on the transfer process. The purpose of this qualitative study was to fill this knowledge gap by examining how, if at all, cultural factors influence learning transfer. To illustrate the importance that culture has on PL and because there is a lack of studies that offer a practical perspective from developing countries (Rahyuda et al., 2014), this study took place among educational leaders in two West African countries: Burkina Faso and Ghana. If practitioners and PL organisers understood how culture affects learning transfer, organisations around the world would get a better return on their investments because the implementation of new knowledge would take place. In addition, employees would feel more empowered which would have a positive impact on the organisation's climate and culture.

This research adds to the learning transfer literature while also providing some country-specific and practical recommendations that will benefit training organisers and facilitators in Burkina Faso and Ghana. These recommendations will also provide a blueprint that other facilitators, leaders, and human resource officers in global organisations and multinational corporations can use to reflect on their learning transfer practices within the culture in which they operate.

## LITERATURE REVIEW

Learning transfer, also referred to as training transfer, is defined as “the effective and continuing application by learners—to their performance of jobs or other individual, organizational, or community responsibilities—of knowledge and skills gained in the learning activities” (Broad, 1997, p. 2). Learning transfer has been studied for over 30 years theoretically and quantitatively in the organisational psychology, business and human resource development fields. In their seminal meta-analysis paper, Baldwin and Ford (1988) were first to categorise the enhancers and inhibitors to learning transfer. The authors organised them into three input factors: (1) the factors related to learners’ characteristics; (2) the factors pertaining to the intervention design and delivery; and (3) the factors affected by the work environment. The influence of cultural factors as described by Hofstede (2011) on learning transfer was absent from any of the training inputs.

Broad and Newstrom (1992) identified six key factors that either hinder or promote learning transfer: (a) program participants, their motivation and dispositions and previous knowledge; (b) program design and execution including the strategies for learning transfer; (c) program content which is adapted to the needs of the learners; (d) changes required to apply learning within the organisation, complexity of change; (e) organisational context such as people, structure, and cultural milieu that can support or prevent transfer of learning. Following Broad and Newstrom’s work, Holton et al. (2000) created, piloted, and validated in 24 countries a 16-factor Learning Transfer System Inventory (LTSI) based on 16 constructs (Table 1). The LTSI was designed as a pulse-taking diagnostic tool for training organisers. As with previous models, each of these constructs can hinder or promote learning transfer. As Table 1 indicates, there is no mention of culture.

**Table 1**  
*Learning Transfer System Inventory (LTSI)*

| Capability         | Motivation   | Work Environment   |
|--------------------|--|--|
| Content validity   | Transfer effort:<br>Performance expectations         | Supervisor support   |
| Transfer design    | Transfer performance:<br>Outcome expectations        | Supervisor sanctions   |
| Opportunity to use | Learner readiness                                    | Peer support   |
| Personal capacity  | Motivation to transfer<br>Performance, self-efficacy | Performance coaching<br>Personal outcomes: Positive<br>Personal outcomes: Negative<br>Resistance to change |

Adapted from “Development of a generalized learning transfer system inventory,” by E. F. Holton III, R. A. Bates and W. E. Ruona, 2000, *Human Resource Development Quarterly*, 11(4), pp. 338–340.

In their meta-analysis, Burke and Hutchins (2007) reviewed 170 articles and posited that anxiety and negative affectivity, openness to experience, and organisational commitment were the factors that influenced the transfer of learning most. Additionally, the climate, support, and being given the opportunity to transfer the new knowledge also influenced the transfer process. In this meta-analysis, there was no consideration of the impact of culture on learning transfer.

More recently, Blume et al. (2010) reviewed 89 quantitative studies in the United States and Canada and explored the impact of predictive factors such as trainee characteristics, work environment, and training interventions on the transfer of training to different tasks and contexts. The authors also examined moderator effects of the relationships between these predictors and transfer. The results confirmed positive relationships between transfer and predictors such as cognitive ability, conscientiousness, motivation, and a supportive work environment. Several moderators had significant effects on transfer relationships, including the nature of the training objectives but none of the studies considered the influence of cultural factors on the transfer process in a national context.

“Culture is the collective programming of the mind that distinguishes the members of one group or category of people from others” (Hofstede, 2011, p. 3). Because learning is a social endeavour and knowledge is contextual, people’s cultures impact the way they learn, interact, communicate, and resolve conflicts (Lindsey et al., 2018). Culture also impacts learning transfer because if people do not learn due to a language barrier or because respect is not shown for traditions and preferred learning styles (collectivistic versus individualistic, for example), they will not be able to implement the new knowledge in their jobs.

There are currently a limited number of research studies that examine the influence of culture on learning transfer (Caffarella & Daffron, 2013; Closson, 2013; Sarkar-Barney, 2004; Silver, 2000; Yang et al., 2009). These scholars are among the few authors affirming a relationship between cultural factors such as collectivism versus individualism and learning transfer. Yang et al. (2009) asserted that the fundamental reason why cultural factors impact PL is that learning is a social process that takes place in certain cultural contexts. These authors posited that cultural factors affect PL events via the content, the selection of facilitators, and the preferred methods of delivery. For example, for nations that tend to be collectivistic on Hofstede’s (2011) six dimensions of national culture, group work would most likely promote learning and enhance learning transfer.

Scholars posited that cultural differences do not only impact learning (Raver & Van Dyne, 2017) and the training process (Yang et al., 2009), but that cultural differences also influence learning transfer (Closson, 2013) because if learners cannot learn, they cannot transfer new knowledge and skills. Beyond an awareness of who is represented in the room socially and ethnically, Caffarella and Daffron (2013) asserted that learning transfer should be discussed within contexts because context affects the way we teach, what we teach, and how we teach. Moreover, these authors affirmed the necessity for facilitators

to be culturally sensitive and understand norms, traditions, and culture to facilitate the transfer of learning. According to Caffarella and Daffron (2013), the planning phase of PL is when facilitators can deliberately include culturally responsive approaches that are informed by the nation's scores on Hofstede's (2011) dimensions of national culture.

Sarkar-Barney (2004) proposed a framework for global organisations that develop training in one context and deploy them internationally. The author used Baldwin and Ford's (1988) three input factors and posited that there were two levels of cultural values that impact learning transfer: individual level values such as openness to change and culture-level values such as conservatism versus autonomy. The author concluded her theoretical paper by asserting that cultural differences in training practices are not well understood. Rahyuda et al. (2014) supported the importance of culture in the learning transfer process and affirmed that there was a lack of studies examining the impact of culture and post-training interventions, particularly in developing countries. They also affirmed the need to conduct empirical rather than laboratory and simulation-based studies.

This study sought to understand the influence of cultural factors on the learning transfer process in the areas of pretraining and follow-up. To better comprehend the impact of culture on learning transfer, I used the Multidimensional Model of Learning Transfer (MMLT) (Brion, 2021) and Hofstede's (2011) model of national culture to analyse the data.

## **CONCEPTUAL FRAMEWORK**

On the basis of the literature on the role of culture in the learning transfer process, some authors argue that there is a need for a comprehensive, multidimensional, and unifying model of learning transfer that considers culture as a key factor (Raver & Van Dyne, 2017). Therefore, I merged and extended existing models of learning transfer to construct the MMLT (Brion, 2021).

### **Multidimensional Model of Learning Transfer (MMLT)**

The MMLT (Brion, 2021) is a culturally grounded and evidence-based model that developed from data collected, analysed, and synthesised over six years in educational institutions in five African nations (Brion, 2021). Even though the data were collected in Africa, the findings could be informative to nations with similar scores on Hofstede's (2011) six dimensions of national culture. In the MMLT, I assert that culture is the predominant enhancer and inhibitor to transfer and that culture affects the entire learning transfer process (Brion, 2021). Considering culture as the main enhancer or inhibitor to transfer is useful because organisations spend large amounts of money and resources on PL that do not often yield improved outcomes. MMLT is composed of six dimensions: Pretraining, Learner, Facilitator, Material and Content, Context and Environment, and Post-Training (Figure 1). In the MMLT, culture is the overarching factor that affects all other dimensions of learning transfer. A description of the MMLT elements is provided below.

### *Pretraining*

As Figure 1 indicates, pretraining includes the orientation of facilitators and other key stakeholders so that they can support the PL once it has begun. Pretraining also includes communicating expectations to facilitators and learners, explaining who will benefit from the PL event, stating that participants are accountable to implement new knowledge and sharing the schedule, goals, and information that is perceived as mandatory (Yang et al., 2009).

### *Learner*

Learners are the participants in the PL program. This dimension refers to understanding the learners' motivation and their background. The learner category also includes understanding differences in learning styles (Lindsey et al., 2018) as well as language and writing differences. It is also comprised of the participants' beliefs and attitudes toward their job (Yelon et al., 2013), whether or not they have the freedom to act, and the positive consequences of that application. Finally, it involves the participants' belief of the efficacy of the knowledge and skills learned (Yelon et al., 2013).

### *Facilitator*

Effective facilitators must understand the adult participants' background as well as their own and how their beliefs may affect learning and the learning transfer (Caffarella & Daffron, 2013). Facilitator also refers to the understanding of language and writing differences, setting goals, and the selection of participants (Yang et al., 2009). Leaders and facilitators should examine the biases they may have towards certain groups of people before teaching and gathering materials for the PL event.

### *Content and Materials*

Content and Materials involves using evidence based, culturally relevant, and contextualised materials (Caffarella & Daffron, 2013). It also involves using a pedagogical approach based on andragogy or how adults learn best (Knowles, 1980; Mezirow, 2000). In this dimension, PL organisers and leaders would ensure that the content reflects the participants' needs and backgrounds.

### *Context and Environment*

This dimension comprises the training and work environment and the sociocultural context. It also refers to having enough time to transfer knowledge, the support for action, the resources, the freedom to act, and peer support (Burke & Hutchins, 2008). Finally, Context and Environment refers to the training incentives: intrinsic incentives such as providing educators with growth opportunities, and extrinsic incentives, such as reward or promotion (Facteau et al., 1995).

### *Follow-up*

Follow-up is often overlooked and is necessary to avoid skill decay and training relapse. Examples include tutor-facilitated networks via mobile technology (Brion, 2018), micro-learning using mobile technology, coaching, testimonials, Professional Learning Communities (PLCs) or Community of Practice (COPs), apprenticeships, coaching, and e-coaching (Speck & Knipe, 2005; Wang & Wentling, 2001).

Understanding how culture practically impacts learning transfer in Burkina Faso and Ghana would help PL attendees implement new knowledge, improve organisations' outcomes while also increasing their company's return on investments in these two nations.

**Figure 1**  
The Multidimensional Model of Learning Transfer





## A Multidimensional Model of Learning Transfer

### PRETRAINING:

- Orient supervisors & facilitators
- Explain that implementation is expected
- Learn about professional learning audience & goals

### LEARNER:

- Understand the cultural background of all stakeholders
- Understand that different learning styles will be present in the professional learning event
- Understand that different languages & writing might be present in the professional learning event

### FACILITATOR:

- Understand the cultural background of all stakeholders
- Understand that different learning styles will be present in the professional learning event
- Need to have the dispositions necessary to be an effective facilitator

### CONTENT & MATERIALS:

- Materials are evidence-based, culturally relevant, & contextualized
- Pedagogical approach used is adult-friendly; it should be based on how adults learn best
- Learn about professional learning audience & goals

### CONTEXT & ENVIRONMENT:

- All stakeholders understand the work environment and socio-cultural context
- Create a climate that fosters transfer
- Allow for peer contact and support

### FOLLOW UP:

- Tutor facilitated networks
- Use of mobile learning
- Use of coaching, e-coaching, PLCs, COPs
- Include detailed feedback, modeling, & reflection

## The Hofstede Model

This paper illustrates the impact of culture on learning transfer in two different contexts, Burkina Faso and Ghana. To do so, I used Hofstede's model (2011) to learn more about each country's culture and frame my data collection and analysis. The model consists of six dimensions (6D) that emerged from a comprehensive study of how values in the workplace are influenced by culture. The countries' positions on the six dimensions are expressed in a score on a 100-point-scale with zero being the lowest possible score. The cultural dimensions represent independent preferences for one state of affairs over another that distinguish countries (rather than individuals) from each other. The dimensions of the model are explained below and Table 2 outlines how Burkina Faso and Ghana scored in each of the dimensions.

### *Power Distance Index (PDI)*

This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. Both Burkina Faso and Ghana score high in this dimension.

### *Individualism Versus Collectivism (IDV)*

Individualist societies refer to societies in which the propensity is for individuals to take care of themselves and their immediate family only. In collectivistic cultures, people think of the needs of the group over individual needs. Both nations are collectivistic.

### *Masculinity Versus Femininity (MAS)*

In this dimension, masculinity represents a preference in society for achievement, competitiveness, heroism, assertiveness, and material rewards for success. On the other hand, femininity embodies an inclination for cooperation, modesty, caring, and quality of life. Burkina Faso and Ghana lean towards femininity.

### *Uncertainty Avoidance Index (UAI)*

This dimension speaks to the degree to which individuals are uncomfortable with uncertainty. Both countries scored high indicating a preference to avoid uncertainties.

### *Long-Term Orientation Versus Short-Term Normative Orientation (LTO)*

Long-term orientation denotes a society that is focused on the future. Short-term orientation societies focus on the present or past and value traditions. Both countries value traditions.

### *Indulgence Versus Restraint (IND)*

Indulgence refers to a society that accepts having fun and enjoying life. Restraint is for a society that eliminates the gratification of needs and controls it with strict social norms. This research project focused on the power distance, uncertainty avoidance, and long-term orientation dimensions.

**Table 2**  
*Cultural Profiles: Burkina Faso and Ghana*

| Cultural Dimension         | Burkina Faso | Ghana |
|----------------------------|--------------|-------|
| Power Distance             | 70           | 80    |
| Individualism/Collectivism | 15           | 15    |
| Masculinity/Femininity     | 50           | 40    |
| Uncertainty Avoidance      | 55           | 65    |
| Long-Term Orientation      | 27           | 4     |
| Indulgence                 | 18           | 72    |

## METHODS

This qualitative study used a case study design to better understand the impact of culture on learning transfer. I opted for a case study approach because it provides the ability to examine in detail a phenomenon as it manifests in everyday contexts (Yin, 2014). The unit of analysis was school principals across two countries, framing the case study to explore the impact culture has on learning transfer. In this paper, I report the findings related to the following research question: What elements of Hofstede's (2011) six dimensions of national culture and what dimensions of the MMLT influenced learning transfer?

Prior to conducting the study, I sought and received approval from my institution's Institutional Review Board (IRB). The purpose of this process is to ensure that the research design does not violate the ethical institutional and federal guidelines.

### Selection of Sites

The sites selected for this research study were seven leadership PL events in Burkina Faso and 18 in Ghana over the course of six years. Each PL program lasted for two or three days. The participants were school leaders and proprietors of Low-Fee Private Schools. These sites were selected because I had been working in these countries and had access to these schools and training sessions.

### Selection of Participants

This research relied on a purposive criterion sampling of 20 men and women principals, 10 in each country, working in Low-Fee Private Schools in urban and rural areas. Their age ranged from 36 to 62 years old. Purposive sampling allowed me to select participants from whom I could learn the most to answer the research question of the study (Creswell, 2013; Patton, 2002). Criterion sampling was also used to select participants. Criterion sampling involves selecting participants that meet a predetermined criterion (Patton, 2002). Participants were chosen according to their willingness to participate in the study, their ability to attend the three-day school leadership training, and their aptitude to speak and understand the national languages, French for Burkina Faso and English for Ghana.

## Data Collection

Data collection included interviews with 20 school leaders in 2018, field notes pertaining to how the six dimensions of national culture (Hofstede, 2011) influenced learning transfer from 70 days of training observation, as well as document analysis.

### *Interviews*

In 2018, I conducted one-on-one interviews with 10 principals from Burkina Faso and 10 principals from Ghana during the fifth year of my work in West Africa, which allowed me to more deeply understand the cultural differences and commonalities between the nations. The interviews were semi-structured, open-ended and lasted 45 minutes. An interview guide was developed. I asked open-ended questions such as “Tell me what helped you to implement the new knowledge after the PL” and “What prevented you from implementing that knowledge?” Interviews were audio taped and transcribed verbatim in French and English. The French transcriptions were not translated into English but rather coded in French, my native language. These interviews occurred approximately three months after the principals attended the three-day school leadership PL to allow for reflection and transfer time.

### *Training Observation*

I observed the 20 principals during the PL events. I observed a total of 70 days of training over six years: 25 in Burkina Faso and 45 in Ghana. Per Wolcott’s advice (1994), the observations were structured. I used a check list to help me identify instances of when culture influenced the training and learning transfer. The check list was inspired by Hofstede’s (2011) six dimensions of national culture and included items related to power distance, long-term orientation, and uncertainty avoidance. These notes and check list were later coded and added to the data analysis to understand the influence of culture on learning transfer.

### *Document Analysis*

I analysed group text messages from WhatsApp. The PL facilitator used the WhatsApp application to follow-up with the participants after the PL. This follow-up method was used in Ghana only as Ghana is more technologically advanced than Burkina Faso and most participants in Burkina Faso did not have a smartphone at the time of the study. I analysed text entries from the WhatsApp platform as a form of document analysis.

## Data Analysis

Coding is the base of the analysis (Saldaña, 2009). Due to the large amount of data to code, the data were pre-coded by highlighting significant participants’ quotes or passages that related to the research questions (Miles & Huberman, 1994). The pre-coding allowed me to place relevant quotes under the MMLT’s pretraining and follow-up categories. Following the pre-coding, the analysis of qualitative data took place over two cycles of

coding. In round one, I used in vivo coding to develop codes for each key point emerging from the interviews, documents, field notes, and journal. Examples of codes that emerged from the data during this coding phase included titles, gender issues, age differences affect interactions. In round two, using axial coding, I grouped the preliminary codes into overlapping categories to create themes. Examples of codes were power dynamics, formalities, group.

### **Trustworthiness**

To enhance the present study's internal validity, I included four strategies into the design of the present study. First, I triangulated the data using several different sources of data such as the interviews, numerous observations, and document analysis. The different sources of data contributed to achieving saturation and the quality of the data collected (Creswell, 2013). Second, I went back to the participants to ask them to check the accuracy of the findings (Mero-Jaffe, 2011). Third, I created a data trail (Rodgers, 2008). This is a qualitative research practice where I copied the participants' quotes from the present study's transcript data and pasted them under each theme that emerged from the data analysis. This strategy helped ensure that sufficient transcript data supported the results that I reported in this study. Following this process also ensured that I was not sharing my viewpoint but, rather, the perspectives of the participants.

## **FINDINGS**

To preserve the integrity of the findings, I used the participants' comments verbatim. I also used pseudonyms to protect the anonymity of the participants. The findings are categorised using the MMLT and Hofstede's (2011) 6D when applicable. In this paper, I share the findings pertaining to the MMLT's pretraining and follow-up categories because these are the dimensions that are often overlooked in the learning transfer process. In Hofstede's (2011) model, the data indicated that culture affected the dimensions of uncertainty avoidance, long-term orientation, and power distance. Other cultural factors that were important to foster learning transfer were the notion of time and the use of technology to communicate and be reminded of the learning that took place in the PL.

### **Pretraining**

During the six years that I worked in Burkina Faso and Ghana, I saw in all the principals the following cultural factors affecting the pretraining phase and appeared to hinder learning transfer: the notion of time, the importance of avoiding uncertainty, respecting traditions and understanding how power is viewed and enacted.

#### *The Notion of Time*

In both nations, the notion of time was lived differently. In Burkina Faso, the participants arrived one hour early to the PL and the event started on time, whereas in Ghana, it was common for the PL to start two to three hours after the scheduled time as the team of

facilitators would wait for most of the attendees to arrive. In my journal, I wrote the following comment regarding the notion of time: "Coming from the West, I often wondered if the tardiness was due to the heavy traffic or the fact that participants were school leaders who may have gone to their schools prior to the start of the PL." Curious about the reasons for such dissimilarities between Burkina Faso and Ghana, I sought some explanations from the participants and their Ghanaian local colleagues who explained that "it was cultural." My local colleagues advised the facilitating team to start the PL on time. Agnes explained: "As participants see the value in the PL, they will come on time, they come late first because they do not know what they can gain from training events, it happens all the time." A Ghanaian principal named Godwin used a joke to make fun of himself: "You Americans have nice watches, but we have the time." Although this joke may be seen as a stereotyped notion of culture, it denoted the unperturbed attitude that the Ghanaians had towards time and was important to facilitators so they could plan their PL accordingly and learning transfer was not inhibited.

Understanding the notion of time has important repercussions for the pretraining phase. During this phase PL organisers should orient facilitators on cultural differences, communicate expectations and norms to facilitators and learners, explain who will benefit from the training, state that the participants are accountable for implementing new knowledge, and share the schedule. If participants come late, they miss some training content and thus they will not be able to transfer knowledge they may have missed due to the different understandings of the notion of time. It was also important to know that Burkinabe come early to PL events as facilitators could use this time to bond with their audience, re-explain concepts, and ask participants about their schools. Josephine explained: "I do not have many opportunities for education, so if it is there, I must embrace all of it and do not want to miss one minute of it because I want to improve my school." Caleb shared this sentiment: "We generally come on time or early because we want to learn and pick up new ideas and meet other colleagues." Eli similarly stated: "We were invited and told that important information will be shared, so we have to come on time to learn, and anyway we expect our students to come on time so why shouldn't we?" Eli stated that the attendees were "invited" to the PL programming. These invitations were given to participants during the pretraining phase and appeared to be important culturally to avoid uncertainty.

### *Uncertainty Avoidance*

In Hofstede's (2011) 6D, both countries showed a preference for avoiding uncertainty. This was key in understanding how to organise the training because participants did not feel comfortable not knowing about the PL event ahead of time. Participants requested clear descriptions of the training and why they should attend, how the training would benefit their schools, who the facilitators were, the PL goals, and a detailed schedule for each day that outlined breaks and lunch times. When I asked local colleagues in both nations about the need to create an hour per hour schedule, they replied:

It is part of our culture, you just have to do it, or they will not come. I think it is because it takes a lot of effort to come to a training, transportation in the dust, time, gas, so they want to know if it will be worthwhile.

Martha from Burkina Faso added:

I like to know what is going to happen in advance, so I can get prepared, get there on time, and get coverage at school and at home. I also like to know where the training is and if there are breaks and food, so I know if it is going to cost me money.

Adwoa in Ghana shared the sentiment of the group when she said: “I think it is nicer when we know all the details and expectations in advance so we can decide to come or not.” Reuben noted:

We also do not often go to hotels for a training, so when we know the location in advance, the detailed content and if we are expected to do something post training, who will be there because we do not want to waste our time with training that is not well put together and do not force us to improve.

As the participants mentioned, providing detailed information ahead of time was not only a cultural expectation, but it also increased motivation, attendance, and punctuality. Avoiding uncertainty by preparing a detailed description of the PL allowed participants to decide to attend the PL or not. During the pretraining period, PL organisers have an opportunity to communicate the value of the PL and the importance of its application, which leads to the participants’ belief of the efficacy of the knowledge and skills learned, an important enhancer of learning transfer.

#### *Long-Term Orientation: Formalities Matter*

Short-term orientation societies focus on the present or past, and value traditions (Hofstede, 2011). Both countries scored very low in long-term orientation, indicating that people value and honour traditions. Burkina Faso, however, is more formal than Ghana when it comes to PL. For example, is not unusual for Burkinabe to have an opening and closing ceremony with media, speeches, and special addresses at PL sessions. Being French, I could hear the formality of the French language during these ceremonies. In an excerpt of my journal, I wrote:

I could see the conventionalism and importance of these events in the formal traditional attires people wore. During the pre- and post-PL ceremonies, organisers or authority figures gave formal speeches outlining their roles and titles, the importance of the training, and welcoming participants and facilitators.

This custom was essential to understand when planning for PL in order to include more time for speeches and closing remarks. It was also important for facilitators to prepare a speech. Finally, understanding this tradition helped build trust and rapport among the participants, local dignitaries, and officials. Additionally, this cultural practice was significant for PL because time and resources had to be allocated for the ceremonies. When asked about these ceremonies, participants stated that they were sort of markers and that they created memories. In particular, Joshua shared: “You know status is important, so when you go to a training and there is a ceremony with important people coming to value the training and tell us to use it in our schools, it tells us that we should go too.” Momo explained: “If local dignitaries tell us that the training has value and that the content needs to be implemented, we believe it, so we are more likely to also see value in the training.” Joshua and Momo indicated that mentioning these ceremonies and guests when sending a formal invitation during the pretraining phase was a contributing factor to attending and implementing the new knowledge. Knowing the importance and potential impact of these ceremonies on learning transfer, PL organisers could schedule accordingly, prepare the room adequately for the festivities, and include them in the invitation sent to the participants prior to the PL.

#### *Power Distance: Titles, Gender, and Age*

Power distance refers to the degree to which the less powerful members of a society accept and expect that power is distributed unequally (Hofstede, 2011). Both countries scored high in this dimension. Power distance was demonstrated among titles, gender, and age; it was particularly apparent in the Burkinabe PL context. Titles were extremely important. If participants were reverends or had any kind of affiliation with the Church, they were automatically respected and trusted by the rest of the group. People tended to let reverends speak first. Moreover, academic titles and formal educational levels appeared to matter to trainees. For example, Eli described the local facilitators holding a PhD as “important people.” Emile expanded on this idea when he said: “You know here, it makes you look like someone if you have a title and you get respect and recognition, so we are more likely to attend a training and use the knowledge learned if people are known and or have titles.” Ama seconded this perspective when she said: “If there is a famous or semi-known pastor in the room, I will come because if that person sees value in the training, I better see it too.” In their own words, Emile and Ama shared that who is in the PL room matters at first and has an influence on transfer. Consequently, during the pretraining, organisers could share the participants’ names and affiliations if and when culturally and legally appropriate.

Power distance was also expressed in relation to gender and age. Martine, who is in her late thirties, expressed the following: “It is culturally inappropriate when a younger person brings new ideas so if the session leaders and facilitators do not create the conditions for sharing safely and equitably, women and particularly younger women will not share.” Lizette explained: “I need new blood in the school. In Africa, we tend to respect the old brother, the elder, but we cannot ask him to do what you want him/her to do.” She felt that

being a young leader, it is culturally easier to work with young people due to the power distance that exists with elders. What Martine and Lizette said has the potential to impact transfer because learning is a social and a cognitive activity and if women and younger participants feel stifled, unable to fully participate and be involved in the PL, they will not learn as much as they might have and hence will not be able to transfer as much either. The follow-up dimension of the MMLT was also impacted by culture.

### **Follow-up**

Using WhatsApp as a post PL intervention was “brilliant” according to Reuben and Ama as “it reminded us of the training, encouraged us to continue to learn more from peers and encouraged us to do something.” Adwoa agreed with her colleagues and said: “We saw our colleagues post things they had done at their schools, so it motivated us to implement too.” Asantewaa wrote about WhatsApp as a reminder of content learned during the PL: “Comments from my colleagues always draw my attention back to what was learned at the PL. We got ideas and copied some ideas.” Most participants shared that they were happy to hear from colleagues after the PL, keeping “the good atmosphere beyond the training.” Edy, who did not share much on the group text, added: “Despite the fact that I never wrote anything on the platform I was reading all the messages and learned a lot from the others that way.”

In addition, all Ghanaian participants suggested that WhatsApp was motivating due to the peer pressure it created. When the leaders saw photographs on the phone of what their colleagues improved in their schools, they were more inclined to do the same and share their progress on the platform. Helen affirmed this by saying:

When I see other schools making so many changes, I must make some too! I liked what some of my colleagues did and I must now try to do the same at my school. If they can do it, why can't I? I must at least try and show them.

Michel agreed with Helen and wrote: “I do not go to the others’ schools, but I see pictures they send, and it helps me to change too.” Godwin made a similar statement: “Usually after training, people feel reluctant to use what was learned but *WhatsApp* gave us pressure and motivation and it always reminded us to do what we set out to do.”

## **DISCUSSION, IMPLICATIONS, AND CONCLUSION**

### **Pretraining and Follow-up Matter in Learning Transfer**

The findings from this study suggested that several cultural factors influenced learning transfer in the areas of pretraining and follow-up, dimensions that are currently not found together in learning transfer models. Specifically, using the 6D (Hofstede, 2011), uncertainty avoidance, long-term orientation, and power distance had the potential to affect learning transfer in Burkina Faso and Ghana. Two other cultural factors could impact learning transfer: the notion of time and the reliance on a form of communication such

as WhatsApp. WhatsApp is readily accessible and used in Ghana in the training context; in fact, it is the most common way of communicating in Ghana. In terms of pretraining, the study findings are in agreement with Yang et al. (2009) and Ford et al. (2018) who asserted that pretraining was a key component of organising PL since it sets the tone of the event. Similarly to the findings in this study, these authors maintained that PL organisers should orient supervisors so that they can support the training once it has begun and should communicate the expectations to the trainers and the trainees. As a result, this study adds empirical data to the conceptual work of Yang et al. (2009) which posited that pretraining is key and should outline who will benefit from the PL, the schedule, the session goals, and other information perceived as mandatory.

When working in Burkina Faso and Ghana, pretraining is particularly important because local and foreign facilitators may not be familiar with the relation between cultural factors and learning transfer. For example, findings from this research outlined that the Burkina-be culture valued opening and closing ceremonies with dignitaries. Without knowing this and respecting this cultural norm, facilitators may unknowingly disrespect participants and their culture. As a result of this cultural faux pas, participants may not attend the PL or may not be willing to transfer knowledge. In the same way, the participants highlighted the importance of having logistical details ahead of time, which is particularly important when working in countries or with people from cultures that score high in Hofstede's (2011) uncertainty avoidance dimension. Within the pretraining phase, this study provided specific examples of cultural values that can influence learning transfer and hence provided a road map for organisations and practitioners working in these countries or with countries with similar cultural values.

For the follow-up category of the MMLT, the findings suggested that using the group text function of WhatsApp to enhance the chances of learning transfer was an effective and culturally responsive approach that used the collectivistic inclination of Ghanaian society (Brion, 2018). As Ama said, "it reminded us of the training, encouraged us to continue to learn more from peers and encouraged us to sit up and do something too." The findings indicated that the WhatsApp group text allowed trainees to engage with each other in transformative discourse, allowing them to question their assumptions and gain new knowledge. The participants also stated that they were learning from their peers not just during the PL but also during the follow-up, whether they overtly participated in the WhatsApp dialogues or not. Thus, even without active participation in the WhatsApp group, there is the potential for vicarious learning and increased chances of transfer (Brion, 2018). In the adult learning transfer literature, authors such as Caffarella and Daffron (2013) discuss learning as being a social process and hence learning communities, collaboration, and interactions among participants are crucial to learning and its transfer. The findings demonstrated that WhatsApp is an affordable, sustainable, and culturally appropriate follow-up tool that fosters interactions among PL attendees. This study indicates that the use of culturally responsive mobile technology such as WhatsApp in the follow-up stage could prevent training relapse, in which trainees lose their motivation

and/or knowledge, hindering the transfer of learning. These findings are significant as the use of mobile technology as a culturally responsive follow-up approach after a PL event is largely absent from the current learning transfer literature. As a result, this study adds to the current learning transfer literature and provides a culturally responsive solution to effectively and sustainably follow-up post PL.

Based on these findings pertaining to cultural factors in the pretraining and follow-up phases, there is a need for a comprehensive, multidimensional, and unifying model of learning transfer that considers culture as a key factor (Raver & Van Dyne, 2017). The MMLT was designed to promote cultural awareness by respecting participants' cultures when planning, organising, conducting, following-up, and evaluating PL events. This model is relevant for all institutions and should be of particular interest to organisations that work with a diverse staff population and/or work across countries. Rahyuda et al. (2014) stated the importance of national contexts in the learning transfer and affirmed that there was a lack of empirical studies examining the impact of culture and post-training interventions, particularly in developing countries. In this way, this study adds empirical data to other laboratory and simulation-based studies (Rahyuda et al., 2014).

### **Implications for Practitioners and Scholars**

What recommendations can be drawn from the acquired data? First, to enhance learning transfer post-PL and get a return on investment that would in turn positively affect organisation outcomes, PL events should account for culture before, during, and after PL events. PL organisers and facilitators should consider using the MMLT (Brion, 2021) to organise, prepare, deliver, and evaluate their PL offerings. Since learning is a social endeavour, the MMLT enables PL organisers to take culture into consideration for each of the MMLT dimensions for maximum learning transfer.

Second, it is necessary that PL stakeholders remain flexible and open to learning about different cultures and adjust their organising, teaching and learning transfer strategies accordingly without judgment. Additionally, to enhance learning transfer post-PL, a mobile platform that is already readily used in the country in which they work could be implemented as an affordable and culturally responsive way to follow-up with participants. In terms of scholarship, further research could use the MMLT as a conceptual framework in various cultural, professional, and geographical settings to assess its content validity.

### **Limitations**

First, the sample was limited to Low-Fee Private Schools and second, the schools were located in two countries in West Africa, limiting the generalisation of the findings to other contexts. However, these findings may be informative for PL organisers who work in and with people whose countries have similar cultural values and scores on the 6D.

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# **UČITELJEVO PRIDOBIVANJE ZNANJA V KONTEKSTU POUČEVANJA NADARJENIH UČENCEV**

## **POVZETEK**

*Učitelj velja za kompetentnega strokovnjaka na svojem predmetnem področju, zato je pomembno, da svoje znanje vseskozi nadgrajuje in posodablja. S tem v zvezi smo žeeli ugotoviti, kako učitelji razrednega pouka pridobivajo znanja o nadarjenih učencih, ali čutijo potrebo po (dodatnih) izobraževanjih na področju poučevanja nadarjenih ter kakšna je vloga šole pri zagotavljanju tovrstnih izobraževanj. Raziskava je bila izvedena v šolskem letu 2020/21. Sodelovalo je 107 učiteljev razrednega pouka. Rezultati kažejo, da učitelji največ znanja o nadarjenih učencih pridobijo s poklicnim udejstvovanjem in branjem strokovne literature. Najmanj znanja o nadarjenih so učitelji pridobili v času študija. Odgovori učiteljev nakazujejo, da so največ znanja o nadarjenih učencih z različnimi načini poklicnega razvoja pridobili starejši učitelji in učitelji z višjimi strokovnimi nazivi. Ugotavljamo še, da večina učiteljev razrednega pouka čuti potrebo po dodatnih izobraževanjih na področju poučevanja nadarjenih učencev, sploh ker po njihovem mnenju šole v celoti ne izkoriščajo vseh možnosti, ki se jim ponujajo pri zagotavljanju tovrstnih izobraževanj.*

**Ključne besede:** *učitelj, nadarjeni učenci, poučevanje nadarjenih, usposobljenost učiteljev*

## **TEACHERS AND KNOWLEDGE ACQUISITION IN THE CONTEXT OF TEACHING GIFTED STUDENTS – ABSTRACT**

*Teachers are considered competent experts in their subject area, so it is important that they keep upgrading and updating their knowledge. To this end, we wanted to find out how primary school teachers acquire knowledge about working with gifted students, whether they feel the need for (additional) education in this field, and the role schools have in providing relevant professional development opportunities. The survey was conducted in the 2020/21 school year. One hundred and seven primary school teachers participated. The results show that they gained the most knowledge about gifted students through professional pursuits and by reading professional literature. They gained the least amount of knowledge about*

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*gifted students during their university studies. The responses indicate that older teachers and teachers with higher professional titles gained the most knowledge about gifted students through different types of professional development. We also found that most primary school teachers feel the need for additional education in teaching gifted students, in their opinion mainly because schools do not take full advantage of all the opportunities offered to them to provide such education.*

**Keywords:** teacher, gifted students, teaching gifted students, teacher qualifications

## UVOD

Hitro spremenjajoč se svet pred učitelje, od katerih je v veliki meri odvisna kakovost vzgojno-izobraževalnega procesa, postavlja vse večje zahteve in izzive. Učiteljeve strokovne naloge so namreč vse bolj raznolike, pričakovanja javnosti glede rezultatov njegovega dela pa vse višja. Posledično je nujno, da učitelj nenehno pridobiva – tudi v okviru nadaljnjih izobraževanj – dodatno znanje in kompetence (Buchberger idr., 2001; Valenčič Zuljan, 2012), saj s tem opravlja eno izmed svojih temeljnih nalog, ki se kaže v skrbi za nenehno poglobljanje kakovosti izobraževanja in učenja (Javrh, 2011; Pevec, 2012).

Nenehno nadgrajevanje znanja in pridobivanje novih kompetenc učiteljem omogoča uspešno soočanje z vse večjo raznolikostjo učencev. Med učence, ki potrebujejo posebno skrb in specifično znanje učiteljev, sodijo zagotovo tudi nadarjeni učenci, ki po prepravi Kukanja Gabrijelčičeve (2014) zaradi svojih specifičnih potreb ob sebi potrebujejo »neodvisnega, odgovornega in vsestransko kompetentnega strokovnjaka« (str. 83).

Izhajajoč iz zapisanega, se bomo v prispevku najprej posvetili pomembnosti učiteljevega poklicnega razvoja z vidika poučevanja nadarjenih učencev.

### Poklicni razvoj osnovnošolskih učiteljev

Pri spoprijemanju s številnimi družbenimi, kulturnimi, gospodarskimi in tehnološkimi spremembami naj bi odločilno vlogo prevzela vzgoja in izobraževanje (Buchberger idr., 2001). Mnoge razvite države se ubadajo z vprašanjem, kako zagotoviti dovolj učiteljev, ki se bodo sposobni spopadati z izzivi hitrih družbenih in gospodarskih sprememb ter z vse bolj raznolikimi skupinami učencev (Lindstone, 2006). Valenčič Zuljanova (2001b) ugotavlja, da je ustrezен odgovor posameznika na stalne spremembe »pripravljenost na vseživljensko učenje« (str. 16). Tudi Day (1999) je prepričan, da lahko učitelji svoje delo opravljajo kakovostno le, če so usposobljeni za opravljanje svojega poklica in hkrati pripravljeni/sposobni svoje delo nadgrajevati do konca svoje poklicne poti.

Za kakovosten vzgojno-izobraževalni proces je torej pomemben učiteljev poklicni razvoj – stalen proces razvoja, ki poteka skozi vsa obdobja učiteljeve poklicne poti (Buchberger idr., 2001; Čepić in Kalin, 2019a; Javornik Krečič, 2006; Mezgec, 2020; Obran in Ivanuš Grmek, 2010). Čepićeva in Kalinova (2019b) poklicni razvoj učiteljev razumeta kot »proses, v katerem učitelj doseže in vzdržuje najvišjo raven poklicne usposobljenosti, ki jo je sposoben doseči« (str. 11). V okviru svojega poklicnega razvoja, ki obsega družbeno,

poklicno in osebnostno dimenzijo, učitelj torej spreminja oziroma nadgrajuje svojo poučevalno prakso (Valenčič Zuljan, 2001a) ter osebnostno in poklicno raste in se razvija (Horvatić, 2018, v Blanuša Trošelj idr., 2020).

Poklicni razvoj se začne že pred nastopom službe in se nadaljuje vse od vstopa v delo do upokojitve (Javrh, 2011). Permanentni poklicni razvoj sestavlajo med seboj tesno povezane komponente (Buchberger idr., 2001):

- »začetno izobraževanje učiteljev,
- uvajanje v delo,
- stalno strokovno spopolnjevanje učiteljev in
- nadaljnje izobraževanje« (str. 15).

Javornik Krečičeva (2008) poudarja, da mora biti začetno izobraževanje kakovostno, saj le tako daje dobre temelje za nadaljnjo rast. Slediti pa mu mora ustrezno stalno izobraževanje, ki zadovoljuje različne potrebe učiteljevega poklicnega razvoja.

Pri svojem poklicnem razvoju se učitelji ne smejo omejiti zgolj na razvoj spremnosti in pridobivanje novega znanja. Zavedati se morajo, da njihova poklicna rast ni omejena zgolj na vedenjske spremembe, saj gre predvsem za »dozorevanje znotraj osebnostnega razvoja, ko učitelj postaja reflektivni praktik in ga označujejo fleksibilnost, razločevanje čustev, spoštovanje individualnosti, toleranca do nejasnosti in konfliktov, negovanje medosebnih vezi ter širša družbena perspektiva« (Javornik Krečič, 2008, str. 63).

Vzgoja in izobraževanje nadarjenih učencev od učitelja zahtevata najvišjo stopnjo strokovne usposobljenosti. Dodatne kompetence za delo z nadarjenimi lahko učitelji pridobijo v okviru različnih programov stalnega strokovnega izobraževanja in/ali na različnih ravneh univerzitetnega študija (Juriševič, 2011). In prav šibka strokovna usposobljenost in ozaveščenost strokovnih delavcev ter nespodbudno ozračje so največje ovire za hitrejši razvoj nadarjenih (Strmčnik, 1995).

### **Poučevanje nadarjenih učencev**

Koncept odkrivanja in dela z nadarjenimi učenci v osnovni šoli nadarjene učence opredeljuje kot posameznike, ki so »bodisi na predšolski stopnji, v osnovni ali srednji šoli pokazali visoke dosežke ali potenciale na intelektualnem, ustvarjalnem, specifično akademskem, vodstvenem ali umetniškem področju in kateri poleg rednega šolskega programa potrebujejo posebej prilagojene programe in aktivnosti« (Žagar idr., 1999, str. 4). Za izvajanje teh je odgovoren učitelj – ključen akter pri izvajanjju vzgojno-izobraževalnega procesa (Erčulj, 2002), ki učencem prilagaja učne cilje, vsebino in učno tehnologijo ter neposredno odloča o učnem procesu in zato zanj tudi odgovarja (Blažič idr., 2003).

Nadarjeni učenci imajo posebne učne potrebe na kognitivnem, socialnem, emocionalnem in estetskem področju. Učitelj mora vzgojno-izobraževalno delo prilagoditi njihovim potrebam, saj lahko le tako doseže maksimalne učinke, ki bodo učencem prinesli zadovoljstvo in izboljšali njihovo samopodobo (Praprotnik, 2017). Kakovosten pouk je namreč

»temeljni in nenadomestljiv dejavnik optimalnega razvoja nadarjenega učenca« (Blažič, 2003, str. 32).

Prav zato si morajo učitelji v mnogih državah v okviru daljšega strokovnega izpopolnjevanja pridobiti ustrezne certifikate, s katerimi dokazujo kompetentnost na področju dela z nadarjenimi učenci (Kukanja Gabrijelčič, 2014). Kajti prav učitelj odigra ključno vlogo pri delu z nadarjenimi, saj jih ima možnost dobro opazovati in spoznati (Kočar, 2003).

Navedeno priča o tem, da je optimalen razvoj nadarjenih učencev v veliki meri odvisen od učitelja, ki naj bi v današnjih šolskih sistemih posebljal socialno inteligentnega in pedagoško-psihološko kompetentnega strokovnjaka svojega predmetnega področja (Šteh in Kalin, 2006). Kukanja Gabrijelčičeva (2014) poudarja, da se od učitelja pričakuje uresničevanje raznolikih novih vlog, med katere sodi tudi vloga strokovnjaka, usposobljenega za delo z različnimi učenci, tudi z nadarjenimi.

Spodbujanje in razvijanje nadarjenosti je načrten proces. Od učiteljev se pričakuje, da učencem zagotovijo dovolj samostojnosti in svobode ter jim ponudijo podporo (Penca, 2003).

Učitelji naj bi pri delu z nadarjenimi učenci upoštevali naslednja temeljna načela (Kukanja Gabrijelčič, 2011):

- Učitelj mora učencem zagotoviti varno in spodbudno učno okolje, v katerem so bodo počutili sprejete, ljubljene in razumljene. Na podlagi njihovih osebnostnih lastnosti, interesov in potencialov mora pripraviti individualiziran program dela ter graditi na njihovi samostojnosti in pozitivni samopodobi.
- Nadarjenim učencem mora učitelj z dodatnimi zaposlitvami in motiviranjem omogočiti napredovanje in svobodno izražanje idej.
- Z uporabo različnih strategij in pristopov (delo z avdio-vizualnimi sredstvi, reševanje problemov, raziskovalna dejavnost itd.) mora učitelj prispevati k optimalnemu razvoju učenčevih sposobnosti ter uresničevanju njegovih interesov in želja.
- Poleg strokovne usposobljenosti mora biti učitelj tudi ustrezno psihološko-pedagoško usposobljen ter imeti organizacijske spremnosti.

Iz zapisanega lahko razberemo, da mora biti učitelj ustrezno usposobljen strokovnjak, ki je pripravljen prevzeti tudi vlogo mentorja, poslušalca, prijatelja, vodnika, motivatorja in druge. Prav zaradi zahtevnosti dela z nadarjenimi se v skladu s Konceptom odkrivanja in dela z nadarjenimi učenci v osnovni šoli (Žagar idr., 1999) pri delu z nadarjenimi predlaga timsko sodelovanje učiteljev in šolske svetovalne službe oziroma koordinatorja.

Praprotnikova (2017) opozarja, da se nadarjenim učencem ne posveča dovolj pozornosti ali pa je njihova nadarjenost celo spregledana. Delo z nadarjenimi pred učitelje postavlja posebne izzive, saj se morajo poleg upoštevanja vrste zakonov zavestno in pozorno posvetiti dejavnostim v procesu odkrivanja teh učencev in dela z njimi. Za učinkovito delo s to skupino učencev je pomembno, da so jim učitelji »naklonjeni, da so občutljivi, sprejemljivi in razumevajoči za njihove posebne vzgojno-izobraževalne potrebe, dovolj izobraženi in usposobljeni, da tem potrebam zadostijo, ter tudi dovolj ustvarjalni in prožni

pri delu s temi učenci» (Praprotnik, 2017, str. 45). Pogosto se zgodi, da se učitelji za delo z nadarjenimi ne počutijo dovolj kompetentne in prav zato je nujno potrebno, da se vsi učitelji zavedajo pomena nenehnega učenja, saj jim to omogoča, da sledijo modernim smernicam pedagoške stroke (Praprotnik, 2017).

Kukanja Gabrijelčičeva (2015) je v svojem prispevku opozorila na skrb zbujoče rezultate raziskav, ki poročajo o tem, da so učitelji za odkrivanje in (pre)poznavanje značilnosti nadarjenih učencev ter delo z njimi slabše usposobljeni ali celo neusposobljeni. Tudi sama je v raziskavi, v katero je vključila 277 učiteljev, ugotovila, da so slabo seznanjeni s postopki odkrivanja nadarjenih in dela z njimi. Svojo strokovno usposobljenost za delo z nadarjenimi so učitelji najpogosteje ocenili kot zadovoljivo, kot zelo dobro usposobljene se je ocenila manj kot desetina učiteljev.

### **Opredelitev raziskovalnega problema**

Izhajajoč iz predhodno navedenih spoznanj (gl. Kukanja Gabrijelčič, 2015) smo želeli tudi v okviru naše raziskave preveriti usposobljenost učiteljev razrednega pouka za delo z nadarjenimi učenci. Strokovna usposobljenost učitelja namreč pomembno prispeva k optimalnemu razvoju (nadarjenih) učencev. V naši raziskavi smo zato oblikovali naslednja raziskovalna vprašanja:

- Na kakšne načine učitelji razrednega pouka pridobivajo znanje za delo z nadarjenimi učenci?
- Ali učitelji razrednega pouka čutijo potrebo po dodatnih izobraževanjih za delo z nadarjenimi učenci?
- Ali učiteljem razrednega pouka šola zagotavlja izobraževanja s področja poučevanja nadarjenih učencev?

## **METODOLOGIJA**

### **Raziskovalni vzorec**

Raziskava je bila izvedena v šolskem letu 2020/21. Temeljila je na neslučajnostnem priložnostnem vzorcu 107 učiteljev razrednega pouka.

**Tabela 1**

*Starostne skupine učiteljev razrednega pouka*

| Starostne skupine | f   | f %   |
|-------------------|-----|-------|
| Do 30 let         | 19  | 17,8  |
| Od 31 do 40 let   | 20  | 18,7  |
| Od 41 do 50 let   | 32  | 29,9  |
| Od 51 do 60 let   | 30  | 28,0  |
| Od 61 let         | 6   | 5,6   |
| Skupaj            | 107 | 100,0 |

Raziskovalni vzorec se razlikuje glede na starost učiteljev, največ učiteljev je iz starostne skupine od 41 do 50 let, sledijo starostne skupine od 51 do 60 let, od 31 do 40 let ter do 30 let. Najmanj sodelujočih v raziskavi je starejših od 61 let.

**Tabela 2**  
*Strokovni nazivi učiteljev razrednega pouka*

| Strokovni naziv | f   | f %   |
|-----------------|-----|-------|
| Brez naziva     | 24  | 22,4  |
| Mentor          | 17  | 15,9  |
| Svetovalec      | 39  | 36,4  |
| Svetnik         | 27  | 25,2  |
| Skupaj          | 107 | 100,0 |

Med učitelji, vključenimi v raziskavo, obstajajo tudi razlike v strokovnem nazivu. Največ sodelujočih je imelo naziv svetovalec, sledijo učitelji z nazivom svetnik, nekaj manj je bilo učiteljev brez naziva oziroma učiteljev začetnikov, najmanj pa učiteljev z nazivom mentor.

### **Merski instrumentarij**

Za potrebe raziskave smo pripravili anketni vprašalnik, s katerim smo želeli ugotoviti, na kakšne načine učitelji razrednega pouka pridobivajo znanje za delo z nadarjenimi učenci, njihove potrebe po (dodatnem) izobraževanju na področju poučevanja nadarjenih učencev ter vlogo šole pri zagotavljanju tovrstnih izobraževanj. V vprašalnik smo vključili vprašanja zaprtega tipa, dihotomna in vprašanja z večstransko izbiro. Učitelji so odgovore izbirali na petstopenjski ocenjevalni lestvici (1 – pridobil/a sem zelo malo znanja, 5 – pridobil/a sem zelo veliko znanja in 1 – sploh ne drži, 5 – popolnoma drži). Vprašalnik je vključeval še vprašanja o učiteljevem poznavanju značilnosti nadarjenih učencev in usposobljenosti za delo z njimi ter o oblikovanju spodbudnega učnega okolja, ki jih v tem članku ne obravnavamo.

### **Postopek zbiranja in obdelave podatkov**

Podatke za raziskavo smo pridobili s pomočjo anketnega vprašalnika, ki je bil na spletni strani 1.ka dostopen približno tri mesece (od marca do konca maja 2021). K sodelovanju v raziskavi smo učitelje razrednega pouka povabili prek družbenih omrežij. Zaradi slabega odziva smo na spletnih straneh osnovnih šol poiskali elektronske naslove in povezavo do anketnega vprašalnika po elektronski pošti posredovali še osnovnim šolam v okolici Kopra, Ljubljane in Maribora – šolam, ki se nahajajo v okolici slovenskih javnih univerz. Na anketni vprašalnik je začelo odgovarjati 171 učiteljev, a jih je vprašalnik delno oziroma v celoti rešilo le 107. Pomanjkljivo izpolnjene anketne vprašalnike, pri katerih so učitelji označili le demografske podatke, smo izločili iz nadaljnje obdelave in analize.

Pridobljene podatke smo obdelali in analizirali s programom IBM SPSS, različico 27. Obdelava podatkov je potekala na nivoju deskriptivne in inferenčne statistike. Pri obdelavi podatkov smo najprej uporabili opisne statistične metode. Za primerjavo več neodvisnih vzorcev smo uporabili neparametrični preizkus – Kruskal-Wallisov preizkus.

### Omejitve raziskave

Raziskava ima nekaj omejitev, ki jih lahko pripisemo raziskovalnemu vzorcu in postopku zbiranja podatkov. Ugotovitev ne moremo posplošiti na celotno slovensko populacijo učiteljev razrednega pouka, saj nam ni uspelo zadostiti pogoju naključnega vzorčenja. Omejitev je tudi velikost vzorca. V raziskavi nismo preverjali leta delovnih izkušenj učiteljev razrednega pouka, ampak le njihovo starost, kar pomeni dodatno omejitev naše raziskave, saj starost in delovne izkušnje ne sovpadajo nujno.

Prav tako je pri posploševanju ugotovitev treba upoštevati, da te temeljijo na subjektivnih ocenah učiteljev, ki niso nujno odsev realnega stanja. V raziskavo so bili vključeni učitelji, ki so sami pokazali pripravljenost in bili za to motivirani.

## REZULTATI

### Načini pridobivanja znanja za delo z nadarjenimi učenci

**Tabela 3**

Samoocena učiteljev o količini usvojenega znanja za delo z nadarjenimi učenci

| Načini pridobivanja znanja za delo z nadarjenimi učenci   | N   | Količina* pridobljenega znanja |      |      |      |      | M    | SD    |
|---|-----|--------------------------------|------|------|------|------|------|-------|
|   |     | 1                              | 2    | 3    | 4    | 5    |      |       |
|   |     | %                              | %    | %    | %    | %    |      |       |
| S prakso, delovnimi izkušnjami  | 107 | 0,9                            | 0,9  | 17,8 | 31,8 | 48,6 | 4,26 | 0,850 |
| Z branjem strokovne literature  | 107 | 1,9                            | 4,7  | 29,0 | 46,7 | 17,8 | 3,74 | 0,872 |
| Z neformalnim izobraževanjem  | 105 | 3,8                            | 16,2 | 26,7 | 42,9 | 10,5 | 3,40 | 1,006 |
| Z drugimi izobraževanji, organiziranimi s strani strokovnih delavcev šole                           | 107 | 11,2                           | 18,7 | 29,0 | 33,6 | 7,5  | 3,07 | 1,130 |
| S programi nadaljnjega izobraževanja in usposabljanja strokovnih delavcev v vzgoji in izobraževanju | 107 | 13,1                           | 16,8 | 38,3 | 24,3 | 7,5  | 2,96 | 1,115 |
| V času študija  | 104 | 42,3                           | 18,3 | 20,2 | 16,3 | 2,9  | 2,19 | 1,231 |

\* 1 pomeni »pridobil/a sem zelo malo znanja« in 5 »pridobil/a sem zelo veliko znanja«.

Učitelji razrednega pouka so poročali, da so največ znanja za delo z nadarjenimi učenci pridobili s prakso oziroma prek izkušenj ( $M = 4,26$ ;  $SD = 0,850$ ) ter z branjem strokovne literature ( $M = 3,74$ ;  $SD = 0,872$ ). Tako za prakso in delovne izkušnje (80,4 %) kot tudi za branje strokovne literature (64,5 %) je namreč večina učiteljev ocenila, da so

jim omogočili veliko oziroma zelo veliko znanja. Najmanj znanja za delo z nadarjenimi učenci so učitelji, presenetljivo, pridobili v času študija ( $M = 2,19$ ;  $SD = 1,231$ ) – skoraj polovica (42,3 %) učiteljev je poročala, da so med študijem pridobili zelo malo znanja za delo z nadarjenimi učenci.

Izid Kruskal-Wallisovega preizkusa razlik v odgovorih učiteljev o količini usvojenega znanja za delo z nadarjenimi učenci tako glede na njihovo starost kot tudi glede na strokovni naziv ni pokazal statistično značilnih razlik za naslednja načina pridobivanja znanja:

**Tabela 4**

Samoocena učiteljev o količini usvojenega znanja za delo z nadarjenimi učenci glede na njihovo starost

| Načini  | Starost             | N   | M    | SD    | $\bar{R}$ | Kruskal-Wallisov preizkus |       |
|---|---------------------|-----|------|-------|-----------|---------------------------|-------|
|   |                     |     |      |       |           | $\chi^2$                  | p     |
| S prakso, delovnimi izkušnjami  | do 30 let           | 19  | 3,63 | 0,955 | 33,95     | 17,632                    | 0,001 |
|   | od 31 do 40 let     | 20  | 3,95 | 1,050 | 45,05     |                           |       |
|   | od 41 let do 50 let | 32  | 4,47 | 0,621 | 59,69     |                           |       |
|   | od 51 do 60 let     | 30  | 4,60 | 0,621 | 65,40     |                           |       |
|   | nad 61 let          | 6   | 4,50 | 0,548 | 60,00     |                           |       |
|   | Skupaj              | 107 | 4,26 | 0,850 |           |                           |       |
| Z neformalnim izobraževanjem  | do 30 let           | 19  | 3,00 | 0,745 | 39,18     | 12,265                    | 0,015 |
|   | od 31 do 40 let     | 19  | 3,11 | 1,100 | 45,32     |                           |       |
|   | od 41 let do 50 let | 32  | 3,34 | 1,035 | 52,27     |                           |       |
|   | od 51 do 60 let     | 29  | 3,79 | 0,940 | 64,55     |                           |       |
|   | nad 61 let          | 6   | 4,00 | 0,894 | 69,17     |                           |       |
|   | Skupaj              | 105 | 3,40 | 1,006 |           |                           |       |
| Z drugimi izobraževanjimi, organiziranimi s strani strokovnih delavcev šole | do 30 let           | 19  | 2,58 | 0,769 | 38,68     | 17,123                    | 0,002 |
|   | od 31 do 40 let     | 20  | 2,50 | 1,277 | 39,93     |                           |       |
|   | od 41 let do 50 let | 32  | 3,16 | 1,081 | 56,77     |                           |       |
|   | od 51 do 60 let     | 30  | 3,63 | 0,928 | 68,37     |                           |       |
|   | nad 61 let          | 6   | 3,33 | 1,506 | 62,83     |                           |       |
|   | Skupaj              | 107 | 3,07 | 1,130 |           |                           |       |
| V času študija  | do 30 let           | 19  | 3,11 | 1,100 | 73,95     | 14,872                    | 0,005 |
|   | od 31 do 40 let     | 20  | 2,15 | 1,348 | 51,08     |                           |       |
|   | od 41 let do 50 let | 32  | 1,88 | 1,008 | 46,02     |                           |       |
|   | od 51 do 60 let     | 28  | 2,11 | 1,257 | 49,89     |                           |       |
|   | nad 61 let          | 5   | 1,40 | 0,894 | 32,80     |                           |       |
|   | Skupaj              | 104 | 2,19 | 1,231 |           |                           |       |

branje strokovne literature ( $\chi^2 = 6,880$ ;  $p = 0,142$  in  $\chi^2 = 5,377$ ;  $p = 0,146$ ) ter programe nadaljnjega izobraževanja in usposabljanja strokovnih delavcev v vzgoji in izobraževanju ( $\chi^2 = 5,898$ ;  $p = 0,207$  in  $\chi^2 = 5,592$ ;  $p = 0,133$ ).

Za količino znanja za delo z nadarjenimi učenci, pridobljenega na podlagi prakse oziroma delovnih izkušenj ( $\chi^2 = 17,632$ ;  $p = 0,001$ ), z neformalnimi izobraževanji ( $\chi^2 = 12,265$ ;  $p = 0,015$ ), z drugimi izobraževanji, organiziranimi s strani strokovnih delavcev šole ( $\chi^2 = 17,123$ ;  $p = 0,002$ ), in za znanje, pridobljeno v času študija ( $\chi^2 = 14,872$ ;  $p = 0,005$ ), je Kruskal-Wallisov preizkus pokazal statistično značilne razlike glede na starost učiteljev razrednega pouka.

S prakso in delovnimi izkušnjami so največ znanja za delo z nadarjenimi učencih pridobili učitelji, stari od 51 do 60 let ( $M = 4,60$ ;  $SD = 0,621$ ), sledijo učitelji, stari več kot 61 let ( $M = 4,50$ ;  $SD = 0,548$ ), najmanj znanja pa so po tej poti pridobili učitelji, stari do 30 let ( $M = 3,63$ ;  $SD = 0,955$ ). Pri tem je treba opozoriti, da so učitelji, stari manj kot 30 let, sicer po tej poti pridobili najmanj znanja, a so še vedno poročali, da so v povprečju s pomočjo svojega poklicnega udejstvovanja pridobili veliko znanja za delo z nadarjenimi učenci.

Z neformalnimi izobraževanji so največ znanja pridobili učitelji, ki pripadajo starostni skupini 61 let in več ( $M = 4,00$ ;  $SD = 0,894$ ), najmanj znanja pa so pridobili učitelji iz staroste skupine do 30 let ( $M = 3,00$ ;  $SD = 0,745$ ). Učitelji, starejši od 61 let, so poročali, da so v povprečju pridobili veliko znanja z vključevanjem v neformalna izobraževanja, medtem ko so učitelji, mlajši od 30 let, ocenili, da z neformalnimi izobraževanji niso pridobili niti veliko niti malo znanja. Ugotavljamo še, da se ocena učiteljev o količini znanja, pridobljenega z vključevanjem v neformalna izobraževanja, viša s starostjo učiteljev.

Največ znanja v okviru drugih izobraževanj, organiziranih s strani strokovnih delavcev šole, so pridobili učitelji razrednega pouka, stari od 51 do 60 let ( $M = 3,63$ ;  $SD = 0,928$ ), sledijo učitelji, stari 61 let in več ( $M = 3,33$ ;  $SD = 1,506$ ), najmanj pa učitelji, ki so stari do 30 ( $M = 2,58$ ;  $SD = 0,769$ ).

Največ znanja so v času študija pridobili učitelji razrednega pouka, stari do 30 let ( $M = 3,11$ ;  $SD = 1,100$ ), najmanj pa učitelji, stari 61 let in več ( $M = 1,40$ ;  $SD = 0,894$ ). Učitelji, stari 30 let ali manj, so poročali, da med študijem niso dobili niti veliko niti malo znanja, učitelji, stari med 31 in 60 let, so poročali, da so med študijem pridobili malo znanja, medtem ko so učitelji, starejši od 61 let, ocenili, da so med študijem pridobili zelo malo znanja za delo z nadarjenimi učenci.

S Kruskal-Wallisovim preizkusom smo preverili, ali so razlike v količini pridobljenega znanja med učitelji razrednega pouka povezane z njihovim strokovnim nazivom. Statistično značilne razlike smo odkrili pri pridobivanju znanja na podlagi prakse oziroma delovnih izkušenj ( $\chi^2 = 13,164$ ;  $p = 0,004$ ), v okviru neformalnega izobraževanja ( $\chi^2 = 10,606$ ;  $p = 0,014$ ), v okviru drugih izobraževanj, organiziranih s strani strokovnih delavcev šole ( $\chi^2 = 22,887$ ;  $p = 0,000$ ), in v času študija ( $\chi^2 = 24,565$ ;  $p = 0,000$ ), zato omenjenim načinom pridobivanja znanja v nadaljevanju namenjamo dodatno pozornost.

**Tabela 5**

Samoocena učiteljev o količini usvojenega znanja za delo z nadarjenimi učenci glede na njihov strokovni naziv

| Načini  | Strokovni naziv | N   | M    | SD    | $\bar{R}$ | Kruskal-Wallisov preizkus |       |
|---|-----------------|-----|------|-------|-----------|---------------------------|-------|
|   |                 |     |      |       |           | $\chi^2$                  | p     |
| S prakso, delovnimi izkušnjami  | Brez naziva     | 24  | 3,71 | 0,908 | 35,58     | 13,164                    | 0,004 |
|   | Mentor          | 17  | 4,24 | 1,091 | 55,94     |                           |       |
|   | Svetovalec      | 39  | 4,46 | 0,720 | 60,46     |                           |       |
|   | Svetnik         | 27  | 4,48 | 0,580 | 59,81     |                           |       |
|   | Skupaj          | 107 | 4,26 | 0,850 |           |                           |       |
| Z neformalnim izobraževanjem  | Brez naziva     | 24  | 3,00 | 0,933 | 40,31     | 10,606                    | 0,014 |
|   | Mentor          | 16  | 3,13 | 0,957 | 45,19     |                           |       |
|   | Svetovalec      | 39  | 3,49 | 1,097 | 56,18     |                           |       |
|   | Svetnik         | 26  | 3,81 | 0,801 | 64,75     |                           |       |
|   | Skupaj          | 105 | 3,40 | 1,006 |           |                           |       |
| Z drugimi izobraževanjimi, organiziranimi s strani strokovnih delavcev šole | Brez naziva     | 24  | 2,71 | 0,955 | 42,60     | 22,887                    | 0,000 |
|   | Mentor          | 17  | 2,41 | 1,064 | 36,65     |                           |       |
|   | Svetovalec      | 39  | 3,05 | 1,146 | 53,83     |                           |       |
|   | Svetnik         | 27  | 3,85 | 0,864 | 75,30     |                           |       |
|   | Skupaj          | 107 | 3,07 | 1,130 |           |                           |       |
| V času študija  | Brez naziva     | 24  | 3,13 | 1,191 | 73,77     | 24,565                    | 0,000 |
|   | Mentor          | 17  | 1,53 | 0,624 | 38,50     |                           |       |
|   | Svetovalec      | 38  | 1,74 | 1,131 | 41,04     |                           |       |
|   | Svetnik         | 25  | 2,44 | 1,158 | 59,02     |                           |       |
|   | Skupaj          | 104 | 2,19 | 1,231 |           |                           |       |

Osredotočimo se najprej na pridobivanje znanja na podlagi prakse oziroma delovnih izkušenj. S poklicnim udejstvovanjem so največ znanja o nadarjenih učencih pridobili učitelji z nazivom svetnik ( $M = 4,48$ ;  $SD = 0,580$ ), najmanj pa učitelji brez naziva oziroma učitelji začetniki ( $M = 3,71$ ;  $SD = 0,908$ ). Iz odgovorov učiteljev ugotavljamo, da učitelji z višjimi nazivi ocenjujejo, da so v povprečju pridobili več znanja kot učitelji z nižjimi nazivi. Odgovori učiteljev nakazujejo, da učitelji razrednega pouka s poklicnim udejstvovanjem v povprečju pridobijo od veliko do zelo veliko znanja.

Podobna povezava kot za poklicno udejstvovanje se je pokazala tudi pri neformalnih izobraževanjih. Z vključevanjem v neformalna izobraževanja so največ znanja pridobili učitelji z nazivom svetnik ( $M = 3,81$ ;  $SD = 0,801$ ), najmanj pa učitelji brez naziva ( $M = 3,00$ ;  $SD = 0,933$ ). Učitelji z nazivom svetnik so s pomočjo neformalnih izobraževanj v povprečju pridobili veliko znanja, medtem ko učitelji brez naziva niso pridobili niti

veliko niti malo znanja – učitelji z višjimi nazivi ocenjujejo, da so v povprečju pridobili več znanja kot učitelji z nižjimi nazivi.

Nadalje smo ugotovili, da so od izobraževanj, organiziranih s strani strokovnih delavcev šole, največ znanja o nadarjenih učencih odnesli učitelji z nazivom svetnik ( $M = 3,85$ ;  $SD = 0,864$ ), saj so na teh izobraževanjih po lastnih ocenah pridobili veliko znanja. Najmanj znanja so pridobili učitelji z nazivom mentor ( $M = 2,41$ ;  $SD = 1,064$ ), ki so s pomočjo drugih izobraževanj pridobili le malo znanja.

Med študijem so učitelji v povprečju pridobili malo znanja za delo z nadarjenimi učenci ( $M = 2,19$ ;  $SD = 1,231$ ). Ko smo preverili razlike glede na naziv, se je pokazalo, da učitelji brez naziva oziroma učitelji začetniki niso pridobili niti veliko niti malo znanja ( $M = 3,13$ ;  $SD = 1,191$ ). Najmanj znanja pa so pridobili učitelji z nazivom mentor ( $M = 1,53$ ;  $SD = 0,624$ ), ki so po svojih ocenah med študijem v povprečju pridobili malo znanja.

### **Želja učiteljev po dodatnih izobraževanjih za delo z nadarjenimi učenci in vloga šole pri zagotavljanju teh izobraževanj**

**Tabela 6**

*Želja učiteljev razrednega pouka po dodatnem izobraževanju za delo z nadarjenimi učenci*

| Želja učiteljev po dodatnem izobraževanju | f   | f %   |
|---|-----|-------|
| Imam željo                                | 85  | 79,4  |
| Nimam želje                               | 22  | 20,6  |
| Skupaj                                    | 107 | 100,0 |

Ugotavljamo, kot je tudi razvidno iz Tabele 6, da pri večini učiteljev razrednega pouka (79,4 %) obstaja želja po dodatnih izobraževanjih na področju dela z nadarjenimi učenci.

Nadalje nas je zanimala še vloga šole pri zagotavljanju teh izobraževanj. Predvsem nas je zanimalo, ali učitelji menijo, da jim šola omogoča dovolj izobraževanj na področju dela z nadarjenimi.

**Tabela 7**

*Trditvi o vlogi šole pri zagotavljanju izobraževanj na področju dela z nadarjenimi učenci*

| Vloga šole pri zagotavljanju izobraževanj  | N   | Lestvica strinjanja* |      |      |      |      | M    | SD    |
|--|-----|----------------------|------|------|------|------|------|-------|
|  |     | 1                    | 2    | 3    | 4    | 5    |      |       |
|  |     | %                    | %    | %    | %    | %    |      |       |
| T <sub>1</sub> : Šola zagotavlja dovolj izobraževanj za delo z nadarjenimi učenci.                         | 107 | 11,2                 | 18,7 | 25,2 | 35,5 | 9,3  | 3,13 | 1,166 |
| T <sub>2</sub> : Šola omogoča izobraževanje za delo z nadarjenimi učenci v drugih strokovnih institucijah. | 106 | 8,5                  | 16,0 | 27,4 | 33,0 | 15,1 | 3,30 | 1,164 |

\* 1 pomeni »sploh ne drži« in 5 »popolnoma drži«.

Učitelji razrednega pouka so v povprečju izražali podobno stopnjo strinjanja tako s trditvijo »Šola zagotavlja dovolj izobraževanj za delo z nadarjenimi učenci.« ( $M = 3,13$ ;  $SD = 1,166$ ) kot tudi s trditvijo »Šola omogoča izobraževanje za delo z nadarjenimi učenci v drugih strokovnih institucijah.« ( $M = 3,30$ ;  $SD = 1,164$ ). Za prvo trditev je skoraj polovica (44,8 %) učiteljev razrednega pouka navedla, da drži oziroma popolnoma drži. To pomeni, da skoraj polovici učiteljev njihove šole zagotavljajo dovolj izobraževanja na področju dela z nadarjenimi učenci. Še vedno pa je slaba tretjina (29,9 %) učiteljev poročala o tem, da za njih omenjena trditev sploh ne drži oziroma ne drži. Tudi za drugo trditev se je pokazalo podobno. Slabi polovici (48,1 %) učiteljev šola omogoča izobraževanja v drugih strokovnih institucijah, slabi četrtnini (24,5 %) pa tovrstnih izobraževanj šola ne omogoča.

## **RAZPRAVA**

Vsi otroci si zaslužijo kakovostno izobraževanje, tega pa je mogoče doseči le z ustrezno usposobljenim kadrom (Kukanja Gabrijelčič, 2014). Da bo učitelj sposoben odkrivati nadarjene učence in delati z njimi, mora imeti veliko znanja in bogate izkušnje (Kočar, 2003) – biti mora dobro teoretično podkovan (Kukanja Gabrijelčič, 2006). Le učitelj s takšnimi temelji bo lahko v celoti uresničil glavni vzgojno-izobraževalni cilj, vezan na nadarjene učence, in sicer prepoznavanje in negovanje njihovih sposobnosti (Kočar, 2003). V predstavljeni raziskavi smo želeli preveriti, na kakšne načine učitelji razrednega pouka pridobivajo znanje za delo z nadarjenimi, ali se želijo na tem področju dodatno izobraževati in kakšna je vloga šole pri zagotavljanju tovrstnih izobraževanj.

Učitelji, vključeni v raziskavo, poročajo, da so največ znanja za delo z nadarjenimi učenci pridobili prek delovnih izkušenj in z branjem strokovne literature. Branje strokovne literature lahko učitelju omogoči razumevanje lastne izkušnje (Rupnik Vec, 2006). S pomočjo branja različnega gradiva učitelj sledi novim spoznanjem in izašledkom pedagoške prakse, s čimer lahko neposredno vpliva na učni proces in učne dosežke učencev (Broemmel idr., 2019). Navedeno prispeva tudi k strokovnemu usposabljanju učitelja, tudi na področju nadarjenih učencev.

Najmanj znanja za delo z nadarjenimi učenci so učitelji, presenetljivo, pridobili v času študija – dobra polovica učiteljev je namreč poročala, da je med študijem pridobila (zelo) malo znanja za delo z nadarjenimi. Ugotovitev je skrb zbujoča, saj je študij čas, ki ga mnogi avtorji (Acedo, 2008; Florian, 2012; Peček idr., 2015) opredeljujejo kot najpomembnejšega za pridobivanje kompetenc inkluzivnega poučevanja, poučevanja, ki upošteva potrebe vseh učencev (UNESCO, 2005).

Bezičeva (2012) je zapisala, da je treba zagotoviti, da bo področje odkrivanja nadarjenih in vzgojno-izobraževalnega dela z nadarjenimi postal del dodiplomskega in poddiplomskega izobraževanja učiteljev ter stalna vsebina njihovega nadaljnjega izobraževanja. Vzroke za to, da so v okviru študija največ znanja pridobili prav najmlajši učitelji, lahko zagotovo iščemo v tem, da so pedagoške fakultete prepoznale pomen dela z nadarjenimi

in so v svoje študijske programe začele vključevati tudi vsebine oziroma predmete s tega področja. Pri pregledu učnih načrtov študijskih programov Razredni pouk vseh treh javnih univerz v Sloveniji, ki so dostopni na spletnih straneh fakultet, smo tako ugotovili, da so vsebine, povezane z nadarjenimi učenci, v študijske programe Razrednega pouka vključene v različnih oblikah (obvezni predmeti, izbirni predmeti). V povezavi z našimi ugotovitvami bi bilo smiselno razmišljati o tem, da bi vsebine, povezane z nadarjenimi učenci, postale del obveznih predmetov, saj bi se tako že med študijem vsi študentje seznanili z najpomembnejšimi ugotovitvami tega področja in pridobili temeljno znanje, ki bi služilo kot dobra podlaga za vsa nadaljnja izobraževanja, s čimer se strinja tudi Javornik Krečičeva (2008), ko poudarja, da mora biti začetno izobraževanje kakovostno, saj le tako omogoča dobre temelje za nadaljnjo rast.

Skrb zbuja tudi dejstvo, da je le slaba tretjina učiteljev pridobila (zelo) veliko dodatnega znanja o delu z nadarjenimi v okviru programov nadaljnega izobraževanja in usposabljanja strokovnih delavcev v vzgoji in izobraževanju. Kukanja Gabrijelčičeva (2014) je opravila analizo katalogov nadaljnega izobraževanja in ugotovila, da ti katalogi od leta 2010 do 2014 ne vsebujejo konkretnih in predmetnospecifičnih tematskih izhodišč za delo z nadarjenimi. Po njenem prepričanju je to dokaz, da slovenski izobraževalni prostor nadarjenim učencem ne namenja potrebne pozornosti. Če njene ugotovitve povežemo z rezultati naše raziskave, bi bilo v kakšni prihodnji raziskavi smiselno preveriti ponudbo izobraževanj v obdobju po letu 2014, saj večina učiteljev še vedno poroča, da v okviru programov nadaljnega izobraževanja in usposabljanja strokovnih delavcev v vzgoji in izobraževanju ne pridobi dovolj znanja.

Nadalje odgovori učiteljev nakazujejo, da so največ znanja za delo z nadarjenimi učenci z različnimi načini poklicnega razvoja pridobili starejši učitelji in učitelji z višjimi strokovnimi nazivi. Rezultati so pričakovani, saj učitelji skozi svoje poklicno udejstvovanje pridobivajo vse več izkušenj in znanja, kar jim služi tudi kot podlaga za napredovanje v strokovnih nazivih.

Spodbudna je ugotovitev, da si večina učiteljev razrednega pouka (79,4 %) želi dodatnih izobraževanj na področju dela z nadarjenimi učenci. To ne preseneča, saj je že Kukanja Gabrijelčičeva (2015) v svoji raziskavi ugotovila, da se učitelji za delo z nadarjenimi učenci ocenjujejo kot zmerno usposobljene, poleg tega so rezultati njene raziskave pokazali, da je informiranost pedagoških delavcev na področju odkrivanja nadarjenih učencev in dela z njimi zelo slaba. Poudarila je, da je prav permanentno izobraževanje učiteljev pot do kakovostnega izobraževanja nadarjenih in drugih učencev.

Organizacija izobraževanj je v rokah krovnih vzgojno-izobraževalnih institucij in šol samih, zato smo preverili, ali učitelji menijo, da jim šola omogoča dovolj izobraževanj na področju dela z nadarjenimi. V raziskavo vključeni učitelji so bili glede zagotavljanja zadostnega števila izobraževanj o delu z nadarjenimi s strani šole in omogočanja tovrstnih izobraževanj v drugih strokovnih institucijah neopredeljeni. V povprečju namreč njihovi odgovori na trditvi o tem, da jim šola zagotavlja dovolj izobraževanj za delo z nadarjenimi

in da jim omogoča izobraževanje za delo z nadarjenimi tudi v drugih strokovnih institucijah, kažejo, da trditvi niti ne držita niti držita. Delež učiteljev, ki menijo, da omenjeni trditvi držita, je sicer večji kot delež tistih, ki se s trditvama ne strinjajo, a kljub vsemu je rezultat skrb zbujač. Šole bi namreč po našem mnenju morale poskrbeti za nenehno izobraževanje učiteljev tudi na tem področju, saj lahko svoje strokovne delavce le tako učinkovito pripravijo na strokovno, pedagoško in psihološko zahtevno delo z nadarjenimi.

Šola mora zagotoviti tak pouk, ki vsem učencem omogoča, da se razvijejo do meje svojih sposobnosti (Breceljnik, 2003). In prav šole so tiste, ki »morajo pri opredeljevanju in zahtevah dela z nadarjenimi učenci sprva poskrbeti za razvoj lastnega kadra, ga ustrezno motivirati in spodbuditi, zagotoviti varno učno okolje in šele nato pričakovati želeno realizacijo ciljev« (Kukanja Gabrijelčič, 2015, str. 188).

Upoštevaje ugotovitve, da imajo starejši učitelji bogate izkušnje dela z nadarjenimi in da poročajo o tem, da so prek izobraževanj pridobili dodatno znanje, bi bilo smiselno v šolah razmisljati tudi o večjem spodbujanju medgeneracijskega sodelovanja in prenosa znanja med kolegi.

## ZAKLJUČEK

»Če bo učiteljem uspelo pri nadarjenem učencu razvijati njegove dragocene in prirojene zmožnosti v karseda največji meri, bomo s tem pripomogli k vsesplošnemu napredku v vzgoji in izobraževanju ter življenju nasploh« (Kukanja Gabrijelčič, 2006, str. 57). Navedeno dejstvo postavlja pred vse odgovorne institucije in učitelje same pomembno naloge – nenehno skrbeli za strokovni razvoj tudi na področju odkrivanja nadarjenih in dela z njimi.

Zavedati se namreč moramo, da nadarjenost za vse učence ni privilegij. Nadarjeni se razlikujejo od svojih vrstnikov in tudi med seboj. Nekaterim je njihova nadarjenost lahko v veliko breme, drugim prinaša priložnost. Prav zato ima pri vzgojno-izobraževalnem delu z nadarjenimi pomembno vlogo učitelj. Ravno učitelj je tisti, ki mora oblikovati učno okolje, ki bo spodbujalo celovit razvoj nadarjenega učenca.

Izhajajoč iz zapisanega, pridobljene ugotovitve naše raziskave pomenijo velik prispevek k boljšemu razumevanju učiteljeve usposobljenosti za delo z nadarjenimi, služijo pa tudi kot izhodišča za pripravo izobraževanj in kot podlaga za učiteljevo samoevalvacijo lastnega pedagoškega dela z nadarjenimi učenci. Za prihodnje raziskave predlagamo ugotavljanje razlik glede na učiteljeva leta delovnih izkušenj ter vključitev pogleda vodstvenih in sestovalnih delavcev na področje dela z nadarjenimi.

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**PREMISLEKI O IZOBRAŽEVANJU IN UČENJU  
ODRASLIH: ANDRAGOŠKA DEDIŠČINA  
SABINE JELENC KRAŠOVEC**

*Znanstvena založba Filozofske fakultete 2021*

Monografija osvetljuje andragoško dediščino izr. prof. dr. Sabine Jelenc Krašovec skozi dialog z njenimi konceptualnimi idejami in spoznanji, ki jih njeni kolegi in sodelavci v Sloveniji in tujini kritično reflektirajo znotraj posamičnih poglavij. Nastala je kot odziv na prezgodnjo smrt izredne profesorice, ki je s svojim aktivnim (med)narodnim udejstvovanjem, raziskovanjem in poučevanjem pustila ogromen pečat v mednarodni andragoški skupnosti. Zato se delo prične z nekrologom v spomin na sodelavko in prijateljico ter nadaljuje z uvodnikom v njeno andragoško dediščino ter tremi tematskimi sklopi, ki to dediščino predstavljajo. Prvi, najobsežnejši sklop vsebuje šest poglavij, ki obravnavajo vprašanja, povezana z učenjem in izobraževanjem starejših v skupnosti. Drugi sklop obsega štiri poglavja, povezana s priložnostnim učenjem v javnem prostoru in dejavno demokratično državljanostjo. Zadnji sklop je osredinjen na profesionalni razvoj izobraževalcev odraslih in svetovanje v izobraževanju odraslih ter vsebuje dve poglavji. Poglavia znotraj teh tematskih sklopov so prispevali njeni bivši študenti in sodelavci, uveljavljeni andragograji, iz Slovenije, Srbije, Malte, Portugalske, Avstralije, Švedske in Nemčije.

Temeljna odlika besedila je, da avtorji v monografiji v dialoški nameri komunicirajo in reflektirajo teoretske koncepte, raziskovalno metodologijo, empirične ugotovitve ter širše družbeno udejstvovanje Sabine Jelenc Krašovec, povezano z učenjem in izobraževanjem starejših v skupnosti, s priložnostnim učenjem v javnem prostoru ter dejavno demokratično državljanostjo, s profesionalnim razvojem izobraževalcev odraslih in svetovanjem v izobraževanju odraslih. Na ta način monografija ponuja dober vpogled v razvoj kritične teorije in radikalnega izobraževanja odraslih, katerih namen je dandanes po eni strani kritika neoliberalizacije in s tem povezanih neenakosti, ki se odražajo tudi v potrženju izobraževanja odraslih, in po drugi iskanje načinov za ozaveščanje, emancipacijo in opolnomočanje različnih marginaliziranih skupin ter s tem spodbujanje demokratičnih procesov v družbi, vključno z vzpostavljanjem participatorne demokracije in samoorganiziranih skupnosti. Ob tem se izpostavlja tudi družbena in profesionalna vloga (kritičnih) izobraževalcev odraslih ter pomen zgoraj omenjene teoretske tradicije pri njihovem izobraževanju, usposabljanju in delovanju.

Vsebinsko in didaktično je besedilo zelo bogato, saj se empirično osredotoča na različne nacionalne kontekste ter javne in skupnostne prostore. Izražena je tudi teoretska in metodološka občutljivost za interseksionalnost, kjer se preletata predvsem spol in starost oziroma različna starostna obdobja. Ker je bila Sabina Jelec Krašovec kritična do institucionaliziranega izobraževanja odraslih, je v monografiji velik poudarek na priložnostnem učenju in kritični javni vzgoji ter njunem demokratičnem in emancipatornem potencialu. Ob tem se tudi andragoško svetovalno delo ne obravnava zgolj kot vezni člen med odraslim in izobraževanjem, temveč kot dejavnik spodbujanja družbene vključenosti odraslih ter povečevanja družbene enakosti in kohezivnosti. Delo je zanimivo, ker ponuja vpogled v različne kvalitativne metodološke pristope, ki vključujejo tudi samorefleksijo in izprasujojo družbeno pozicijo raziskovalca v določenem raziskovalnem kontekstu. Na ta način so paradigme, koncepti in spoznanja, ki jih je vzpostavljala Sabina Jelenc Krašovec skozi svojo kariero, ustrezno reflektirani tako v slovenskem kot širšem mednarodnem prostoru.

Monografija torej v skladu s Sabinino andragoško dediščino ponuja kritično refleksijo ter sodobne teoretske in empirične ugotovitve, ki bodo zanimive tako za visokošolske učitelje, raziskovalce in študente na področju andragogike, pedagogike in sociologije kot tudi za andragoško-pedagoške delavce ter snovalce izobraževalnih politik.

*Barbara Samaluk*

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## **DEVELOPMENT OF ADULT THINKING: INTERDISCIPLINARY PERSPECTIVES ON COGNITIVE DEVELOPMENT AND ADULT THINKING**

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Urednica in soavtorica knjige Eeva K. Kallio tematsko področje kognitivnega razvoja odraslih spreminja že od samega začetka svojega znanstvenega dela. Njegove pojme prikazuje kot kompleksne in večdimenzionalne ter jih skuša razložiti s pomočjo različnih ved, kot so psihologija, filozofija in izobraževalne znanosti. V svojem delu se posveča tako zgodovinski podlagi, kjer sistematično primerja ugotovitve različnih avtorjev in jih nato združi v smiselnou celoto, kot tudi sedanjim trendom raziskovanja. Podaja tudi primere za lažje razumevanje, priporočila glede izrazoslovja ter spodbuja diskusijo in odpira vprašanja za nove raziskave.

Knjiga *Development of adult thinking* prikazuje holističen pogled na razvoj odraslih, ki zajema razvojni, moralni, izobraževalni, filozofski in socialno-psihološki vidik, teme v njej pa so razdeljene na tri dele, in sicer: *Kognitivni in moralni razvoj odraslega, Perspektive učenja odraslih* ter *Odprta vprašanja in novi pristopi*. Namen avtorjev je bil opisati nekaj osnovnih modelov in teorij v povezavi s paralelnimi pristopi, ob tem pa razširiti pogled in spodbuditi nadaljnja vprašanja o razvoju razmišljanja in procesov učenja odraslih. Knjiga tako prikazuje različne vidike in raziskovalne dileme z namenom zagotavljanja integrativnega pogleda na kompleksne fenomene, ki jih obravnava. Teme in poglavja se med seboj povezujejo in nadgrajujejo, v ospredju pa ves čas ostaja kognitivni razvoj odraslega. Tako urednici in avtorjem uspe obdržati rdečo nit skozi celotno besedilo, kljub razgibanosti in raznolikosti obravnnavanih (pod)tematik.

Prvi del knjige se osredotoča na tematiko razvoja mišljenja. V ospredju so teorije avtorjev, kot so Piaget, Perry, Kohlberg in Gilligan. V uvodu avtorica Kallio predлага, da se za opis kognitivnega razvoja odraslih namesto izrazov »postformalno« in »relativistično-dialektično mišljenje« uporablja izraz »integrativno mišljenje«. Ta izraz ne zajema le predpostavk o znanju, ampak tudi okoliščine, kot so volja, čustva, procesi, eksistencialni pomeni itd. Besedilo je odličen uvod v nadaljnja poglavja, saj prinaša temeljne razlage obravnavanih pojmov skozi bistvene teorije pomembnih raziskovalcev. V nadaljevanju knjiga odgovarja na zanimivo vprašanje, kako sta kognitivni področji mišljenja in znanja povezani ter ali obstaja medsebojna odvisnost med logično-vzorčnim mišljenjem in prepričanji o

znanju. Razprava se razširi na možnosti integracije posameznikovih perspektiv osebnih epistemologij in družbenih predstavitev v nadalnjih raziskavah. Prvo tematsko področje se smiselno zaključi s širšim pogledom na polje moralnega mišljenja in razvoja, predvsem z vidika nadgradnje Kohlbergove in Gilliganove teorije.

Drugi del se dotika nekaterih modelov, povezanih z učenjem odraslih, konceptualnimi spremembami, tihim znanjem in strokovnim znanjem. Najprej avtorja Murtonen in Lehtinen predstavita zgodovinski pogled na učenje predvsem s filozofskega vidika, temu pa se pridružijo naravoslovni pogled, vedenjske teorije in sociokulturni pogled. Ločeno opiseta kognitivne teorije učenja odraslih na nivoju posameznika ter tudi v širšem, socialnem in kulturnem kontekstu, kar služi kot podlaga za razumevanje nadalnjih poglavij. V tem delu je predstavljen integrativni model modrosti v strokovni praksi, tudi s slikovnim prikazom. V njem avtorji integrativno mišljenje in reševanje problemov prikažejo kot osrednja procesa v modrosti v povezavi s strokovnim znanjem, kot tretji temeljni proces pa postavijo družbeno odgovorno delovanje in sodelovanje za skupno dobro. S tem modrosti ne vidijo zgolj kot individualni fenomen, temveč kot družbeni pojav.

Tretji del zajema kritično evalvacijo in predstavlja epilog celotnega dela. V njem se tako odpira razprava o epistemološkem razvoju, uvajanju in vrednotenju empiričnih metod ter razprava o metodoloških in teoretičnih izzivih. Predstavljene so alternativne metode za prihodnje raziskave in poudarjena je nujnost povezovanja med teoretičnimi, metodološkimi in empiričnimi pogledi pri raziskavah epistemskih konceptov. Tako kot skozi celotno knjigo avtorji tudi v tem delu najbolj zagovarjajo večperspektivni pristop, saj trdijo, da obstaja nujna potreba po razvoju in izdelavi avtentičnih in kombiniranih metod. Glede na večdimensionalnost obravnavanih tematik tudi sama vidim najboljši pristop k raziskovanju področja skozi kombinacijo različnih metod in povezovanje različnih disciplin (psihologija, sociologija, filozofija, pedagogika). Če tega ne upoštevamo, pomembni vidiki (denimo učenja) ostajajo spregledani. Nadalje avtorji razpravljajo o sistemskih teorijah in hkrati pod vprašaj postavljajo na posameznika usmerjen pristop, ki mu sledijo številni kognitivni modeli (odraslih), ter s tem pozivajo k večji pozornosti pri nadalnjih raziskavah na nivoju sistemov, družbe, situacije in sodelovanja. V zadnjem, sklepnom poglavju pa avtorja Tuominen in Kallio v ospredje postavljata nujnost teoretične natančnosti, predlagata analizo zrelega razmišljanja odraslih skozi integracijo namesto s perspektive epistemološkega relativizma in dialektičnega mišljenja ter pozivata k odprtju razprave glede pojmovanja relativizma in relativistično-dialektičnega mišljenja.

Knjiga predstavlja težave vsakdanjega in znanstvenega razmišljanja, različne miselne vzorce, koncepte, vrednote, socialne relacije in eksistenčna vprašanja. Opisane so nekatere najpomembnejše kognitivne psihološke teorije in teorije učenja odraslih. Delo je zato velikega pomena za študente in raziskovalce na področju kognitivnega razvoja odraslih in je lahko podlaga za mnoga nadaljnja raziskovanja, saj spodbuja diskusijo in odpira nova vprašanja.

*Sanja Zgonec*