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THE LEVEL OF DEVELOPMENT OF STUDENTS' DIGITAL COMPETENCIES IN THE COMMUNICATION DOMAIN[2]

Abstract: *Our time is the time of rapid changes in all walks of life. The fastest changing segment is that of digital technologies. As the development of digital technologies is a current and continuous process, it is expected that in time these technologies will become completely integrated into the school practice. Therefore, it is important to observe if the students are ready and to what extent they are equipped to apply digital tools in education. Furthermore, it is necessary to establish whether students possess digital competencies which will become necessary if one wishes to keep up with the teaching process and complete school assignments or if students´ digital competencies are related to spending leisure time on content that is unrelated to school assignments. The paper researches digital competencies of secondary school students in the communication domain. We strived to establish the level of students´ digital competencies necessary to communicate through digital technologies, and differences in the level of students´ digital competencies bearing in mind their academic achievements, sex, and form. The results of the conducted research indicate that the largest number of students have mastered the basic and intermediate levels of digital competencies in the communication domain, but one cannot disregard the number of students who are advanced users in this domain. When it comes to differences in participants' responses in terms of research variables, it has been established that there are statistically significant differences concerning sex and academic achievement, while there are no established statistical differences in regard to their form.*

Keywords*: digital competencies, students, communication, digital technologies*

1. Introduction

In the modern world, communication is increasingly moving to the electronic domain and it is established through digital technologies. New generations cannot imagine their lives without mobile phones, the Internet, and other efficient means of communication. New technologies have become indispensable to the point that they constitute the be-all and end-all of efficient communication in everyday life.

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The pandemic which has spread all over the world contributed to setting out digital competencies as essential for functioning within the scope of the educational system, as well as in all other segments which imply direct contact and communication.

To increase the efficiency of the process of education in the era dominated by digital technologies it is necessary to start from research into students' digital competencies to pinpoint the knowledge which needs to be improved. As the use of digital technologies has changed over time, so has competence development, and it has become necessary to explore them continuously.

Digital technologies have facilitated communication and enabled its uninterrupted flow regardless of the location of interlocutors. Digital technologies in general, and especially those in the communication domain are extremely significant, which requires constant exploration and improvement. In the research, we started from the assumption that students possess a high level of digital competencies in the communication domain. We can support such a stance by referring to the full online teaching process which was initiated in March 2020 due to the outbreak of the COVID-19 pandemic. Namely, in addition to communicating via messages students were compelled to learn how to share files, as well as how to communicate through digital tools which they had not used before.

2. Theoretical approach to the problem

In the Serbian language, the term *competency* is translated as *kompetencija* and it is understood as a set of behaviors that contribute to the successful completion of certain activities as well as a manner of applying acquired knowledge and skills when performing a certain task (Kurz & Bartram, 2002). Defined on a more general level, the term competency can be determined as "competence, authority, ability" (Vujaklija, 1980:429).

Nevertheless, one of the major problems in defining competencies is the fact that different authors attach different meanings and content to this concept, while their manner of measuring the development of competencies in individuals differs as well. Mulder (2007) has extensively dealt with the development of the concept of competency and its meaning in the existing literature and he points out that the concept of competency and the use of words relating to competencies dates back to Persia, Rome, and Ancient Greece. In Europe, this concept can be traced back to the 16th century and it can be found in legal literature, organisational structure, management processes, and education. Observed from the aspect of the manifestation of competencies, literature offers definitions of competencies which can be classified into two groups (Branković, 2011; Domazet, 2009; Gonzalez &Wagenaar, 2003; Jenkins et al, 2007; Kurz & Bartram, 2002; Mijatović, 2000; Mulder, 2007; Witfelt, 2000). The first group includes definitions related to the qualifications or standards of performing an activity, while the second group includes definitions that relate to a high level of success in performing a certain activity.

Within the framework of the project Tuning Educational Structures in Europe, 30 key generic competencies have been identified and classified into three groups: 1)

instrumental, 2) interpersonal and 3) systemic competencies (Gonzales & Wagenaar, 2003). *Instrumental* competencies include the following: the ability to analyse and synthesise, the ability to organise and plan; oral and written communication in one´s native language; basic general knowledge; knowledge of a specific field; knowledge of a foreign language, problem-solving, etc. *Interpersonal* competencies include the ability of criticism and self-criticism, teamwork, interpersonal skills, respect for diversity, while *systemic* competencies include the ability to learn and apply the knowledge in practice, creativity, leadership, research skill, the ability to adjust to new situations, the will to succeed, etc.

The European Reference Framework on Key Competencies (The European Parliament & The European Union, 2006) understands digital competencies as safe and discriminating use of information society technologies for work, free time, and communication, and it is supported by basic information technology skills such as the use of a computer to seek, assess, produce, present and exchange information to participate and communicate through the Internet. Competencies have been developed at three levels: basic, intermediate, and advanced by precisely explaining the expectations related to students' achievements at each level. These competencies should enable students to respond to various life challenges, to become competent to successfully apply different types of knowledge, attitudes, and skills acquired during the period of formal education.

Digital competencies are increasingly becoming essential competencies and they permeate all spheres of life. They are implemented in everyday educational practice, study programmes, curriculum, work, further education, and retraining whereby the scope of professional development programmes has not yet reached a satisfactory level. Since digital competencies are not related to any particular subject and they are considered interdisciplinary competencies, one frequently encounters situations in practice where students are required to solve tasks which imply good digital skills, whereby they had not been previously taught techniques and methods of developing such competencies (Krželj & Polovina, 2019). Changes related to the world of digital technologies are inevitable and it is necessary to constantly adjust and improve one's skills, which especially relates to the field of education and its stakeholders. This is especially important in order to be able to keep up with the generations which start attending school with increasing information technology literacy and to be able to take as many advantages of the digital age as possible. The current formal traditional education which implies that knowledge is transferred in a finished form from a lecturer to a student is not adequate in a society prone to constant and quick changes, i.e., in a society where information changes and knowledge becomes obsolete if it is not upgraded with new knowledge and skills.

Information and communication technologies have facilitated everyday life by making jobs faster and simpler, but they have also brought numerous changes which are not always desirable. With the advancement of technology, we bear witness to the mass use of the Internet which has already been included in the process of education and upbringing. When it comes to the Internet, the most important segment of Internet use is to teach students how to access web pages suited to their needs and how to recognise

unsafe content. It is necessary to point to various possibilities of using computers and the Internet for educational purposes because such uses are manifold and students should also be trained to benefit the most out of what they offer. The content encountered on the Internet is usually not properly evaluated or critically assessed. The focus should be placed on training students to use technologies adequately and efficiently to educate themselves, as well as to develop digital competencies, to develop their professional knowledge and improve themselves.

In Serbia, in 2013 the Standards of General Cross-Curricular Competencies in the End of Secondary Education (2013) were developed, including digital competencies. Digital competencies have been defined through the following outcomes: a student can search for, assess reliability, and analyse information in an electronic form by resorting to suitable ICT tools (devices, software products, and e-services); the student can express himself/herself in an electronic form by resorting to multimedia expression and with elements of formally defined notations characteristics of the use of ICT tools (for instance address, queries, formulae, procedures, etc.); the student can resort to ICT to present, organise, structure and format information; when solving problems the student is capable of choosing suitable ICT tools; the student can efficiently use the ICT to communicate and cooperate; the student recognises the risks and dangers when using the ICT. Based on the aforementioned, one can observe similarities with the definition of digital competencies reached in the framework of the DigiComp project, so the outcomes embraced by the Institute for the Evaluation of the Quality of Education and Upbringing can be classified into five previously mentioned fields of digital competencies: information and digital literacy, communication and cooperation, creating digital content, safety and problem-solving.

Digital competencies according to users' development levels have been categorised into five areas: information processing, communication in the digital environment, creating digital content, safety in the digital environment, and problem-solving. Bearing in mind that this paper deals with communication in the digital environment, only this domain of digital competencies will be presented in the table (Table 1) (https://europass.rs/wp-content/uploads/2018/09/EuropassIctGrid-SRlat.pdf).

Table 1 Self-assessment of digital competencies in the communication domain

	COMMUNICATION
Basic use	I can communicate with others by using a mobile phone, e-mail, or chat applications – by using basic functions (for instance, voice messages, text messages, sending and receiving e-mails). I can share files or content by using simple tools.
	I know I can use digital technologies for various services (such as public institutions, banks, hospitals…). I am familiar with social media and tools for Internet cooperation. I am familiar with certain rules that need to be abided by when using certain digital tools (for instance, sharing comments, sharing personal data).
Independent use	I can use advanced options of several communication tools. I can use cooperation tools and contribute to shared files made by someone else. I can use certain options of Internet services (for instance, public institution services, e-banking, online shopping). I transfer or share knowledge with others on the Internet (for instance, via social media or in various Internet communities). I am familiar with communication rules on the Internet (*Internet etiquette/ netiquette)* and I abide by them.

Advanced use	I actively use a wide variety of tools for Internet communication (e-mail, chatting, short messages, instant messages, blogs, microblogs, social media). I can create content and manage it through collaboration tools (for instance, e-calendar, project management systems, online text correction, Internet table). I actively participate in Internet spaces and I use several e-services (for instance, public institution services, e-banking, online shopping).
	I can use advanced tools for communication (for instance, video conference, data sharing, application sharing).

As we have dealt in this paper with the communication domain within the scope of development of digital competencies, we should emphasise the concept of communication as an interdisciplinary competence that can contribute to the development of digital competencies within this domain. This competence implies that a student has mastered various modalities of communication and uses them purposefully and constructively when he/she communicates in a private, public, educational and professional context. The student adapts the manner and means of communication to the characteristics of the situation, he/she uses concepts suitably and creatively, as well as the language and communication style which are specific for different scientific, technical, and artistic disciplines. In communication with others, the student can express his/her opinion, emotions, attitudes, values, and accomplish his/her goals in a positive, constructive, and argumentative way, by respecting the other side (Standards of General Cross-Curricular Competencies in the End of Secondary Education, 2013). Digital competence in the communication domain enables one to establish social roles and it implies inclusion into social activities via the Internet. It is achieved by interaction through digital technologies, by content sharing, managing digital identity, and collaborating (Kluzer & Priego, 2018).

3. Methodological framework

Bearing in mind that digital competencies are increasingly prominent among the 21st century competencies and that they have become indispensable in every sphere of life and work, this research aims to examine the readiness of students to use digital technologies which are becoming highly present in education. The subject of this research is the level of development of students' digital competencies in the domain of communication. The paper aims to determine the level of digital competencies in secondary school students.

The following research tasks arise from the set goal:
1. To establish the level of students' digital competencies for communication via digital technologies.
2. To establish whether there is a statistically significant difference in students' responses concerning the level of digital competencies in the communication domain in relation to students' sex.
3. To establish the relation between students' assessment of the level of digital competencies in the communication domain and students' academic

achievements.
4. To establish whether there is a significant difference in students' responses about the level of digital competencies in the domain of communication in terms of the school form that they attend.

The research hypotheses which stem from the research goal are as follows:
1. It is assumed that students are at the level of an independent use of digital competencies for communication through digital technologies.
2. It is assumed that there is a statistically significant correlation between students' assessment regarding their level of digital competencies in the communication domain and their academic achievement.
3. It is expected that there is a statistically significant difference in students' responses regarding their level of digital competencies in the communication domain in terms of their sex.
4. It is expected that there is a statistically significant difference in students' responses regarding the level of digital competencies in terms of the school form that they attend.

In the research, we have resorted to the descriptive method. The applied research technique is scaling. By resorting to scaling as well as by applying the Likert-type scale we examined students' self-assessment of the levels of digital competencies. The basic theoretical standpoint for devising this instrument is found in the classification of digital competencies provided in DigiCom 1.0 (*A Framework for Developing and Understanding Digital Competence in Europe*) published by the European Commission in 2013 (according to Ferrari, 2013). This classification of digital competencies was used to create an assessment scale with items adjusted to the needs of this research. The instrument included 30 items covering three levels (basic, independent and advanced) of digital competencies from different domains. This paper presents results from the communication domain, whereby the data were collected by resorting to a 6-item subscale.

The data have been processed by using the SPSS software package for Windows 2.0. The research variables are as follows: sex, secondary school forms, and students' academic achievement. The following statistical procedures have been applied: a) to compare respondents concerning the sex variable we resorted to the t-test; b) to compare respondents concerning the school form they attended we used the one-factor analysis of variance; c) to establish the relationship between academic achievement and levels of digital competencies in the communication domain we resorted to correlation. The results are presented in tables and text form.

The research encompassed 103 secondary school students who live in the student dormitory – 44 students were male and 59 of the female sex. When it comes to academic achievement, as one can observe in Table 2, 57,3% of students have excellent achievement, 30,1% have very good achievement, 11,7% have good achievement and 1,9% have average achievement. The sample is fairly uniform concerning the representation of students of all forms, 30,1% attends the first form, 20,4% attends the second form, 27,2% attends the third form and 22,3% attends the fourth form.

Table 2 Sample structure

Variables			
	Male	f	44
		%	42,7
Sex	Female	f	59
		%	57,3
	Excellent	f	59
		%	57,3
	Very good	f	31
		%	30,1
	Good	f	12
Academic achievement		%	10,7
	Average	f	1
		%	1,9
	First	f	31
		%	30,1
	Second	f	21
		%	20,4
	Third	f	28
Secondary school form		%	27,2
	Fourth	f	23
		%	22,3

4. Analysis of research results

The first research task was related to establishing the level of students' digital competencies in the communication field. All students agreed (summarised categories *I agree* and *I totally agree*) with the statement that they were able to communicate with others by using a mobile phone, e-mail, and chat applications. When it comes to the second statement concerning the basic level (they can resort to digital devices in order to use public institution services), 80% of students expressed their agreement (every fifth student totally agrees), while 12% of the students were indecisive, and 8% disagreed. Most students (around 90%) agreed with the statements that they knew how to share files via social media and e-mail (independent level) and that they actively used different tools to communicate using the Internet (advanced level). A somewhat smaller number of students stated that they knew how to use the Internet to shop online or to resort to e-banking (independent level) – around 70%, while

65% of them resorted to online shopping and used the services of public institutions (advanced level), and 20% expressed their disagreement with this statement.

Through an advanced research task, we wanted to establish whether there was a statistically significant difference in students' responses with regards to their levels of digital competence in the communication domain and taking into consideration their sex. By calculating the t-test of independent samples, it has been ascertained that there were statistically significant differences between the members of the male and female sex. Based on presented results in Table 3, female students assessed that they possessed a higher level of competencies in the communication domain in comparison to male students.

Table 3 Statistical significance of the difference in responses concerning the sex variable

Scale/Domain	Sex	N	AM	SD	t	p
Communication	male	44	23.48	3.34	-2.386	0.019*
	female	59	25.02	3.16		

Note: N – number of respondents, AM – arithmetic mean, SD – standard deviation, t – statistic, p – statistical significance
* significance on the level 0.05.

By comparing students in terms of the level of digital competence in the communication domain concerning the forms they attended we have reached the data which show that there is no statistically significant difference in their responses based on results presented in Table 4.

Table 4 Statistical significance of the difference in responses concerning the form variable

Scale/Domain		Sum of squares	df	Average square	F	p
Communication	Between groups	22.145	3	7.382	0.666	0.575
	Within groups	1097.564	99	11.087		
	Total	1119.709	102			

Note: df – degrees of freedom, F – statistic, p– statistical significance

The correlation between academic achievement and levels of digital competencies in the communication domain has been established based on the results of correlational analysis (Table 5). The results show that there is a moderate correlation between academic achievement and a level of digital competence in the communication domain (r=0.323, p=0.001), i.e., that students with higher academic achievement also have a higher level of competencies.

Table 5 Correlation between academic achievements and the score of digital competence on a scale/domain of communication

		Communication
	Pearson Correlation	0.323**
Academic achievement	Sig.	0.001
	N	103

Note: Spearman's rho – statistic, Sig. – statistical significance, N – number of respondents ** significance on the level of 0.01.

Based on the obtained results, one can conclude that students possess high levels of digital competence in the communication domain. Taking into consideration all other domains of digital competence such as information processing, content creation, safety, and problem-solving, one can assert that it is expected that students possess high levels of competence precisely in the communication domain.

4.1. Discussion

Students' digital competencies are among interdisciplinary competencies that should be developed in the framework of all school subjects. The development of these competencies implies building students' capacities to successfully cope with the digital world in which we currently live and work. Students should be introduced to positive and negative aspects of digital technologies to be able to adequately exploit them.

Contrary to certain research studies results, the authors of this research concluded that there was no significant difference in students' responses with regards to their sex. The results of other research studies that delved into students' digital competencies showed that female students possessed a higher level of digital competencies compared to male students (Gebhardt et al., 2019; Punter, Meelissen & Glas, 2017; Fraillon et al., 2019). However, there are opposite findings which indicate that male students are digitally more competent than female students (Kuzmanović et al., 2019).

When it comes to differences relating to the form that students attend, we have also concluded that there was no statistically significant correlation between students´ responses to the statement relating to the communication domain of digital competencies. Similar results suggesting that there was no correlation between students' age and one's level of digital competencies have been reached by other authors as well (e.g., Durndell & Haag, 2002), while other research studies indicate that there are certain differences between junior and senior secondary school students when it comes to theoretical and practical aspects of computer skills (Appel, 2012).

The research has shown that there is a positive correlation between students' academic achievements and their levels of digital competencies, i.e., the better the academic achievement of students, the higher the level of digital competencies. Such a finding is in line with another study which indicates that the improvement of digital competencies depends on students' academic achievement (Hatlevik,

Guðmundsdóttir & Loi, 2015). The future brings the inevitability of researching into digital competencies in order to improve the application of new technologies and adequately apply them in the process of education.

5. Conclusion

We live in the digital era with the technological revolution in full swing. To be able to keep up with great achievements and changes it is necessary to continuously improve our capabilities and build competencies that will enable us to understand, learn, communicate and work in the digital age. Consequently, the theoretical significance of this research is reflected in the fact that this paper can make a certain contribution to our pedagogical theory within which the development of digital competencies is still in its infancy. Additionally, it can broaden the current theoretical knowledge and provide a starting point for further empirical research into students' digital competencies.

The future brings significant changes, which requires faster development and adjustment to the new circumstances. Communication is of primary importance in every activity and in new challenges that lay ahead. Communicating through digital technologies increasingly becomes the primary way and means of functioning in a modern society and if we fail to develop competencies that could facilitate our functioning in the digital era, we could face serious problems. Therefore, it is necessary to raise awareness in children about the significance of competencies. By pointing to the purpose and significance of competencies in different fields we can increase motivation for personal and professional improvement and form citizens who can cope with different circumstances which occur in the developing society.

Therefore, we believe that the results obtained in this research can serve as a starting point for taking further steps towards improving digital competencies in students. The necessity to develop and possess competencies points to the significance of lifelong learning. Realistic assessment of one's competencies and working on their improvement leads to forming responsible citizens aware of the necessity of a continuous growth in order to face increasing challenges brought by the advancement of digital technologies. Competencies require continuous reconsideration, opening new possibilities, and creating ideas that would constitute the basis for further research with the aim of further improvement. As a result, the greatest significance of this research is not merely reflected in establishing the levels of digital competencies in students, but in creating the basis for further actions which need to be taken to improve them.

References

Appel, M. (2012). Are heavy users of computer games and social media more computer literate? *Computers and Education, 59(4),* 1339–1349. doi:10.1016/j.compedu.2012.06.004

Branković, D. (2011). "Definisanje kompetencija nastavnika razredno predmetne nastave". *Nova škola*, 8, str. 67−80.DOI: 10.5776/pfbn.2011.0005

Domazet, M. (2009). "Društvena očekivanja i prirodno-znanstveno kompetentni učenici". *Sociologija i prostor*, *47(*2), str. 165-185.

Durndell, A. & Haag, Z. (2002). Computer self efficacy, computer anxiety, attitudes towards the Internet and reported experience with the Internet, by gender, in an East European sample. Computers in Human Behavior, 18, p. 521–535.doi:10.1016/S0747-5632(02)00006-7

European Union (2018). *Digitalne kompetencije – Tabela za samoprocenu*. Available on: https://europass.rs/wp-content/uploads/2018/09/EuropassIctGrid-SRlat.pdf (Accessed October 15, 2021).

Ferrari, A. (2013). *DIGCOMP: A Framework for Developing and Understanding Digital Competence*. Luxembourg: Publications Office of the European Union.

Gebhardt, E., Thomson, S., Ainley, J. i Hillman, K. (2019). *Gender differences in computer and information literacy: An in-depth analysis of data from ICILS*. Cham, Switzerland: Springer. https://doi.org/10.1007/978-3-030-26203-7

Fraillon, J., Ainley, J., Schulz, W., Friedman, T. i Duckworth, D. (2019). *Preparing for life in a digital world: IEA International Computer and Information Literacy Study 2018 International Report.* Amsterdam: International Association for the Evaluation of Educational Achievement (IEA). https://doi.org/10.1007/978-3-030-38781-5

Gonzalez, J., Wagenaar, R. (2003). *Tuning Educational Structures in Europe – Final Report, Phase One.* Bilbo, Groningen: University of Deusto, University of Groningen.

Hatlevik, O. E., Guðmundsdóttir, G. B., Loi, M. (2015). Examining factors predicting students' digital competence. *Journal of Information Technology Education: Research, 14,* p. 123-137. http://www.jite.org/documents/Vol14/JITEV14ResearchP123-137Hatlevik0873.pdf (Accessed October 17, 2021).

Jenkins, H., Clinton, K., Purushotma, R., Robison, A. J., Weigel, M. (2007). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Chicago: The MacArthur Foundation.

Kluzer S., Priego L. P. (2018). *DigComp into action: get inspired, make it happen – A user guide to the European Digital Competence Framework*. Luxembourg: Publications Office of the European Union.

Krželj, K., Polovina, N. (2019): "Značaj ključnih kompetencija iz perspektive nastavnika stranih jezika". *Andragoške studije* 1, p. 111-134. DOI:10.5937/AndStud1901111K

Kurz, R., Bartram, D. (2002). Competency and individual performance: Modeling the world of work. Ed. I. T. Robertson, M. Callinan, & D. Bartram. *Organizational effectiveness: The role of psychology* (pp. 227–255). Chichester: Wiley.

Kuzmanović, D., Pavlović, Z., Popadić, D. i Milošević, T. (2019). *Korišćenje interneta i digitalne tehnologije kod dece i mladih u Srbiji: rezultati istraživanja Deca Evrope na internetu*. Beograd: Institut za psihologiju Filozofskog fakulteta u Beogradu.

Mijatović, A. (2000). *Leksikon temeljnih pedagogijskih pojmova*. Zagreb: Edip.

Mulder, M. (2007). Competence – the essence and use of the concept in ICVT. *European Journal of Vocational Training*, *40*(5), p. 5-22.

The European Parliament & The European Union (2006). *Recommendations of the European Parliament and of the Council of 18 December 2006 on Key Competences for Lifelong Learning (2006/962/EC) (Official Journal of the European Union. 30.12. 2006).* Available on: https://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:en:PDF(Accessed November 3, 2021).

Vujaklija, M. (1980). *Leksikon stranih reči i izraza.* Beograd: Prosveta.

Standardi opštih međupredmetnih kompetencija za kraj srednjeg obrazovanja (2013). Beograd: Zavod za vrednovanje kvaliteta obrazovanja i vaspitanja. Available on:

https://ceo.edu.rs/wpcontent/uploads/obrazovni_standardi/Opsti_standardi_postignuca/MEDJUPREDMETNE%20KOMPETENCIJE.pdf (Accessed October 21, 2021).

Punter, R., Meelissen, M. i Glas, C. (2017). Gender differences in computer and information literacy: An exploration of the performances of girls and boys in ICILS2013. *European Educational Research Journal,* 16(6), p. 762-780. https://doi.org/10.1177/1474904116672468

Witfelt, C. (2000). Educational multimedia and teachers' needs for new competencies: A study of compulsory school teachers' needs for competence to use educational multimedia. *Educational Media International*, *37*(4), p. 235-241.DOI: 10.1080/09523980050210420

RAZVIJENOST DIGITALNIH KOMPETENCIJA UČENIKA U DOMENU KOMUNIKACIJE

Apstrakt. *Nalazimo se u vremenu ubrzanih promena u svim sferama života, a segment u kome se najbrže odvijaju promene jeste oblast digitalnih tehnologija. Kako je razvoj digitalnih tehnologija aktuelan i kontinuiran proces, očekuje se da će se vremenom one potpuno integrisati u školsku praksu. Zbog toga je važno sagledati da li su učenici spremni i koliko su osposobljeni za primenu digitalnih alata u obrazovanju. Pored toga, potrebno je utvrditi da li učenici poseduju digitalne kompetencije koje će postati neophodne za praćenje nastave i izradu školskih zadataka ili se digitalne kompetencije koje učenici poseduju odnose na provođenje slobodnog vremena uz sadržaje koji nisu povezani sa školom. U radu se istražuju digitalne kompetencije učenika srednjih škola iz domena komunikacije. Nastojali smo da utvrdimo nivo digitalnih kompetencija učenika za komunikaciju putem digitalnih tehnologija i razlike u nivoima digitalnih kompetencija učenika s obzirom na njihov školski uspeh, pol i razred. Rezultati realizovanog istraživanja pokazuju da je najveći broj učenika ovladao osnovnim i srednjim nivoom digitalnih kompetencija iz domena komunikacije, ali nije zanemarljiv ni broj učenika koji su na naprednom nivou iz ovog domena. Kada je reč o razlikama u odgovorima ispitanika s obzirom na varijable istraživanja, utvrđeno je da postoje statistički značajne razlike u odnosu na pol i školski uspeh učenika, dok u odnosu na razred statistički značajne razlike nisu ustanovljene.*

Ključne reči: *digitalne kompetencije, učenici, komunikacija, digitalne tehnologije.*