



Funded by
the European Union

unicef 
for every child



Transforming Education in Kosovo with the Learning Passport

The case of Shkollat.org

Policy Brief

UNICEF INNOCENTI – GLOBAL OFFICE OF RESEARCH AND FORESIGHT

UNICEF Innocenti – Global Office of Research and Foresight tackles the questions of greatest importance for children, both current and emerging. It drives change through research and foresight on a wide range of child rights issues, sparking global discourse and actively engaging young people in its work.

UNICEF Innocenti equips thought leaders and decision makers with the evidence they need to build a better, safer world for children. The office undertakes research on unresolved and emerging issues, using primary and secondary data that represents the voices of children and families themselves. It uses foresight to set the agenda for children, including horizon scanning, trends analysis and scenario development. The office produces a diverse and dynamic library of high-level reports, analyses and policy papers, and provides a platform for debate and advocacy on a wide range of child rights issues.

UNICEF Innocenti provides, for every child, answers to their most pressing concerns.

The findings, interpretations and conclusions expressed in this paper are those of the authors and do not necessarily reflect the views of UNICEF.

This paper has been peer reviewed both externally and within UNICEF.

Extracts from this publication may be freely reproduced with due acknowledgement. Requests to utilize larger portions or the full publication should be addressed to the Communications Unit at researchpublications@unicef.org.

Any part of this publication may be freely reproduced if accompanied by the following citation: Transforming Education in Kosovo with the Learning Passport. The case of Shkollat.org. UNICEF Innocenti – Global Office of Research and Foresight, 2023.

ACKNOWLEDGEMENTS

This report was prepared by Joaquín Cárceles Martínez-Lozano and Thomas Dreesen, under the supervision and guidance of Matt Brossard, Chief of Education, UNICEF Innocenti – Global Office of Research and Foresight.

The authors acknowledge invaluable inputs throughout the research by colleagues from UNICEF in Kosovo (Nona Zicherman, Larissa Brunn, Kozeta Imami, Timur Ramiqi, Teuta Halimi and Antigona Uka), UNICEF Regional Office for Europe and Central Asia (Nora Shabani and Christina Siina) and UNICEF Global Headquarters (Pragya Dewan). The research team is also grateful for the feedback of Marigona Morina (University of Calgary) and Bardha Qirezi (EduTask), who supported the peer-review process. Finally, we particularly acknowledge the inputs and research efforts of colleagues at the Institute of Psychology – University of Pristina, who led the needs assessment that underpins this policy brief (Diadora Cërmjani, Kaltrina Kelmendi, Linda Hoxha and Era Hamiti).

Correspondence should be addressed to:

UNICEF Innocenti – Global Office of Research and Foresight
Via degli Alfani, 58
50121 Florence, Italy
Tel: (+39) 055 20 330
Fax: (+39) 055 2033 220
researchpublications@unicef.org
www.unicef-irc.org

@UNICEFINnocenti on Twitter, LinkedIn,
Facebook, Instagram and YouTube

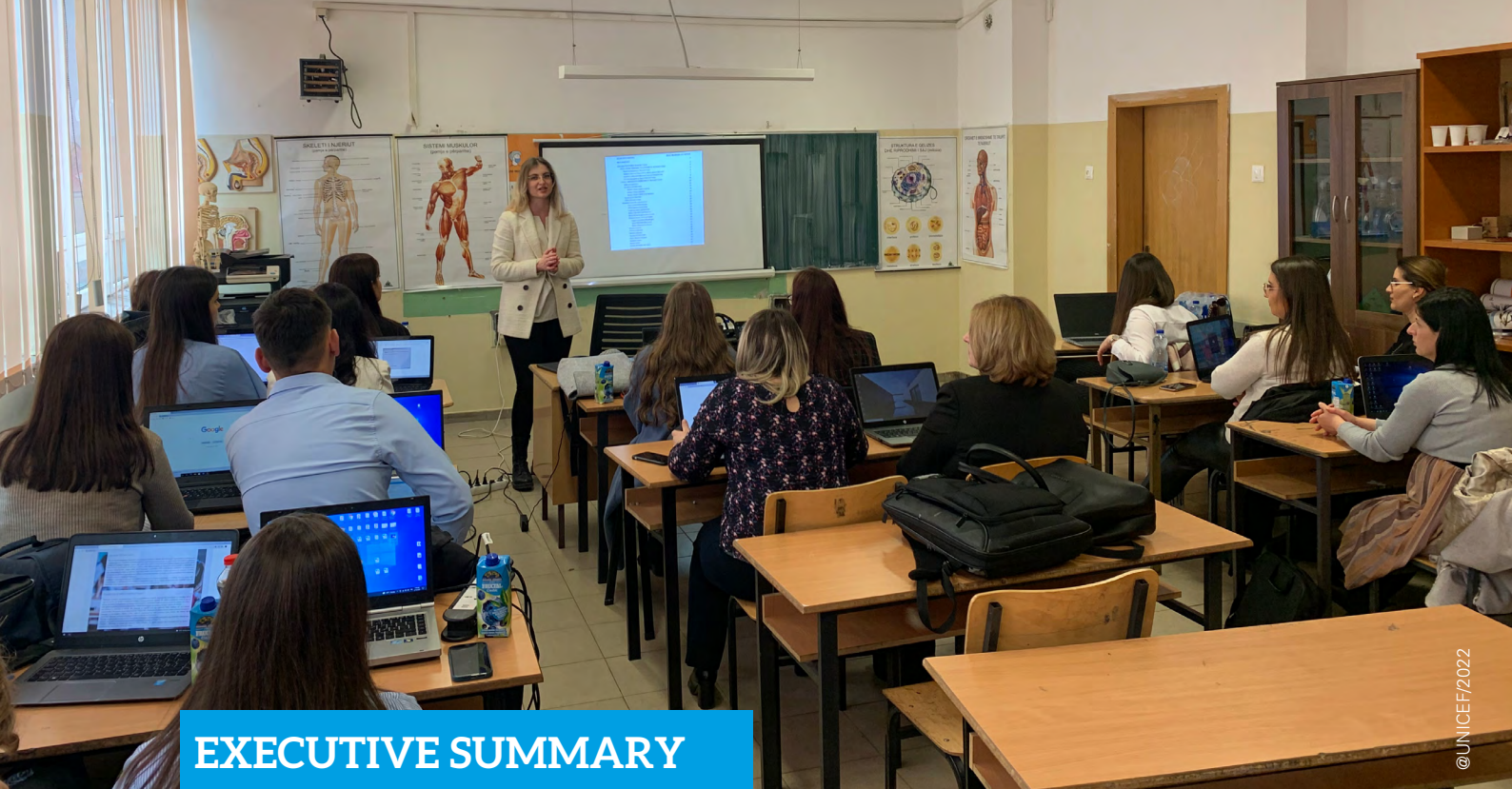
© 2023 United Nations Children’s Fund (UNICEF)

Cover photo: @UNICEF/2021/L.Aliu

This policy brief was prepared under the framework of the ‘Mitigating the impact of COVID-19 on Children and Families in the Western Balkans and Turkey-project’, financed by the European Union and implemented by UNICEF.

The materials, content and views expressed in this report are those of the experts engaged in the research and do not necessarily represent the views of the European Union.

Graphic design: Small World Stories



EXECUTIVE SUMMARY

With the right implementation, digital learning is a powerful tool that teachers can use to provide students with interactive, fun and individualized learning, both inside and outside the classroom. This is particularly relevant in the context of Kosovo,¹ where in 2018, four out of five 15-year-olds (79 per cent) had difficulty comprehending a text of moderate length and complexity, a much higher proportion than the Western Balkans' average (54 per cent) (OECD, 2020). In Kosovo, digital learning is still a relatively new concept, generally associated with remote learning during the COVID-19 pandemic. In this context, additional efforts are needed to ensure that teachers can use digital learning across Kosovo as a tool to deliver student-centered learning whether teaching happens face-to-face or remotely. This is recognized in the Kosovo Education Strategy (2022–2026), where digitalization in education is included as one of five core strategic objectives. The purpose of this report is to provide evidence and policy takeaways to strengthen digital learning in Kosovo, with a focus on scaling-up Kosovo's national platform for digital learning: Shkollat.org.

Shkollat.org, the localized version of the Learning Passport,² was launched in 2021 by the Ministry of Education, Science, Technology and Innovation (MESTI) in collaboration with UNICEF. The learning platform combines the largest repository of curriculum-aligned video learning content in Kosovo with communication tools such as Microsoft Teams and access to the Office 365 desktop suite. Using Shkollat.org, teachers and students can communicate, share and engage with content, collaborate on team projects or create individualized quizzes and assessments. Developing and expanding the use of Shkollat.org is essential

to support digital learning in Kosovo. To do this, the Kosovo Education Strategy (2022–2026) recognizes the need to work across six areas (or pillars): digital learning platforms, content, teachers upskilling and support, connectivity, devices, and institutional support.

Evidence for this report is drawn from analysis of a mixed-methods needs assessment conducted by the Institute of Psychology (University of Pristina) and supported by UNICEF in Kosovo in January–February 2022. This research report presents key policy takeaways for MESTI and other education policymakers in the Western Balkans. These are organized around the six pillars of digital learning embedded within the Kosovo Education Strategy (2022–2026).

1. Digital learning platforms

Scale-up communication, advocacy and coordination efforts to position Shkollat.org as a digital learning solution that can be used by teachers to support student-centered learning inside and outside the physical classroom. In Kosovo, teachers are familiar with video-conferencing tools, such as Zoom, which became popular as a result of the COVID-19 pandemic. However, digital learning solutions that combine digital content with digital tools are still widely under-utilized. To expand the use of Shkollat.org in both remote settings and in a blended approach in the physical classroom, there is a need to bring teachers onboard through advocacy, communication and training efforts. This includes encouraging all municipal education directories and school principals to endorse and promote the use of Shkollat.org, facilitating the process of teacher onboarding and providing sufficient support for new users.

1. All references to Kosovo should be understood in reference to the United Nations Security Council Resolution 1244 (1999).

2. The Learning Passport is an online, mobile, and offline platform delivered by UNICEF and powered by Microsoft Community Training.

2. Content

Prioritize developing quality digital content for Shkollat.org, engaging teachers and students in the process. More than half of the teachers in the sample (62 per cent) report searching the internet for educational content. Yet, teachers frequently report facing challenges to find quality curriculum-aligned digital content when browsing the internet. Developing additional quality digital content for Shkollat.org and promoting its use as a central repository of curriculum-aligned content would ensure that teachers can easily access and use diverse digital content to fit their teaching goals. Quality digital content is flexible, accessible, and engaging for different types of students. It follows curriculum goals in a structured way and can be easily incorporated by teachers within their teaching plans. Participatory approaches involving teachers and students in the process of content development can help ensure that digital content is relevant and motivating for teachers and students alike.

3. Teacher upskilling and support

Develop structured, quality, in-service teacher training programmes for teachers to progress at their own pace according to their learning needs. Teachers in Kosovo can often find teacher training opportunities in relation to digital learning. However, teacher training programmes can have varying degrees of quality across municipalities and schools, and do not always cater to teachers' learning needs. Teacher standards for digital learning can provide a framework to develop a structured curriculum on digital learning, covering foundational skills through to advanced competences for digital learning using Shkollat.org, including how to use the platform with other materials in a blended approach in a classroom. Additionally, developing standards for professional development programmes, and fostering centralized digital teacher trainings through Shkollat.org could help to standardize the quality of teacher training programmes across municipalities.

4. Connectivity

Strengthen connectivity infrastructure in schools (across classrooms), and develop best practice guidelines for managing technology in the classroom. While a majority of schools in Kosovo have some form of internet access, this is often not leveraged for digital learning. Efforts should be made to improve not only the number of schools connected to the internet, but also to improve the quality and reach of this connection.

5. Devices

Expand access to digital devices, especially among vulnerable students. As part of the Kosovo Education Strategy (2022–2026), MESTI has earmarked financial resources to strengthen ICT capacity at schools. In addition, MESTI is collaborating with UNICEF in Kosovo to develop digital equipment request forms, to be completed by municipal education directories to request digital equipment for their schools. In this process, particular attention will be given to schools with weaker ICT capacity relative to their student population. At home, sharing of devices and lack of access to internet continue to constitute barriers for students to engage effectively with digital learning. As a result, supporting vulnerable students with digital devices to engage with digital learning in and out of school should also remain a priority.

6. Institutional support

Coordinate and monitor digitalization efforts for successful implementation. The Kosovo Education Strategy (2022–2026) provides a window to modernize education delivery in Kosovo through digital learning. To ensure success, it is important to establish an implementation road map with clear targets and milestones, informed by baseline and monitoring data. This would enable tracking of implementation across different municipalities and help to identify support needs as they arise. Likewise, prioritizing the creation of a digitalization unit within Kosovo, and appointing digital learning coordinators within municipal education directories and schools could help to improve coordination of digital learning efforts in Kosovo, including teacher trainings programmes and ICT resource allocation. Consistent communication with teachers and parents would also be important to coordinate efforts, to increase their buy-in and motivation to adopt digital and blended learning, and to keep them abreast of innovations in the field, including developments in Shkollat.org and training programmes.



1 INTRODUCTION

The education system in Kosovo faces significant challenges. In 2018, four out of five 15-year-olds (79 per cent) had difficulty comprehending a text of moderate length and complexity (OECD, 2020). This proportion is remarkably high when compared to the Western Balkans' average (54 per cent),³ or the European Union (24 per cent) (OECD, 2020). When compared to other countries in the region and in the European Union, teachers in Kosovo were also less likely to have undertaken professional development in the last three months (17 per cent) or gained skills in adaptive teaching methods to meet students' individual needs (OECD, 2020). Urgently addressing these challenges is critical for Kosovo, where 30 per cent of the population is under the age of 18 – the youngest population in Europe (UNICEF, 2020).

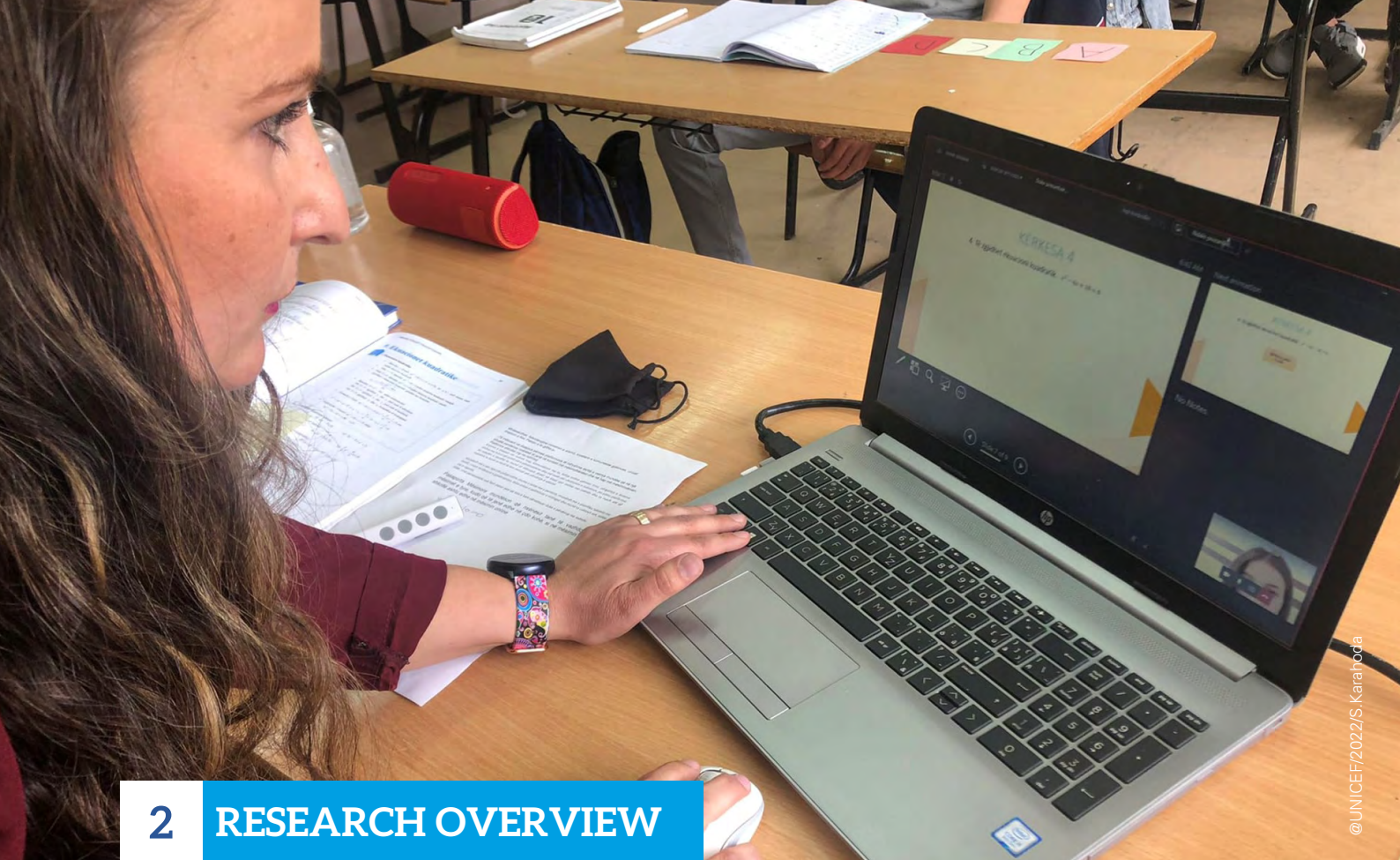
In this context, transforming education requires innovative learning solutions and flexible pedagogical approaches to accommodate the diverse learning needs of every child. School closures during COVID-19 highlighted the need for remote learning systems that could be utilized when schools were forced to close (UNICEF, 2021). In the post COVID-19 environment, the Ministry of Education, Science, Technology, and Innovation (MESTI) is building on the momentum of digital learning initiatives that emerged during the pandemic, and on the widespread internet connectivity in Kosovo, to improve how the education system utilizes digital learning. Additional efforts are needed to ensure that teachers can use digital learning across Kosovo as a tool to deliver student-centered learning, in and out of school. This is reflected in the new Kosovo Education Strategy (2022–2026), where digitalization in education is included as one of five core strategic objectives.

Shkollat.org, Kosovo's localized platform for digital learning, can be central to this transformation process. In February 2021, MESTI, UNICEF and Microsoft launched Shkollat.org as Kosovo's digital learning platform. Shkollat.org is the localized version of the Learning Passport, a digital learning programme delivered by UNICEF and powered by Microsoft Community Training. During school closures and as schools re-opened, Shkollat.org expanded progressively to become a one-stop-site for digital learning in Kosovo. As of 2022, the learning platform combines communication tools such as Microsoft Teams with access to the Office 365 desktop suite and the largest repository of curriculum-aligned video learning content in Kosovo. Using Shkollat.org, teachers can manage virtual classrooms where teachers and students can communicate, share and engage with content, collaborate on team projects or create individualized quizzes and assessments. Likewise, all educational content available in Shkollat.org is approved by MESTI, including more than 12,000 video lessons for all subjects from Grades 1–9 and twenty-first century skills-based programmes for Grades 10–12.⁴ Similarly, Shkollat.org includes content in Albanian, Bosnian, Serbian, Turkish, and Roma languages.

MESTI has embedded Shkollat.org within the Kosovo Education Strategy (2022–2026). This provides a unique window to support its use for all teachers and students as a tool for digital learning, whether the classroom is remote or in-person. However, to harness the great promise of digital learning for all students, a number of conditions need to be met to ensure that digital learning reduces and does not increase inequities in learning (Brossard et al, 2021).

3. Albania, Bosnia and Herzegovina, Kosovo, Montenegro, the Republic of North Macedonia, and Serbia (OECD, 2020).

4. Knowledge, skills and attitudes citizens need to be able to fully participate in and contribute to the knowledge society (UNESCO International Bureau of Education 2022).



@UNICEF/2022/S.Karahodja

2 RESEARCH OVERVIEW

This report presents research findings and policy takeaways to strengthen the digital learning ecosystem in Kosovo, with a focus on the implementation and scaling-up of Shkollat.org. Within the strategic objective of digitalization in education, the Kosovo Education Strategy (2022–2026) includes six related pillars, or areas, for digital learning. Research questions are organized around these six pillars:

- 1. Digital learning solutions:** How familiar are teachers in Kosovo with digital learning solutions such as Shkollat.org?
- 2. Content:** Do teachers in Kosovo have access to quality curriculum-aligned digital content?
- 3. Teacher upskilling and support:** How prepared are teachers in Kosovo to embrace digital learning as part of their teaching, in and out of classrooms, and how can they be supported going forward?
- 4. Connectivity:** Do children have access to a reliable internet connection that they can use for digital learning, in and out of school?
- 5. Devices:** Do children have access to devices to follow digital learning when needed, in and out of school?

- 6. Institutional support.** What system-level changes can help to strengthen the digital learning ecosystem in Kosovo?

Evidence for this report emerges from a needs assessment on digital learning conducted by the Institute of Psychology (University of Pristina) and supported by UNICEF in Kosovo in January–February 2022 across each of the six digital learning pillars.⁵

2.1 Research methods

The Institute of Psychology (University of Pristina), supported by UNICEF in Kosovo, conducted a needs assessment of digital learning in January–February 2022. This report synthesizes findings from the assessment and connects them with policy implications.

The needs assessment of digital learning focused on four municipalities in Kosovo, included as part of UNICEF in Kosovo programming for 2021–2025: Gjakova, Gjilan, Lipjan and Dragash. It collected evidence from students, parents, teachers and school principals, focusing on school capacity for digital learning; experiences, competences and attitudes on digital learning; and on challenges for engaging with digital learning.

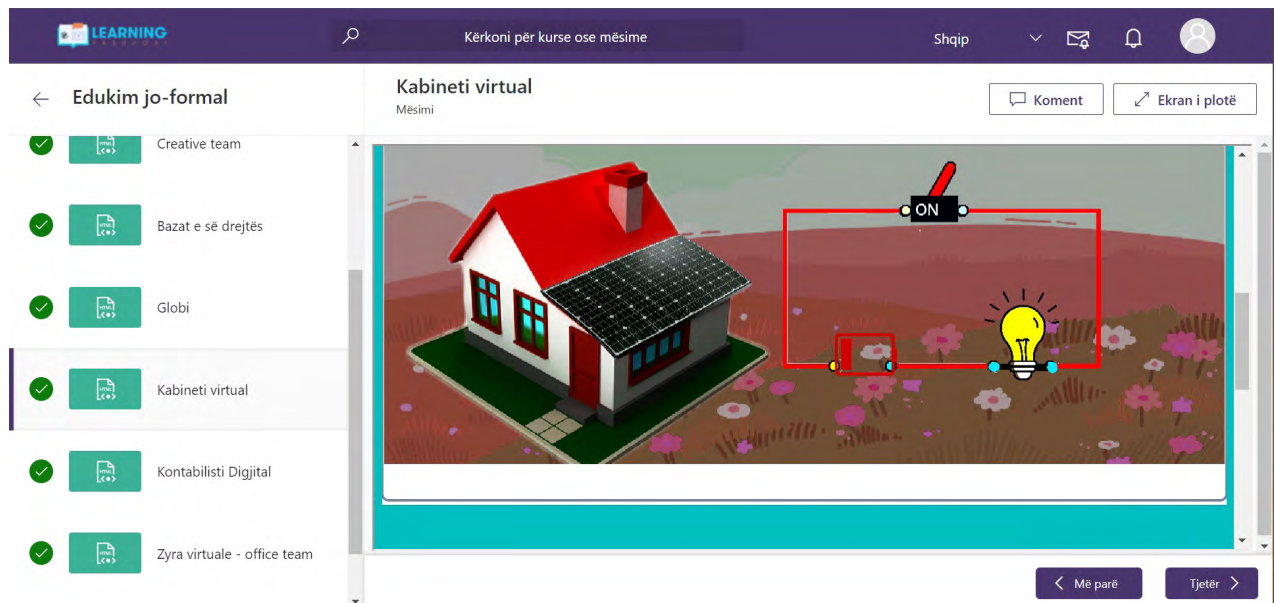
5. The sample for this assessment included 2,046 students, 207 teachers, and 59 school principals in four municipalities (Gjakova, Gjilan, Lipjan and Dragash).

The assessment followed a mixed-methods approach, underpinned by a quantitative and a qualitative component:

- **Quantitative evidence** was collected through structured questionnaires with 2,046 students, 207 teachers, and 59 school principals and school quality coordinators representing Kosovar public middle schools. The sample was stratified to represent schools in both urban and rural areas. Random selection was followed to identify schools and respondents for the sample within these schools.

- **Qualitative evidence** was collected, to nuance findings emerging from quantitative evidence, through eight key informant interviews (KIIs) with school principals and four focus group discussions (FGDs) with parents.

Evidence from both quantitative and qualitative components was triangulated as part of the analysis for this report to identify common topics and key insights.





3 DIGITAL LEARNING CONTEXT IN KOSOVO

Digital learning experiences in Kosovo prior to COVID-19 were small-scale and uncoordinated. In 2018, only one in every five school directors reported that an online learning platform was available in their school (22 per cent) (OECD, 2020). Then, following school closures in March 2020, digital learning became an urgent priority to reach children. In collaboration with UNICEF and other partners, MESTI developed digital learning content, provided support to teachers for digital learning and improved access to devices. In this context, Shkollat.org was developed in close collaboration between MESTI and UNICEF in Kosovo and launched in February 2021. This resulted in progressive ownership of Shkollat.org within MESTI with the support of embedded UNICEF consultants and its inclusion in the Kosovo Education Strategy (2021–2025) (Antonowicz, 2021).

Teachers, parents and students in Kosovo frequently think of digital learning as a temporary measure taken in an emergency context. As a result, parents and students frequently associate digital learning with remote learning during school closures, including online lectures delivered by videoconferencing platforms or educational content broadcasted on TV. These experiences are associated with challenges and feelings of isolation, unpredictability and irritability. This is confirmed by the results of the needs assessment for digital learning conducted by UNICEF in Kosovo and the Institute of Psychology (University of Pristina) in January–February 2022. Participants in qualitative research mentioned that students did not take online learning seriously during school closures and often lacked the motivation to join classes. Likewise, in qualitative interviews parents often perceived digital learning as inefficient and ineffective because of changing schedules and low student engagement. These challenges in the transition to digital learning following school closures still have a lasting impact on students' and parents' attitudes towards digital learning.

“Before, we didn’t have digital education for students learning online, we didn’t know what online learning was. Students had an attitude that participating in online learning is not obligatory, they saw afterwards that this is not true, but in the beginning, they didn’t understand this.”

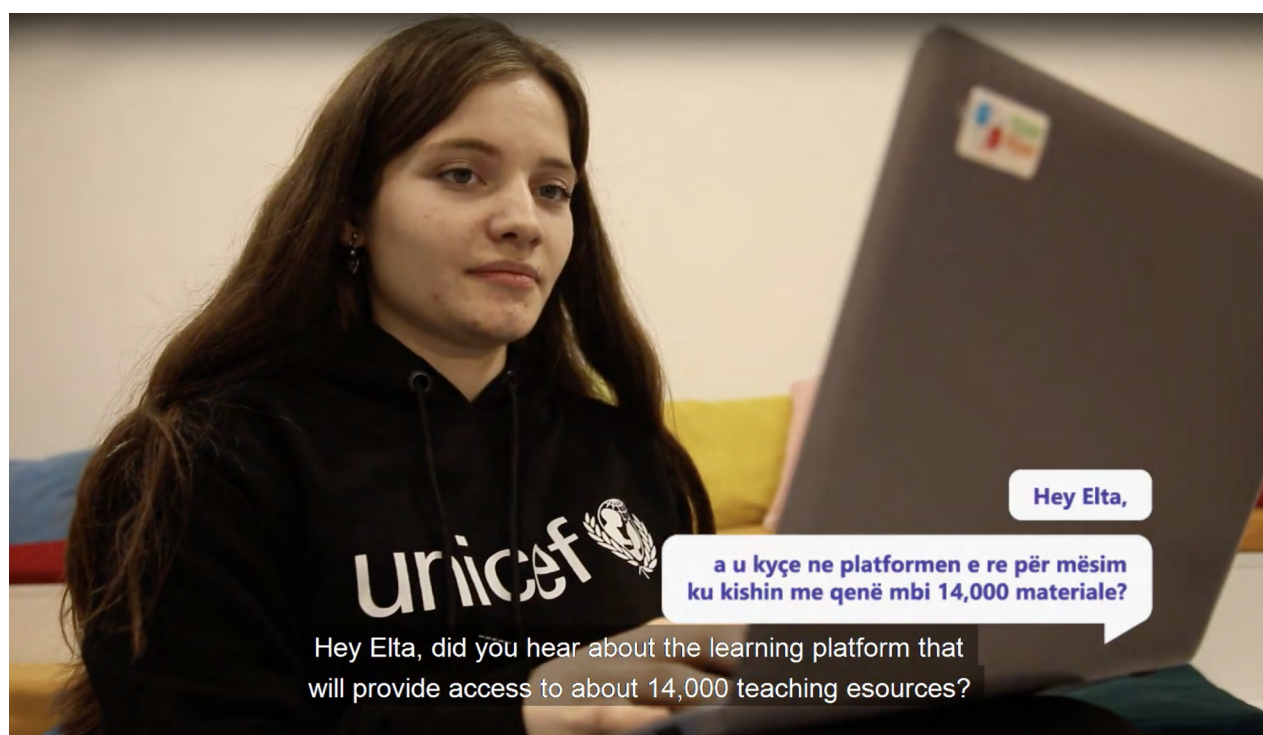
– High school teacher, Dragash

Going forward, the implementation of the Kosovo Education Strategy (2022–2026) will provide a good opportunity to promote the use of digital and blended learning to make learning more student-centered and engaging for every child. Digital learning has been identified as a strategic objective for education in Kosovo in the coming years. In support of this objective, the Kosovo Education Strategy (2022–2026) envisions creating a dedicated digitalization unit for education – the first of its kind in Kosovo.

Additionally, the strategy sets out efforts across key pillars for digital learning to:

1. support a **centralized digital learning platform**;
2. produce **quality digital content**;
3. build **digital competencies** for stakeholders;
4. improve **access to connectivity**;
5. improve **access to devices**; and
6. create **institutional mechanisms** to foster digital education.

The implementation of this strategy will provide a unique opportunity to gain momentum for digital and blended learning in Kosovo, helping to mobilize and coordinate support for digitalization across ministerial units and schools. Supporting these efforts, the following section presents research findings and their policy implications.





@UNICEF/2015

4 RESEARCH FINDINGS

The following section presents research findings and their respective policy takeaways to support MESTI in strengthening the digital learning ecosystem in Kosovo, as part of the Kosovo Education Strategy (2022–2026), and with a focus on scaling-up Shkollat.org. Findings are organized around six key pillars for digital learning.

Results show that in general, teachers and students in Kosovo first embraced digital learning as a necessary action in the context of online remote learning during the COVID-19 pandemic. Due to this experience, teachers in Kosovo are usually familiar with video-conferencing tools, such as Zoom, and often use the internet to search for educational content. However, digital learning platforms, such as Shkollat.org, are under-utilized, and there is a need for more engaging curriculum-aligned digital content. When teachers feel confident about their digital skills, they are more likely to incorporate digital technology as part of their teaching; but not all feel prepared to do so. Likewise, gaps in access to connectivity and devices can prevent students from engaging with digital learning in and out of class. In this context, coordinated efforts from ministerial through to municipal and school levels will be required across all six pillars to leverage digital learning to support individualized and flexible learning for every child.

Pillar 1 Digital learning solutions

How familiar are teachers in Kosovo with digital learning solutions such as Shkollat.org?

Teachers in the needs assessment sample were familiar with digital tools for communication. Most principals interviewed as part of the needs assessment (90 per cent) reported that teachers in their school used videoconferencing tools during the COVID-19 pandemic, including Zoom (78 per cent) or Google Meet (15 per cent). Likewise, most teachers (76 per cent) also felt that communicating with students through Viber was convenient.

“The pandemic caught us unprepared and we were not used to online platforms. Together with other teachers we decided to use Zoom.”

– Elementary school teacher, Gjilan

However, digital learning solutions that combine digital content with learning tools, such as Shkollat.org, were frequently under-utilized. Only a small proportion of teachers used digital learning solutions that combine digital content with learning tools (13 per cent), such as Shkollat.org (7 per cent) or E-shkollori (7 per cent). In Gjilan and Gjakovë, no principals reported that Shkollat.org was used in their schools. In Dragash three out of eight principals (38 per cent) mentioned that the platform was used in their school.

This is confirmed by usage data from Shkollat.org. Teachers in Kosovo have been invited to join Shkollat.org through newly created Microsoft accounts, also known as Shkollat.org digital identities. Yet only a small proportion of teachers engaged regularly with the platform. In this sense, almost one in every three teachers reported they did not feel sufficiently prepared for using online platforms. This finding suggests that greater efforts and coordinated support are needed to get teachers onboard with the platform.

“They (platforms) could not be used properly because the teachers were unprepared and our lack of (digital) tools and students’ tools posed a big difficulty, however we have managed.”

– High school teacher, Gjilan



Policy takeaway

Scale-up communication, advocacy and coordination efforts to position Shkollat.org as a digital learning solution that can be leveraged by teachers to support student-centered learning inside and outside the physical classroom. In Kosovo, teachers are familiar with video conferencing tools, such as Zoom, which became popular as a result of the COVID-19 pandemic. However, digital learning solutions that combine digital content with communication tools are still widely under-utilized. Beyond supporting learning during school closures, digital learning solutions have great potential to support student-centered learning in and out of school by providing students with engaging, flexible content. Shkollat.org brings together content and learning tools to make learning more engaging for different types of students, during in-person and remote learning alike. To expand the use of Shkollat.org in both remote settings and in a blended approach in the physical classroom, advocacy, communication and training efforts are needed to bring teachers onboard with digital and blended learning. This includes encouraging all municipal education directories and school principals to endorse and promote the use of Shkollat.org, facilitating the process of teacher onboarding and providing sufficient support for new users.

Pillar 2 Content

Do teachers in Kosovo have access to quality curriculum-aligned digital content?

Results from the needs assessment data reveal that teachers in Kosovo can often find digital content online, but this is not always useful or easy to incorporate as part of their teaching plans. More than half (62 per cent) of teachers agree they have access to additional online learning materials. Teachers in urban areas were more likely to look for additional online learning materials when compared to teachers in rural areas (67 per cent versus 57 per cent). However, digital materials available online do not necessarily follow the national curriculum in Kosovo and their quality is not reviewed and assured by MESTI. This creates doubts for teachers about what materials can be safely used during digital learning, and which deviate from national standards. Likewise, participants in qualitative research stressed that even if they can access digital content, they do not always know how to incorporate it as part of their teaching plans, or they lack the motivation and time to do so.

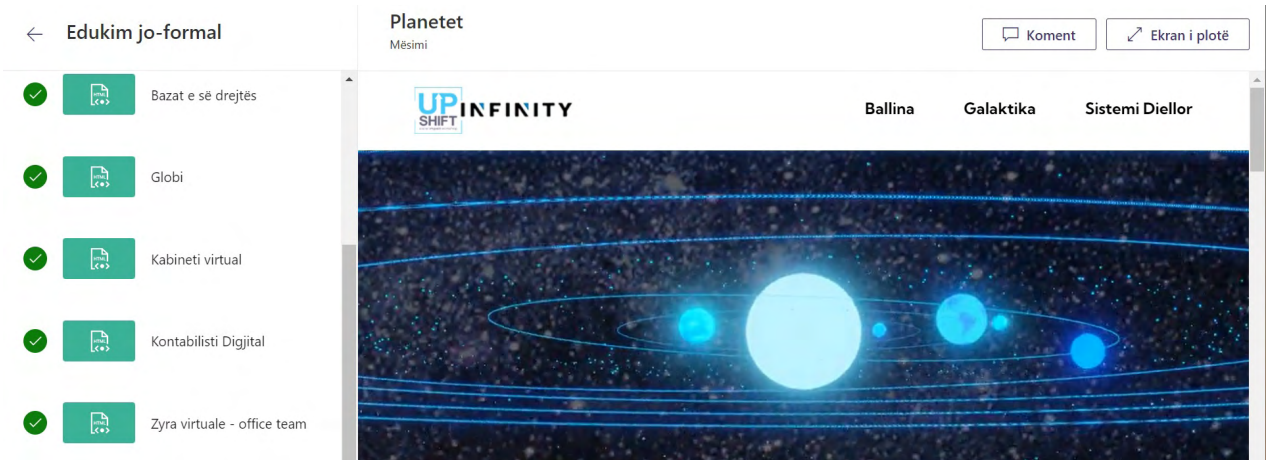
Teachers stressed that the quality of curriculum-aligned digital content in Kosovo could be improved. Most of the available curriculum-aligned content for digital-learning was produced during the COVID-19 pandemic to support remote learning. These materials were developed rapidly for students of different levels in a context of urgency. As a result, qualitative research participants shared that content was not always engaging and suitable to use in an in-person classroom in a blended approach.

Following this, participants stressed that **interactive digital learning materials in Kosovo were not usually available**, including, for instance, interactive curriculum-aligned lessons, virtual labs,⁶ animations, exercises, homework adapted to different levels across students (differentiated learning), educational games or assistive and digital content for students with disabilities.



Policy takeaway

Prioritize the development of quality digital content for Shkollat.org, engaging teachers and students in the process. Shkollat.org provides a repository of curriculum-aligned vetted digital content that teachers can trust. Developing quality digital content for Shkollat.org and promoting its use as a central repository of curriculum-aligned content would ensure that teachers can easily access and use diverse content to fit their teaching goals. Quality digital content is flexible, accessible, and engaging for different types of students. It follows curriculum goals in a structured way and can be easily incorporated by teachers within their teaching plans. Students can interact with quality digital content to progress in their learning at their own pace, guided by teachers to achieve complex tasks. In the process of content development, participatory approaches, involving teachers and students, can help to ensure that digital content is relevant and motivating for teachers and students alike.



6. Virtual labs are interactive digital simulations of activities that typically take place in physical laboratory settings.

Pillar 3 Teacher upskilling and support

How prepared are teachers in Kosovo to embrace digital learning as part of their teaching, in and out of classrooms, and how can they be supported going forward?

Teachers in Kosovo generally think that digital learning can improve education; however, not all felt confident incorporating digital technology into their teaching.

Most teachers (84 per cent) reported that using digital technology could improve their teaching, while 79 per cent planned to use digital tools as part of their teaching. However, sizable differences existed across teacher groups: Teachers in the municipality of Lipjan and those aged 50 to 65 were usually less inclined to incorporate digital technology in their teaching – only 68 per cent of teachers in both groups were planning to do so. This is closely linked to differences in digital skills among different teacher groups. When teachers feel confident about their digital skills, they are more likely to incorporate digital technology as part of their teaching. For instance, most teachers aged 20 to 35 planned to incorporate digital technology as part of their teaching (95 per cent). This follows their comfort using digital technology (see Figure 1). A majority reported being able to use online tools and platforms according to their needs. This contrasts with teachers aged 50 to 65 who reported feeling less confident about their digital skills.

“We are a rural school, but some teachers participated in training on using the internet and computer ... it was more self-initiating, some teachers near retirement weren't interested in learning and didn't improve their digital skills during this time.”

– School teacher, Gjilan

Teachers in Kosovo have access to teacher training opportunities, but these are not always effective.

Most teachers in the sample (86 per cent) reported having opportunities to participate in professional development programmes for digital competences. Likewise, in most schools (70 per cent), principals reported that teachers had participated in training on digital learning since the outbreak of COVID-19. However, data from the Programme for International Student Assessment (PISA) reveals that teacher training in Kosovo may not be sufficiently regular or tailored to the individual learning needs of teachers (OECD, 2020). In 2018, 17 per cent of teachers reported attending a programme of professional development during the previous three months, a low proportion

compared to teachers in the Western Balkans (39 per cent) or the European Union (50 per cent). Evidence from PISA also suggests that the effectiveness of teacher training programmes in the Western Balkans, including Kosovo, is inconsistent. Across countries in the European Union, and especially in countries in Central and Eastern Europe, PISA results show a positive association between the number of trainings teachers receive and how frequently they update their teaching approaches. However, in Kosovo, this association is not always consistent, suggesting that teacher training programmes designed and delivered at the municipal level may have varying degrees of quality (Mehmeti, Rraci and Bajrami, 2019). This may also be the case for teacher training in online learning, which were sometimes organized by schools themselves following COVID-19 closures.

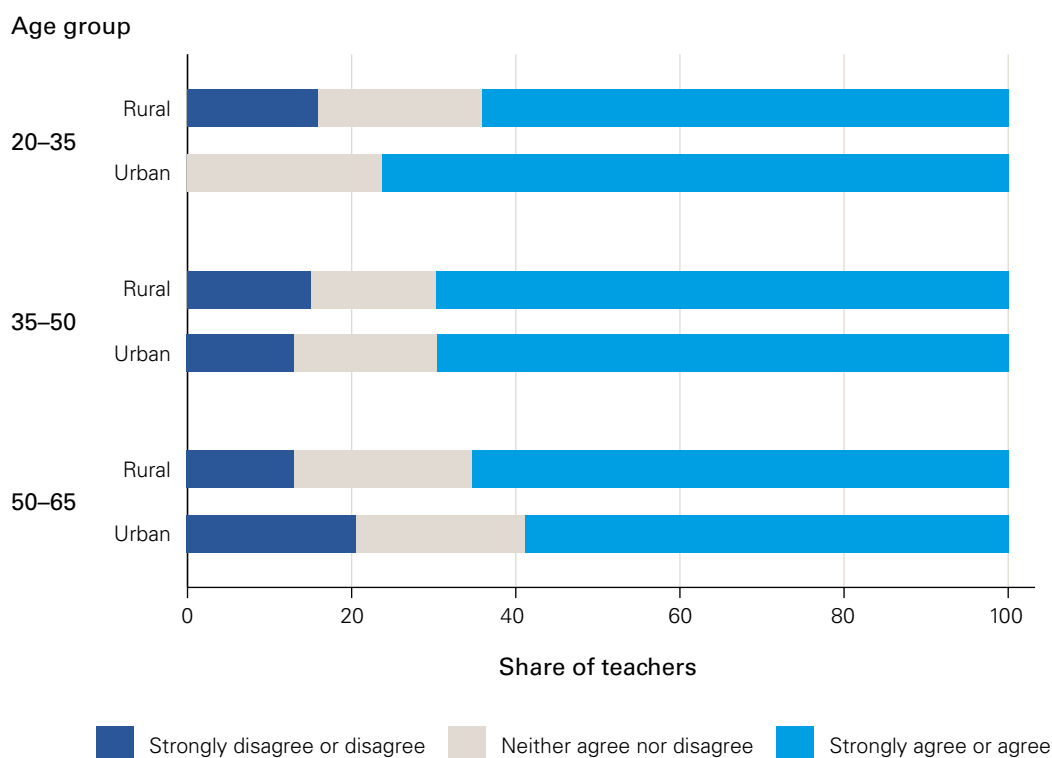
“Since we needed to react immediately, we asked the teacher of Information and Technology to provide us with training on these platforms to begin as soon as possible.”

– High school teacher, Lipjan

Specific trainings on Shkollat.org and how to integrate digital learning into classrooms are needed for teachers to use digital learning as a tool in their everyday teaching.

Less than half (38 per cent) of teachers in the sample had taken part in the teacher training for Shkollat.org. Teachers who did undertake training for Shkollat.org reported more frequently that they had the ability to use digital platforms according to their needs (80 per cent versus 62 per cent) and were planning to use technology in class (82 per cent versus 77 per cent). These differences could be due to the training, but also to other reasons, such as for instance, that teachers with stronger initial digital skills are more likely to sign up for further training. **Further research on the effectiveness of the training would be useful to identify suitable strategies to prepare and support different teacher groups in leveraging digital tools for digital and blended learning. Likewise, further research would help to fine-tune the content, delivery approach, and training intensity of existing training programmes based on evidence.**

Figure 1. Self-reported digital skills from teachers



Policy takeaway

Develop structured, quality, in-service and practical teacher training programmes for teachers to progress at their own pace according to their learning needs. Teacher training schemes need to consider the diversity of learning needs among teachers in Kosovo. Likewise, their quality needs to be assured. In recent years, Kosovo has increased efforts to encourage and structure professional development for teachers through Kosovo’s teacher licensing system, linking teachers’ career advancement with their professional development. The Kosovo Education Strategy (2021–2025) also refers to ongoing work on an upcoming ‘Policy on improvement and quality assurance in teacher preparation in Kosovo’. Ensuring the implementation of these policies can help to encourage continuous professional development among teachers. Additionally, teaching standards for digital learning can provide a framework to develop a structured curriculum on digital learning, covering foundational skills through to advanced competency for blended and digital learning using Shkollat.org. Structuring teacher training paths designed around teaching standards for digital learning can allow teachers to learn and progress in a continuous way, according to their needs. In this process, it will be important to identify teachers that lack foundational skills for digital learning, to provide them with enhanced support through targeted trainings or ICT mentoring programmes. This can be done at the municipality level through teacher learning needs assessments. Finally, developing standards for professional development programmes, and fostering centralized digital teacher training on Shkollat.org, could help to standardize the quality of teacher training programmes across municipalities.

Pillar 4 Connectivity

Do children have access to a reliable internet connection that they can use for digital learning in and out of school?

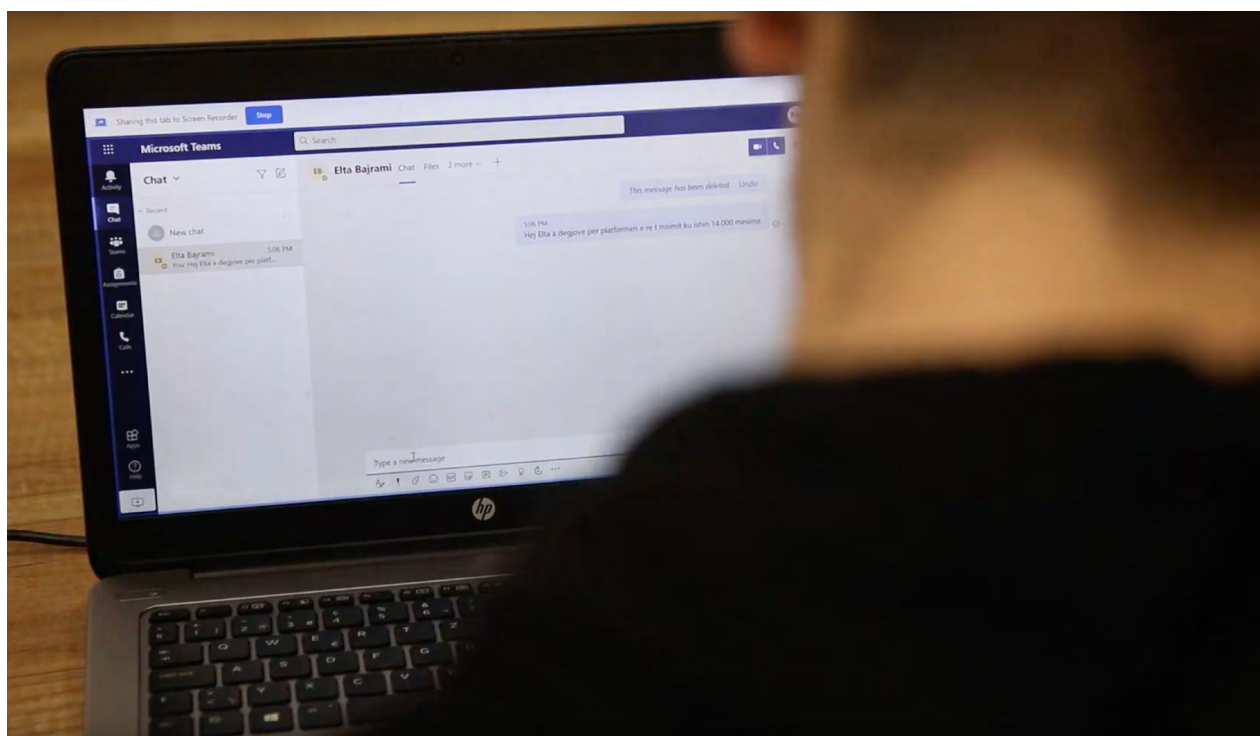
Internet penetration in Kosovo is the highest in the region – 96 per cent of households have access to the internet at home (Eurostat, 2019). **Yet, the potential to use widespread connectivity for digital learning is frequently untapped.** Internet usage in Kosovo is mainly driven by the use of social media and communication tools – Viber is the tool most commonly used by internet users (85 per cent), followed by Facebook (67 per cent) and Instagram (51 per cent) (Kosovo Association of Information and Communication Technology, 2019).

Despite widespread connectivity access, students did not always have access to the internet at school. While most schools in the sample have an internet connection, in more than half of schools (54 per cent) internet was only available for administrative purposes. When available to students, teachers and principals often reported that the signal is weak and only available in a limited area within the school. On average, only one in every three classrooms was connected to the internet (see Figure 2). As a result, teachers frequently reported difficulties in accessing online materials at school. For instance, around 40 per cent of teachers reported that teachers and students could not access online pedagogical resources.

“We are not content with online learning methods because internet connectivity is low, we only have 10 megabytes in the school, if more than three to four teachers connect to the internet, it goes down and the equipment gets broken.”

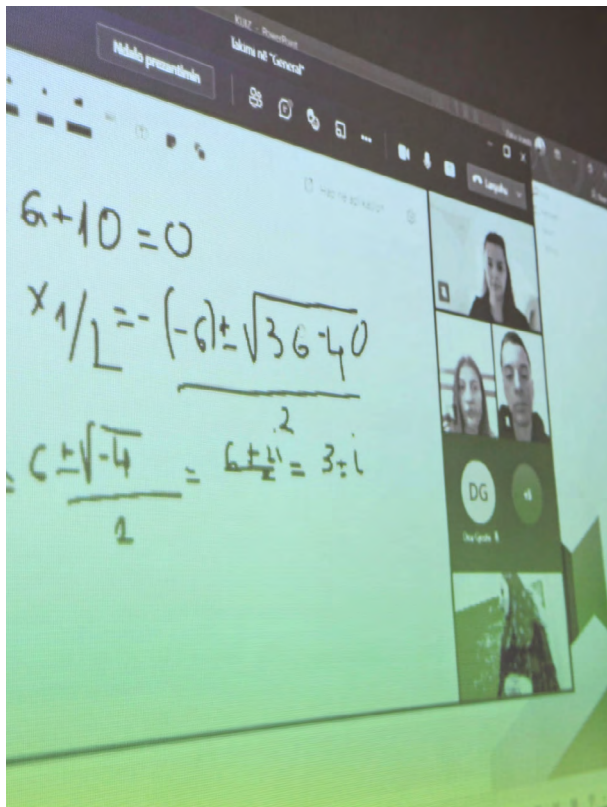
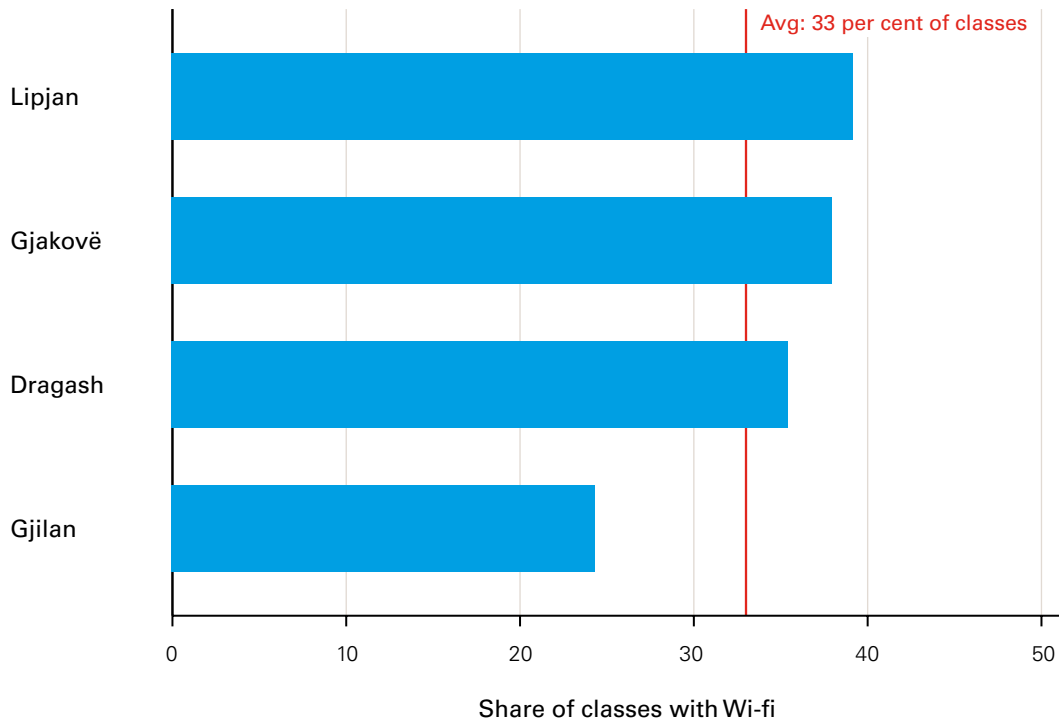
– Elementary school teacher, Lipjan

Outside of schools, students’ internet connectivity was uneven across municipalities. Most students (95 per cent) reported having access to the internet outside of school from time-to-time. However, only one in every three students reported **always** having access to a stable internet connection, while 5 per cent of students reported **never** having access to a stable connection. The latter share rises to 14 per cent in rural areas of Lipjan. Particular attention should be placed on support to students who do not have access to the internet outside of school so that all students can engage equally with Shkollat.org and digital education in general in and out of school.



@UNICEF/2021/L.Aliu

Figure 2. School connectivity by municipality



@UNICEF/2022/S.Karahoda



Policy takeaway

Ensure all students can access a reliable, broadband internet connection at school and at home. While most schools in Kosovo have some form of access to internet, this is often not leveraged for digital learning. Most schools in the sample had some form of internet connection, but this was often only available for administrative purposes. Efforts should be made to improve not only the number of schools connected to the internet, but also to improve the quality and reach of this connection. Making internet accessible to students and teachers across school classrooms within schools would ensure that teachers can use internet for digital learning when needed, removing logistical barriers. At home, lack of internet access also poses a considerable barrier for vulnerable students to participate in digital learning. To close this digital gap, it is important to identify vulnerable students with no internet access at home and support them in engaging with digital learning.

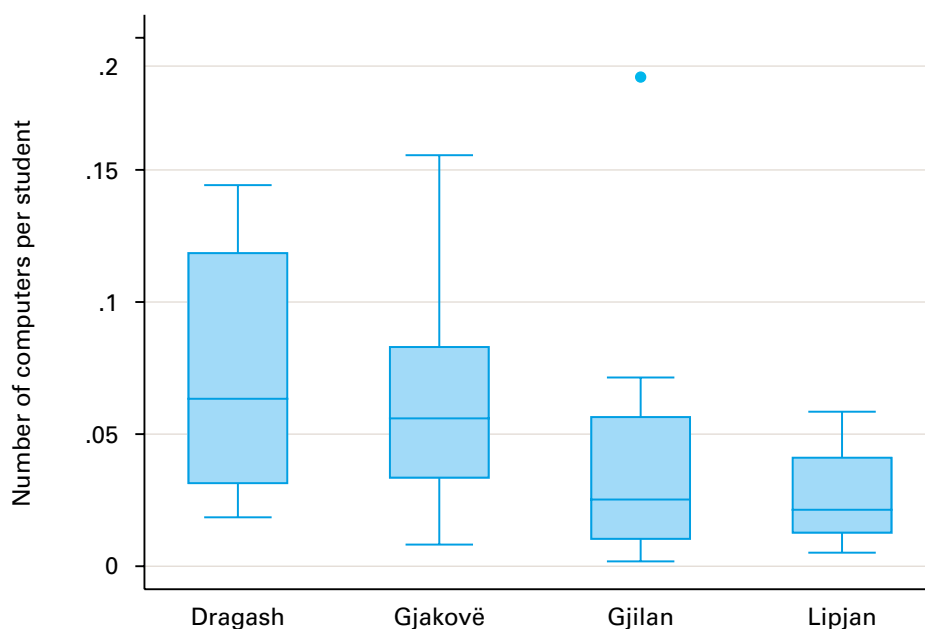
Pillar 5 Devices

Do children have access to devices to follow digital learning when needed, in and out of school?

In the past two years, access to devices at school has increased considerably. However, gaps in ICT capacity at the school level continue to exist. Most schools in the sample (70 per cent) had received technology equipment including laptops, projectors, or tablets in the past two years. Yet, gaps in ICT capacity to deliver digital learning remained. On average, schools in the sample had less than 1 computer per 10 students (0.05 computers per student). This share was lower in Lipjan (0.03) and Gjilan (0.04), when compared to Dragash (0.07) and Gjakovë (0.06). These results are similar to the computer-student ratio captured in 2018 PISA assessments for Kosovo (0.12)

and remain remarkably low when compared to the computer-student ratio in the Western Balkans (0.26) or the European Union (0.81) (OECD, 2020). Within municipalities, differences in ICT capacity across schools also suggests that school resource allocation may not always be equitable (see Figure 3). Likewise, at the school level, there was usually no dedicated staff to support the management and maintenance of technological equipment. This also limited schools' capacities to use ICT equipment effectively for digital and blended learning.

Figure 3. Computer-student ratio distribution by municipality



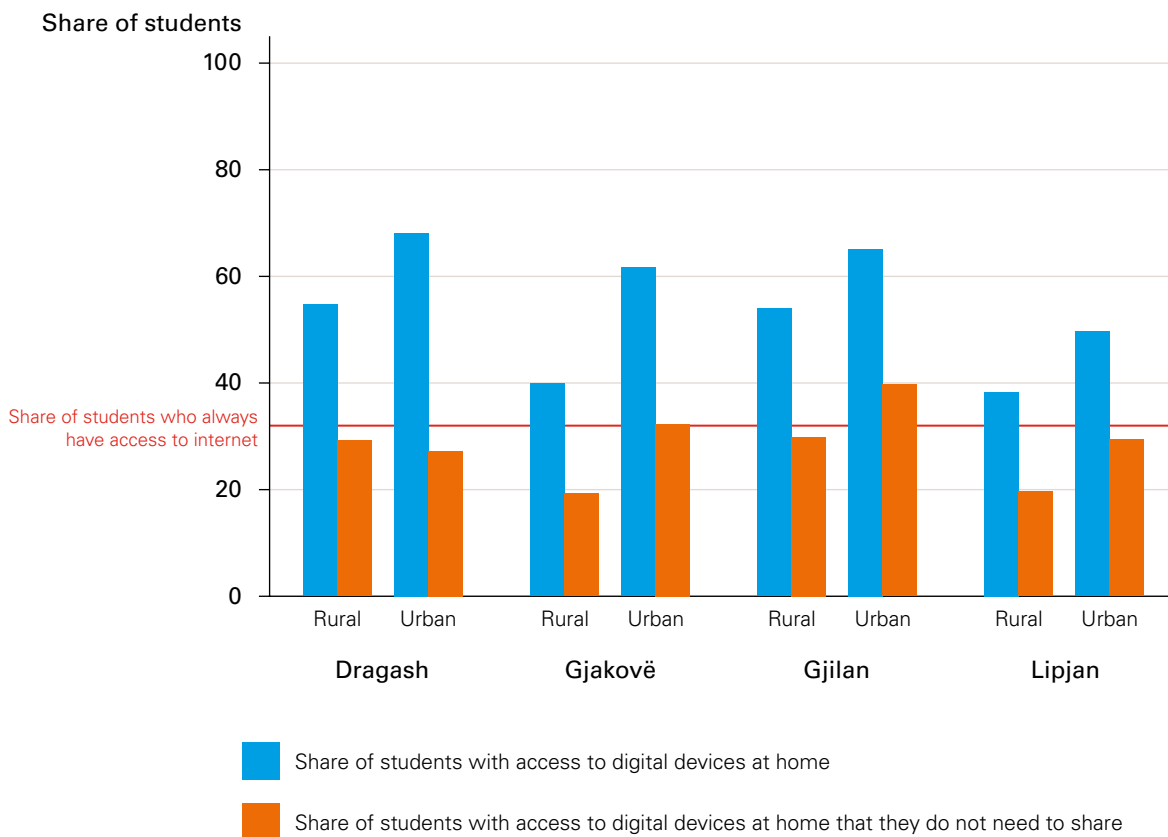
At home, students did not always have devices that they can use for doing homework when needed. Around half of students (53 per cent) had access to devices for digital learning at home, including computers, laptops or tablets. However, only 29 per cent of students had access to devices that they do not need to share with siblings or parents (see Figure 4). This limited students' ability to use digital devices for homework when needed. Almost one in three students who did not have a personal device for digital learning (30 per cent) could not access technology for homework at all. The number of students with a digital device at home, but who needed to share it with siblings and parents, was also high (23 per cent). Sharing of digital devices at home was also reported as a challenge in qualitative interviews. Similarly, most

of the participants mentioned the need to share their computers or to find alternative ways to support their children to participate in online classes.

“We are five people in my family and we had to (participate in online learning) from all five rooms ... some in the hallway, moreover there wasn't enough equipment, one or two laptops and we had to use our phones and sometimes that didn't work.”

– Parent from high-school student, Lipjan

Figure 4. Students' access to digital devices for learning



Policy takeaway

Continue strengthening ICT capacity within schools and expanding access to digital devices among vulnerable students. In the past two years, MESTI and international partners have supported schools across Kosovo to increase their ICT capacity. As a result, most schools in the sample are equipped with at least one computer and one projector, but few have enough devices to implement digital and blended learning approaches in the classroom. Likewise, not all teachers know how to use these devices. In this sense, considerable gaps remain in terms of both devices and digital skills to use them. As part of the Kosovo Education Strategy (2022–2026) MESTI has earmarked financial resources to strengthen ICT capacity in schools. MESTI is also collaborating with UNICEF in Kosovo as part of this strategy to develop digital equipment request forms to be completed by municipal education directories to request digital equipment for their schools. In this process, particular attention should be given to schools with weaker ICT capacity relative to their student population. At home, sharing of devices also continues to present a barrier for students to engage effectively with digital learning. As a result, supporting vulnerable students with devices to engage with digital learning in and out of school should also remain a priority.

Pillar 6 Institutional support

What system-level changes can help to strengthen the digital learning ecosystem in Kosovo?

Institutional support for digital learning has grown in recent years, providing a solid foundation to build on.

The inclusion of digital learning as a key objective of the Kosovo Education Strategy (2022–2026) was a major step towards strengthening institutional support for digital learning in Kosovo. To support broader digitalization in education, the strategy also plans to combine Education Management Information Systems (EMIS), School/Education Management Systems (SMS/EMS) with Shkollat.org and other existing learning platforms. In this process, it will be important to follow policy developments with swift, coordinated implementation. This includes prioritizing the creation of a digitalization unit within MESTI, collecting further evidence across municipalities, and advocating for digitalization in education across municipalities in Kosovo.

To advance digital and blended learning in Kosovo, coordinated efforts from ministerial through to municipal and school levels will be required.

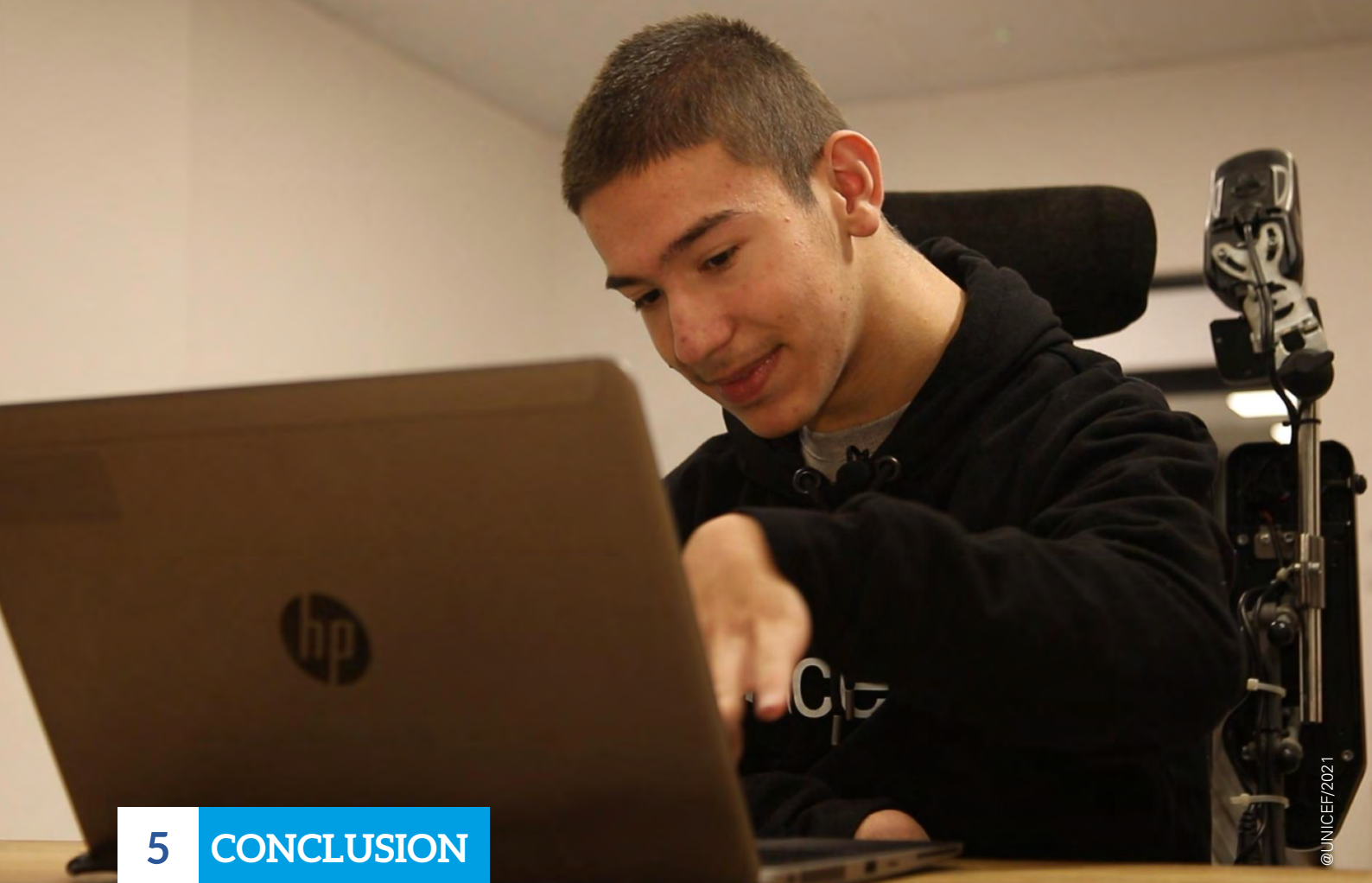
A successful implementation of policy reforms in Kosovo needs to overcome inconsistent coordination across different administrative units to streamline policy efforts. This is particularly relevant in the scaling-up of Shkollat.org, as not all municipalities in Kosovo are equally familiar or supportive of digital learning, while some may adhere to alternative digital learning solutions. Aligned with this, institutional support for a successful implementation of digital learning and Shkollat.org needs to exist not only within MESTI but also across municipal education directories, the Education Inspectorate, schools, parents and students. Strengthening, supporting, resourcing and coordinating efforts across all administrative units and stakeholders will be essential to ensure that policy developments translate into in-class changes across schools in Kosovo.



Policy takeaway

Coordinate and monitor digitalization efforts for successful implementation.

The Kosovo Education Strategy (2022–2026) provides a window to modernize education delivery in Kosovo through digital and blended learning. To ensure success, it is important to establish an implementation road map with clear targets and milestones, informed by baseline and monitoring data. This would enable tracking of implementation across different municipalities and facilitate identification of support needs as they arise. Likewise, prioritizing the creation of a digitalization unit within MESTI and appointing digital learning coordinators within municipal education directories and schools could help to improve coordination of digital learning efforts in Kosovo, including teacher training programmes and ICT resource allocation. Consistent communication with teachers and parents is also important to coordinate efforts, to increase their buy-in and motivation to adopt digital and blended learning, and to keep them abreast of innovations in the field, including developments in Shkollat.org and training programmes.



@UNICEF/2021

5 CONCLUSION

To ensure that all children have access to quality learning, the Kosovo Education Strategy (2022–2026) recognizes the need to transform how education is delivered in Kosovo. The strategy identifies how digital learning can play a crucial role in this transformation and prioritizes efforts to strengthen the digital learning ecosystem. This report presents research findings in relation to the digital learning context in Kosovo and policy takeaways to scale-up Kosovo’s national platform for digital learning: [Shkollat.org](https://shkollat.org).

Digital learning is a relatively new concept in the context of Kosovo. Most teachers and students, associate digital learning with the emergency response following school closures during the COVID-19 pandemic. During this time, teachers and students became familiar with video conferencing tools, such as Zoom, and access to devices was scaled-up across schools. Looking beyond this emergency response, digital learning can offer interactive and personalized learning for every child, in and out of class, through blended and student-centered learning. Yet, for harnessing the full potential of digital learning, different challenges remain. Digital learning platforms, such as [Shkollat.org](https://shkollat.org), are under-utilized, and engaging, curriculum-aligned digital content is rarely available. Teachers need structured, quality hands-on trainings on blended learning that allow them to learn about digital pedagogies at their own pace, based on their learning needs. Finally, continued support in scaling-up access to devices and connectivity is needed, to ensure all children can effectively engage with digital learning.

References

- Antonowicz, Laetitia., 'Reimagine Education with the Learning Passport Platform: The case of Kosovo', United Nations Children's Fund, Pristina, July 2021. www.unicef.org/kosovoprogramme/media/2511/file/Case%20Study%20Learning%20Passport.pdf, accessed 7 January 2023.
- Brossard, Matt, et al., 'Digital Learning for Every Child: Closing the gaps for an inclusive and prosperous future', United Nations Children's Fund, Florence, September 2021. www.t20italy.org/2021/08/25/digital-learning-for-every-child-closing-the-gaps-for-an-inclusive-and-prosperous-future/, accessed 7 January 2023.
- Eurostat, 'Households - level of internet access', European Union, Brussels, 2019, https://ec.europa.eu/eurostat/databrowser/view/ISOC_CI_IN_H/default/table, accessed 7 January 2023.
- Kosovo Association of Information and Communication Technology, 'Internet Penetration and Usage in Kosovo: National quantitative survey', STIKK, Pristina, October 2019, https://stikk.org/wp-content/uploads/2019/11/STIKK_IK_Report_Internet_Penetration_V3-final-1.pdf, accessed 7 January 2023.
- Organisation for Economic Co-operation and Development, 'Education in the Western Balkans: Insights from PISA', OECD Publishing, Paris, 2020. <https://doi.org/10.1787/764847ff-en>, accessed 7 January 2023.
- Mehmeti, Selim., Ema Rraci and Kushtrim Bajrami, 'Teacher Professional Development in Kosovo', Kosovo Education for Employment Network – KEEN, Prishtina, April 2019, http://kec-ks.org/wp-content/uploads/2020/08/Zhvillimi-Profesional-i-M%C3%ABsimdh%C3%ABn%C3%ABsve-n%C3%AB-Kosov%C3%AB_ENG.pdf accessed 7 January 2023.
- United Nations Educational, Scientific and Cultural Organization, 'Twenty-first century skills', UNESCO International Bureau of Education, Geneva, www.ibe.unesco.org/en/glossary-curriculum-terminology/t/twenty-first-century-skills, accessed 7 January 2023.

for every child, answers

UNICEF Innocenti – Global Office of Research and Foresight
Via degli Alfani, 58
50121 Florence, Italy

Tel: (+39) 055 20 330

Fax: (+39) 055 2033 220

researchpublications@unicef.org

www.unicef-irc.org

@UNICEFInnocenti on Twitter, LinkedIn,
Facebook, Instagram and YouTube

© 2023 United Nations Children's Fund (UNICEF)



**Funded by
the European Union**

unicef 
for every child