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DIGIBRIDGE

National Findings Report for Bulgaria

WP2 - Inclusive Digital Education

Surveys - interviews - student focus groups

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Executive Summary

This report presents the findings for Bulgaria from WP2 of the DigiBridge project, which focuses on the use of digital tools for inclusive teaching. The analysis combines 25 questionnaires, 11 semi-structured interviews with adult stakeholders and 6 focus groups involving a total of 42 students.

The findings indicate relatively widespread use of digital tools and the availability of basic technical and management support. At the same time, participants identify persistent constraints: unequal access to devices and the internet, insufficiently adapted resources, language difficulties, limited time, heavy workloads and insufficient confidence in adapting technology to diverse needs.

The clearest quantitative signal is the need for further training: 92% of respondents agree or strongly agree that more training in inclusive digital teaching is required. Students confirm the value of interactive, visual and game-based formats, but emphasise that teaching quality, clear instructions, opportunities for dialogue and personal motivation remain decisive.

25	11	6	42
surveys	interviews	focus groups	students

1. Aim and Methodology

The study aims to describe the current use of digital tools, barriers to equitable participation, the needs of teachers and learners, and practices with potential for further development. A mixed-methods approach combining quantitative and qualitative data was used.

Method	Participants	Period	Analytical contribution
Questionnaire	25 teachers from one general education school in Sofia	23-31 May 2026	Descriptive frequencies, percentages and open responses
Interviews	11 adult stakeholders	1-5 June 2026	Experience, barriers, support, good practices and priorities
Focus groups	42 students in 6 groups; Grades 5, 6, 8 and 9	8-15 June 2026	Student experience of access, participation, support and improvements

The analysis of closed questions uses valid responses for each indicator. Twenty-four responses are available for Q14. Multiple-response questions are presented as a share of respondents, so totals may exceed 100%. Qualitative data were grouped thematically and used to explain and validate the quantitative trends.

Limitation: the survey sample is institution-based and is not representative of all schools in Bulgaria. The findings should be interpreted as a national project contribution grounded in the specific context studied, rather than as a statistically representative national survey.

1.1. Fieldwork Coverage and Comparability

The agreed Bulgarian fieldwork plan included 25 survey responses, 7 interviews, including 3 policymakers or institutional stakeholders, 42 students in 6 focus groups, and 3 case studies or best practices. The achieved coverage comprises 25 surveys, 11 interviews and exactly 42 students in 6 focus groups. Three

practices are documented in Appendix 2 from the existing evidence; they do not constitute additional separate fieldwork.

Method	Plan	Achieved	Period	Target group	Recruitment and notes
Survey	25	25	23-31 May 2026	Teachers	Institution-based sample from the participating school.
Interviews	7, incl. 3 policy/institutional	11	1-5 June 2026	Adult stakeholders	The anonymised forms have no role field; the breakdown must be completed from the administrative fieldwork log.
Focus groups	42 students / 6 groups	42 students / 6 groups	8-15 June 2026	Grades 5, 6, 8 and 9	Seven students per group; individual inclusion dimensions were not profiled.
Cases	3	3 documented	Analysis to 15 June 2026	Practices across all streams	Derived from collected evidence; no additional fieldwork.

Interview profile. The analytical dataset confirms 11 adult stakeholders but contains no standardised field for position or role. The number of teachers, school leaders, institutional stakeholders or policymakers therefore cannot be reconstructed reliably from the anonymised records. The planned subgroup of 3 policy or institutional stakeholders should be confirmed from the partner's administrative records in the common fieldwork log, without identifying individuals.

Role category	Number	Evidence status
All interviewed adult stakeholders	11	Confirmed by 11 anonymised interview forms
Policymakers or institutional stakeholders	Not ascertainable	Role was not recorded in the analytical forms
Other professional roles	Not ascertainable	Cannot be reconstructed reliably from response content

1.2. Ethics Consent and Participant Safeguarding

The instruments provide information about the purpose of the research, voluntary participation, the right to decline questions or withdraw, and anonymised reporting. Each of the six student focus-group records contains a learner consent/assent statement. Personal consent documents are not reproduced in this report. The analytical dataset does not allow independent confirmation of separate school or parental authorisations; where required under national or school rules, these should be verified and retained securely in the partner's administrative records.

The participating school is described neutrally in this public version. Its name should be restored only if institutional consent explicitly permits public identification.

2. Questionnaire Findings

2.1. Respondent Profile

All 25 respondents are teachers at one general education school in Sofia. Their professional experience ranges from 1 to 39 years. The largest group has 16 or more years of experience - 10 people (40%), followed by 8-15 years - 7 people (28%), 0-3 years - 5 people (20%), and 4-7 years - 3 people (12%).

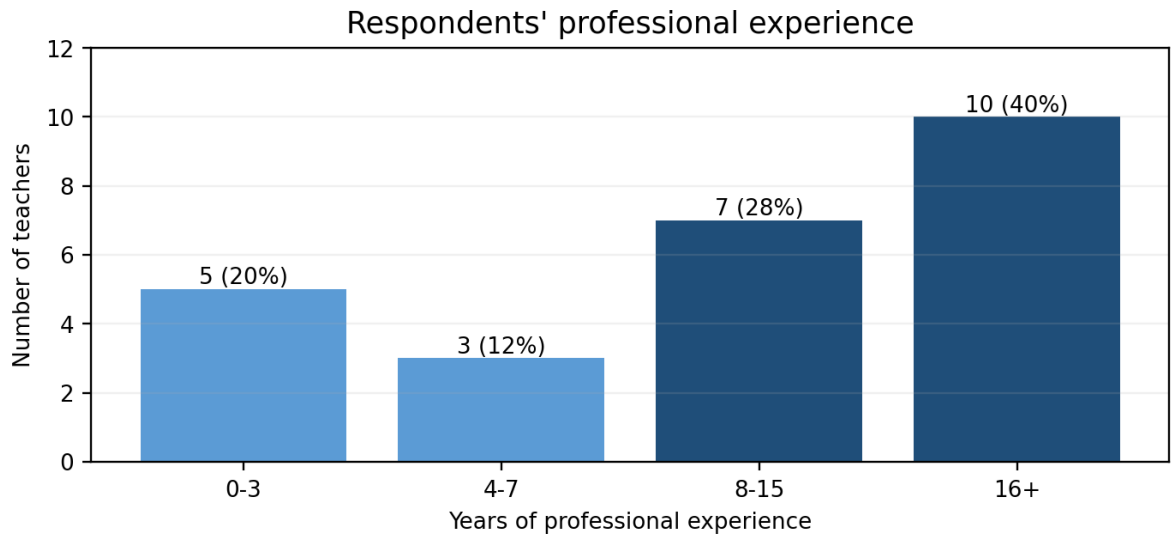


Figure 1. Distribution of respondents by years of professional experience (n=25).

2.2. Use, Access and Inclusive Participation

Sixty-eight per cent of teachers agree or strongly agree that digital tools are used regularly for teaching and learning, and the same share report sufficient access to basic equipment and platforms. Assessments of inclusive use are more moderate: 52% believe the tools support participation by different groups of learners, while 36% consider that planning adequately takes account of disadvantaged learners or those at risk of exclusion.

At the same time, 56% identify access barriers as a significant problem, and 68% believe language barriers affect the use of digital resources. The data point to a distinction between the availability of technology and the capacity to use it equitably.

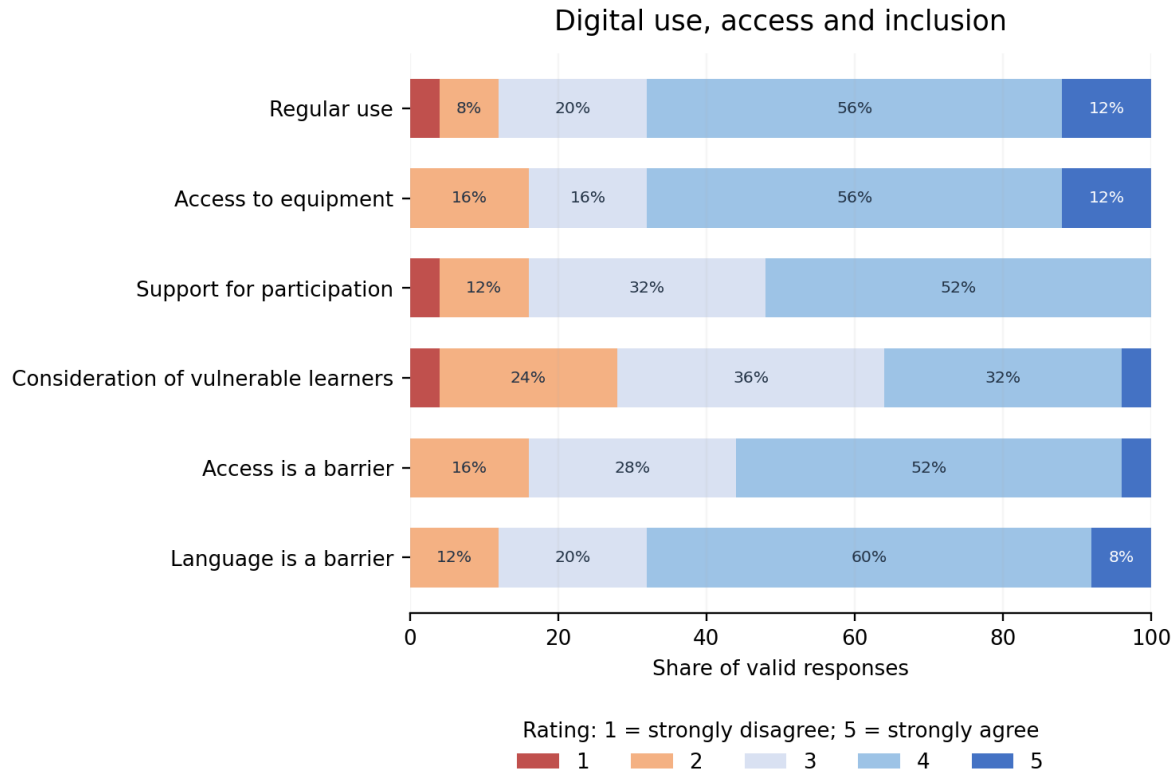


Figure 2. Distribution of responses to Q5-Q10. Percentages are based on n=25.

2.3. Confidence, Training and Institutional Support

Only 12% of respondents agree that teachers feel confident adapting digital tools for inclusive teaching; 56% take a neutral position and 32% disagree. The mean score is 2.72 out of 5 - the lowest among the indicators examined.

The need for training is unequivocal: 92% agree or strongly agree that further training is required (mean score 4.32). Sixty per cent rate management support as sufficient. For Q14, 58.3% of the 24 valid respondents confirm that time and workload hinder inclusive digital implementation.

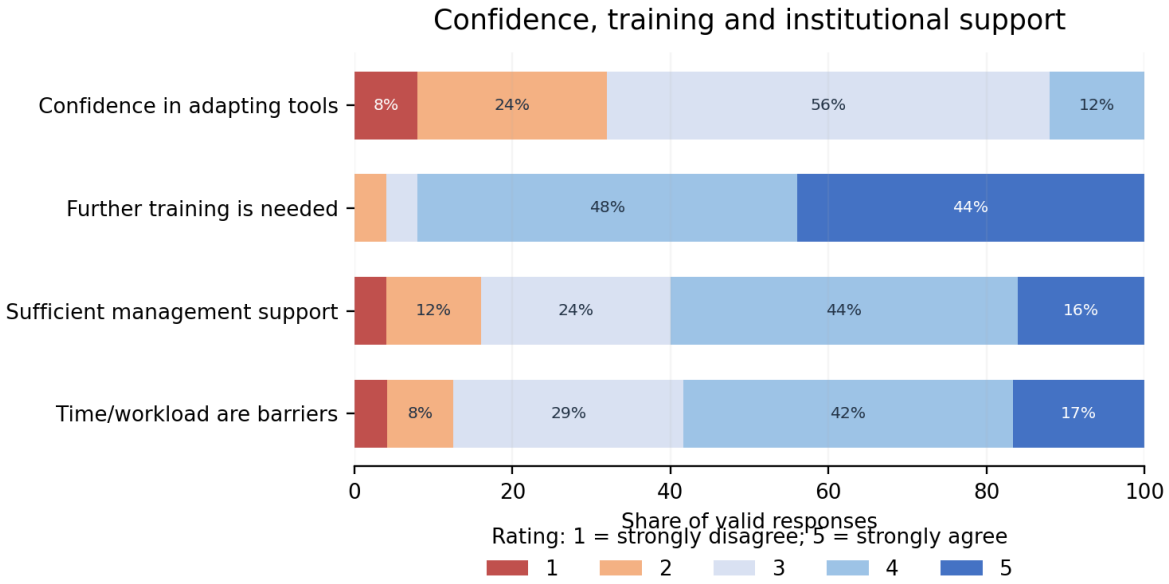


Figure 3. Distribution of responses to Q11-Q14. For Q14, n=24; for all other items, n=25.

2.4. Learner Groups Facing Barriers

Learners with special educational needs are the most frequently identified group - 20 of 25 respondents (80%). They are followed by socio-economically disadvantaged learners - 14 (56%), learners facing language barriers - 11 (44%), and learners from marginalised groups or minority backgrounds - 11 (44%). Two respondents added other specifications: all listed groups and learners with chronic health conditions.

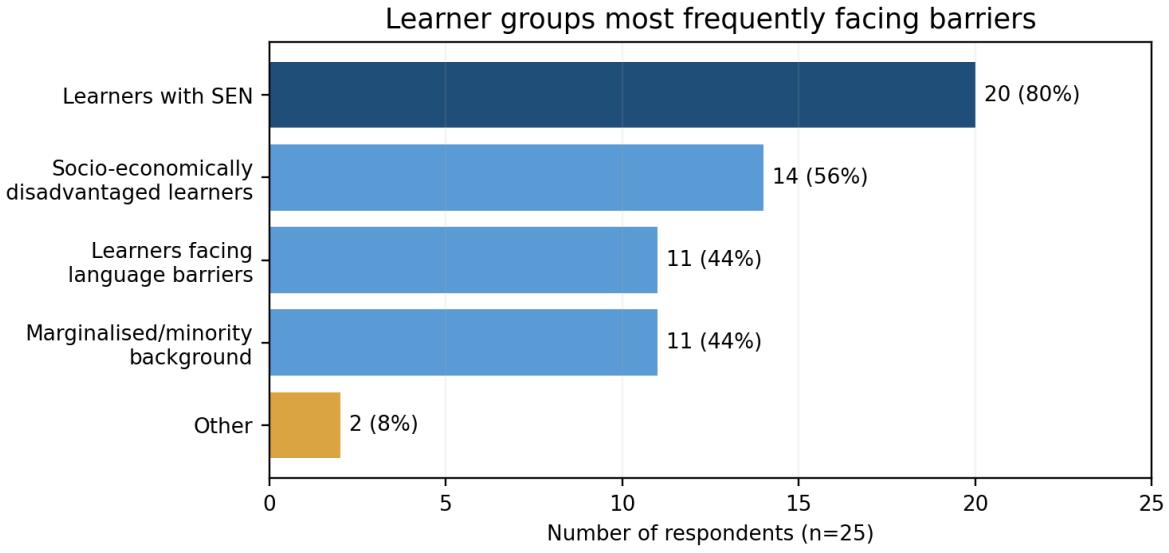


Figure 4. Multiple responses; percentages are shares of the 25 respondents and do not sum to 100%.

2.5. Specific Barriers and Effective Practices

Open responses confirm five interrelated groups of difficulties. First, access remains unequal because of insufficient devices, unreliable or slow internet, and financial constraints. Second, teachers face limited time, heavy workloads and restricted opportunities to prepare adapted materials. Third, insufficient digital skills and a lack of targeted inclusion training constrain effective use. Fourth, language difficulties and the lack of an adapted environment for learners with SEN, including dyslexia, impede participation. Fifth, motivation, distraction and school-parent relationships also affect outcomes.

Effective practices include interactive platforms, blended learning, short video lessons, digitally adapted lessons, project work, providing devices to learners in need, sharing resources among teachers, professional-development training and involving parents. Some respondents stress that good models should be adapted to the local context and combined with practical tasks.

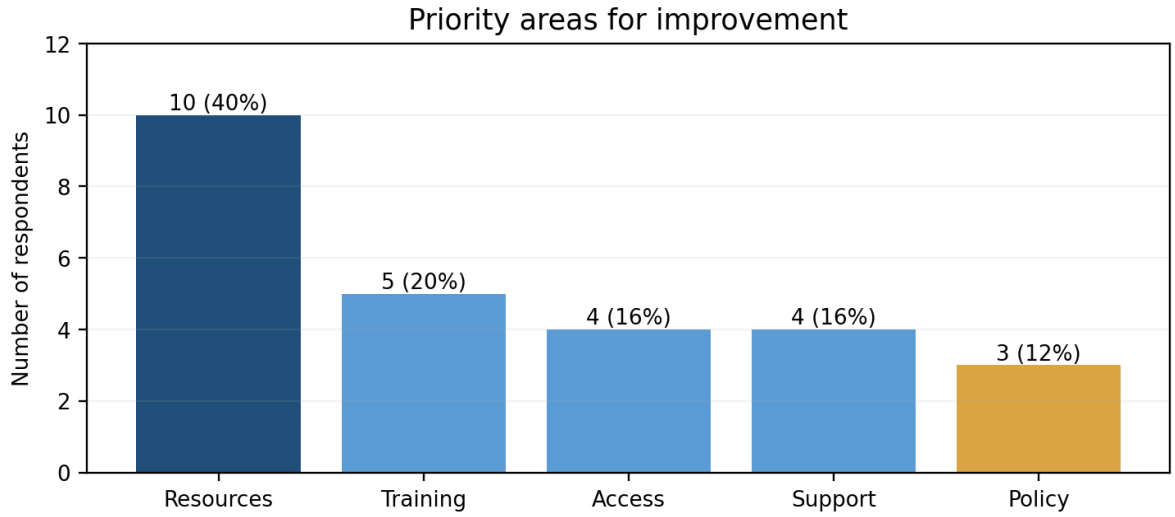


Figure 5. Priority areas. One respondent selected two areas; percentages are shares of n=25.

Resources are the most frequently selected priority - 10 teachers (40%). They are followed by training - 5 (20%), access and support - 4 each (16%), and policy - 3 (12%). One respondent selected both 'training' and 'resources'.

2.6. National Adaptation and Missing Comparable Items

A check of all 25 Bulgarian survey forms confirms that the common master items Q16-Q18 were not collected in a comparable form. In the Bulgarian instrument, the same numbers were used for different questions: Q16 asked for one specific observed barrier, Q17 for one practice considered effective in Bulgaria, and Q18 for the priority area for improvement. Standardised responses are therefore unavailable for forms of support needed, frequency of adapting digital materials, and frequency of asking learners for feedback. For cross-country analysis, these fields must be treated as a national adaptation and missing data, not as zero responses, and excluded from direct comparison.

3. Interview Findings

3.1. Current Use of Digital Tools

The interviews reveal uneven levels of digitalisation. Some participants describe daily, well-integrated use of electronic registers, interactive displays, cloud platforms, online resources and specialised software. Others report that tools are used mainly for presentations or only by individual teachers. Institutional availability therefore does not guarantee consistent pedagogical use across all classes and subjects.

3.2. Vulnerable Groups and Barriers

The groups mentioned most often are learners with SEN, learners with limited access to devices and the internet, learners from minority or marginalised backgrounds, learners with lower digital literacy, and younger children who need more support and self-regulation. Interviewees supplement the quantitative findings with barriers including limited time, insufficiently adapted resources, technical problems, low motivation, weakened communication when technology is overused, and insufficient parental trust or involvement.

3.3. Teacher Support and Learner Participation

Support is provided through professional-development courses, internal sharing of experience and assistance from school management. Assessments nevertheless vary: some teachers feel well supported, while others report a lack of systematic assistance. The shared need is for more practical training focused on adapting technology for learners with SEN and other specific needs, rather than only on the technical use of platforms.

Learner needs are identified through observation, conversations, surveys and feedback. One good practice is to offer a choice in how an assignment is completed - as a presentation, video, text or another suitable format - as well as the opportunity to work at one's own pace.

3.4. Good Practices and Priorities

Effective practices include interactive educational platforms and quizzes, immediate feedback, distance learning for students who cannot attend school, project work, visual and multimodal presentation, and adapted tasks. Priorities are modern equipment and reliable internet, accessible resources and assistive technologies, systematic training, technical support and clearer institutional accessibility standards.

4. Student Focus Group Findings

4.1. Participants

Six focus groups with seven students each were conducted: two groups from Grade 5, two from Grade 6, one from Grade 8 and one from Grade 9. The participants were 19 boys and 23 girls aged 11-16.

Group	Grade	Age	Boys	Girls
1	5	11-12	5	2
2	6	12-13	5	2
3	5	11-12	3	4

4	6	12-13	2	5
5	8	14-15	2	5
6	9	15-16	2	5

4.2. Tools Used and Attitudes

Students know and use Microsoft Teams, Google Classroom, Kahoot, Ucha.se, Excel, digital boards, internet search engines and interactive games. Older students also mention ChatGPT, Perplexity, Gemini and Claude. Overall attitudes are positive: technology is associated with faster access to information, better organisation, visualisation and more engaging learning. Students in higher grades show a more critical attitude towards the accuracy and limitations of artificial intelligence.

4.3. Access and Participation

Most students feel confident using familiar platforms, but describe uneven equipment across classrooms, a limited number of computers, outdated hardware and unstable internet connections. They also recognise social inequality: not all families can provide a device and internet access at home.

Interactive and game-based formats increase concentration and enable more students to participate, including those who remain passive in traditional teaching. However, participants clearly state that technology does not guarantee participation by itself. Motivation, teaching approach, a clear purpose and control of distracting device use are decisive.

4.4. Enabling Conditions and Barriers

Students learn better when content is visual, interactive, divided into short segments and combined with tasks, discussion and immediate feedback. They value the opportunity to review material, receive structured explanations and use AI to summarise and organise information, provided that outputs are checked critically.

Barriers include monotonous teaching, excessive writing and copying, insufficient opportunities to ask questions, a lack of individualised explanations, unclear instructions, difficulty distinguishing key from secondary information, technical problems and distraction from other applications. In difficult subjects, students place greater emphasis on the teacher's supportive attitude and explanations than on the technology itself.

4.5. Students' Suggestions

Students propose more interactive lessons, visual materials, educational games, project tasks and discussions; better school equipment and internet; electronic textbooks; responsible use of mobile devices for specific learning purposes; clear rules for AI; and more opportunities for feedback. Younger groups emphasise play and participation, while older groups focus on electronic textbooks, AI, infrastructure and critical evaluation of information.

5. Integrated Analysis

The three sources complement one another consistently. Surveys show high visibility of technology and relatively good basic access, but lower confidence in adapting it inclusively. Interviews explain this gap through limited time, uneven preparation, a shortage of accessible resources and varying institutional

practices. Focus groups show how students experience the same factors: interest rises with interactivity and visualisation, but falls with technical problems, passive teaching and a lack of clear support.

Theme	Surveys	Interviews	Focus groups
Access	56% identify access as a significant barrier	Devices, internet and technical support	Uneven equipment and weak internet
Inclusion	Only 36% see adequate consideration of vulnerable learners	Adapted resources and assistive technologies are needed	Different formats and individual explanations facilitate participation
Capacity	92% want further training	Practical training and sharing of experience	The teacher's role and approach are decisive
Engagement	52% see support for participation	Interactivity, feedback and self-paced work	Games, visualisation and discussion increase motivation

6. Recommendations

1. Equitable access - Provide sufficient devices, reliable internet and arrangements for disadvantaged students to borrow or use equipment.

2. Accessible resources - Develop and share materials at different levels of difficulty, with subtitles, audio, visual support, clear structure and compatibility with assistive technologies.

3. Practice-oriented training - Introduce continuing professional development focused on inclusive digital pedagogy, work with learners with SEN, Universal Design for Learning and critical use of AI.

4. Time and technical support - Allocate time for preparing and adapting resources and provide teachers with readily available technical assistance.

5. Student voice - Use regular short surveys, conversations and a choice of assignment formats to capture learners' actual experiences.

6. Balanced pedagogy - Alternate digital tools with discussion, practical work, movement and communication; they should not replace the pedagogical relationship.

7. Responsible use of AI - Establish clear rules for information verification, authorship, data protection and the use of AI as an assistant rather than a substitute for thinking.

8. Institutional standards - Introduce minimum criteria for accessibility, platform selection, support and monitoring of participation by vulnerable groups.

7. Conclusion

The Bulgarian data show that digital tools are now an established part of the school environment and have significant potential for more engaging and flexible learning. The main challenge is not merely the presence of technology, but turning it into accessible, pedagogically meaningful and inclusive practice.

Progress requires simultaneous investment in resources and connectivity, targeted training, preparation time, accessible materials and student participation. The strongest overall conclusion is that technology works best when it supports, rather than replaces, a competent teacher who is responsive to diversity.

Appendix: Detailed Results on the Five-Point Scale

Q	Short indicator	n	1	2	3	4	5
Q5	Regular use	25	1 (4%)	2 (8%)	5 (20%)	14 (56%)	3 (12%)
Q6	Access to equipment	25	0 (0%)	4 (16%)	4 (16%)	14 (56%)	3 (12%)
Q7	Support for participation	25	1 (4%)	3 (12%)	8 (32%)	13 (52%)	0 (0%)
Q8	Consideration of vulnerable learners	25	1 (4%)	6 (24%)	9 (36%)	8 (32%)	1 (4%)
Q9	Access is a barrier	25	0 (0%)	4 (16%)	7 (28%)	13 (52%)	1 (4%)
Q10	Language is a barrier	25	0 (0%)	3 (12%)	5 (20%)	15 (60%)	2 (8%)
Q11	Confidence in adapting tools	25	2 (8%)	6 (24%)	14 (56%)	3 (12%)	0 (0%)
Q12	Further training is needed	25	0 (0%)	1 (4%)	1 (4%)	12 (48%)	11 (44%)
Q13	Sufficient management support	25	1 (4%)	3 (12%)	6 (24%)	11 (44%)	4 (16%)
Q14	Time/workload are barriers	24	1 (4%)	2 (8%)	7 (29%)	10 (42%)	4 (17%)

Scale: 1 = strongly disagree; 5 = strongly agree. Source: 25 DigiBridge WP2 questionnaires; for Q14, n=24.

Appendix 2 Three Case Studies and Best Practices

The following practices are structured from the available surveys, interviews and focus groups using the fields of the common WP2 template. Reported outcomes are self-reported or qualitatively described and were not measured through a separate impact evaluation.

Case 1 Interactive Platforms with Self-Paced Work and Immediate Feedback

Setting	General education school; face-to-face and blended learning.
Target group	Students of different ages and levels of confidence.
Inclusion dimension	Support for different learning pace, more active participation and a lower threshold for engagement.
Digital component	Interactive platforms, quizzes and exercises, including LearningApps, Khan Academy, Ucha.se and Kahoot.
Problem addressed	Passivity, differing pace of learning and delayed feedback.
Evidence source	Bulgarian survey Q17 responses; Interviews 10 and 11; student focus groups.
Observed results	Participants report higher motivation and activity, self-paced work and immediate feedback.
Transferability	High where devices, connectivity, suitable content and teacher preparation are available.
Limitations	Distraction, technical problems and loss of concentration during long independent work without teacher guidance.

Case 2 Choice of Formats for Completing an Assignment

Setting	Project-based and subject teaching in the classroom.
Target group	Students with different learning preferences and specific needs.
Inclusion dimension	Flexible expression and participation without one compulsory format.
Digital component	Choice between presentation, video, digital project or conventional text, supported by visual and multimodal materials.
Problem addressed	A single format may disadvantage students with specific needs, different literacy levels or lower confidence.
Evidence source	Interview 11; survey examples of project work and digitally adapted lessons; focus groups.
Observed results	Qualitative evidence links choice, visualisation and project work with more active participation and better understanding.
Transferability	High; requires clear assessment criteria and equivalent expectations across formats.
Limitations	Preparation takes time; access to devices and digital skills is uneven.

Case 3 Devices and Connectivity for Disadvantaged Students

Setting	School-based and home digital learning.
Target group	Students without their own device or reliable internet access.
Inclusion dimension	Material access and prevention of exclusion.
Digital component	Provision or lending of devices, internet connectivity and access to school platforms.
Problem addressed	Unequal access to equipment and connectivity, confirmed across all three evidence streams.
Evidence source	Bulgarian survey Q16-Q17 responses; interviews; student focus groups.

Observed results	Respondents report reduced risk of exclusion and a more realistic opportunity to participate.
Transferability	Medium to high with a sustainable device inventory, lending rules, support and data protection.
Limitations	Resource-dependent; devices alone do not address skills, adapted content or support at home.