







Deliverable No.	4.1	Work Package No.	4		Task/s No.	4.1		
Project		D-PAIDEIA	D-PAIDEIA					
Work Package Title		Pedagogical Digital Str	Pedagogical Digital Strategies in Educational Institutions					
Linked Task/s Title		T4.1 Development of Institutions	T4.1 Development of a guide for the development of digital Strategies in Educational Institutions					
Status		Final	(Draft/Draft Final/Final)					
Due date deliverable		M36	M36 Submission date					
Deliverable version		2	2					

### **Document Contributors**

Deliverable responsible		Universitat de	niversitat de Girona			
Contributors Organization		า	Reviewers	Organization		
Rafel Meyerhofer-Parra	Universitat de Girona					
Marta Peracaula-Bosch Universitat de Girona		de Girona				
Maria Berrocal Arébalo	ria Berrocal Arébalo Universitat de Girona					
Eduard Muntaner Perich	Universitat de Girona					
Jordi Freixenet Bosch	net Bosch Universitat de Girona					

### **Document History**

Version	Date	Comment
1	29/11/2024	Initial draft of the guidelines defined by University of Girona, leaders of the work package 4. The work presented is pending to be reviewed by the rest of the consortium
2		Several review iterations by responsible (UdG) and rest of the consortium partners. Face-to-face revision in Leuven TN meeting. Online revisions.
3		Translation of the definitive English version to Consortium partners languages

### **List of Abbreviations**

Abbreviation	Description
EC	European Commission
EU	European Union
GA	Grant Agreement
GDPR	General Data Protection Regulation
IP	Intellectual Property



IPR	Intellectual Property Rights	
R&I	Research and Innovation	
WP	Work Package	

Disclaimer: Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or EACEA. Neither the European Union nor the granting authority can be held responsible for them.



### Contents

1.	INTR	ODUCTION TO THE GUIDE	6
2.	THE	DIGCOMPEDU'S OVERVIEW AND A PROPOSAL FOR ITS UPDATING	7
	2.1.	European Digital Competence Framework for Teachers	7
	2.2.	Additional competences for DigCompEdu	8
	1-	Elements added to Professional engagement dimension (1):	8
	2-	Section added in the area of teachers' pedagogical competences	10
	3- for C	Alignment of learners' competences with the latest version of the Digital Competence Framew (DigComp 2.2).	
	2.3.	Visual representation of the D-Paideia Framework	12
3.	SCHO	OOL DIGITAL COMPETENCE DIAGNOSIS IN THE EXPANDED D-PAIDEIA QUALIFICATION FRAMEWORK	⟨. 14
	3.1.	SELFIE and variations: a diagnostic tool for schools	14
	3.2.	School diagnosis within the D-Paideia project: expansion of scope and process simplification	16
	3.3.	Recommendation of Diagnostic Tool (depending on country and context)	18
4.	DEVE	ELOPMENT OF DIGITAL COMPETENCES AFTER DIAGNOSIS	20
	4.1. curricu	Organisation of the Learning Activities within the extended D-Paideia framework: The D-Paideia	20
	4.2.	Use of the D-Paideia diagnosis questionnaire for the application of the curriculum	23
	4.3.	School Action Plan	29
	4.4.	Reporting of the results	37
	CEDENIC		20



### 1. INTRODUCTION TO THE GUIDE

The guide for the Development of digital strategies in educational institutions is a document elaborated with the aim of helping educational institutions, their professionals, and students in the development and updating of digital competence in the face of the emergence of new challenges that the educational system must face and that were especially evidenced during the emergence of COVID-19.

The guide is based on evidence from the literature review, through which the <u>D-Paideia consortium</u> identified areas where DigCompEdu, the reference framework for digital competence in Europe, needs to be integrated or extended to address the socio-emotional challenges of digital teaching and learning. Following a review and evaluation process with experts, it is proposed to add a total of 7 competences to the framework: three new elements in the dimension of *professional engagement*; a new section on social-emotional and relational skills in the area of *teachers' pedagogical competences* and, finally, to align *learners' competences* with the latest version of the Digital Competence Framework for Citizens (DigComp 2.2).

To this end, the consortium has worked on the creation of a <u>curriculum</u> through which to develop the 7 competences through a total of 27 learning objectives, each of them with associated learning activities. These learning activities have been classified into three levels: beginner, intermediate, and expert, and various itineraries have been established to develop the learning objectives after an initial analysis of the needs and levels of the teachers, students and management team. For this initial diagnostic analysis, the use of a diagnostic tool is proposed to allow them to identify their level of digital competence and offer recommendations on itineraries of activities they can carry out according to their initial level.

The guide is divided into three main blocks. The first introductory section provides an explanation of the D-Paideia qualifications framework; the second section offers further explanations of the diagnostic tool, and advice on which version to use depending on the national and school context. Finally, there is a third and last block where itineraries are provided for the school to develop its digital competence in relation to its needs



### 2. THE DIGCOMPEDU'S OVERVIEW AND A PROPOSAL FOR ITS UPDATING

### 2.1. European Digital Competence Framework for Teachers

The <u>European Digital Competence Framework for Teachers</u>, commonly known as DigCompEdu, was developed by the Joint Research Centre (JRC) to promote the development of teachers' digital competences and foster innovation in European education. By analysing and connecting numerous resources to describe the facets of digital competence for educators, the DigCompEdu is a scientifically sound framework. The DigCompEdu outlines 22 educator-specific digital competencies organised into six dimensions across three main areas.

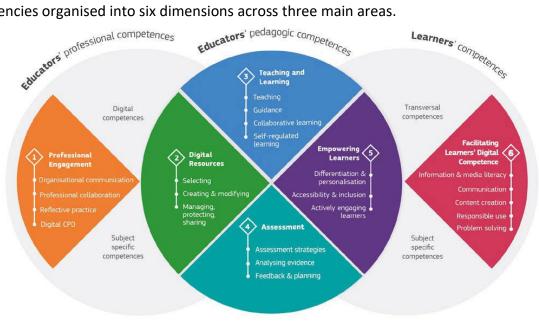


Figure 1. The original DigCompEdu framework (Source: Redecker, 2017).

DigCompEdu's focus on the pedagogical dimension makes it applicable across all subjects, despite the continuously changing technological landscape, by explicitly describing effective ways to integrate digital technologies into teaching and learning, enhance strategies, guide implementation, and innovate education.



### 2.2. Additional competences for DigCompEdu

The literature review performed by the D-Paideia consortium identified areas where DigCompEdu may need to be integrated or expanded better to address the social-emotional challenges of digital teaching and learning. Following feedback from international experts and educators, the final version of the D-Paideia Framework was developed (Ranieri, M., Gabbi, E., Ancillotti, I., 2023).

Our proposal can be divided into three actions:

1st: to integrate three new elements in the professional engagement dimension,

2<sup>nd</sup>: to add a new section in the area of teachers' pedagogical competences and

3<sup>rd</sup>: to align learners' competences with the latest version of the <u>Digital Competence</u> Framework for Citizens (DigComp 2.2).

In the following paragraphs we describe each of them:

### 1- Elements added to Professional engagement dimension (1):

(we enumerate them as 1.5, 1.6, 1.7 as the proposal is to add them to the four already existing competences)

### 1.5 Awareness of institutional policy:

The following objectives have been identified:

- To organise and manage the school environment and educational resources in a responsible and sustainable way, having the best interests of learners in mind.
- To be aware of the implications of national, European, and international policies in relation to teaching with technology.

The dimension is integrated into DigCompEdu in Area 1 *Professional Engagement* since it directly relates to how teachers interact with their professional environment and adapt to policy changes. It ensures that educators are not only experts in pedagogical practices appropriate and feasible in their own context but are also knowledgeable about the broader policy landscape affecting education. While there are some connections with *Reflective practice* (1.3) in terms of self-assessment and awareness, dimension 1.5 is distinct in that it specifically focuses on understanding and navigating the complex web of policies that impact the use of technology in education. This dimension equips teachers with the ability to adapt to a rapidly changing policy environment and make informed decisions in the best interests of their students and the school community.

#### Example:

A school can use a Learning Management System such as Moodle, which is an open-source



platform available for free and enabling collaborative learning.

### 1.6 Attitude towards the adoption of digital technologies:

The following objectives have been identified:

- To be open to exploring, adopting, and experimenting with digital technologies.
- To critically evaluate currently used digital practices and make informed decisions about their educational benefits and constraints.

The dimension is integrated into DigCompEdu in Area 1 *Professional engagement*, because it focuses on developing the mindset of teachers to adopt and successfully use digital technologies in education, contributing significantly to their professional competence and lifelong learning. While there may be some overlaps with Area 2 *Teaching and Learning*, particularly in terms of searching for and using digital tools, dimension 1.6 is distinct because it emphasizes the intrinsic motivation and attitude of educators towards technology adoption and assessment. It focuses on the willingness and openness of teachers to explore, experiment, critically evaluate and make informed decisions about innovations, which are pivotal aspects of their professional development.

### Example:

A teacher training program can seamlessly integrate theories on ICT in education with practical applications of utilizing ICT in educational settings. This approach aims to demonstrate the advantages of educational technologies and assist teachers in overcoming initial obstacles associated with the adoption of new practices.

### 1.7 Digital work-life balance and wellbeing:

The following objectives have been identified:

- To access and use digital resources consciously and responsibly without compromising mental and physical health or safety.
- To promote a sustainable approach to the management of digital work to ensure an appropriate balance between personal and job life.

The dimension is included in DigCompEdu in Area 1 *Professional engagement* since it pertains to the overall balance and safety in the use of technology in the workplace. While there are some connections with *Responsible use* (6.4), dimension 1.7 refers specifically to teachers as professionals exposed to the risks of digital overload and not to the facilitation of students' skills. These concepts are becoming increasingly important in the digital age where we are constantly connected and may be subjected to excessive pressures.



#### Example:

Teachers can exercise the right to disconnect to effectively manage their online time in a balanced manner and adopt secure lifestyles while utilizing ICT technology.

### 2- Section added in the area of teachers' pedagogical competences

In addition to the four dimensions within the **teachers' pedagogical competences** area, there is a proposal to introduce a fifth section, **Socio-emotional and relational skills (7)**, defined as the promotion of educational relationships and the enhancement of communication through the mediation of digital technologies.

The new area includes three elements: Managing educational relationships with ICT (7.1), Diverse and flexible facilitation strategies (7.2) and Digital identity and reputation management (7.3).

### 7.1 Managing educational relationships with ICT:

The following objectives have been identified:

- To interact either online or in hybrid mode effectively and respectfully with colleagues, students and families.
- To manage the relational dynamics of the classroom through the use of ICT, especially for SEND students and those with low socio-economic backgrounds.

The dimension is integrated into the new proposed DigCompEdu area (Area 7) *Socioemotional and relational skills* since it emphasizes educators' competence in fostering positive relationships in the digital learning environment. While there are connections with other areas, such as Area 5 *Empowering learners*, in particular with *Differentiation & personalization* (5.2) and *Actively engaging students* (5.3), dimension

7.1 is distinct in its focus on developing an inclusive and well-being-oriented group climate inside and outside the classroom. There are some connections even with *Organizational communication* (1.1) and *Students' communication skills* (6.2), but its primary focus lies in communication as a tool for fostering educational relationships with all stakeholders, including the families and their expectations, rather than the organisation of school information and the communication skills of the students themselves. The emphasis in this dimension goes beyond individual student empowerment and engagement: it aims to build a supportive and inclusive learning community that strengthens the sense of belonging and well-being for all individuals involved, including students, educators, and families.



#### Example:

Teachers can utilize ICT to encourage collaboration and engagement among students (online discussions, group projects, and virtual collaborations), fostering a sense of community and active participation.

### 7.2 Diverse and flexible facilitation strategies:

The following objectives have been identified:

- To value and accommodate relational dynamics of the socio-relational effect of ICT to each teaching modality, including face-to-face, hybrid, blended, and fully online environments.
- To consider the peculiarities of computer-mediated communication and adapt the communication style to the students' educational and relational needs for promoting their positive attitudes towards the learning experience.

The dimension is integrated into the new proposed DigCompEdu area (Area 7) Socio-emotional and relational skills, as it places a strong emphasis on educators' competence in adapting the facilitation strategies to different learning modalities while considering the affective and communicative aspects that are crucial to the success of these strategies. While there may be some overlaps with Area 3 Teaching and Learning, dimension 7.2 stands apart because it involves critical reflection on the chosen digital facilitation strategies' effectiveness and suitability, enabling educators to make agile adjustments to their methods and approaches with particular attention to computer-mediated communication. It addresses not only the pedagogical aspects but also the relational and socio-emotional dimensions that contribute to successful teaching and learning experiences in a variety of settings.

#### Example:

When engaging with students, a teacher should be attentive to the phatic aspects of communication. For instance, in written messages via web forums or email, they should conclude the message by offering encouragement to students or include emojis to address the emotional aspects of communication.

### 7.3 Digital identity and reputation management:

The following objectives have been identified:

- To distinguish and manage the consequences of digital identity in terms of social interactions and educational relationships.
- To participate in virtual educational environments and curate their own digital reputation through providing and sharing professional and educational resources.





The dimension is integrated into the new DigCompEdu area (Area 7) *Socio-emotional and relational skills* as it revolves around the comprehension of how to use and share personal and professional information while being mindful of the potential implications that digital actions may have on professional and educational relationships. While there are some connections with *Managing, protecting, and sharing* (2.3) and *Organisational communication* (1.1), dimension 7.3 places a distinct emphasis on professional interactions within contexts like online communities and interactions with students and the broader educational community. It encompasses a teacher's responsibility to maintain ethical boundaries within their digital identity, strike a balance between their digital and professional personas, and ensure online privacy and security.

#### Example:

Creating an avatar or using a nickname can serve as an opportunity for individuals to reflect on the concept of digital identity and address the challenges that arise in online environments.

### 3- Alignment of learners' competences with the latest version of the Digital Competence Framework for Citizens (DigComp 2.2).

Compared to the current DigCompEdu, the facilitation of students' digital competences dimension includes elements with reference to the Digital Competence Framework for Citizens (DigComp). However, in the last release of DigComp 2.2 the Safety (6.4) category replaces the *Responsible use* and it now includes distance and hybrid working and the new opportunities and issues of personal well-being and safety in digital environments. It is therefore proposed to update the terminology to include this change.

### 2.3. Visual representation of the D-Paideia Framework

Introducing the figure that outlines the additions to DigCompEdu and the final framework of D-Paideia, we showcase the comprehensive enhancements made to the digital competence framework. This picture serves as a concise and clear representation of the nuanced dimensions and specific considerations embedded in the D-Paideia Framework, offering a more attentive approach to the affective and relational dynamics driven by digital education. Figure 2 highlights the additions to DigCompEdu on a yellow background. The additions are designed to enrich the existing DigCompEdu Framework, providing educators with a more robust and adaptable tool for navigating the complexities of digital teaching and learning. In Figure 2, you will find a detailed illustration of the additional components proposed by D-Paideia for DigCompEdu.

For more information, please visit our website at www.d-paideia.eu.



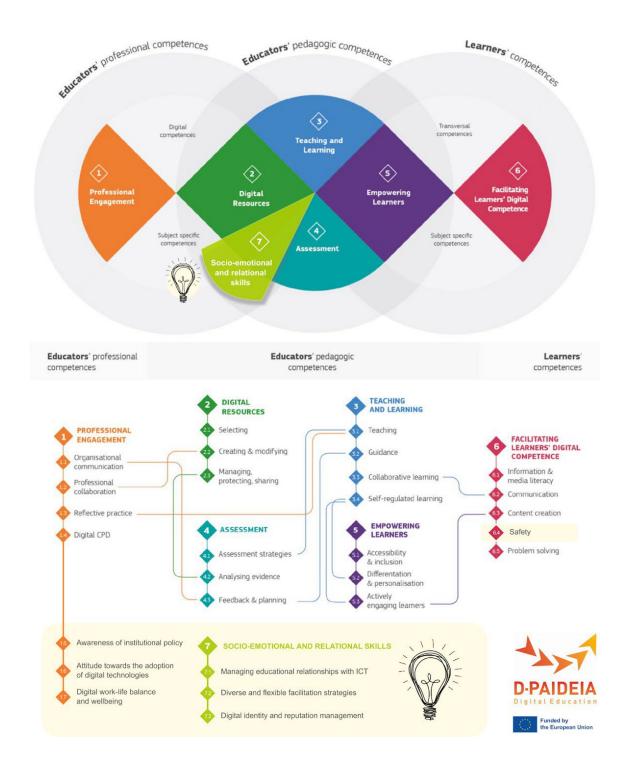


Figure 2. D-Paideia Pedagogical Digital Competencies Qualifications Framework.



### 3. SCHOOL DIGITAL COMPETENCE DIAGNOSIS IN THE EXPANDED D-PAIDEIA QUALIFICATION FRAMEWORK

### 3.1. SELFIE and variations: a diagnostic tool for schools

D-Paideia seeks to address the evolving challenges of digital education by fostering adaptation and innovation, emphasizing the lessons learned during the COVID-19 pandemic, while developing methods to support educational institutions in creating pedagogical digital strategies that coordinate efforts within a whole school approach, ensuring high-quality and inclusive digital education for all learners. In this context, SELFIE (Self-reflection on Effective Learning by Fostering the use of Innovative Educational Technologies), developed based on the "European Commission framework on promoting digital-age learning in educational organisations", emerges as a fundamental tool to help schools evaluate and enhance the use of digital technologies in teaching, learning, and assessment.

SELFIE is a free tool available in over 30 languages and designed and tested with schools across Europe. It allows schools of any level – primary, secondary, and vocational – to reflect on how they integrate digital technologies into their educational practice, involving the entire school community: leadership teams, teachers, and students. This is achieved through brief statements and questions, with a 1-5 answer scale that allows data to be collected in an agile and accessible way. The feedback generated by SELFIE provides a snapshot ("SELFIE") of each school's strengths and areas for improvement in their use of digital technology.

SELFIE is structured into eight subcomponents derived from the DigCompEdu framework. These are:

- 1. Leadership: Focuses on strategic direction and policies for digital integration.
- **2. Collaboration and Networking:** Examines how schools encourage collaborative practices and digital networking.
- **3. Infrastructure and Equipment:** Reviews the adequacy and accessibility of digital tools and technologies.
- **4. Continuing Professional Development (CPD):** Addresses ongoing training and upskilling in digital competencies for educators.
- **5. Pedagogy-Supports and Resources:** Assesses the use of digital platforms and resources in teaching.
- **6. Pedagogy- Implementation in the Classroom: Evaluates** how digital tools are integrated into daily teaching practices.
- **7. Assessment Practices:** Focuses on using digital technologies to provide feedback and evaluate learning.
- **8. Student Digital Competence:** Measure the extent to which students are developing digital skills across subjects.





Figure 3. SELFIE subcomponents

SELFIE involves students, teachers, and school leaders in a collective reflection on technology use. Its results can highlight issues including:

- In what areas is technology used effectively and where can the school improve?
- Does the school have a vision for how it wants to use technology and, if so, do staff and students know what it is?
- What kind of training do teachers find most beneficial?
- Where should funding be allocated?

These insights help schools make informed decisions to enhance their digital strategies and foster a more cohesive approach to digital education.

To use SELFIE in your school, the first step is to choose a school coordinator or a small team to coordinate the exercise. Once the coordinator is selected, the school can be registered on the SELFIE platform by providing basic information such as the type of school (e.g., primary or secondary), its size, and location. The next step is to determine the timing of the SELFIE exercise and decide who will participate (e.g., specific groups of students).

SELFIE allows schools to tailor the questions to match their specific needs and context. After registration and customization, students, teachers, and school leaders can be invited to take part in the SELFIE exercise anonymously. Completing the questions takes around 30 minutes, and while teachers and school leaders can do it at their convenience, it is recommended that students complete it as part of a lesson.



#### **HOW TO USE SELFIE?**

The 4-Step process for obtaining your school SELFIE.

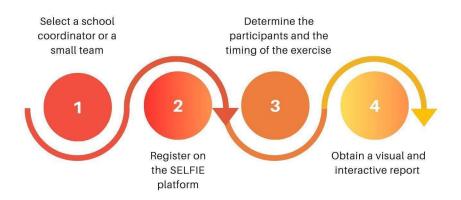


Figure 4. SELFIE application steps

Once participants have completed the questions, SELFIE generates a report for the school, presenting aggregated results in a visual and interactive format. These results are fully anonymized, and only the school has access to the report. Schools can use these findings to evaluate how technologies could better support teaching, learning, and student assessment, formulating an action plan and setting priorities accordingly.

Moreover, schools can periodically repeat the assessment to gauge their progress and identify areas for further improvement, ensuring continuous enhancement of their digital strategies and educational practices.

### 3.2. School diagnosis within the D-Paideia project: expansion of scope and process simplification

While SELFIE is a valuable tool aligned with the objectives of D-Paideia, it does have certain limitations. The process takes around 30 minutes, which may be perceived as lengthy, and it only evaluates the dimensions that were initially identified in the DigCompEdu framework. Therefore, it is necessary to expand SELFIE so that the diagnostic tool can address all the challenges presented by the updated and broadened DigCompEdu framework.

Precisely for this reason, it is very interesting to consider the variations of SELFIE proposed by Cachia et al. (2024). In their article, Cachia and colleagues discuss potential modifications to SELFIE



that aim to address its current limitations. These proposed changes include expanding the scope of the framework to incorporate additional dimensions beyond those initially covered by DigCompEdu, such as social and emotional learning aspects and new pedagogical approaches that emerged during the COVID-19 pandemic. They also suggest streamlining the process to reduce the time commitment required from participants, thereby making it more accessible and less burdensome for schools. The proposed enhancements emphasize a more holistic approach to digital competency, ensuring that all aspects of modern educational environments are adequately reflected and that the tool is better suited to support diverse educational needs, particularly in under-resourced schools.

Shorter versions of SELFIE, called Midi and Mini SELFIE, have been developed to address the time constraints associated with the full version. These versions include fewer questions and can be used depending on the target group – whether the entire school population, a sample, or selected schools.

- The Midi SELFIE is a medium-length version consisting of 16 items selected to ensure comprehensive coverage of a school's digital capacity. This version includes two items per key dimension of the original framework, preserving its overall measurement properties while significantly reducing participant burden. The midi SELFIE achieves high reliability (Cronbach's Alpha ≥ 0.92 across respondent groups) and is particularly suited for longitudinal monitoring of digital capacity, enabling schools to track their progress over time. It is also a valuable tool for regional or national policy analysis and integration into broader educational research initiatives. By maintaining robust construct validity while offering greater efficiency, the Midi SELFIE supports evidence-based decision-making at various levels of the educational system (Cachia et al.2024).
- The Mini SELFIE is a highly concise version, featuring only 8 items, with one item per area of digital capacity. This version is tailored for quick and practical evaluations. Despite its brevity, the Mini SELFIE maintains acceptable levels of reliability (Cronbach's Alpha ≥ 0.88 for school leaders and teachers, 0.834 for students), ensuring its effectiveness for diagnostic and policy purposes. This version is particularly suited for rapid assessment, allowing schools or policymakers to screen digital capacity trends efficiently and evaluate interventions with minimal time investment. Its compact structure also makes it ideal for integration into larger evaluation frameworks or national/regional monitoring programs. The Mini SELFIE offers a flexible, time-efficient alternative for capturing essential insights into schools' digital readiness (Cachia et al.2024).

Both, Midi and Mini SELFIE offer insights ranging from precise assessments at a system level to general screenings at the school level. The plan is to integrate these versions as different modules within the main SELFIE platform, allowing schools that want to monitor their progress to use the shorter versions while still paying attention to overall scoring. This modular approach helps make



the tool more flexible and accessible, encouraging more schools to engage in digital self-reflection without the burden of extensive time requirements.

### 3.3. Recommendation of Diagnostic Tool (depending on country and context)

Selecting the appropriate diagnostic tool depends largely on the specific context and country where it will be applied. Different countries have varying levels of digital infrastructure, educational priorities, and access to resources, which influences the type of diagnostic tool that would be most effective. For example, in contexts where schools have limited technological infrastructure or face challenges in dedicating extended time for assessments, Midi or Mini SELFIE may be more suitable. These shorter versions help ensure that the key elements of digital integration are assessed without the need for extensive time commitments.

#### Midi SELFIE Mini SELFIE SELFIE A shortened version Highly concise tool of SELFIE for a Comprehensive tool balanced to assess schools' assessment of digital digital capacity. 8 items (one per capacity • 50 core items • 16 items (twp per In-depth selfdimension) reliability reflection High reliability High reliability Suitable for diagnostics and Time intensive monitoring and longitudinal studies

Figure 5. SELFIE variations

In countries with well-established digital strategies and infrastructure, the full version of SELFIE could be beneficial for gaining a comprehensive understanding of the strengths and areas for improvement. The integration of different versions allows for a customized approach, ensuring that schools in different contexts can still benefit from a diagnostic assessment that suits their specific needs. Ultimately, selecting between the Midi, Mini, or full SELFIE should be guided by the level of maturity of digital practices within schools, the capacity for reflection, and the overall educational



goals set at the national or regional level.

**D-Paideia provides also a complementary set of thirteen questions** that add to the chosen tool (SELFIE, Midi SELFIE or Mini SELFIE) as initial diagnosis considering the extension to the DigCompeDU framework that D-Paideia proposes.

The following figure shows the three optional recommended paths for the school diagnosis, in order to identify an average Digital Competence level and the areas in which teachers need reinforcement.

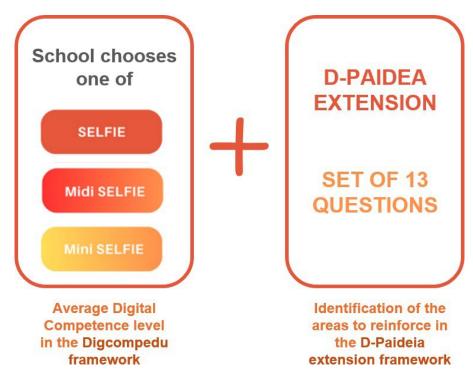


Figure 6. Initial school diagnosis possible paths in the framework of D-Paideia

D-PAIDEIA recommends using the Midi SELFIE, as it simplifies the standard SELFIE reducing the time required but maintaining its significance. To facilitate the whole diagnosis process, when using it, the consortium has created a questionnaire integrated by Midi SELFIE and the 13 questions that consider the extension to the DigCompEdu framework that D-PAIDEIA proposes. This balanced approach makes it easier for schools to engage in the process without compromising the comprehensiveness of the assessment, ensuring alignment with both current and future digital education needs. This questionnaire can be found here:

RECOMMENDED DIAGNOSIS TOOL:
 Midi SELFIE + Extension to D-PAIDEIA Framework (Google Form) [16+13 questions]



Nevertheless, if the school decides to use SELFIE or Mini SELFIE they can find each of them in the following links:

- SELFIE. A tool to support learning in the digital age
- Mini SELFIE (Google Form) [8 questions]

And then apply the D-PAIDEIA proposed questionnaire:

• Extension D-PAIDEIA Framework (Google Form) [13 questions]

### 4. DEVELOPMENT OF DIGITAL COMPETENCES AFTER DIAGNOSIS

### 4.1. Organisation of the Learning Activities within the extended D-Paideia framework: The D-Paideia curriculum

The D-Paideia project has identified 27 learning objectives through which the 7 competences added to the DigCompEdu framework can be developed. To offer educators and school managers the training guidance and resources to achieve these Learning Objectives, the consortium has created the <u>D-Paideia curriculum</u> where Learning Activities, at different expertise level, for the competences are organised in the five modules indicated in the following figure.

### **Curriculum by Modules**

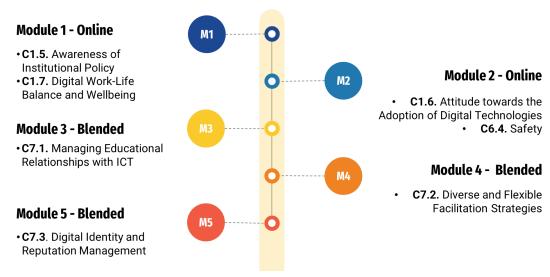


Figure 7. Organisation of the D-Paideia extension framework in curriculum modules



As it can be seen, Module 1 is related with the Educator's professional competences corresponding to Area 1 in the DigCompEdu framework. Module 2 relates, on one side, to professional competences in relation to attitudes towards the adoption of digital technologies, and, on the other side, to students competences with safety on the net. Modules 3, 4, and 5 focus on the socioemotional and relational aspects of digital educational relations, which belong to the new section proposed by the d-Paideia project as an extension of the DigCompEdu framework in the area of teachers' pedagogical competences. The activities proposed in Module 1 and Module 2 are intended to be performed online, while the activities corresponding to Modules 3, 4, and 5 are intended to be performed in a blended modality with the choice of synchronous and asynchronous activities.



#### **General Curriculum Overview**

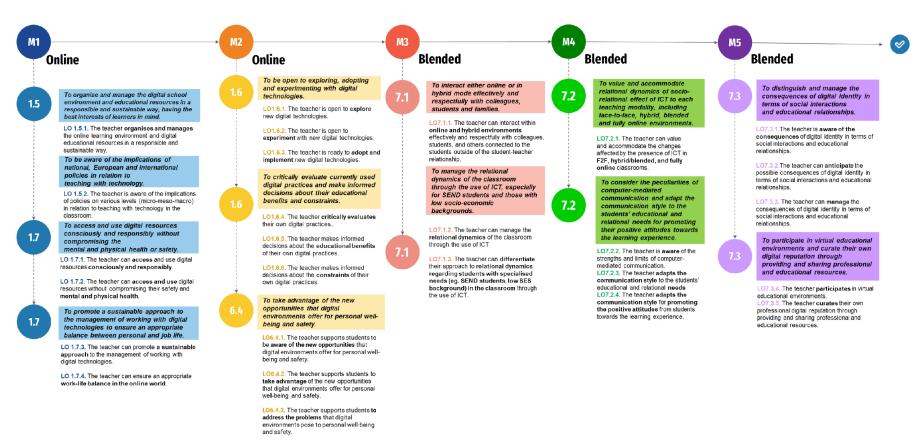


Figure 8. Competences added by to the DigCompEdu framework by the D-Paideia project and their associated Learning Objectives organised in modules in the D-Paideia curriculum.



### **4.2.** Use of the D-Paideia diagnosis questionnaire for the application of the curriculum

The 13 questions of the D-Paideia diagnosis questionnaire intend to qualitatively measure the level of the respondent in the competencies added in the DigCompEdu through the learning objectives displayed in Figure 10. The questions and their associated learning objectives are:

Q1.1 organize and manage the online learning environment and digital educational resources in a responsible and sustainable way.	LO 1.5.1
Q2.1 am aware of the implications of policies (in various levels) in relation to teaching with technology in the classroom	LO 1.5.2
Q3.1 access and use digital resources consciously and responsibly without compromising my safety and mental and physical health.	LO 1.7.1 – LO 1.7.2
Q4.1 ensure an appropriate work-life balance in the use of digital technologies	LO 1.7.3 – LO 1.7.4
Q5.I am ready to explore, adopt and experiment with new digital technologies.	LO 1.6.1 – LO 1.6.2 – LO 1.6.3
Q6.I make informed decisions about my own digital practices.	LO 1.6.4 – LO 1.6.5 – LO 1.6.6
Q7.1 support my students to take advantage of new opportunities and address problems that digital technologies pose to personal well-being and safety	LO 6.4.1 – LO 6.4.2 – LO 6.4.3
Q8.I can interact with colleagues, students and others within online and hybrid environments effectively and respectfully	LO 7.1.1
Q9.I can manage relational dynamics and differentiate my approach based on students' special characteristics through ICT	LO 7.1.2 – LO 7.1.3
Q10. I value and adapt to different relational dynamics in all learning environments (F2F, Blended, online, hybrid) through flexible computer-mediated communication	. LO 7.2.1
Q11. I adapt the digital communication style to promote positive attitudes of students towards the learning experience.	LO 7.2.2 – LO 7.2.3 – LO 7.2.4
Q12. I can manage the consequences of my personal digital identity in terms of social interactions and educational relationships	LO 7.3.1 – LO 7.3.2 – LO 7.3.3
Q13. I curate my own professional digital reputation including by providing and sharing educational resources	LO 7.3.4 – LO 7.3.5



Each of the questions can be answered in the following scale which will determine the level recommended for the associated learning activities in the following scale:

Strongly disagree	Disagree	Slightly agree	Agree	Strongly agree	Not applicable
Beginn	ner —	Interme	diate ——	Expert ——	



The Learning Activities proposed for each of these Learning Objectives are displayed in the following table. The link in each of the competences gives access to the detailed description of the associated activities in individual documents. The level at which they are performed can be determined by the results of the D-Paideia Questionnaire.

	Curriculun	า	Activities				
Modules	Competences	Learning goals	Beginner	Intermediate	Expert		
	1.5. Awareness	LO 1.5.1	Responsible use of learning environment (step 1 to 2)	Responsible use of learning environment (step 3)	Responsible use of learning environment (steps 4 to 5)		
	of institutional	LO 1.5.2	Overview and comparison of policies (steps 1 to 3)	Overview and comparison of policies (step 4)	Overview and comparison of policies (step 5)		
	policy	LO 1.5.2	Analysis of digital educational policies at different scales				
	1.7. Digital work-life balance and wellbeing		Using, remixing, sharing, crediting, and licensing (step 1)	Using, remixing, sharing, crediting, and licensing (step 2 to 4)	Using, remixing, sharing, crediting, and licensing (step 5)		
M1				Consciously and responsibly use technologies (step 1)	Consciously and responsibly use technologies (step 2 to 3)		
		LO 1.7.2	Let's make a personal digital well-being plan! (step 1 to 3)	Let's make a personal digital well-being plan! (step 4 to 5)	Let's make a personal digital well-being plan! (step 6)		
		LO 1.7.2 (LO 1.5.1, LO 1.5.2, LO 1.7.1, LO 1.6.1, LO 1.6.2, LO 1.6.3)	Technology Integration Journey  – a Reflective Simulation	Technology Integration Journey  – a Reflective Simulation	Technology Integration Journey  – a Reflective Simulation		



			Empowering Eco-Conscious	Empowering Eco-Conscious	Empowering Eco-Conscious
		LO 1.7.3	Educators (step 1)	Educators (step 2)	Educators (step 3)
		LO 1.7.4	Digital Diary (steps 1 to 4)	Digital Diary (steps 1 to 4)	Digital Diary (all steps including 5)
		LO 1.7.4	Resources for work-life balance		
			in the online world (step 1)		
		LO 1.6.1	How do I use digital technologies in my classroom?		
		LO 1.6.1 (LO 1.6.2)		Scenario for attitude to explore and experiment with new technologies (step 1)	Scenario for attitude to explore and experiment with new technologies (step 2)
	1.6. Attitude	LO 1.6.2		Try something new	
	towards the adoption of	LO 1.6.3	Adopting and implementing digital technologies following the TPACK model (steps 1 to 2)	Adopting and implementing digital technologies following the TPACK model (step 3)	Adopting and implementing digital technologies following the TPACK model (steps 4 to 5)
M2	<u>digital</u> <u>technologies</u>			Mentoring in the use of digital technologies (step 1)	Mentoring in the use of digital technologies (step 2)
		LO 1.6.4	Reflective Digital Adult		
		LO 1.6.4 (LO 1.6.5, LO	Article on the critical evaluation	Article on the critical evaluation	
		1.6.6)	of digital practices (step 1)	of digital practices (step 2)	
		LO 1.6.5		Goals, action, reflect	
		LO 1.6.6			Navigating digital constraints
	6.4. Safety (formerly	LO 6.4.1	Exploring the safety dimension in DigComp 2.2 (step 1)	Exploring the safety dimension in DigComp 2.2 (step 2)	
	<u>"responsible</u> <u>use")</u>	LO 6.4.2	Discovering new opportunities in digital environments (step 1)	Discovering new opportunities in digital environments (step 2)	



		Т			
		LO 6.4.3	Digital Addictions	Digital Addictions	Digital Addictions
		LO 6.4.1, LO 6.4.2, LO	Digital well-being and safety	Digital well-being and safety	Digital well-being and safety
		6.4.3	workshop (steps 1 to 2)	workshop (steps 2 to 3)	workshop (steps 4 to 5)
			Interaction with online and	Interaction with online and	Interaction with online and
			hybrid environments	hybrid environments	hybrid environments
		LO 7.1.1	(step 1 to 2)	(steps 3 to 5 – level 1)	(steps 3 to 5 – level 2)
		10 7.1.1	Online communication and	Online communication and	Online communication and
			collaboration skills workshop	collaboration skills workshop	collaboration skills workshop
			(step 1)	(steps 2 to 4)	(step 5)
	7.1 Managina		Relational dynamics and group	Relational dynamics and group	Relational dynamics and group
	7.1. Managing	tional LO 7.1.2	climate (step 1)	climate (step 2)	climate (step 3)
M3	<u>educational</u>			Digital classroom management	
IVIS	<u>relationships</u>			simulation	
	with ICT		Relational dynamics and	Relational dynamics and	Relational dynamics and
	WICHTEL		inclusion (step 1)	inclusion (step 2)	inclusion (step 3)
			Inclusive digital learning	Inclusive digital learning	Inclusive digital learning
		LO 7.1.3	environment a workshop	environment a workshop	environment a workshop
			through the UDL Prism (steps 1	through the UDL Prism (steps 3	through the UDL Prism (steps 5
			to 2)	to 4)	to 6)
				Scenario for relational dynamics	
				and inclusion	
	7.2. Diverse		ICT and socio-relational	ICT and socio-relational	ICT and socio-relational
	and flexible		dynamics (step 1 to 2)	dynamics (steps 3 to 6 – level 1)	dynamics (step 3 - level 2)
M4	facilitation	LO 7.2.1	Adapting to the digital	Adapting to the digital	
			classroom (steps 1 to 3)	classroom (steps 4 to 5)	
	<u>strategies</u>		ciassi ooiii (steps 1 to 3)	ciassi ooiii (steps 4 to 5)	



		LO 7.2.2	Computer-mediated communication and implications for design (step 1)	Computer-mediated communication and implications for design (step 2)	
			Exploring computer-mediated communication (steps 1 to 2)	Exploring computer-mediated communication (step 3)	
		LO 7.2.3	Adapting communication styles (steps 1 to 2)	Adapting communication styles (step 3)	Adapting communication styles (steps 4 to 5)
		LO 7.2.3		Online communication strategies (step 1)	Online communication strategies (step 2)
		LO 7.2.4	Promoting positive attitudes through communication (steps 1 to 2)	Promoting positive attitudes through communication (steps 3 to 4)	Promoting positive attitudes through communication (step 5)
				Promoting positive attitudes	
		LO 7.3.1	Oversharing and digital footprint		
		LO 7.3.1 (LO 7.3.2)		Autobiography of a teacher's digital identity	
	7.3. Digital	LO 7.3.2	Digital identity risk assessment (steps 1 to 2)	Digital identity risk assessment (step 3)	Digital identity risk assessment (steps 4 to 5)
M5	identity and reputation management	LO 7.3.3	Digital identity management workshop + (step 1 to 2)	Digital identity management workshop (steps 3 to 4)	Digital identity management workshop (step 5)
	<u></u>	LO 7.3.3 (LO 7.3.4)	Teachers Professional Development (TDP) and communities (step 1 to 2)		Teachers Professional Development (TDP) and communities (step 3 to 6)



	LO 7.3.4 (LO 7.3.5)	Preparing a professional blog (steps 1 to 2)	Preparing a professional blog (steps 1 to 3)	Preparing a professional blog (steps 1 to 3)	
	LO 7.3.4 (LO 7.3.5)	Exploring and curating digital identities (steps 1 to 2)	Exploring and curating digital identities (step 3)	Exploring and curating digital identities (step 4)	

### 4.3. School Action Plan

After completing the diagnosis (e.g., using the Midi SELFIE + D-PAIDEIA extension), the school should identify areas for reinforcement and develop an action plan to enhance or support its teachers in developing the competences that need strengthening. The following template (Figure 11) can be used for the overview of the planning process (PDF link, doc link):



Figure 11: School Action Plan Template (PDF link, doc link)



There are several options for developing the digital strategy, such as developing a policy, guidelines for students, open meeting for the school community and a structured training using the learning activities proposed in the D-Paideia curriculum, where for each module, there are two alternative trajectories (A or B) proposed with several activities in each. The initial letters of the title of the activity indicate to which Module the activity belongs (M1, M2, M3, M4, or M5), in which trajectory has been placed (A or B), and in which order is it proposed within that trajectory (1, 2, 3, ...). As an example, the 3rd activity proposed in the A trajectory of Module 2 is called: "M2A3\_Adopting and implementing digital technologies following the TPACK model", while the 2nd activity in the B trajectory of Module 3 is called: "M1B4\_Let's make a Personal Digital Wellbeing Plan".

For each of the activities, the following characteristics are indicated:

- Activity title
- Related Learning Objectives
- Expertise level: beginner, intermediate, expert (B/I/E). If the activity consists of several steps, the level of each one is also indicated
- Modality: Synchronous or Asynchronous
- Duration: (in minutes)
- Purpose of the activity
- Description
- Materials needed and resources
- Important comments.



The model trajectory proposed by the curriculum is displayed in the following table:

### Module 1:

		M1A1_Responsible use of learning environment  M1A2_Overview and comparison of policies  M1A3_Using, remixing, sharing, crediting, and licensing  M1A4_Technology Integration Journey - a Reflective Simulation.  M1A5_Empowering Eco-Conscious	Alternative activity				
Competences	Learning objectives	Activity name		Levels (B/I/E)	Activity name	Type (S/A)	Levels (B/I/E)
1.5. Awareness of	LO 1.5.1		S, A	B, I, E	M1B1_Organising the looks and contents of the digital learning environment	S	I,E
institutional policy	LO 1.5.2		S, A	В, І	M1B2_Analysis of Digital Educational Policies at Different Scales	Α	I
	LO 1.7.1		S, A	B, I, E	M1B3_Consciously and responsibly use technologies	А	I,E
1.7. Digital	LO 1.7.2		S	B, I, E	M1B4_Let's make a Personal Digital Wellbeing Plan!	S,A	B,I,E
work-life balance and wellbeing	LO 1.7.3		S	B, I, E	/		
	LO 1.7.4	M1A6_Digital Diary	S, A	B, I, E	M1B6_Resources for work-life balance in the online world	Α	В



### Module 2:

		Model trajectory	у		Alternative ac	tivity	
Competences	Learning objectives	Activity name	Type (S/A)	Levels (B/I/E)	Activity name	Type (S/A)	Levels (B/I/E)
1.6. Attitude towards the	LO 1.6.1	M2A1_ How do I use digital technologies in my classroom?	S, A	В	M2B1_ Scenario for attitude to explore and experiment with new technologies	А	I,E
towards the		<u>,                                      </u>		1	<u>,                                      </u>		
adoption of digital	LO 1.6.2	M2A2_Try something new	S, A	1	/		
<u>technologies</u>	LO 1.6.3	M2A3_ Adopting and implementing digital technologies following the TPACK model	S, A	B, I, E	M2B2_Mentoring in the use of digital technologies	А	I, E
	LO 1.6.4	M2A4_Article on the critical evaluation of digital practices	Α	В, І	M2B3_Reflective digital audit	S, A	В
	LO 1.6.5	/	Α	В, І	M2B4_Goals, action, reflect	S, A	1
	LO 1.6.6	/	Α	В, І	M2B5_Navigating digital constraints	S, A	E
6.4. Safety	LO 6.4.1	M2A5exploring the safety dimension in DigComp 2.2	Α	В, І,	M2B6_Digital well-being and safety workshop	S	B,I,E
(formerly "responsible	LO 6.4.2	M2A6_discovering new opportunities in digital environments	А	В, І,	/	S	B,I,E



<u>use")</u>	LO 6.4.3	M2A7_Digital addictions synchronous/asynchronous	S, A	B, I, E	/	S	B,I,E	
--------------	----------	--	------	---------	---	---	-------	--

### Module 3:

		Model trajector	ry		Alternative activity			
Competences	Learning objectives	Activity name	Type (S/A)	Levels (B/I/E)	Activity name	Type (S/A)	Levels (B/I/E)	
7.1. Managing educational	LO 7.1.1	M3A1_Interaction within online and hybrid environments	A/S	В,І, Е	M3B1_Online Communication and Collaboration Skills Workshop	S	В,І, Е	
relationships with ICT	LO 7.1.2 M3A2_Relational dynamics and group climate		A	B,I, E	M3B2_Digital Classroom Management Simulation	S	B,I, E	



LO 7.1.3	M3A3_Scenario for relational dynamics and inclusion	Α	I	M3B3_Inclusive Digital Learning Environment a Workshop Through the	S	B,I, E
LO 7.1.3	M3A4_Relational dynamics and inclusion	Α	В,І, Е	UDL Prism		D,I, L

### Module 4:

		Model trajectory			Alternative activity			
Competences	Learning objectives	Activity name	Type (S/A)	Levels (B/I/E)	Activity name	Type (S/A)	Levels (B/I/E)	
	LO 7.2.1	M4A1_ICT and Socio-relational dynamics	A/S	В,І, Е	M4B1_Adapting to the Digital Classroom	S	В, І	
7.2. Diverse and flexible facilitation	LO 7.2.2	M4A2_Computer-mediated communication and implications for design	А	B,I	M4B2_Exploring Computer-Mediated Communication	S/A	B,I,E	
<u>strategies</u>	LO 7.2.3	M4A3_Online communication strategies	Α	I,E	M4B3_Adapting Communication Styles	S, A	B,I,E	
	LO 7.2.4	M4A4_Promoting Positive Attitudes Through Communication	S,A	B,I,E	M4B4_Promoting positive attitudes	Α	I	

### Module 5:

		Model trajec	tory		Alternative activity			
Competences	Learning objectives	Activity name	Type (S/A)	Levels (B/I/E)	Activity name	Type (S/A)	Levels (B/I/E)	
7.3. Digital identity and	LO 7.3.1	M5A1_Oversharing and digital footprint	В	S, A	M5B1_Autobiography of a teacher's digital identity	Α	I	
reputation	LO 7.3.2	M5A2_Digital Identity Risk Assessment	B, I, E	S	/	/	/	

management



LO 7.3.3	M5A3_TPD and communities	В, Е	S, A	M5B2_Digital identity management workshop	S	В, І, Е
LO 7.3.4	/	/	/	M5B3_Exploring and curating digital identities	S	B, I, E
LO 7.3.5	M5A4_Preparing a professional blog	В, І, Е	А	/	/	/



### 4.4. Reporting of the results

In the case that the training in your school is being supported by the D-Paideia Consortium (you are receiving training from project members or trainers) please fill out this form with the results of your diagnosis and the D-Paideia areas to reinforce:

D Paideia Training Registration log





## D-PAIDEIA Digital Education

### Development of Pedagogical Digital Strategies Course School registration form for partners

	D-PAIDEIA Digital Education  Co-funded by the European Union  Contacting partner/Country			D1: Midi Selfie + D-Paideia Questionnaire (recommended) D2: Mini Selfie + D-Paideia Questionnaire D3: SELFIE + D-Paideia Questionnaire You can find the indications and links to the questionnaires in page 19 of the <u>D-Paideia Guide</u>					ended)	Description and development of the D-Paideia Training received by the School	Previous and current or regarding digi		Comments and remarks
School	School name	Educational Stage (Primary/Secondary)	Location	Diagnosis tool used (D1, D2 or D3)	School Leaders / School ICT Leaders level (beginner, intermediate or expert)	Numbe Beginner	r of teachers at l	evel Expert	Areas of the D-Paideia curriculum to reinforce	Download the report template,	Did the school already have a Digital Strategy? If so, is it aligned with a known digital competence framework? Which one?	Does the school receive external support that helps in the unfolding of its digital competence strategy? If so, could you comment on it?	
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Please, add as many rows as needed

Please move to sheet "Teachers and trainers list" to register the teachers and trainers data



### **REFERENCES**

D-Paideia consortium:

https://www.d-paideia.eu/

D-Paideia extended framework proposal:

Ranieri, M., Gabbi, E., Ancillotti, I. (2023). D-Paideia qualifications framework consultation report. [Unpublished internal D-Paideia project report].

D-Paideia curriculum:

https://www.d-paideia.eu/wp-content/uploads/2024/10/D-PAIDEIA-Curriculum-for-post-Covid19-era.pdf

Digcompedu framework:

https://joint-research-centre.ec.europa.eu/digcompedu en

Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu. Publications Office of the European Union.

https://publications.jrc.ec.europa.eu/repository/handle/JRC107466

Digcomp 2.2

https://publications.irc.ec.europa.eu/repository/handle/JRC128415

Vuorikari, R., Kluzer, S. and Punie, Y., DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes, EUR 31006 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-48882-8, doi:10.2760/115376, JRC128415.

SELFIE variations proposal (Midi-SELFIE and Mini-SELFIE):

Cachia, R., Pokropek, A., & Giannoutsou, N. (2024). Supporting the monitoring of the digital capacity of schools through optimal shortening of the SELFIE tool. *Computers & Education, 208*(3), 104938. https://doi.org/10.1016/j.compedu.2023.104938