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Digital
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InDiCo - Increase Digital Competences to Promote Inclusion

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Assessment and validation of digital competences at levels 1 and 2 for persons with learning difficulties

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Portugal

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Index

1 Introduction

The European Commission's (2023) targets for the digital decade envisage that at least 80% of those aged 16-74 shall have at least basic digital skills by 2030. DigComp 2.2, the digital competence framework for citizens (Vuorikari et al., 2022), which allows the categorisation and comparability of digital skills on eight levels, plays a key role in the European Commission's digital strategy.

Although the DigComp framework includes basic digital competences at levels 1 and 2, and the digital strategy aims for 'digital skills for all', persons with learning difficulties are at risk of exclusion. In the InDiCo project we agreed on using the term 'persons with learning difficulties' instead of 'persons with intellectual disabilities' to describe persons who experience challenges in all areas of life due to intellectual difficulties.

'Learning difficulties' encompass a range of challenges with regard to learning arising from various factors which can be genetic, neurobiological, cognitive, motivational, affective, or socioeconomic factors. It includes both general learning deficits and specific disorders like reading, spelling, or arithmetic difficulties. Diagnosis and intervention must be tailored to the individual, with some factors being more modifiable than others. Terminology and policies surrounding learning difficulties vary widely across regions and educational systems. Contemporary definitions are largely descriptive, focusing on addressing the specific needs of individuals to facilitate their learning progress in all areas of life (Lenhard & Lenhard, 2013).

Often training programmes are inaccessible to them, or the adult learning and education staff who support and accompany persons with learning difficulties have low digital competences themselves. Against this backdrop, the InDiCo project aims for a clearer understanding of the competences required by persons with learning difficulties in their digital interactions, a competence-based approach for adult learning and education staff in the assessment and training of digital competences, and improved validation of digital competences in connection with the DigComp framework.

One step to reach these aims is to examine the current state of digital inclusion of persons with learning difficulties in relation to the DigComp framework, specifically in relation to proficiency levels 1 and 2. In six reports (for Austria, Germany, Greece, Portugal, and Spain, and the pan-European level) the extent to which 'digital skills for all' with regard to persons with learning difficulties has already been achieved is explored.

As an introduction to this report, DigComp is briefly explained and the central concepts of assessment and validation are introduced, followed by an explanation of the methodology.

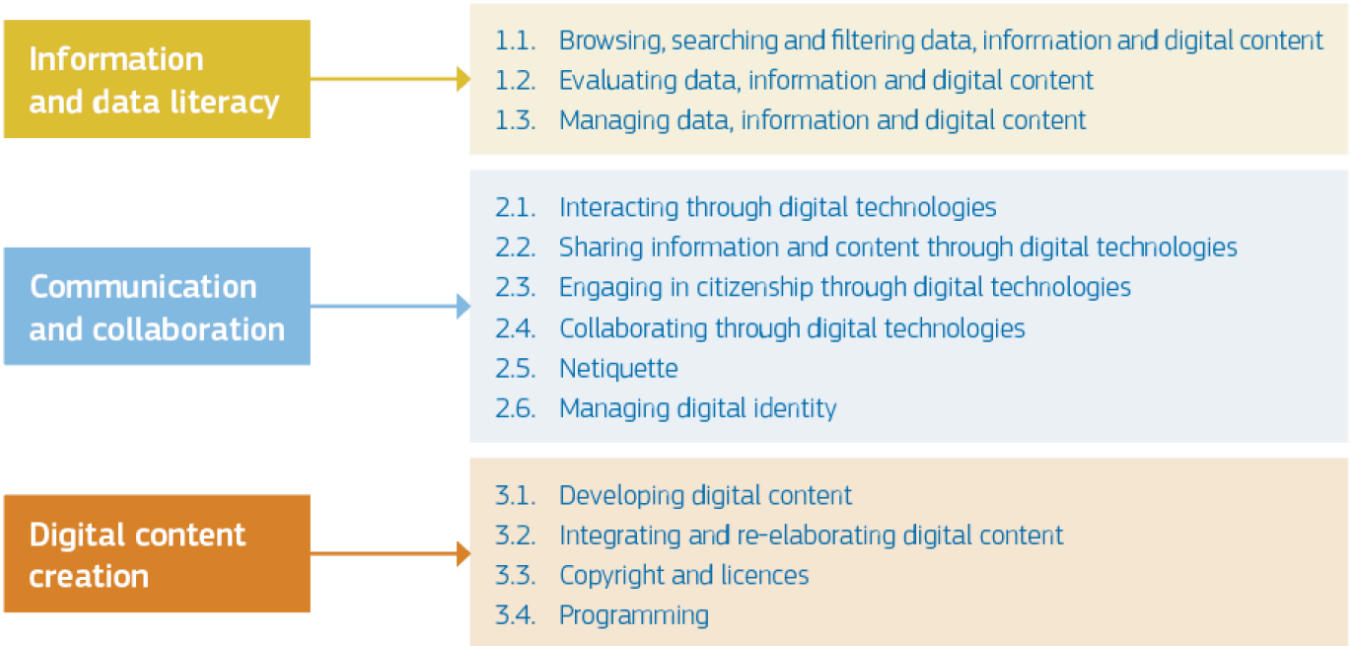
DigComp 2.2: The Digital Competence Framework for Citizens

DIGCOMP, a framework for developing and understanding digital competence in Europe, was first published in 2013 (Ferrari, 2013). Digital competence has been acknowledged as one of the

eight key competences for Lifelong Learning by the European Union. Digital competence can be broadly defined as the confident, critical and creative use of information and communication technology to achieve goals related to work, employability, learning, leisure, inclusion and/or participation in society (p. 2). The DIGCOMP framework aims to support the development of digital competence of individuals in Europe and represents an attempt to allow for self-assessment based on five areas of digital competence and three proficiency levels (p. 14) and presents a detailed framework with an in-depth description of the different aspects of 21 digital competences (p. 15–36).

The latest version to date is DigComp 2.2, the digital competence framework for citizens (Vuorikari et al., 2022). It is an EU-wide tool to improve citizens' digital competence, help policy-makers formulate policies that support digital competence building, and plan education and training initiatives to improve the digital competence of specific target groups (p. 2). The DigComp framework provides a common language to identify and describe the key areas of digital competences – information and data literacy; communication and collaboration; digital content creation; safety; and problem solving – in terms of knowledge, skills, and attitudes (p. 3). The use of agreed vocabulary allows to consistently apply the competence-based approach to instructional planning, assessment and monitoring (p. 4) "Ultimately, it is up to the users, institutions, intermediaries or initiative developers to adapt the reference framework to their needs when tailoring interventions (e.g. curriculum development) to fit the specific needs of target groups" (p. 4).

The DigComp 2.2 encompasses five competence areas with a total of 21 competences and eight proficiency levels (p. 4):



As mentioned above, the InDiCo project puts proficiency levels 1 and 2 to the fore as these are the basic levels ("foundation"). Proficiency level 1 and level 2 are distinguished by the degree of guidance needed. The following example derives from competence area 2, which is "Communication and collaboration" and is given for competence 2.4 "Collaborating through digital technologies" (p. 21):

FOUNDATION	1	At basic level and with guidance, I can:	• **choose simple** digital tools and technologies for collaborative processes.
	2	At basic level and with autonomy and appropriate guidance where needed, I can:	• **choose simple** digital tools and technologies for collaborative processes.

In the framework, selected examples of learning outcomes in the form of knowledge, skills and attitudes are given, and selected examples of "use cases", either from an employment scenario or a learning scenario, are presented (e.g., p. 12–13).

Assessment and validation of learning outcomes

Validation of non-formal and informal learning (VNFIL) can be conceptualised as a powerful tool to support disadvantaged and vulnerable adults, highlighting the importance of introducing and advocating for alternative pedagogical approaches where the assessment and validation of (prior and in situ) learning is seen "as a learning process" (Andersson, 2017), rather than a policy-driven summative assessment and certification for capacity building purposes. VNFIL prioritises and places the individual at the centre (Villalba-García, 2021, p. 357).

With this in mind, and in view of the project's objectives, two key concepts need to be highlighted:

Validation means a process of confirmation by an authorised body that an individual has acquired learning outcomes measured against a relevant standard and consists of the following four

distinct phases: identification, documentation, assessment, and certification (Cedefop, 2023, p. 9).

Assessment is normally referred to as the stage in which an individual's learning outcomes are compared against specific reference points and/or standards. It needs to be designed to capture and assess the learning specific to each individual, so various tools need to be considered. In some cases, written tests will be sufficient; in other cases, demonstrations, practical tests and evaluation of other forms of evidence will be required (p. 16).

The InDiCo project considers the DigComp framework as a relevant standard for the assessment and validation of learning outcomes. However, we also intend to include competences required by persons with learning difficulties in their digital interactions, thus prioritising the learner's voice and putting the individual at the centre. We also recognise the value of other relevant frameworks, such as the UNESCO (2021) framework for media and information literacy.

Methodology

Drawing on qualitative social research (Given, 2008) and addressing the digital inclusion of persons with learning difficulties as a social issue (Bloor, 2011), the following research questions guided the data collection and analysis process to gain an understanding of the current state of digital inclusion of persons with learning difficulties in relation to the EU DigComp framework, specifically in relation to proficiency levels 1 and 2. The findings are presented in six reports (for Austria, Germany, Greece, Portugal, Spain, and at a pan-European level).

- What is the status quo of the assessment and validation of digital competences at levels 1 and 2 of the DigComp framework for persons with learning difficulties?
- What are the challenges and gaps regarding the assessment and validation of digital competences at levels 1 and 2 of the DigComp framework for persons with learning difficulties?
- To what extent are digital competences currently assessed and validated with persons with learning difficulties?

We conducted web searches for information on relevant bottom-up initiatives for persons with learning difficulties (project websites, evaluation reports and the like) based on relevant keywords, screened the content with regard to the promotion, assessment and validation of basic digital competences, and documented these materials (Prior, 2011, p. 95).

We identified key informants (Fetterman, 2008) as possible respondents with first-hand knowledge of the assessment and validation of basic digital competences for persons with

learning difficulties and asked them to share their knowledge, experiences and thoughts on digital inclusion of persons with learning difficulties (or other vulnerable or marginalised groups). Data was collected via an online questionnaire using Google Forms and the survey data was processed anonymously.

As the data was collected mainly through narrative responses to open-ended questions, the online survey is considered a qualitative method (Julien, 2008a, p. 846).

The first questions collected information about the respondents' professional background.

The next questions collected information about their professional expertise: How they promote the digital competences of persons with learning difficulties (or other vulnerable or marginalised groups) to contribute to digital inclusion; what elements of their project, initiative or work are key to promoting the digital inclusion of persons with support needs; what challenges they have encountered in their project, initiative or work related to the assessment and/or validation of basic digital competences and how they have dealt with them; and finally, what further challenges do they see for the assessment and validation of basic digital skills for persons with learning difficulties (or other support needs).

The following set of questions explored whether a standard or reference framework is being used to assess and/or validate basic digital competences in their project, initiative or work. And if so, which standard or reference framework is being used. This was followed by a question on whether they were familiar with DigComp, the European digital competence framework, and if so, what is the relevance of DigComp in their project, initiative or work. This was followed by a question on whether they use a national standard or reference framework for digital competences and if so, they were asked to provide the name of this national standard or reference framework and its relevance to their project, initiative or work.

The last two questions explored respondents' expertise by asking what they thought was the potential of assessing and validating basic digital competences for persons with learning difficulties (or other support needs). And what they think could be helpful to further promote the assessment and validation of basic digital skills for persons with learning difficulties (or other support needs).

In order to provide answers to the research questions, we analysed the responses using the qualitative method of content analysis (Julian, 2008b). The respondents' knowledge, experiences and thoughts are presented in this report to shed light on the status quo of the assessment and validation processes of basic digital competences with regard to persons with learning difficulties.

2 Background of the respondents

We contacted fourteen key informants with first-hand knowledge of the training and/or assessment and validation of basic digital competences and six key informants responded to the online survey. In this section, we present the respondents' professional experience and expertise.

Years of professional experience of the respondents in the field of education, training, qualification, skills development (adult education/non-formal learning)

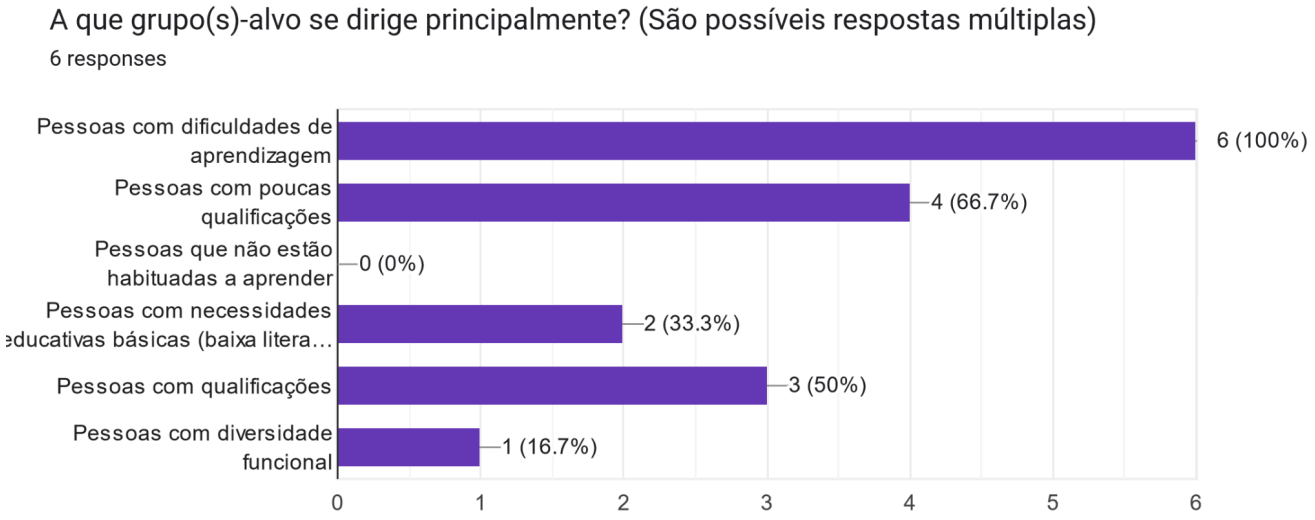
The chart below shows that one of the respondents has ten years or more of professional experience in the field of education, training, qualification, skills development (adult education/non-formal learning). Three respondents have up to 3 years, and two respondents between 7 and 9 years of experience in the field of education, training, qualification, skills development (adult education/non-formal learning).

Years of professional experience of the respondents in assessing and/or validating basic digital competences

From all the respondents two have no professional experience in assessing and/or validating digital competences. One respondent has up to three years of professional experience, one respondent has four to six years of professional experience, one respondent has seven to nine years of professional experience in assessing and/or validating digital competences, and one has 10 years or more of professional experience in assessing and/or validating digital competences.

Target group(s) that the respondents mainly work with (multiple answers were possible)

All six respondents work with persons with learning difficulties. In addition, four of the respondents also work with persons with few qualifications and three respondents work with persons with qualifications. A further two work with people with basic education needs (low literacy, low numeracy) and one respondent stated that no specific group is targeted in the area of functional diversity.



3 Status quo of the assessment and validation of digital competences at levels 1 and 2 with regard to persons with learning difficulties

This report draws on findings from an online survey and desk research aimed at examining the promotion, evaluation, and validation of fundamental digital skills at levels 1 and 2 in relation to persons with learning disabilities.

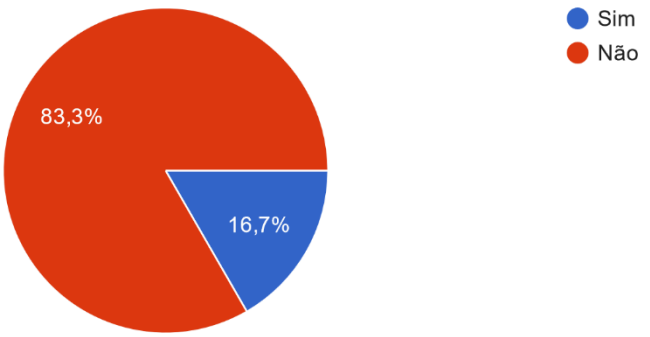
The assessment and validation of digital competences at levels 1 and 2 for persons with learning disabilities in Portugal is still limited and in need of improvement. According to the answers of the survey there is a lack of standardised methods and tools for assessing digital competences specifically tailored to individuals with learning disabilities. This often leads to a lack of understanding and recognition of their digital skills and capabilities. Furthermore, there is a need for more accessible and inclusive assessment methods that take into account the specific needs and challenges faced by persons with learning disabilities. This includes providing accommodations and support to ensure that individuals have the opportunity to demonstrate their digital competences effectively. (according survey answers)

Overall, more efforts are needed to ensure that persons with learning disabilities have equal access to opportunities for assessing and validating their digital competences at levels 1 and 2 in Portugal. This includes the development of tailored assessment tools, training for assessors on how to work with individuals with learning disabilities, and promoting awareness and understanding of the importance of digital skills for this population. (according to survey answers).

According to data from the European Commission's Digital Economy and Society Index (DESI-Digital Economy and Society Index 2022), the percentage of people in Portugal with basic digital skills or above has been steadily increasing over the past few years. The latest data of the Digital Economy and Society Index (DESI) available for Portugal are from 2021 and show that 55% of individuals in Portugal now possess basic digital skills or above (European Commission, 2022, p.7). This upward trend in the percentage of people with basic digital skills in Portugal reflects the increasing importance of digital literacy in today's society, and the efforts being made by the government and various organisations to improve access to digital resources and training opportunities.

Do you use a standard or reference framework to assess and/or validate basic digital competences (in your project, initiative or work)? What standard or reference framework do you use to assess and/or validate basic digital competences?

Five out of six respondents don't use a standard or reference framework to assess and/or validate basic digital competences. Only one respondent stated that he or she uses the guidelines and curriculum established in line with InCoDe 2030.



Do you know DigComp, the European Digital Competence Framework? How relevant is the DigComp framework to your project, initiative or work?

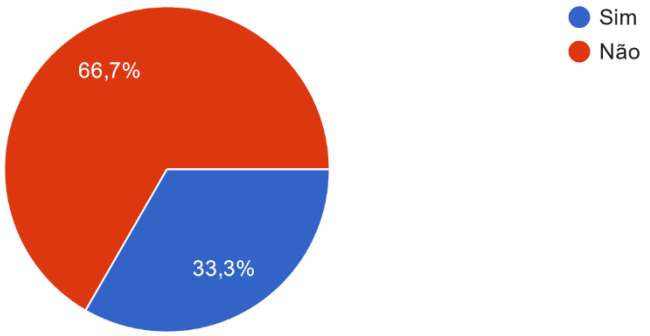
The answers received in terms of knowledge of DigComp were three said yes and three no:

- I try to adapt the information to what is listed in the DigComp framework
- The Digital Transformation Programme (DigComp) for schools enables pupils, teachers and schools to collaborate, learn and teach in a digital environment, preparing today's pupils for the digital transformation of the labour market, the economy and society. It leads us to have a common understanding of Digital Knowledge and Skills policies.
- I underwent teacher training in order to feel more skilful in creating pedagogical content in digital terms, as I had already mentioned, and at the same time it enabled me to be aligned with the best of what is being promoted in Europe.

Do you use a national standard or reference framework for digital competences? Please tell us the name of that national standard or reference framework and its relevance to your project, initiative or work.

Only three of the respondents use a national standard or reference framework for digital competences.

They are aligned to the National Qualifications Catalogue or guidelines and curriculum established for the school level that come from the Ministry of Education. The INCoDe 2030 orients those two.



Based on your knowledge and experience, what is the potential for assessing and validating basic digital skills for persons with learning difficulties (or other support needs)?

When we talk about the potential for assessing and validating basic digital skills for persons with learning difficulties the respondents say:

- To be focused on the use of tools and materials;
- Being able to help students/trainees engage confidently, critically and safely with digital technologies. Be prepared for the labour market. Promote the inclusion of people with disabilities in this global, digital world;
- The development of digital competences for persons with learning difficulties becomes a facilitator of inclusion;
- It will be important to adapt the content from theoretical to practical;
- Their full inclusion in an increasingly digital society.

4 Challenges and gaps regarding the assessment and validation of digital competences at levels 1 and 2 with regard to persons with learning difficulties

In Portugal, people with disabilities face challenges when it comes to digital literacy.

Among the main obstacles faced by these people are the lack of accessibility of websites and applications, the difficulty in using technological devices, the absence of specialised training and the lack of resources adapted to their needs.

Digital inclusion is a fundamental human right and must be promoted in order to guarantee the full and effective participation of all people in the digital society.

What challenges have you encountered in your project, initiative or work related to the assessment and/or validation of basic digital competences and how have you dealt with them?

The answers we received on this question are:

- There are no differentiated forms of evaluation and validation.
- The big gaps in terms of the correct use of digital solutions. Data protection and knowing how to protect themselves when accessing data and sharing private data on digital platforms, in short, security when using digital platforms.
- Another challenge is not knowing about digital certification through Portugal Digital, how to check their skills and the free training they can access to become more comfortable using digital solutions. Not realising how important it is in business terms to have digital skills when recruiting.
- The biggest challenge was working with children with Trisomy. Different strategies were used.
- The difficulty in understanding the risks, just by talking. By using role play and practical situations, the students found it easier to understand the risks.
- In an inclusive school and teaching ICT, I promote the empowerment of each student according to their abilities and skills. Curricular competences are validated in accordance with what is established by the Ministry of Education.
- Separate spaces for assessing and validating competences.
- The lack of access to hardware, as well as the financial issues inherent in a data supply contract in order to access digital platforms.

What other challenges do you see facing the assessment and validation of the basic digital competences of persons with learning difficulties (or other support needs)?

The challenges identified with regard to the assessment and validation of basic digital competences of persons with learning difficulties are:

- Limited resources: There may be limited resources available for assessing and validating the basic digital competences of persons with learning difficulties in Portugal. This includes access to specialised assessments and tools tailored to their specific needs.
- Lack of standardised assessments: There may be a lack of standardised assessments specifically designed to evaluate the digital competences of individuals with learning difficulties. This can make it challenging to accurately measure their skills and progress in this area.
- Communication barriers: persons with learning difficulties may face communication barriers that can hinder their ability to effectively demonstrate their digital competences. This can make it difficult for assessors to accurately evaluate their skills.
- Bias and discrimination: There may be biases and misconceptions about the capabilities of individuals with learning difficulties when it comes to digital competences. This can result in a lack of opportunities for assessment and validation of their skills, as well as a lack of recognition for their achievements in this area.
- Support and accommodations: Individuals with learning difficulties may require additional support and accommodations to effectively demonstrate their digital competences during the assessment process. Ensuring that these accommodations are provided can be a challenge, particularly in a resource-limited environment.
- Lack of awareness and training: There may be a lack of awareness and training among assessors and educators about how to effectively assess and validate the digital competences of individuals with learning difficulties. This can result in inaccurate assessments and a lack of support for their development in this area.
- The difficulty of finding adapted tools. Most of the supports (software and some hardware) are geared towards common use.
- The quality of internet access and the lack of specialised and dedicated technical support for hardware, which has grown significantly with the distribution of teaching kits, can be a major obstacle, as it often takes a long time between the breakdown and the support to resolve it, which compromises the lesson and the student's use of it.
- In terms of the students themselves, and their validation of competences, the biggest obstacle is their inability to think about and properly use digital technology in favour of their

studies and training. Often, students with Special Educational Needs have their use blocked by the lack of adapted hardware that promotes accessibility; they only use it to play games or access social networks and carry out exercises promoted by therapists.

What could be useful to promote the assessment and validation of the basic digital competences of persons with learning difficulties (or other support needs)?

When we asked 'What could be useful to promote the assessment and validation of basic digital competences for persons with learning difficulties (or other support needs)?', we got the following answers:

- Various forms of assessment and validation that can be adapted to different audiences;
- Increased dissemination of the programme, dissemination of data/results regarding the validation of the skills of people with disabilities;
- Investment in all digital learning support;
- adaptation of theoretical to practical content;
- Greater awareness on the part of all those involved in these students' education of the programmes available for assessing and validating digital skills.

5 Extent of the assessment and validation of digital competences at levels 1 and 2 with regard to persons with learning difficulties

In the area of education, looking at the Disability and Human Rights Observatory - People with Disabilities in Portugal document, it was found that early school leaving is more frequent among students with disabilities. The 'early school leaving rate' indicator shows that, in Portugal, in 2020, the dropout rate for disabled students aged between 18 and 24 was 22.1 per cent, or 13.6 p.p. more than for non-disabled students in the same age group. When we compare these figures with those recorded in 2015, we can see that the disparity between the school dropout rate of young people with and without disabilities in Portugal has been increasing, both in the 18-24 age group and in the 18-29 age group, thus contributing to a widening gap between the disabled and non-disabled population (Pinto et al., 2023).

The lack of aggregate data on persons with learning difficulties is a reality that hinders the planning and action work of the various stakeholders in the inclusion of these citizens in Portuguese society. This gap in the area of support for the employment and professional qualification of persons with learning difficulties is all too evident, and neither the 2021 Census, the Physical and Financial Execution Reports of the Institute for Employment and Vocational

Training I.P., nor the meritorious annual compilation of indicators from the Disability and Human Rights Observatory provide satisfactory answers.

How do you promote the digital skills of persons with learning difficulties (or other vulnerable or marginalised groups) to contribute to digital inclusion?

On the question about the way that the respondents promote the digital skills of persons with learning difficulties, they answer:

- Access to technological tools and equipment is promoted in Portugal through curricula adapted for the training of people with disabilities, according to the Vocational Training Curriculum.
- According to the Vocational Training Referential adapted for People with Disabilities in the National Qualifications Catalogue, there are 24 adapted curriculums in which the transversal basic training favours an IT module with the general objectives of knowing how to operate a computer; knowing how to surf the internet; knowing how to manage an email inbox; knowing how to interact via platforms; knowing how to protect identity, privacy and personal data in digital environments.
- On the other hand, in Portugal, there is also the possibility for vocational training organisations to present the content to be covered in this field in training courses aimed at persons with learning difficulties.
- Another option for promoting persons with learning difficulties is the learning through the use of various technological means.
- The promotion of digital competences to contribute to digital inclusion is carried out on a one-to-one basis, always based on ensuring that all information and interfaces are legible and understandable, that navigation and access to all functionalities is guaranteed and that all information is understood by everyone and provides for tolerance of error;
- Adapting the teaching method to the diverse learning profile of the students;
- As an ICT teacher in inclusive mainstream education, we follow the educational curriculum for the subject taught, with the necessary adjustments taking into account INCoDe 2030, Axis 1, which is embodied in the Digital School Programme. The aim of this programme is the digital transformation of schools, which seeks to ensure that all pupils have access to computers with mobile connectivity. I underwent teacher training in order to feel more skilful in creating pedagogical content in digital terms.

What elements of your project, initiative or work are key to promoting the digital inclusion of people with support needs?

The six respondents refer some elements that could promote the digital inclusion of persons with learning difficulties, in they´re projects, as:

Providing adequate facilities and equipment. Ensuring an understanding of the risks associated with the digital environment and promoting the safe use of these resources.

Analysis of the current situation: The balance that the respondents can draw is positive for several reasons: students are encouraged and this stimulates their creativity; they enjoy games, which facilitates their learning. In addition, this approach favours interdisciplinarity and the group shows a receptive attitude to its implementation. The students understand that, in order to use their devices in the classroom, they must follow the teacher's instructions, and they have complied with these guidelines. Another positive point is that by getting involved in the self-correction of assessment sheets, students improve their final results. Information and Communication Technologies (ICT) contribute to the integration of different subjects in each student's Project Work, regardless of whether or not they have Special Educational Needs, and I notice a favourable attitude in the group towards validating knowledge through digital media. Teachers also show confidence in using digital tools during the teaching process with children in special education. In addition, I have noticed that the digital literacy of educators is increasing, keeping pace with the evolution of students in this respect. The school is responding confidently to the (new) digital challenge.

The respondents mentioned the following measures to promote the digital inclusion of persons with learning difficulties:

- Gain access to new tools.
- Certify the skills of all trainees in training courses.
- Provide suitable spaces and equipment.
- Ensure understanding of risks in the digital world and promote safe usage.

Assessment is positive for several reasons:

- It motivates students and enhances creativity.
- Learning through play increases enjoyment and effectiveness.
- Encourages interdisciplinary collaboration and a positive group attitude towards digital tools.

- Students recognize that using their devices in class requires adherence to teacher guidelines, and they comply.
- Self-assessing their work leads to improved outcomes.
- ICT supports integration of various subjects in Project Work, benefiting all students, including those with Special Educational Needs.
- There's a positive attitude towards validating knowledge through digital means.
- Teachers are becoming increasingly confident in using digital tools with special education students.
- Teachers' digital literacy is growing in tandem with students', and the school is effectively addressing digital challenges.

6 Conclusions

To summarise, the validation of digital competences for people with disabilities in Portugal is fundamental to promoting digital inclusion and ensuring that all people have access to the opportunities and benefits offered by digital technologies.

The background of the respondents, taking into account the online survey presented, the six respondents work mainly with persons with learning difficulties, with additional work with people with low qualifications and qualifications. Some also work with people with basic educational needs.

Status quo of the assessment and validation of digital competences at levels 1 and 2 with regard to persons with learning difficulties

The current state of assessing and validating digital competencies at levels 1 and 2 for individuals with learning disabilities in Portugal is in need of enhancement. Surveys indicate a lack of standardised assessment tools tailored to this population, resulting in a limited understanding and recognition of their digital abilities. There is a demand for more inclusive assessment methods that accommodate the unique needs and challenges faced by persons with learning disabilities, ensuring they can effectively showcase their digital skills. Efforts to improve access and opportunities for assessing and validating digital competences at these levels should include the development of tailored tools, training for assessors, and raising awareness of the significance of digital skills for this demographic. INCoDe.2030 defines indicators and targets to monitor the progression of digital skills in Portugal. The gradual increase in the percentage of individuals with basic digital skills or above in Portugal, as reported by DESI, reflects the growing importance of digital literacy and ongoing efforts to enhance digital access and training opportunities.

Challenges and gaps regarding the assessment and validation of digital competences at levels 1 and 2 with regard to persons with learning difficulties

The challenges and gaps regarding the assessment and validation of digital competences at levels 1 and 2 with regards to persons with learning difficulties are:

- Development of standardised assessments specifically designed for individuals with learning difficulties to accurately measure their digital competences.
- Training and awareness programs for assessors and educators on how to effectively assess and validate the digital competences of individuals with learning difficulties.
- Providing access to adapted tools and technology tailored to the specific needs of individuals with learning difficulties, to support their assessment and validation of digital competences.
- Establishing support systems and accommodations to ensure individuals with learning difficulties can effectively demonstrate their digital competences during assessments.
- Promoting inclusive practices that empower individuals with learning difficulties to develop and showcase their digital skills, while also raising awareness and understanding of their capabilities in this area.
- Investing in resources and infrastructure to improve internet access, technical support, and availability of adapted hardware for individuals with learning difficulties to enhance their digital learning experience and assessment opportunities.

Extent of the assessment and validation of digital competences at levels 1 and 2 with regard to persons with learning difficulties

The assessment and validation of digital competences for persons with learning difficulties in Portugal is lacking, with a widening gap in school dropout rates between disabled and non-disabled students. To promote digital skills for this population, access to technology and adapted curriculums with IT modules are key. Additionally, personalised one-to-one teaching methods, adaptation of teaching to diverse learning profiles, and the use of ICT in inclusive education are important elements in promoting digital inclusion for people with support needs. Awareness of digital risks and promoting safe use, along with the availability of appropriate spaces and equipment, are also crucial factors in this initiative. Overall, the positive outcomes include increased digital literacy among students and teachers, as well as the successful integration of ICT into various subjects and project work.

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