



Increase
Digital
Competences
to Promote Inclusion

InDiCo - Increase Digital Competences to Promote Inclusion

2023-1-AT01-KA220-ADU-000157647

Train-the-trainer manual

**How to use the InDiCo framework
for the assessment and validation
of basic digital competences
of persons with learning difficulties**



**Co-funded by
the European Union**

Project partners:



Chance B (Austria); European Platform for Rehabilitation (Belgium); Universität Klagenfurt (Austria);
Fundação AFID Diferença (Portugal); Fundación Rey Ardid (Spain); Mariaberg, e.V (Germany);
Theotokos Foundation (Greece)



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1 Introduction

The aim of the Erasmus+ funded project **InDiCo** is to promote the **inclusion of persons with learning difficulties in the digital age**. Our research about the situation in the partner countries, which is reflected in reports on the current situation and challenges related to the implementation of the EU DigComp strategy for persons with learning difficulties (EPR, 2026a) and in sections 2.1 and 2.2 of the policy recommendations (EPR, 2026b), shows that this target group is at risk of digital exclusion and faces particular difficulties in accessing needs-based educational programmes and/or have their digital competences assessed and validated.

Therefore, the InDiCo project consortium developed **a competence-based methodology for the validation of basic digital competences** which takes the **specific learning needs of persons with learning difficulties** into account.

This train-the-trainer manual aims at explaining the methodology in a practical way. It describes how to use the InDiCo framework for the assessment and validation of basic digital competences by comparing this process with a learning journey in which **persons with learning difficulties as travellers** are **accompanied by guides on their learning path**.

The InDiCo project consortium has agreed to use the term **persons with learning difficulties** instead of persons with intellectual disabilities. According to Lenhard & Lenhard (2013), learning difficulties encompass a range of challenges to learning that result from a variety of factors, which may be genetic, neurobiological, cognitive, motivational, affective, or socio-economic. It includes both general learning difficulties and specific challenges such as reading, spelling or numeracy difficulties.

Objectives of this manual

After reading this manual, you will know how to use the InDiCo validation framework in your practice as adult educators or trainers in order to

- make basic digital competences of persons with learning difficulties visible,
- develop customised learning paths for this target group and
- assess the acquired basic digital skills.

You will understand the conceptual background of competence-orientation in general and the advantages of this approach for the assessment and validation of competences of persons with learning difficulties.

You will be aware of the DigComp as an EU-wide framework for digital competences.

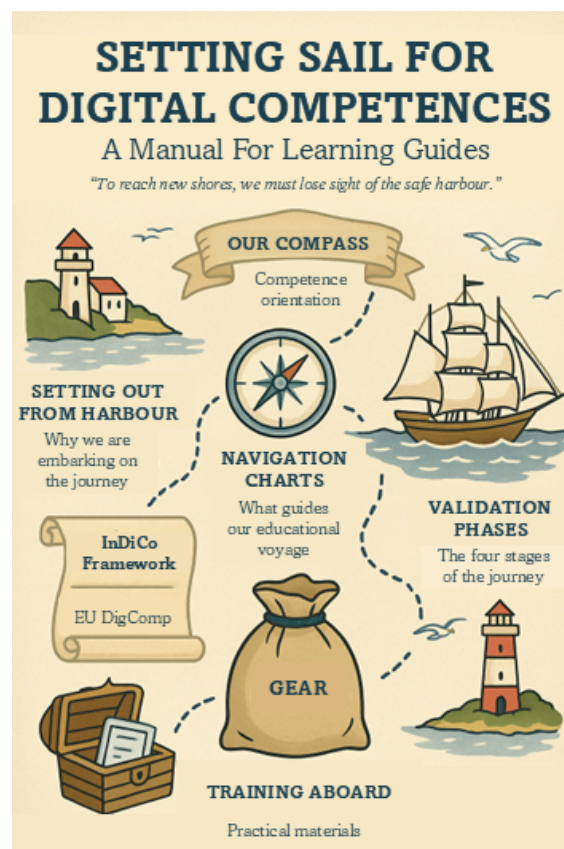
You will understand the structure of the InDiCo validation framework and its purpose as a means for planning an individual learning path and assess and validate basic digital competences that are relevant for persons with learning difficulties.

You will know how to access the online platform to assess and validate basic digital competences of persons with learning difficulties and generate reports and certificates.

You will be aware of good practice examples and existing training materials which can be used to (further) develop basic digital competences of persons with learning difficulties in the six competence areas of the InDiCo validation framework.

In these first paragraphs you have already encountered several technical terms like competence-based, validation or assessment. These terms are explained in more detail in the course of the manual.

But before we go into detail, let's start with our story of the sailing trip.



*Visual created using AI (ChatGPT)
and subsequently reviewed and edited by the authors.*

2 Full sail to digital competences - a manual for learning guides

‘If you want to reach new shores, you have to leave the safe harbour.’ (H. Jackson Brown Jr.)

Imagine we all board a sailing ship.



Our goal is clear: we want to support persons with learning difficulties on their journey to basic digital competences. But we are not ‘trainers’ in the traditional sense. We are travelling guides forming a crew with the learners - from the planning stage to the successful arrival on the digital horizon.

This manual will lead you through all the ‘stages’ and ‘sea storms’ of this journey. **It summarises all the key points of the InDiCo approach:** from the **initial orientation** and **setting sail for the first time** to the **final certification**. If you are wondering about the meaning of InDiCo: the acronym stands for “Increase Digital Competences to Promote Inclusion”.

Casting off in our home port: why we set sail



Before the ship sets sail, we take a moment to think about why we are embarking on this journey.

The aim: We want to open a door to the digital world for persons with learning difficulties, empower them to use digital tools - be it a smartphone, tablet or computer - confidently and competently.

The method: We use the InDiCo approach which provides us with a sound and practical framework for identifying, documenting, assessing and certifying basic digital competences.

The role of the learning guides: Instead of ‘instructors’ or ‘trainers’, we are ‘guides’ or ‘skippers’ who facilitate a supportive learning environment according to individual needs. Because everyone brings their own biography, different previous experiences and individual personal goals on board.

Our compass: competence orientation

When we are navigating the high seas, we not only need a destination, but also reliable instruments. This is where **competence orientation** comes into play - our **compass** that always points us in the right direction.

Background: Instead of imparting knowledge ‘from above’, we focus on the existing abilities and potential of the individual learners. We encourage **self-reflection and co-construction of learning** so that everyone is actively involved in the learning process.

Guiding principle: ‘From sage on the stage to guide on the side’ (King, 1993). Our job as learning guides is to encourage the travellers to ask their own questions and discover their own learning paths, and to point out possibilities instead of presenting ready-made solutions.

Why follow the compass of competence orientation?

- Learners become **self-empowered**, developing not only a **strong learning identity** but also a **positive self-image**.
- Existing **prior knowledge** and experience are recognised.
- The learning objectives remain **flexible** and **adaptable**.
- Competence orientation **promotes independence**: Learners actively engage with their abilities, make suggestions and find their own solutions during their learning journey.
- The **individual potential is valued**. Different biographies, learning experiences and talents are a treasure from which we draw together.
- Personal life stories and **current needs determine how we proceed** - there is no rigid curriculum when facilitating learning in a competence-oriented way.

The **change from teacher to mentor** means a shift in the understanding of educators, who become **a guide on the learner’s side** instead of being the teacher who knows everything and teaches the learner well.

The nautical charts: EU DigComp and the InDiCo framework



A nautical chart is indispensable for safely navigating the vast sea of digital expertise. Every ship needs a reliable nautical chart.

In our case, there are two maps we use on our journey:

The EU DigComp (Digital Competence Framework for Citizens)

- is a standardised framework for digital skills in Europe.
- contains competence areas that are necessary for self-determined and safe behaviour in the digital world (e.g. information literacy, communication, problem solving).
- is meant to provide general guidance for all citizens. However, we often need additional adaptations for persons with learning difficulties.

The InDiCo validation framework for basic digital competences

- was initially developed on the basis of the Austrian version 2.3 of the DigComp and is **specifically tailored for persons with learning difficulties**.
- focuses on **proficiency levels 1 and 2 of basic digital competences**.
- contains concrete learning objectives and assessment criteria that are both standardised and flexible enough to respond to individual needs.
- helps us to identify, document, assess and certify these digital competences.

Note: These ‘maps’ provide an overview of the relevant digital competences to be achieved and suggest possible ‘routes’. However, everyone learns at their own pace and sometimes takes their own time to stop and take stock.

The equipment: duffle bag and logbook

We need the **right equipment** so that we don't sink on the high seas.



The duffle bag

We are on a sailing ship. Instead of a rucksack, we're talking about a duffle bag, in which we stow everything we need for the journey: learning materials, aids, simple instructions, perhaps a tablet or smartphone. The duffle bag also contains **personalised support services**: e.g. large print, accessible apps, videos in sign language or easy-to-understand-language.



The logbook

The logbook is an important tool for **documenting the journey**. What have we already learnt? Which harbours have we already reached? What is difficult? Which goals may have changed? The InDiCo validation framework helps learners and learning guides. It allows them to keep track of and reflect on the learning progress.

The stages of the journey: the four validation phases



In European adult education, a four-stage process is recommended for the validation of non-formal and informal learning (CEDEFOP, 2023). Imagine our ship passing through these four phases:

Identification

- ‘Positioning at sea’: Where does the learner stand in terms of digital competences?
- Through **self-assessment** (e.g. questionnaires, interviews) and **external assessment** (by the learning guide), it becomes clear what experience and knowledge learners already have.

Documentation

- ‘Keep a logbook’: The InDiCo assessment and validation tool is an online platform that can be used to track learning progress. It is based on the InDiCo framework of basic digital competences and provides orientation with regard to individual development of basic digital competences relevant for participating in the digital world.
- Important: **Informal learning** counts. If someone is already chatting privately on WhatsApp or streaming videos during an online cookery course, this can be included in the documentation!
- Note: Everything that happens on the trip could also be recorded in a portfolio, be it learning materials, exercises, reflections, examples of successful application of digital competences. However, the InDiCo approach does not require this method.

Assessment

- ‘Stopover’: We look together to see whether the goals set are realistic or need to be adjusted.
- The InDiCo validation framework enables **structured observation**: Which competences have been consolidated, which still need practice?
- The **dual view** proves its worth here: self-assessment versus assessment by the learning guide.

Certification

- ‘Entering the destination harbour’: If the learners want it there can be a formal confirmation at the end of the learning journey.
- Is the learner ready for an official confirmation of their competences? If so, this is documented in the InDiCo assessment and validation tool.
- The **InDiCo certificate** documents what they can actually do - a valuable recognition that goes beyond a mere certificate of attendance.
- Together we celebrate the learning success and perhaps look ahead to the next learning objective.

Life on board: How we use the InDiCo tool



The **InDiCo online platform helps the travellers to navigate the learning journey**, enabling you to carry out checks in a structured way that doesn't feel like an exam. The InDiCo validation framework is based on the EU DigComp framework and the former Austrian version 2.3. It defines **six competence areas with 25 competences**.

Self-assessment and external assessment

- Learners can use the tool to self-assess how confident they feel in certain digital competence areas (e.g. writing emails, sharing photos, setting up devices). **Prior to the first self-assessment session**, learning guides should organise an **orientation activity** so learners can get used to the devices and the platform before their first assessment session.
- The self-assessment is compared with the assessment by the learning guides, and on this basis the learner and the learning guide can discuss the learning progress and the next steps of the learning journey.
- Learning guides should make it clear that both the self-assessment and the comparison with the assessment by the learning guides, are meant to **explore, not examine**, so that the learners don't worry too much about how they are doing.

Process monitoring

- Instead of just providing a final result at a certain date and time, the InDiCo platform continuously saves the development steps during the journey: this makes it possible to see how far someone has travelled from 'home port' and which storms he or she has already mastered.

Certification

- Once all the necessary competence areas have been successfully assessed, an official InDiCo certificate can be issued. This certificate proves the proficiency level of digital competences a learner has acquired.
- You discuss the results with the learner and celebrate the success - just as you would when you arrive at your destination harbour.

Voluntariness

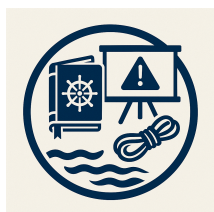
- Learners are not required to have their competences certified at the end of the InDiCo validation process in order to finalise their journey and to go off board. Each person can decide for themselves whether a certificate or a confirmation of participation is desirable.

Flexibility

- The individual competence areas can be worked on on a modular basis. People who primarily want to practise digital communication, for example, can focus on this and do not have to have the other five competence areas validated at the same time.
- As a learning guide, you are always in dialogue with the participants. Together you will adapt the route depending on how interests and goals change along the way.

Tip: Make using the tool as simple and accessible as possible. Explain step by step what needs to be done and take time to answer questions.

Training on deck: Helpful techniques



Good **materials and methods** are like a secure rigging - they provide support and protect against 'going overboard':

Simple language worksheets and explanatory videos: Use pictogram-based explanations or videos to break down complex topics (e.g. data protection).

Practical exercises: Show in practice how to set up an email account, send a photo or post on social networks.

Use role play so that participants develop a sense of security, e.g. 'How do I react to a suspicious link?'

Peer learning: Let the participants learn from each other. Those who are already good at something explain it to others. This boosts self-confidence and prevents frustration.

Continuous reflection: Record which materials were helpful, which less so? Where do we need additions, where do we need simplifications? Think of implementing regular discussion rounds with other learning guides and of establishing a culture of sharing learning materials.

Knowledge on deck: helpful training materials



The best nautical chart is of little use if we don't have the tools to read it. It is therefore advisable to use **suitable learning materials** that meet the needs of persons with learning difficulties.

These can be

- Picture cards and pictograms for important technical terms
- Explanatory videos in easy language
- Apps with a simple interface for practising basic digital functions
- Games and role plays (e.g. practising chats, writing emails, operating devices)

Choose materials that are as accessible as possible so that all learners can actively participate regardless of their prior knowledge and personal limitations.

Anchoring in the harbour of destination: reflection and outlook



At some point, you see the harbour lights approaching - the learning group has mastered crucial stages and feels much more secure in the digital world. However, anchoring does not necessarily mean the end, but often the start of a new journey:

Recap

- What was particularly successful?
- Which methods worked especially well for persons with learning difficulties?
- Were there any 'storms'? How did we overcome them?

Celebrating successes

- When learners receive a certificate or confirmation of participation, this should be a positive highlight.
- Appreciate the learning achievements of the participants and emphasise how much they have surpassed themselves and reached a new shore.

Opening horizons - looking ahead

At this stage, the learning guide plays a key role by **encouraging reflection, discussing possible next steps, and helping plan future routes** - whether through another learning programme, everyday digital practice, or other ways of informal learning.

- The digital world is constantly evolving: new apps, new end devices, new data protection issues, new generations of AI,
- The question can be: 'Do we want to sail a little further?' - Perhaps by planning the next route at a higher level of expertise or by exploring individual topics in greater depth.

3 Competence orientation: our compass

Competence orientation provides the conceptual background for assessing and validating basic digital competences of persons with learning difficulties. When navigating the high seas, we need more than just a destination — the digital inclusion of persons with learning difficulties — we also need reliable instruments. This is where competence orientation comes into play. It is our compass that always points us in the right direction. The **InDiCo validation framework represents a core curriculum** for developing basic digital competences. It provides **a common foundation that serves as a guideline** for educators and **enables learner-centred education**.

Competence orientation puts learners at the centre

Competence-oriented education aims to put learners at the centre. Learning processes can be formal, such as in school or initial vocational education and training; non-formal, such as in adult or continuing education; or informal, such as through learning at work, within the family, or during leisure or volunteering activities. **Validation makes learning outcomes visible, regardless of where or how they were achieved.** In formal learning, valuable qualifications or certificates are typically awarded. In adult or continuing education, however, certificates of attendance are often issued instead. In informal learning, however, there is generally no evidence of what has been learnt. Therefore, **making learning outcomes visible is particularly important for non-formal and informal learning**, and providers of adult or continuing education engage in the validation of learning.

Learning outcomes represent expectations and objectives

Competence orientation is based on learning outcomes. According to the European Qualifications Framework (EQF) recommendation (2017), **learning outcomes are statements that describe what an individual should know, understand, and/or be able to do at the end of a learning process**. Learning outcomes are defined in terms of knowledge, skills, responsibility, and autonomy. They are used in qualification standards and curricula to represent goals and expectations, as well as to define and describe educational, training, and learning objectives (Cedefop, 2023, p. 38). According to Cedefop (2023, p. 34), the shift towards learning-outcomes-based qualifications in most European education and training systems is critical for the implementation of validation.

Validation confirms learning outcomes and consists of four phases

Validation means a process of **confirmation by an authorised body** that an individual has acquired **learning outcomes measured against a relevant standard**. Validation consists of the following four distinct phases (Cedefop, 2023, pp. 14-18):

- Validation starts with the **identification of learning acquired** and is where the individual becomes increasingly aware of prior achievements (phase 1).
- The **documentation** stage complements the identification stage by adding evidence and proof of acquired learning (phase 2).
- **Assessment** is normally referred to as the stage in which an individual's learning outcomes are compared against specific reference points and/or standards (phase 3).
- The final phase of validation is about the **certification** – and the final valuing – of the learning which has been identified, documented, and assessed (phase 4).

Validation can be a powerful tool for inclusion

People gain valuable knowledge and skills through various non-formal learning activities, and everyday life and work. **Recognising non-formal learning** (such as adult or continuing education) and informal learning (such as at work, within the family, or during leisure or volunteering activities) is a **powerful way to support marginalised and vulnerable adults who have been disadvantaged or excluded from formal education**. Recognising all kinds of learning is important because it can open up new opportunities. Andersson (2017) emphasises the importance of introducing and advocating for alternative pedagogical approaches where the validation of learning is seen as a learning process. Understanding validation as a learning process puts emphasis on the identification (phase 1) and the documentation (phase 2) of prior learning and learning achievements. **Identifying** what learners already know and can do, and **documenting** their learning achievements as they progress, **helps individuals recognise their potential**. The assessment of learning outcomes (phase 3) is the process of appraising knowledge, know-how, information, values, skills and competences against relevant standards. Valuing learning accomplishments and recognising the capability to learn can boost confidence and motivation for further learning. **Validation is about empowerment, not just certification of learning outcomes**.

Validation can sustain learning processes

Learning-outcomes-based qualifications and curricula and clear assessment criteria provide expectations and objectives that guide the way for educators and learners. **Transparency** is key to building understanding and enabling the co-construction of learning. When **learners know the expected learning outcomes and assessment criteria** from the start, they can **see what is ahead and how to move toward the common standard**. As validation is a learner-centred process, procedures should be **flexible and adaptable to personal preferences and specific needs**, and methods should be used that provide learners with individualised and personalised support and guidance as needed (Villalba-García & Bjornavold, 2023, pp. 41-43). **Educators help each learner to meet the common standard in a way that fits their unique needs** and starting point of their learning journey.

Competence orientation is a shift from teaching to learning

Competence orientation is a pedagogical approach that builds on learning outcomes and aims to enable learners to acquire the necessary knowledge, skills, responsibilities and autonomy to meet a relevant standard. At the heart of this approach is **a shift in focus from teaching to learning and from teacher-centred to learner-centred education**: “From sage on the stage to guide on the side” (King, 1993, p. 30). Educators therefore become **learning guides who literally take the learner's side by encouraging, advising and empowering them**. Consequently, competence orientation brings about changes in teaching practices. Competence orientation acts as **a compass for navigating personal development from the learner's perspective**. Furthermore, competence orientation empowers learners and enhances their ability to engage in lifelong learning. **With the help of learning guides, learners can learn to take responsibility for their own learning and become confident and self-directed learners**. Learning guides are essential for implementing a competence-oriented approach.

Three key pedagogical actions

Competence-oriented education is based on **three fundamental pedagogical principles**. The InDiCo validation framework is designed to support these actions and help ensure the inclusion of persons with learning difficulties in the digital age.

1) Building on prior learning and recognising learning progress

Adopting the learner's perspective means that **learning guides recognise and build on learners' existing knowledge and skills by identifying prior learning outcomes**. Learning guides **keep track of learners' progress** throughout their learning journey, which requires documenting their progress at different stages, from initial registration to final assessment. Learning guides **acknowledge the progress** each learner has made (the individual distance travelled). They take learners' personal goals into account to **facilitate a tailor-made, individualised learning process**. This ensures that the learning process remains relevant, learner-centred and transparent. Learning guides aim to acknowledge personal growth and support learners on their individual learning journeys.

2) Engaging in pedagogical dialogue

Open, encouraging and supportive conversations between learners and learning guides are central to competence-oriented education. Such **pedagogical dialogue enables learners and learning guides to reflect on their learning journey**, sustaining the **co-construction of learning**. A key feature of such pedagogical dialogue is encouraging learners to reflect on their experiences, appraise their progress, and plan their next steps in the learning process. Learning guides can contribute to the conversation by sharing their observations and perceptions. Furthermore, **the results of a (self-)assessment can provide a valuable foundation for joint**

reflection. Through pedagogical dialogue, learners are empowered to understand and make sense of the results of (self-)assessment, take ownership of their learning journey and grasp the expectations derived from the common standard. This **common standard serves as a compass, helping learning guides and learners alike to reflect on the learning process and discuss next steps** during pedagogical conversations.

3) Balancing the tension between individualisation and standardisation

The current state of validation of non-formal and informal learning highlights the **need to balance standardisation with individual learning needs** (Villalba-García & Bjornavold, 2023). Learning guides effectively address the tension between individualisation of learning and standardisation in education. This requires to balance individual learning needs with common standards. This is not achieved by prescribing learning content and one-size-fits-all approaches of teaching, but **by engaging in pedagogical dialogue with learners to jointly navigate the learning journey**.

4 Standardised frameworks for the validation of digital competences: the nautical charts

The **EU DigComp** is currently the most widely used standardised reference framework for describing, developing, and assessing digital competences across the European Union. This framework defines five main areas of digital competence and details 21 competences at different proficiency levels, enabling modularisation and validation of learning pathways.

In addition to the five competence areas that are the same as in the EU DigComp framework, **Austria had initially introduced a sixth competence area** in the Austrian versions of the DigComp (2.2 AT and 2.3 AT). In order to ensure consistency in numbering between the Austrian and the European model, the additional competence area 'Foundations, access and digital understanding' had been given the number 0 (Nárosy et al., 2022, p. 8).

Competence area 0 was introduced to ensure that everyone – regardless of age, educational background or access – has a **realistic starting point from which to build digital skills**. Many people first need basic technical and organisational skills before they can meaningfully develop the actual DigComp competences, and it has been recognised that **basic requirements** such as access to devices (computers, smartphones, tablets), the internet or basic knowledge of how to use them in practice **cannot be taken for granted**. Without these basics, many people would not be able to acquire or apply the competences in the five main areas.

As the InDiCo validation framework aims to promote basic digital competences of persons with learning difficulties at levels 1 and 2, this **competence area 0 was considered a relevant addition** to the five areas of the EU DigComp framework and was therefore also **included in the InDiCo validation framework**.

In November 2025, the updated version DigComp 3.0, was published (Cosgrove et al., 2025), and in June 2026, the publication of DigComp 3.0 AT followed (Digital Austria, 2026). Unlike the previous versions 2.2 and 2.3, DigComp 3.0 AT now also comprises five competence areas like EU DigComp 3.0. Competence area 0, the sixth competence area which was specific to the Austrian DigComp 2.2 and 2.3, no longer exists in version 3.0 AT. Its content has been integrated into various learning outcomes within the remaining competence areas of DigComp 3.0 AT (Grundschober et al., 2026).

Despite the development of DigComp 3.0 AT, **the InDiCo validation framework retains competence area 0**. Although the InDiCo framework is no longer fully consistent with DigComp 3.0 nor DigComp 3.0 AT, **this deviation was deliberately endorsed and accepted** by the InDiCo consortium for reasons of accessibility, modularity, transparent competence assessment and educational planning. The **retention of learning outcomes and assessment criteria in competence area 0** does not represent a deviation from the objective of DigComp 3.0 EU and AT, but rather a **target-group-specific elaboration, prioritising the professional expertise of**

those working with persons with learning difficulties and the voice of the learner in order to promote the digital inclusion of this target group.

Key principles for navigating with a standardised map

In the context of the **InDiCo** project, DigComp is used as a **reference for the development, assessment, and validation of digital competences for persons with learning difficulties**, particularly at levels 1 and 2 (basic levels). Standardisation is fundamental to ensure the formal recognition of these competences, while also facilitating the revision of existing educational programmes or the creation of new ones.

- **Common standard:** The DigComp framework provides a common standard, making it easier to compare and recognise acquired competences, regardless of the learning pathway (formal, non-formal, or informal).
- **Balance of standardisation and personalisation:** The validation of digital competences for persons with learning difficulties should balance standardisation (ensured by DigComp) with personalisation and adaptation to individual learners' needs.
- **Validation process:** Validation involves the four phases identification, documentation, assessment, and certification of competences, using the learning outcomes defined by DigComp and international guidelines on inclusion as references.
- **Digital inclusion:** Beyond access to technology, digital inclusion means ensuring that all citizens including vulnerable groups such as persons with learning difficulties, ethnic minorities, migrants, and others can use digital resources effectively. Frameworks like DigComp support equity and inclusion in practice and policy. The use of frameworks like DigComp supports policies and practices that foster digital equity and inclusion.

The InDiCo validation framework – a specific framework for proficiency levels 1 and 2 for persons with learning difficulties

Building on DigComp, the **InDiCo validation framework focuses on persons with learning difficulties** by identifying relevant learning outcomes for them to navigate and participate safely and effectively in the digital world. Developed collaboratively with experts and persons with learning difficulties, the InDiCo framework provides a general orientation for facilitating learning and is at the same time standardised and well adapted to **the specific needs of persons with learning difficulties**.

The standardisation of learning outcomes is not only necessary for validation, but it can also help to revise existing educational programmes or to design new ones. The InDiCo validation framework allows for the **modularisation** of educational programmes along the standardised dimensions of the DigComp. The six competence areas can be validated separately and it is hypothetically possible for learners to move from one educational provider to another.

5 Navigating the digital learning journey with the InDiCo validation framework

As described above the InDiCo validation framework can be understood as a map guiding learners with learning difficulties on their journey to digital inclusion. The goal is to **empower learners** by making their digital competences visible and supporting their individual learning journeys. The framework translates the competence-oriented approach described in Chapter 2 and the DigComp structure presented in Chapter 3 into **a learner-friendly and supportive roadmap tailored to proficiency levels 1 and 2**. It **provides orientation** for learners, facilitators, and educational providers by **making progress visible, manageable, and motivating**.

Six competence areas as routes on the map

As explained in the previous section, the InDiCo validation framework defines **six competence areas**, acting as distinct routes on the learning journey. These areas (starting from 0, as in the AT DigComp 2.3) are:

	Competence area	Activities
0	Foundations, access and digital understanding	e.g. operating a smartphone or tablet, connecting to Wi-Fi
1	Information search, evaluation, management	e.g. searching, selecting, and understanding digital information
2	Communication and collaboration	e.g. sending messages, participating in video calls
3	Content creation	e.g. writing a short text, taking and saving photos
4	Safety, wellbeing and responsible use	e.g. using passwords, identifying suspicious messages
5	Problem identification and solving	e.g. fixing simple technical issues, asking for help

25 learning outcomes as waypoints

Each area includes several **practical learning outcomes** – 25 in total – which serve as waypoints, making progress tangible and motivating. In order to identify the learning outcomes, there are various assessment criteria for each learning outcome that can be used. The **assessment criteria are written in simple, inclusive language to accommodate different literacy levels and learning needs**.

	Competence area	Learning outcome	Assessment criterion
0	Foundations, access and digital understanding	0.3 - Knowing, using, and providing inclusive forms of access to digital content	I use the speech-to-text function on my devices.
1	Information search, evaluation, management	1.3 - Managing data	I organise the photos on my mobile phone. I save them in different albums.
2	Communication and collaboration	2.1 - Interacting	I send text messages (SMS) using my mobile phone. And I check whether I've received any text messages.
3	Content creation	3.2 - Integrating and re-elaborating	I edit photos that I have taken with my mobile phone. Or audio files. Or videos.
4	Safety, wellbeing and responsible use	4.2 - Personal data and privacy	I use strong, unique passwords for all my accounts. I store them securely.
5	Problem identification and solving	5.4 - Digital competence needs	There are instructions online for most programmes. Help pages describe how to use the programme. If I get stuck, I search online for help pages.

Each of the six competence areas can be addressed and validated independently. This allows learners to focus on one competence at a time, celebrate each small success, and progress at their own pace. Each validated learning outcome is like planting a flag - a meaningful marker of achievement. The journey adapts to the learner - not the other way around. The learning guides tailor their methods to each learner's profile - ensuring a respectful and empowering experience.

Assessment as checkpoints: the degree of guidance necessary to reach the destination defines the level

Defining the **proficiency levels** is not so much about travelling to different destinations, but about the **different degrees of support needed** to reach the same places. Learners on proficiency level 1 may require step-by-step guidance, while learners on level 2 may complete the same tasks with occasional support or independently. These options recognise growth, effort, and gradual independence and not just performance.

Assessment is not a one-time test but **a recurring checkpoint for reflection, orientation, and route adjustment**. The framework uses four descriptive response sets to identify the level of autonomy from level 0 to level >2:

	Level 0	Level 1	Level 2	Level >2
Set A	I am not able to do this, even with guidance.	I am able to do this with a lot of guidance.	I am able to do this with little guidance.	I am able to do this autonomously.
Set B	I am not able to do this even if someone reminds me.	I am able to do this if someone reminds me more often.	I am able to do this if someone reminds me from time to time.	I am able to do this without anyone having to remind me.
Set C	Never	Sometimes	Often	Always
Set D	No	Yes	Yes	Yes

The InDiCo platform is your logbook. It lets you **compare your learner's self-assessment with your own observations**. It tracks your shared route and helps prepare for future voyages.

Pedagogical dialogue: reflection and guidance as a tool for shared navigation

This flexible model fosters honest reflection and supports individual progress. It balances the learner's self-assessment with the facilitator's observation, enabling a holistic view of competence. **Assessment results spark a dialogue between learner and learning guide**. These conversations celebrate progress, identify challenges, and plan next steps together. For example:

"In your self-assessment you mostly chose the option 'I am able to do this with a lot of guidance' when it comes to the learning outcome 'Managing data, information and digital content'. I came to the same conclusions. What do you think of exploring this topic further so you do need less guidance in the future - how does that sound to you?"

This approach promotes ownership, motivation, and self-efficacy. While this manual focuses on the InDiCo-related aspects of assessment and validation, training and a broad inclusive pedagogical communication are also essential elements for the successful learning journey.

The competence framework: a core curriculum to define the regions the journey should cover

The InDiCo validation framework can be seen as a core curriculum that provides guidance for both learning facilitators and learners on the relevant basic competences for digital inclusion and

participation. It **provides clarity on standardised learning outcomes** and **information on relevant learning content underpinned by assessment criteria**. However, learning processes need to be tailored to the individual. Learning guides support learners on their individual educational journey and design the respective learning path together with the learners. This requires educators who support learning in a learner-centred, competence-based way, designing learning processes in a participatory way together with the learners.

Certification: a voluntary step to confirm the proficiency level at the end of a learning journey

The InDiCo validation framework respects **the principle of voluntary participation of learners**. There is no obligation for learners to take the assessment or to certify learning outcomes. The InDiCo validation framework is not meant to be a mere certification tool. Its **main purpose is to support the learning process (assessment for learning)**. Therefore, individual pedagogical guidance is needed to determine whether certification as the ultimate step of a learning journey makes sense for the learner. Those who wish to obtain an InDiCo certificate must be well advised by the learning provider at the beginning of the learning process. Educational providers can issue a confirmation of attendance that provides information about the content taught. Unlike a confirmation of attendance, the InDiCo certificate and supplement provide information about what a learner knows, understands and is able to do.

6 The InDiCo online platform: digital log book and navigation tool

The InDiCo online platform can be seen as a digital logbook for the learning journey. It tracks the progress for two different types of assessment:

- a (self-)assessment during the learning journey in order to determine where the learners stand at any moment of the journey, and a
- the final assessment by two different assessors at the end of a learning process that can lead to a certificate.

As explained in Chapter 5, the InDiCo online tool supports every stage of the learning journey. It is easy to use and visually structured, acting as a reliable digital companion without creating stress. By combining technology with personal support, InDiCo bridges the digital and human aspects of learning validation and encourages review, reflection, and shared planning.

Since the aim of the learning journey is to acquire and develop basic digital competences, there are **no entry requirements for the InDiCo validation**. Learners do not need to demonstrate any previous knowledge or skills to start their learning journey. However, **the InDiCo tool can be used at the beginning of the learning journey** to get an orientation where learners stand on the map before the journey starts. This step helps planning the individual learning path and determining what is needed to reach their learning goal. The **starting point can be identified** by comparing the learner's self-assessment of the digital competences defined in the InDiCo framework with the assessment by the learning guide.

Such a **comparison of the self-assessment with the assessment by the learning guide** can also be helpful **during the learning journey** to identify what has already been learned, if the traveller and the guide are still on track, and what the next learning steps should be. These **interim assessments** are best carried out in the learning situation itself and serve as a means of documentation.

If desired and agreed with the learner, **the InDiCo tool can be used to certify that a learner has successfully completed the learning journey on a specific level**. In this case, there is no self-assessment but two learning guides have to assess the level of competence to ensure an objective result due to the four-eye-principle.

In each step, in which the InDiCo tool is used for assessment, **reports of the results of the (self)-assessment or a comparison of self- and external assessment** can be generated to be used as a basis for pedagogical dialogues.

Roles and rights

Every traveller and guide is registered on the InDiCo platform with their specific roles. Depending on the role, the different users of the platform have access to different features.

Learners and educators can access the frontend of the online platform to either do a self-assessment or to assess all learners that are assigned to them.

Educators with administrator rights also have access to the backend of the platform where they can manage learners, assessors and catalogues. Managing means that they create accounts for learners and assessors, assign competence catalogues and assessors to the learners, organise the reporting and certification processes.

The frontend

The learning outcomes and especially the assessment criteria are formulated in easy to read language and the InDiCo tool is easy to use if learners want to carry out a self-assessment.

After login the users can select a competence area and the competence(s) they want to (self-)assess. For each assessment criterion **four answer options are displayed as text and additionally symbolised with icons**. They describe the degree of guidance needed or how frequently an activity is performed. By clicking on the appropriate options users work their way through the catalogue of competences defined for each learning outcome. Their selection is saved in the platform and they can stop anytime and resume later until the (self-)assessment is completed. In the final assessment, the proficiency level of a learner is automatically calculated based on the given responses.

0. Foundations, access and digital understanding

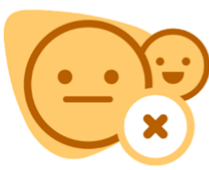
He/She explains the difference between digital devices and non-digital devices.



I am able to do this autonomously.



I am able to do this with little guidance.



I am able to do this with a lot of guidance.



I am not able to do this, even with guidance.

1 / 35

< BACK

PAUSE ||

LATER >

The backend

The backend of the platform can be accessed by the learning guides who are responsible for organising the learning journeys. This area of the platform offers all necessary features for managing the digital assessment and validation process.

- For every participant of the journey, being learner or learning guide, a user is created and access data are defined.
- Each assessor is assigned to one or more learners.
- For each learner, the progress on the interim assessments and of the final assessment is shown and reports can be generated at any stage of the process.



When it comes to the final assessment which is done in a four-eyes-principle by two assessors, **both assessors need to agree on a joint assessment** to generate a certificate. This comparison as well as the creation of the certificate is also done in the backend.

The detailed description of how to use the features of the InDiCo platform can be found in the **InDiCo platform user manual**.

7 References to training materials customised to the needs of the target group

The InDiCo project identified and analysed a wide range of training materials already in use across partner countries, designed to support the development of basic digital competences for persons with learning difficulties (PWLD), aligned with levels 1 and 2 of the European DigComp framework. These materials provide practical examples of adaptable resources and methodologies that trainers can use to develop customised, inclusive learning paths. Below is a summary of the findings grouped by category and country examples.

A. Assessment and self-diagnosis tools

DigComp framework (all countries): Used as a common standard for structuring assessment and training.

Europass – “Test your digital skills” (all countries): Generates personalised reports with suggested learning pathways.

Fundae Digital Skills Test (Spain): Free, accessible tool providing a personalised report with DigComp-aligned recommendations.

Self-assessment materials from Mondragon Unibertsitatea (Spain): Videos and questionnaires for assessing skills such as technical problem-solving and creativity.

Digital Diagnostic Platform of the Andalusian Digital Agency (Spain): Interactive self-assessment with recommended learning itineraries.

Dig-CERT Tool (Austria): Digital competences questionnaire adapted for accessibility.

DiWi-Pass (Austria): Workshop-based certification for women in vulnerable situations.

Digital Check NRW (Germany): Easy-to-read assessment tool to measure basic digital skills.

B. Training tailored to the target group within project partner entities

Fundación Rey Ardid (Spain)

Offers in-house training activities focused on developing basic digital skills for people with disabilities and learning difficulties, using inclusive, visual, and practical methodologies. Tools such as pictograms and adapted rubrics are used, with individualized support.

Fundação AFID Diferença (Portugal)

Use of visual methods and tools such as guided videos and interactive practical exercises. Collaboration with universities and vocational training centers to adapt content for people with special needs.

Theotokos Foundation (Greece)

Materials focus on practical usability: mobile navigation, email, and basic search tools. Digital learning is integrated into everyday contexts (e.g., accessing health services).

Mariaberg e.V. (Germany)

Implementation of modular training in day centers and sheltered workshops, combining classroom lessons with hands-on practice using digital devices. Development of adapted tracking templates and evaluation tools in easy-to-read language.

Chance B (Austria)

Implementation of modular training in day centers and sheltered workshops, combining classroom lessons with hands-on practice using digital devices by following an individualised competence-centred approach

C. Inclusive and/or institutional initiatives

Spain:

- **Plena Inclusión – Digitalízate:** Easy-to-read content and ICT adaptation.
- **Fundación Cibervoluntarios – YoConecto:** Free training for vulnerable groups.
- **Aula Mentor:** Online platform from the Ministry of Education for adults with special needs.
- **Generación D Programme:** Resources tailored by level and profile.
- **Regional Teacher Training Centre of Castilla-La Mancha:** Transferable teacher training materials.
- **ARASAAC:** Pictogram bank for creating accessible content.
- **Por Talento Digital – Essentials:** Modules on Go Digital, Proactive Smartphone, and Digital Security.

Austria:

- **Easy4Me.info:** Interactive resources on navigation, email, and safety.
- **ENARIS:** University project promoting safe digital practices.
- **Saferinternet.at :** Fight Fake: Training on critical thinking and misinformation.
- **Digital überall PLUS:** Free workshop series for beginners in digital technology

Portugal:

- **GCompris:** Educational suite with interactive games.
- **Wordwall:** Customisable, level-adjusted visual activities.

Greece:

- **Photodentro:**
“The computer as a multifunctional tool”- Tutorial on computers and internet.
“Safe Internet Navigation”: Online tutorial on internet safety.
- **Zoi Centre:** Custom materials for day care users (on request).

Germany (Mariaberg e.V.)

- **Ich und Digital:** Programme for adults with little or no digital experience.
- **Mouse Training:** Web-based tool for learning mouse skills.
- **Kahoot & Menti:** Gamified evaluation tools.
- **SchlaU Lernen Project:** Training in email, job search, and formal communication.

D. Didactic methodologies and adaptation approaches

The project also highlighted key pedagogical principles embedded in the materials:

- Use of clear, easy-to-read language.
- Multisensory and visual learning approaches (e.g., pictograms, videos).
- Small group work and individualised attention.

- Gamification to increase motivation.
- Real-life tasks to anchor learning (e.g., booking an appointment online).
- Formative and flexible assessment.
- Trainers with expertise in supporting learners with functional diversity.

These materials and practices illustrate the diversity and adaptability required to meet the needs of PWLD. Trainers are encouraged to draw on these examples to create inclusive, learner-centred pathways that foster autonomy, confidence, and digital inclusion.

8 Conclusion

The journey towards digital competence is not a leisurely round trip, but a lively expedition: just when we have left one harbour behind us and believe we have mastered the most important aspects, new coastlines are already appearing on the horizon. Technologies are changing, usage scenarios are shifting and previously unknown questions about data protection, ethics and accessibility are emerging like unexplored islands. Standing still is not an option here - every skill learnt is also a springboard for the next discovery.

As a learning guide, you take on the role of a skipper and escort the ship in this constant movement. You help the learners not only to set the course, but also to keep an overview in heavy seas: You show them how to trust reliable sources, make rational decisions and find creative solutions when systems get stuck or digital cliffs loom. Your support encourages experimentation, gives you the courage to take the helm yourself in uncharted waters and learn valuable lessons from small failures.

Adult learning providers and educators need to be aware that validation of non-formal and informal learning is not about being able to issue a certificate quickly. Validation takes time to become effective as a pedagogical process and practice. The aim is to use the InDiCo validation framework to support good, learner-centred and competence-oriented facilitation of learning and to promote individual competence development.

By combining a modular structure, collaborative dialogue, and a focus on individual strengths, the InDiCo approach brings together motivation, competence orientation, accessibility, and practical digital support. With its 25 learning outcomes across six competence areas, the framework offers a concrete, respectful and motivating path for persons with learning difficulties - making the digital world more accessible, one milestone at a time. The journey may include discovering new islands, and occasionally getting lost - only to find your way again. And every small flag planted is a reminder that this journey matters.

So set off with your crew, check the wind together and adjust the sails: plan stopovers for reflection, celebrate stage successes as a team - and always keep room for spontaneous course changes if a promising innovation appears at the edge of your route. In this way, learning turns from a one-off event into a continuous journey of discovery, in which each crew member matures from passenger to being an active navigator of one's own learning journey.

Let's head for the digital horizon together - for more participation, inclusion and self-determined shaping of a world that is reinventing itself every day.

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