

How can educators develop their digital competence?

This chapter describes more in depth what it means for educators to be digitally competent. For each of the 22 elementary competences, the competence descriptor is complemented by a list of typical activities. A progression model along six levels is proposed, for which a rubric with proficiency statements for self-assessment is supplied.

Terminology

Competence descriptor

The title and a short description. The short description may consist of one or several sentences. It aims to concisely and comprehensively describe the competence in question. This description is the main reference. Any activity that can be subsumed under this description should be considered an expression of this competence. Any activity that falls outside of the descriptions' scope is not part of this competence.

Activities

A list of activities that are examples of this competence. This list serves to indicate to framework users what kinds of activities are covered by the competence in question. However, this list is not exhaustive: it illustrates the focus and scope of the competence, without delimiting it. Furthermore, as digital technologies and usage patterns evolve, some of the activities listed may cease to be applicable and others may need to be added.

Progression

A generic description of how this competence manifests itself at different proficiency levels. The progression is cumulative in the sense that each higher-level descriptor comprises all lower-level descriptors. The progression follows the logic inherent in the competence in question, which may be different from that of other competences.

Proficiency statements

A series of proficiency statements exemplifying typical activities at each proficiency level. This list of statements is subject to continuous revision and should only be considered as a means of illustrating the proficiency progression. Since the progression of proficiency levels is cumulative, a person competent at an advanced level should be able to perform the activities at this level and all lower levels, with the exception of the lowest level (A1).

Digital technologies

Throughout the tables the concept of “digital technologies” is employed as an umbrella term for digital resources and devices, thus comprising any kind of digital input: software (including apps and games), hardware (e.g. classroom technologies or mobile devices) or digital content/data (i.e. any files, including images, audio and video). For more detailed information on the terminology used in this report, please refer to the glossary.



Progression model

The proposed progression model is intended to help educators understand their personal strengths and weaknesses, by describing different stages or levels of digital competence development. For ease of reference, these competence stages are linked to the six proficiency levels used by the Common European Framework of Reference for Languages (CEFR), ranging from A1 to C2.

There are several advantages to using the CEFR taxonomy: Since the CEFR levels are widely known and used, it is easy for educators to understand and appreciate their personal level of digital competence. Furthermore, the use of these established levels gives coherence to European frameworks. From a practical point of view this means that, when stating their level of educator-specific digital competence in their CV, educators can refer to the same levels as for their language competence. More importantly, since educators know that their language competence levels may differ when comparing, e.g., their listening, speaking and writing skills, it will be natural for them to accept that their digital competence has to be appreciated by area and may differ widely from one area to another. This will make it easier for them to concentrate on their specific development needs. Finally, from a conceptual point of view, CEFR organises the six levels in three blocks, which reflects the fact that while the levels A1 and A2, B1 and B2 and C1 and C2 are closely related, there is a cognitive leap between A2 and B1 and B2 and C1 respectively. This is also true for the DigCompEdu competence progression.

However, the great disadvantage of these levels is that they could be perceived as threatening. The main objective of the proposed DigCompEdu progression model is to support continuous professional development. It is not intended as a normative framework or as a tool for performance appraisal. On the contrary, the 22 competences are explained in six stages to inform educators about where they stand, what they already have achieved and what would be the next steps if they want to further develop this specific competence. The proficiency statements are designed to celebrate achievements and to encourage educators to develop their competences, by indicating small steps that will eventually, step by step, increase their confidence and competence. The main idea of the proficiency progression is to make explicit the different stages through which each elementary competence usually develops, so as to help educators identify and decide on the specific measures to take to boost their competence at the stage they are currently at.

Thus, to encourage educators to use the DigCompEdu framework as a tool for their professional development, it was decided to couple CEFR levels with motivating role descriptors, ranging from *Newcomer (A1)* to *Pioneer (C2)*. These descriptors are intended motivate educators at all levels to positively appreciate their achievements and to look forward to expanding them further.



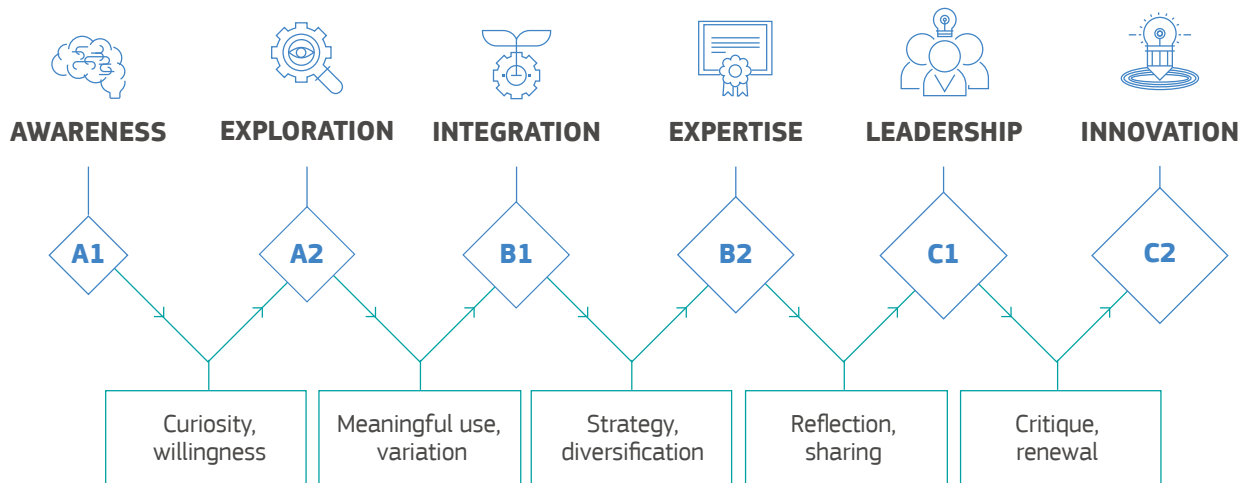


FIGURE 5: DIGCOMPEDU PROGRESSION MODEL

These stages and the logic of their progression are inspired by Bloom's revised taxonomy¹. It is widely accepted that this taxonomy explains the subsequent cognitive stages of any learning progress well, from "Remembering" and "Understanding", to "Applying" and "Analysing", and finally to "Evaluating" and "Creating". Similarly, in the first two stages of DigCompEdu, *Newcomer (A1)* and *Explorer (A2)*, educators assimilate new information and develop basic digital practices; at the following two stages, *Integrator (B1)* and *Expert (B2)*, educators apply, further expand and reflect on their digital practices; at the highest stages, *Leader (C1)* and *Pioneer (C2)*, educators pass on their knowledge, critique existing practice and develop new practices.

The labels for each competence level were selected to capture the particular focus of digital technology use typical for the competence stage. For example, to be at, say, *Integrator (B1)* level as concerns teaching practices (Area 3), means that the educator's current competence development focus is on integrating a range of digital

technologies in teaching and learning. It implies that the next step for this person's digital competence development would be to move to the *Expert (B2)* phase, i.e. to gain more confidence, to better understand what works, when and why, and to be able to find suitable and innovative solutions, including ones for tricky situations.

In this sense, the descriptors also relate to an educator's relative strengths and roles within a professional community. For example, within a team of educators collaborating on a project, an *Integrator (B1)* is ideally suited to sourcing new ideas and tools, whereas the colleague at *Expert (B2)* level may be better at deciding how to go about implementing these; the colleague at *Explorer (A2)* level can best identify the possible problems learners may encounter in the use of the digital technologies involved, and the role of the *Leader (C1)* or *Pioneer (C2)* of the team would be to shape the project so as to seize the innovative potential of digital technologies in enhancing learning and empowering learners.

1. Anderson, L.W., and D. Krathwohl (Eds.) (2001). *A Taxonomy for Learning, Teaching and Assessing: a Revision of Bloom's Taxonomy of Educational Objectives*. Longman, New York.

Proficiency levels

In general, the following characterisations apply to the different competence stages:

Newcomer (A1):

Newcomers are aware of the potential of digital technologies for enhancing pedagogical and professional practice. However, they have had very little contact with digital technologies and use them mainly for lesson preparation, administration or organisational communication. Newcomers need guidance and encouragement to expand their repertoire and to apply their existing digital competence in the pedagogical realm.

Explorer (A2):

Explorers are aware of the potential of digital technologies and are interested in exploring them to enhance pedagogical and professional practice. They have started using digital technologies in some areas of digital competence, without, however, following a comprehensive or consistent approach. Explorers need encouragement, insight and inspiration, e.g. through the example and guidance of colleagues, embedded in a collaborative exchange of practices.

Integrator (B1):

Integrators experiment with digital technologies in a variety of contexts and for a range of purposes, integrating them into many of their practices. They creatively use them to enhance diverse aspects of their professional engagement. They are eager to expand their repertoire of practices. They are, however, still working on understanding which tools work best in which situations and on fitting digital technologies to pedagogic strategies and methods. Integrators just need some more time for experimentation and reflection, complemented by collaborative encouragement and knowledge exchange to become *Experts*.

Expert (B2):

Experts use a range of digital technologies confidently, creatively and critically to enhance their professional activities. They purposefully select digital technologies for particular situations, and try to understand the benefits and drawbacks of different digital strategies. They are curious and open to new ideas, knowing that there are many things they have not tried out yet. They use experimentation as a means of expanding, structuring and consolidating their repertoire of strategies. Experts are the backbone of any educational organisation when it comes to innovating practice.

Leader (C1):

Leaders have a consistent and comprehensive approach to using digital technologies to enhance pedagogic and professional practices. They rely on a broad repertoire of digital strategies from which they know how to choose the most appropriate for any given situation. They continuously reflect on and further develop their practices. Exchanging with peers, they keep updated on new developments and ideas. They are a source of inspiration for others, to whom they pass on their expertise.

Pioneer (C2):

Pioneers question the adequacy of contemporary digital and pedagogical practices, of which they themselves are *Leaders*. They are concerned about the constraints or drawbacks of these practices and driven by the impulse to innovate education even further. Pioneers experiment with highly innovative and complex digital technologies and/or develop novel pedagogical approaches. Pioneers are a unique and rare species. They lead innovation and are a role model for younger teachers.

For all competences, the progression of proficiency levels is cumulative in the sense that each higher level descriptor comprises all lower level descriptors, with the exception of the first level, *Newcomer (A1)*. E.g., to be an *Expert (B2)* means to be able to subscribe to all statements at levels A2 to B2, but not to those at C1 and C2 level. The *Newcomer (A1)* level is largely described by the absence of certain competences, i.e. knowledge, skills or attitudes, present at the A2 or higher levels. Thus, *Explorers (A2)* are those who have overcome the concerns or doubts present at the *Newcomer (A1)* level.

For each competence a specific progression applies, depending on the characteristics of the competence in question and the way it typically evolves as a higher level of proficiency is obtained. However, some key words are common to the same level of proficiency across the competences of one area. These are indicated in Table 8.



TABLE 8: DIGCOMPEDU PROFICIENCY PROGRESSION BY AREA



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