

DECODE



IO4: Practices, training and skills needs of the digital teachers

National Research: Romania

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Erasmus+

DECODE: 2016-1-IT02-KA201-024234

Co-funded by the Erasmus+ Programme of the European Union



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“PRACTICES, TRAINING AND SKILLS NEEDS OF THE DIGITAL TEACHERS”

National report - Romania

Introduction

This report is based on a template for the quantitative national research, that each country partner has carried out at local level, as part of the Intellectual Output 4 of the [DECODE Project](#).

The template was developed by Link Campus University with the aim to make it a reference for all national teams, to give a common grid to analyse the collected data, to present general guidelines to write and to present the national reports and to offer a proposal for the national researches index.

The report is structured in five main sections:

- Sample description
- The framework of teachers' personal views regarding using digital technologies
- The reconstruction of the practice
- Teachers among training and accompaniment needs
- The identikit of the "digital teacher". Personal issues and career profiles

The first chapter describes the sample involved in the survey and its distribution by age, gender, school level, teaching subject, institutional role, etc. The second chapter is devoted to the presentation of research results through reconstruction of the practices that have been identified. The third chapter focuses on updating teachers and their training needs. We therefore explore) the updated experiences of teachers; 2) the self-assessment of digital skills according to DigCompEdu Framework 2017 and 3) the representation of the "digital teacher" in the national context as emerges from the portrait depicted in relation to needs expressed in relation to digital technologies in professional and didactic practice. The fourth chapter illustrates teachers' personal views regarding using digital technologies (beliefs and motivations). Finally, the last chapter describes the identikit of the 'digital teacher' highlighting aspects of career and career profiles and aims to highlight the teacher as an 'agent of change', his propensity to innovate, the use of digital resources in class, the use of social networks. The conclusions give an overview of the whole research.



1. Sample description

A total of 396 answers were received. Of these, we have eliminated 105 because they were incomplete. All interpretations made refer to the sample of 291 complete answers.

Distribution of respondents by school type (q0001)

In Romania, pre-university education is structured in several cycles:

- preschool (nursery and kindergarten) education – before the age of 6;
- primary school - grades 0 (preparatory) – IV;
- gymnasium - grades V-VIII;
- high school - four or five classes (grades IX-XII / XIII);
- vocational education which can continue or replace the high school in preparing students for careers based on manual or practical activities;
- post-secondary education may take between 2 and 5 years.

By the type of school (**see Table 1.**), out of the 291 respondents, 38.1% are teaching in lower secondary education, 36.8% are teaching in upper secondary, 10.3% in primary school, 6.9% in early years, and 7.9% in VET.

Distribution of respondents by Region (q0002)

A total of 41 counties, along with the municipality of Bucharest, constitute the official administrative divisions of Romania. The respondents are teachers from 32 counties (**see Table 2.**) and the highest percentages of respondents are in Iași county with 14.8%, followed by Bucharest with 10.7%, the other counties having less than 10%. The distribution of the respondents is similar with the distribution of the entire population in Romania, as Bucharest has the biggest number of inhabitants in Romania, but Iași is over-represented.

Distribution of respondents by residence

Out of the 291 respondents, 75.9% are teaching in the urban area and 24.1% teach in rural areas. In comparison with the distribution of the entire population in Romania (56.41% urban area and 43.59% rural area), higher percentages of population in urban area responded to our questionnaire (**see Table 3.**).

Teacher age range (q0003)



In relation to the age of the respondents, nearly half of them (45%) are in the age group of 41 to 50 years, 26.5% are part of the 31-40 age group, and 23% are aged 51-60 years, while teachers up to 25 and teachers over 60 participated in lower percentages to our survey (0,7% respective 1,7%) (**see Table 4.**).

Teacher gender (q0004)

90,7% females and 9,3% male participated in the study. This reflects the gender distribution within the pre-university education system, with a higher number of female teachers than male in Romania (**see Table 5.**).

Teaching area covered over the last three years (q0005)

Concerning the teaching area (**see Table 6.**), respondents were able to choose multiple answers as the Romanian educational laws allow teachers to teach different subjects according to their initial education (for example, teachers from pre-primary education are teaching most of the subjects to their students). Related to the discipline taught in the last 3 years, 35,1% of the respondents teach Science (with reference to all scientific disciplines, including geography and natural sciences), 21.3% Social sciences, 16.2% Literacy and 17.2% Numeracy. Low percentages of the respondents are teaching Religious education (0,2%), Physical education (3,2%) and Ethics and Democratic Citizenship (5,2%).

In the section “Other”, respondents also mentioned other disciplines that they teach, for example: economic discipline, health and healthy lifestyle, pre-school education, school and professional counselling and guidance, psychology.

Type of contract in the school (q0006)

To become a teacher in Romania one has to pass a national exam according to initial education. After passing the exam, teachers obtain a permanent work contract (*profesor titular*). The unoccupied places remained after the exam are distributed to teachers which will hold a temporary contract (*profesor suplinitor*). For each subject, the Teaching Staff Statute (Law 128/1997) establishes the initial training requirements in order to be eligible for teaching and for the national exam (e.g.: education level, the professional training that have to be completed and passed by the prospective teachers).

Only persons complying with these requirements are considered qualified for the considered position. Consequently, for a given level of education, teachers work under similar conditions across the country. In our study, most respondents said they had a permanent contract (92,8%), only 7.2% had a temporary contract (**see Table 7.**).

Teaching role covered over the last three years (q0007)



Most respondents (**see Table 8.**) are teachers who have a teaching role (92.4%) because they are primarily experts in teaching and learning, and they can make decisions about everything that happens in the learning process, 12.4% occupy a management role or have a leadership role in the respective institution.

Role as digital coordinator in the school (q0008)

Over the years, teachers have been constant promoters of innovation in our educational institutions. However, as far as the integration of ICT is concerned, many people do not have the necessary skills for pedagogical use of ICT. Regarding the coordination role in ICT/digital media (**see Table 9.**), only 20.3% of respondents said they had such a role. We can say that in order to assume the new roles, teachers need, besides digital literacy, also to develop the skills of advanced use of information and communication technology.

Qualification level

Regarding the qualification level (**see Table 10.**), the majority of the respondents have the level I (69,1%), while the respondents with level II (14.8%) and the permanent status (13.1%) are about the same representatives. In Romania the professional degrees of a teacher's career are the main incentive for evolution in the teaching profession – the higher the professional degree, the higher the esteem and formal recognition within the education system. Advancement in one's teaching career is comprised of two professional levels named "didactic degrees" (*grade didactice*), which can be obtained after achieving the definitive status as a teacher (*definitivat*), under certain conditions:

- the definitive degree (permanent status, *definitivat*) certifies every graduate as a teacher after at least two years of teaching practice (it is compulsory for any graduated student who wants to become a teacher); this stage is considered the final stage of the initial training;
- didactic degree II (level II, *gradul II*) can only be achieved if the definitive degree has been achieved and only after four years of teaching after getting the definitive degree certificate (it can be possible even after three years only if the definitive degree was achieved at the highest level of performance);
- didactic degree I (level I, *gradul I*) can only be achieved if degree II has been formerly achieved, and only after four years of teaching after getting the didactic degree II certificate (it can be possible even after three years only if degree II was achieved at the highest level of performance).



2. Teachers' personal views regarding using digital technologies

Beliefs on uses and benefits of digital teaching tools (q0023)

Regarding the use and benefits of digital teaching/ learning tools (**see Table 11.**), the majority of the respondents “strongly agree” and “agree” that the use of knowledge and learning management technologies helps **when designing and organising educational materials** (98,9%), promotes the **development of basic skills** (83.9%), promotes **the development of responsible media and digital skills** (95.6%), creates **positive learning outcomes by influencing how learners behave** (94.5%), and that **using such technologies does not replace traditional didactics** (89.4%), encourages **self-assessment among students** (87,6%), supports the **integration of the e-learning into teaching activities**, alongside traditional classroom-based teaching methods online learning component into the classroom (94,2%) and that **daily use of technology in the classroom is not enough**, students need to learn how to use books (98%). Higher percentages of respondents “disagree” and “strongly disagree” that the use of knowledge and learning management technologies **would favor cyberbullying** (56,7%%), would represent a **distraction** for pupils (66.3%), would **not contribute to improving educational processes, learning outcomes** (79,7%).

Motivation to use digital instruments in your didactic and professional practice (q0024)

Low percentages of respondents declare that they are “never” using in their practices digital technologies for all items under scrutiny (**see Table 12.**). The majority of the respondents declare that they are “always” and “often” using such digital tools as they contribute to strengthening and expanding the **professional network** (90%) and they are helping **their personal and professional development** (97,9%). Lower percentages of teachers in comparison with the above two items (over 20% difference) declare that they are “always” and “often” using digital tools in didactic and professional practice because they contribute to **consolidating and expanding the relational and social capital** (76,3%) and are useful in **leisure** (culture, hobbies, entertainment, tourism - 74%).

Perception of the utility of digital tools and technologies (q0013)

Very low percentages of respondents consider “not at all useful” the digital tools for all items under scrutiny (3,8%-0,7%) (**see Table 13.**). High percentages of respondents consider that these tools are “useful” and “very useful” for the **integration of formal learning with non-formal and informal learning** (76.6%), for **improving**



teachers` CDP (72,8%) as well as for **the integration of communication, collaboration and coordination** between relevant teachers, students and organizations (69.1%). Lower percentages in comparison with the above items (differences over 20%) consider the digital tools to be “useful” and “very useful” for increasing the **efficiency** of learning (56.7%) and for **linking of school activities with practical activities in enterprises** (51.5%).



3. Teaching practice in ICT

Use of digital tools and technologies

Frequency of use of digital resources in the classroom for teaching activities (q0009)

Respondents say they most often use office and similar tools for text editing, spreadsheets, presentations - 43.3%, audio/video downloading software - 47.1%, and resources for creating/editing audio and video content - 40.2%, because visual and video materials create strong emotions and increase student concentration during their pursuit, and learning is more effective when pupils are actively trained in creating such materials. They always use (56.4%) or often use (38.8%) search tools in their teaching activities (see Table 14.).

With regard to the use of digital environments for learning, information exchange, communication and online collaboration (online platforms, websites, blogs, social and educational networks, gaming, non-formal approaches), digital educational content and OER (open learning resources) and multimedia educational programs on subjects, the opinions of the respondents are divided, because some teachers often use them and others only sometimes. More than half of respondents say they never use (53.6%) sequential programming, very few say they sometimes use it (28.5%). Probably because they do not have the necessary notions for using such a tool.

Overall, higher percentages of respondents say they “never” use in the classroom **coding - computational thinking** (53.6%) or **resources for creating blogs, websites** (39,2%), in comparison with other tools. Higher percentages of respondents say they are “always” and “often” using **search tools** (95,3%) and **office and similar tools for text editing, spreadsheets, presentations** (85%) in comparison with other tools.

Familiarity with the main teaching practices in use (q0010)

Regarding the knowledge and use of digital teaching methods in the classrooms, higher percentages of respondents say they are “not aware” of **active methodologies** (42.6%) in comparison with the other digital teaching methods. Higher percentages of respondents declare that they “use” **project-based learning** (68%), **problem-based learning** (66,3%) and **case-based learning** (58,8%) in the classroom in comparison with other digital teaching methods (differences over 20%) (see Table 15.).



Use of digital technologies for assessment methods (q0011)

According to respondents' declarations, high percentages of teachers are integrating digital tools for assessment methods like **portfolios** (83.2%), while the lowest percentages of respondents are integrating digital tools for **conceptual maps** (31,6%). There are very few respondents who answered that they do not integrate digital tools in any of the assessment methods (4.5%) (see **Table 16.**).

We can say that the most used method of respondents was the portfolio because it is a way of working through which pupils can use their knowledge, a tool that combines assessment with continuous and progressive learning, a "visiting card" of the pupil, through which teacher can follow progress - in a cognitive, attitude and behavioural approach to a certain discipline, over a longer period of time.

Frequency of activities as part of teaching (q0012)

High percentages of teachers declare that they are "never" using digital tools as part of the teaching activities(see **Table 17.**): 68,7% are never using **online student assessment** and 50,5% are never encouraging **interdisciplinary projects through the use of online technologies**, while for the other tools percentages vary between 38,5% (**creative work using online applications**) and 15,1% (asking students **to document online what they have learnt**).

Other teachers declare that they are using "sometimes" different digital tools for teaching like giving themes of **online documentation** on certain topics to children (47.4%), **collaborative work online** (42.3%), **creative activities using online applications** (41.6%), involvement of students in **interdisciplinary projects** through online technologies (33.7%), regular **online communication** with students (emails, forums, blogs, etc.) to extend the learning process outside the classroom (33.3%), while low percentages are involving "sometimes" the students in **online assessment** (22.3%).



4. Training needs of teachers

4.1 Training and updating

Training attended around using digital technologies in education (q0014)

Percentages of teachers' options for training to apply ICT for formal education (59,1%) are close to those for non-formal (55%) and less for informal education (43,6%). It can be observe that a high percentage of respondents, between 40,9% and 56,4%, were undecided, saying they do not know or cannot assess whether or not they needed training in this regard (see Table 18.).

As forms of organizing training, the participating teachers had a choice between blended learning, face-to-face or only full online. It can be observe that the blended training (58,8%) prevails, followed at small distance by the face-to-face training (52,9%); just 20,3% followed training only online.

4.2 Self-assessment of digital skills of teachers according to DigCompEdu

The digital competency level of teachers is designed by Digital Competence Framework for Educators, shortly, DigCompEdu. This mapped into the proficiency level, ranging from A1 – Newcomer, to C2 – Pioneer. So, according to European document, such level has following characterisations apply:

- *Newcomers (A1) have had very little contact with digital tools and need guidance to expand their repertoire.*
- *Explorers (A2) have started using digital tools without, however, following a comprehensive or consistent approach. Explorers need insight and inspiration to expand their competences.*
- *Integrators (B1) use and experiment with digital tools for a range of purposes, trying to understand which digital strategies work best in which contexts.*
- *Experts (B2) use a range of digital tools confidently, creatively and critically to enhance their professional activities. They continuously expand their repertoire of practices.*
- *Leaders (C1) rely on a broad repertoire of flexible, comprehensive and effective digital strategies. They are a source of inspiration for others.*
- *Pioneers (C2) question the adequacy of contemporary digital and pedagogical practices, of which they themselves are experts. They lead innovation and are a role model for younger teachers.*

Professional Engagement (q0015).

For “Organisational communication: To use digital technologies to enhance organisational communication with learners, parents and third parties. To contribute to collaboratively developing and improving organisational



communication strategies.”, the dominant level is B1 (33,7%), followed by B2 (22%) and A2 (21,6%) - which can be considered equal, C1 (10,3%), A1 (7,9%) and C2 (4,5%). Most of respondents are self-assessed as being competent in using organisational communication, with only 29,9% are to level A. This means almost a third by respondents need training for organisational communication. Newcomers 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. The explorers need encouragement, insight and inspiration, example and guidance, embedded in a collaborative exchange of practices.

For „Professional collaboration: To use digital technologies to engage in collaboration with other educators, sharing and exchanging knowledge and experience and collaboratively innovating pedagogic practices.”, the diagram are similar, but the percentages are: B1 (33%), succeed by B2 (24,1%), A2 (16,5%) close to C1 (15,1%), C2 (7,2%) and A1 (4,1%). Most of respondents are self-assessed as being competent in using organisational communication; only 20,6% are to level A, meaning that one fifth of teachers need training for professional collaboration.

For „Reflective practice: To individually and collectively reflect on, critically assess and actively develop one’s own digital pedagogical practice and that of one’s educational community.”, the results are: B1 (29,2%), succeed by B2 (24,7%) and A2 (18,2%), C1 (14,4%), A1 (8,6%) and C2 (4,8%). Most of respondents are self-assessed as being competent in using organisational communication; only 26,8% are to level A. A quarter of the teachers need training for reflective practice.

For „Digital Continuous Professional Development (CPD): To use digital sources and resources for continuous professional development.”, the results are: B1 (29,2%), succeed by B2 (22%) close to C1 (21%), A2 (13,7%), C2 (10,3%) and A1 (3,8%). Most of respondents are self-assessed as being competent in using organisational communication; only 17,5% are to level A.

For complete results **see Table 19.**

Digital Resources (q0016).

For „Selecting digital resources: To identify, assess and select digital resources for teaching and learning. To consider the specific learning objective, context, pedagogical approach, and learner group, when selecting digital resources and planning their use.”, the results are: B1 (38,8%), succeed by B2 (20,3%) close to C1 (13,7%), A2 (18,6%), C2 (4,2%) and A1 (3,8%). Most of respondents are self-assessed as being competent in using organisational communication; only 22,4% are to level A, comparative with 18,5% that are self-assessed as 18,5% to the level C.

For „Creating and modifying digital resources: To modify and build on existing openly-licensed resources and other resources where this is permitted. To create or co-create new digital educational resources. To consider the specific learning objective, context, pedagogical approach, and learner group, when designing digital resources and planning their use.”, the results are: B1 (29,9%), succeed by A2 (22,3%) B2 (19,6%), A1 (16,2%), C1 (8,2%) and C2 (3,8%). The respondents are self-assessed as being less competent in Creating and modifying digital resources are 38,5% for level A, comparative with 12% for level C.



For „Managing, protecting and sharing digital resources: To organise digital content and make it available to learners, parents and other educators. To effectively protect sensitive digital content. To respect and correctly apply privacy and copyright rules. To understand the use and creation of open licenses and open educational resources, including their proper attribution.”, the results are: B1 (32%), succeed by A2 (23%) B2 (17,9%), A1 (15,8%), C1 (7,6%) and C2 (3,8%). The respondents are self-assessed as being competent in Managing, protecting and sharing digital resources are 38,8% to level A, comparative with 11,4% for level C.

For complete results **see Table 20.**

Teaching and Learning skills (q0017).

For „Teaching: To plan for and implement digital devices and resources in the teaching process, so as to enhance the effectiveness of teaching interventions. To appropriately manage and orchestrate digital teaching interventions. To experiment with and develop new formats and pedagogical methods for instruction.”, the results are: B2 (24,7%), B1 (23%), succeed by A2 (20,3%) close to C1 (17,2%), C2 (7,9%) . Thus, 27,2% are at A level, compared with 25,1% at C level. The results of research show that the level A is balanced to level C in values close to quarter of the participants while half are to level B. Level B refers to Show Integrator and Show Expert. Integrators experiment with digital technologies in a variety of contexts and for a range of purposes, integrating them into many of their practices. Experts use digital technologies confidently, creatively and critically to enhance their professional activities

For „ Guidance: To use digital technologies and services to enhance the interaction with learners, individually and collectively, within and outside the learning session. To use digital technologies to offer timely and targeted guidance and assistance. To experiment with and develop new forms and formats for offering guidance and support.”, the results are: B1 (23,7%) close to B2 (23%) and A2 (21,6%), succeed by C1 (16,8%), C2 (5,8%) . Overall 29,5% are on level A, compared with 22,6% on level C. Almost half are B level for guidance, using the digital technologies in the interaction with learners, individually and collectively, within and outside the learning session. Almost a third need training in guidance, for using digital technologies to offer timely and targeted guidance and assistance.

For “Collaborative learning: To use digital technologies to foster and enhance learner collaboration. To enable learners to use digital technologies as part of collaborative assignments, as a means of enhancing communication, collaboration and collaborative knowledge creation”, the results are: B2 (25,1%), A2 (21,3%) close to B1 (20,3%), succeed by C1 (18,6%), A1 (9,3%) and C2 (5,5%) . 30,6% of respondents are on level A, and 24,3% are on level C.

For “Self-regulated learning: To use digital technologies to support self-regulated learning processes, i.e. to enable learners to plan, monitor and reflect on their own learning, provide evidence of progress, share insights and come up with creative solutions.” , the results are: A2 (22,7%) close to B2 (21%); A1 (18,2%) close to B1 (16,8%) and C1 (15,1%) and finally, C2 (6,2%)



The self-assessed as being competent in “Self-regulated learning: To use digital technologies to support self-regulated learning processes, i.e. to enable learners to plan, monitor and reflect on their own learning, provide evidence of progress, share insights and come up with creative solutions.” show that 40,9% by respondents are to level A, and 21,3% are to level C.

For complete results **see Table 21.**

Digital Assessment (q0018).

For item “Assessment strategies: To use digital technologies for formative and summative assessment. To enhance the diversity and suitability of assessment formats and approaches.”, the results are: A2 (28,2%), B1 (25,4%), B2 (18,9%) close to A1 (17,2%), C1 (6,5%) and C2 (3,8%). 45,4% of respondents are on level A, and 10,3% are on level C.

For item “Analysing evidence: To generate, select, critically analyse and interpret digital evidence on learner activity, performance and progress, in order to inform teaching and learning.”, the results are: B1 (25,8%) close to A2 (25,4%), B2 (21,3%) A1 (18,6%), C1 (5,2%) and C2 (3,8%). 54% of respondents are on level A, and 9% are on level C.

For the item “Feedback and Planning: To use digital technologies to provide targeted and timely feedback to learners. To adapt teaching strategies and to provide targeted support, based on the evidence generated by the digital technologies used. To enable learners and parents to understand the evidence provided by digital technologies and use it for decision-making.”, the results are: A2 (29,6%), B1 (22%), B2 (20,6%) A1 (15,5%), C1 (7,6%) and C2 (4,8%). 45,1% of respondents are on level A, and 12,4% are on level C.

For complete results **see Table 22.**

Empowering Learners (q0019).

For item “Accessibility and inclusion: To ensure accessibility to learning resources and activities, for all learners, including those with special needs. To consider and respond to learners’ (digital) expectations, abilities, uses and misconceptions, as well as contextual, physical or cognitive constraints to their use of digital technologies.”, the results are: B1 (34,7%), A2 (23,4%), B2 (15,8%) close to A1 (15,5%), C1 (6,5%) and C2 (4,1%). 38,9% of respondents are on level A, and 10,6% are on level C.

For item “Differentiation and personalisation: To use digital technologies to address learners’ diverse learning needs, by allowing learners to advance at different levels and speeds, and to follow individual learning pathways



and objectives.”, the results are: B1 (29,9%), A2 (24,1%), B2 (21,3%), A1 (13,4%), C1 (6,5%) and C2 (4,8%). 37,5% of respondents are on level A, and 11,3% are to level C.

For item “Actively engaging learners: To use digital technologies to foster learners’ active and creative engagement with a subject matter. To use digital technologies within pedagogic strategies that foster learners’ transversal skills, deep thinking and creative expression. To open up learning to new, real-world contexts, which involve learners themselves in hands-on activities, scientific investigation or complex problem solving, or in other ways increase learners’ active involvement in complex subject matters.”, the results are: B1 (34,7%), A2 (21,6%), B2 (19,9%), A1 (10%), C1 (8,9%) and C2 (4,8%). 21,6% of respondents are on level A, and 13,7% are on level C.

For complete results **see Table 23**.

Facilitating Learners’ Digital Competence (q0020).

For item “Information and media literacy: To incorporate learning activities, assignments and assessments which require learners to articulate information needs; to find information and resources in digital environments; to organise, process, analyse and interpret information; and to compare and critically evaluate the credibility and reliability of information and its sources.”, the results are: A2 (35,1%), B1 (22%), B2 (15,8%) A1 (14,4%), C1 (9,3%) and C2 (3,4%). 49,5% of respondents are on level A, and 12,7% are on level C.

For item “Digital communication & collaboration: To incorporate learning activities, assignments and assessments which require learners to effectively and responsibly use digital technologies for communication, collaboration and civic participation.”, the results are: A2 (30,9%), B1 (22%), B2 (17,5%) close to A1 (16,8%), C1 (9,3%) and C2 (3,4%). 47,7% of respondents are on level A, and 12,7% are on level C.

For item “Digital content creation. To incorporate assignments and learning activities which require learners to express themselves through digital means, and to modify and create digital content in different formats. To teach learners how copyright and licences apply to digital content, how to reference sources and attribute licenses”, the results are: A2 (27,5%), A1 (25,4%), B2 (17,5%) B1 (16,2%), C1 (8,9%) and C2 (4,5%). 62,9% of respondents are on level A, and 13,4% are on level C.

For item “Responsible Use. To take measures to ensure learners’ physical, psychological and social wellbeing while using digital technologies. To empower learners to manage risks and use digital technologies safely and responsibly.”, the results are: A2 (29,6%), B1 (22%), B2 (19,9%), A1 (13,7%), C1 (10,3%) and C2 (4,5%). 43,3% of respondents are on level A, and 14,8% are on level C.

For item “Digital problem solving. To incorporate learning activities, assignments and assessments which require learners to identify and solve technical problems, or to transfer technological knowledge creatively to new situations.”, the results are: A2 (27,5%), B1 equal with A1 (22,3%), B2 (14,1%) A1 (14,4%), C1 (7,9%) and C2 (5,8%). 49,8% of respondents are on level A, and 13,7% are on level C.

For complete results **see Table 24**.



4.3 ICT Training Needs

Needs of training to be able to use digital technologies effectively in the classroom (q0021)

Question 21 referred to: "Where do you feel that you need further training to be able to use digital technologies effectively in the classroom? (max 3 options can be selected)". Analysing the results obtained, we have the following ranking:

- Professional development (Training in how to use ICT and digital technologies to for your own teaching development) – 58,8%;
- Organisation and management of educational spaces and resources. (Training in how to use ICT and digital technologies to facilitate and improve working environments) – 55,3%;
- Communication and collaboration (Training in how to use ICT and digital technologies to communicate, collaborate, create, share content and build knowledge in the classroom) – 54%;
- Design, planning and classroom delivery (Training in how to use ICT and digital technologies to aid with lesson planning and preparation) – 46%;
- Basic uses of ICT (Training in how to use ICT and digital technologies from a novice level) – 31,6%;
- Digital ethics (Training in how to use ICT and digital technologies for issues relating to legality, security and digital identity) – 17,2%;

If we compare with results that refer to self-assessment, the respondents are self-considered less competencies for:

- Organisational communication (29,9%) followed by Reflective practice (26,8%); Professional collaboration (20,6%) and Digital Continuous Professional Development (CPD) (17,5%).
- Creating and modifying digital resources and Managing, protecting and sharing digital resources are need to training for over a third by teachers and a fifth for Selecting digital resources.
- Self-regulated learning (40,9%), Collaborative learning (30,6%) close to Guidance (30,5%) and Teaching (27,2%).
- Analysing evidence: (54%), Assessment strategies (45,4%), Feedback and Planning (45,1%)
- Accessibility and inclusion (38,9%), Differentiation and personalisation (37,5%), Actively engaging learners (21,6%)
- Digital content creation (52,9%); Digital problem solving (49,8%) close to Information and media literacy (49,5%); Digital communication & collaboration (47,7%); Responsible Use (43,3%).

It observe that less skills are in area of Facilitating Learners' Digital Competence. For complete results **see Table 25.**



Digital skills qualifications (q0022)

The question Q22 asked if the respondents had any digital skills qualifications (**see Table 26.**). The responses show that most of the teacher are certificated ECDL, Intel-Teach or no have official certifications.

The ranking of qualification in ICT is: ECDL (27,8%); CISCO (4,5%); MICROSOFT MOUS (Microsoft Office User Specialist) (4,5%); IC3 Global standard (1,4%); EIPASS (0,7%); PEKIT (Permanent Education and Knowledge on Information Technology) (0,3%). For other options, the overall percentage is 29,2%: Intel-Teach (21%); soft designer/ software developer (8,2%). More than a third of teachers said they have no official certification (35,7%).



5. The identikit of the "digital teacher". Personal issues and career profiles

This chapter is dedicated to highlighting connections between answers to different questions by crosstabulation of results.

5.1 Personal data and career profiles

Teaching area (q0005)

Teaching area (q0005) by age (q0003):

The distribution of teaching area by age is: for literacy – 0%; 11,1%; 19,5%; 15,3%; 16,4%; 0%; for numeracy – 50%; 22,2%; 15,6%; 14,5%; 23,9%; 0%; for sciences – 0%; 22,2%; 18,2%; 38,2%; 50,7%; 40%; for history – 0%; 0%; 3,9%; 9,2%; 6%; 0%; for arts – 0%; 11,1%; 10,4%; 7,6%; 13,4%; 0%; for music – 0%; 11,1%; 6,5%; 6,9%; 10,4%; 0%; for physical education - 0%; 0%; 3,9%; 2,3%; 7,5%; 0%; for development of practical abilities – 0%; 11,1%; 13%; 7,6%; 17,9%; 40%; for religious education – 0%; 0%; 1,3%; 0,8%; 0%; 0%; ethics and democratic citizenship – 0%; 0%; 6,5%; 4,6%; 6%; 0%; for social sciences – 0%; 22,2%; 28,6%; 21,4%; 14,9%; 0%; for ICT – 0%; 11,1%; 6,5%; 13,7%; 11,9%; 20%; for modern foreign languages – 0%; 11,1%; 11,7%; 9,2%; 3%; 0%; for learning approaches – 0%; 11,1%; 10,4%; 6,9%; 11,9%; 0%; for special educational needs – 0%; 0%; 11,7%; 10,7%; 11,9%; for other – 50%; 44,4%; 31,2%; 26,7%; 17,9%; 20% **(see Table 27.)**

Teaching area (q0005) by gender (q0004)

The distribution of the teaching area **(see Table 28.)** covered over the last three years in function by gen show that for: literacy - 3,7% are men and 17,4% are women; numeracy – 22,2% are men and 16,7% are women; science – 48,1% are men and 33,7% are women; history – 7,4% are men and 6,4% are women; arts – 10,6% are women; Music – 8,3% are women; physical education – 4,2% are women; Personal Social and Health Education – 11,1% are men and 12,1% are women; Religious Education – 7,4% are men; Ethics and Democratic Citizenship – 5,7% are women; Social Sciences – 18,5% are men and 21,6% are women; ICT – 14,8% are men and 11% are women; Modern Foreign Languages – 9,1% are women; Learning Approaches – 7,1% are men and 9,1% are women; Special Educational Needs – 11,7% are women; other – 11,1% are men and 28% are women.

In Romania, in education industry, are more women than men. Only to numeracy, science, ICT and religious education, are more men teachers than women teachers, but the percentages are close.



Type of contract in the school (q0006)

Type of contract in the school (q0006) by age (q0003)

The age distribution of respondents (**see Table 29.**) shows that those who have permanent contract all of respondents up to 25 and 60+; 88,8% of those have 25-30; 89,6% of those have 31-40; 91,6% of those have 41-50; 98,5% of those have 51-60 years old.

The distribution by age of respondents show that none of respondents up to 25 and 60+ have a temporary contract; 11,1% of those have 25-30; 10,4% of those have 31-40; 8,4% of those have 41-50; 1,5% of those have 51-60 years old.

Type of contract in the school (q0006) by gender (q0004)

Of the total number of respondents which are titular teachers, 92,4% are women and 96,3% are men; of the total number of substitute teachers, 7,6% are women and 3,7% are men (**see Table 30.**).

Type of contract in the school (q0006) by teaching role (q0007)

Only one person on a temporary contract has indicated having a management, while all other leadership and management positions are covered by permanent contract staff. Of those with a teaching role 92,6% have a permanent contract, with the rest being hired for a set period of time (**see Table 31.**).

Type of contract in the school (q0006) by role as digital coordinator (q0008)

Of the 59 people indicating that they have a role as digital coordinators (20,27% of total respondents), only one is on a temporary contract, with the rest having a permanent one (**see Table 32.**).

Teaching role covered over the last three years (q0007)

Teaching role covered over the last three years (q0007) by age (q0003):

The distribution of teaching role covered over the last three years by type of age are (**see Table 33.**): for up 25 years old – 100%; for 25-30 – 100%; for 31-40 – 97,4%; for 41-50 – 92,4%; for 51-60 – 85,1%; for 60+ – 100%.



The distribution for leadership role are: for 25-30 – 11,1%; for 31-40 – 9,1%; for 41-50 – 15,3%; for 51-60 – 10,4%; for 60+ – 20 %.

The distribution for management role are: for 31-40 years age group – 11,7%; for 41-50 years age group – 13,7%; for 51-60 years age group – 11,9%; for 60+ age group – 20%.

Teaching role covered over the last three years (q0007) by gender (q0004)

The distribution of school role by gender (**see Table 34.**) show that 92% of respondents are women with teaching role, and 96,3% are men. The leadership role are divided between 11,7% women and 18,5% men, and the management role between 11,4% women and 22,2% men.

It can be observe that the management role and leadership role is approximatively similar for women, but for men the management role has a higher percentage than leadership role.

Teaching role covered over the last three years (q0007) by role as digital coordinator (q0008)

The respondents are: teaching role and coordination role in ICT in proportion of 84,7%, 94,4% don't have a role in ICT coordination; leadership role and coordination role in ICT is in proportion of 30,5% and 7,8% of leaders don't have a role in ICT coordination; management role and coordination role in ICT is in proportion of 27,1% and 8,6% of teachers with management roles aren't ICT coordinators (**see Table 35.**).

Role as digital coordinator in the school (q0008)

Role as digital coordinator in the school (q0008) by age (q0003):

The distribution of teachers with the task of coordinating the integration of computer into the teaching process by age is: in the range of 25-30 – 22,2%; those between 31-40 years – 20,8%; those between 41-50 years – 18,3%; those between 51-60 years – 22,4% and those of 60+ years – 40% (**see Table 36.**).

Respondents that don't have task in coordinating of the use of ICT in teaching: all of those up to 25 years old; 77,8% of those 25-30 years aged; 79,2% of those 31-40 years aged; 81,7% of those 41-50 years aged; 77,6% of those 51-60 years aged ; 60% of those over 60 years old.

Role as digital coordinator in the school (q0008) by gender (q0004)

The gender distribution of the ICT coordinator role (or not) shows that men are better represented (**see Table 37.**). Thus, only 19,3% of women have the role of coordinator and 80,7% do not have such a role; this leads to a ratio of approximately 0,24. In conclusion, one quarter of women teachers that have participated in the present research have ICT coordinating role.



The statistics for men show that 29,6% have ICT coordinating role and 70,4% don't have this type of role, resulting in a ratio of 0,42, almost half of them.

5.2 Focus on innovation

Frequency of use of digital resources in the classroom for teaching activities (q0009)

The digital resources that were analysed are: Office and similar package for text, numeracy, presentations etc.; Software for downloading audio/video files; Search tools; Resources for creating/editing audio, video, and graphics content; Resources for creating blogs, sites, hypertexts; Digital environments for learning, sharing, communication and collaborating online; Digital Educational Content and OER (Open Educational Resources); Educational multimedia programs for discipline; Coding - Computational thinking. We consider Often and Always that most often.

Frequency of use of digital resources in the classroom for teaching activities (q0009) by school type (q0001)

1. Office and similar package for text, numeracy, presentations etc. are more often used by teachers as follows: Early years – 75%; Lower secondary – 81%; primary school – 73,3%; upper secondary – 90,7%; VET – 100%. This means they are used in a lower manner (Never or Sometime) as follows: Early years – 25%; Lower secondary – 18,9%; primary school – 26,6%; upper secondary – 9,3%; VET – 0%.
2. Software for downloading audio/video files are used by teachers more often as follows: Early years – 90%; Lower secondary – 62,1%; primary school – 60%; upper secondary – 68,2%; VET – 69,5%. This means they are used in a lower manner (Never and Sometimes) as follows: Early years – 10%; Lower secondary – 37,8%; primary school – 40%; upper secondary – 31,7%; VET – 30,4%.
3. Search tools are used by teachers always as follows: Early years – 100%; Lower secondary – 94,5%; primary school – 96,7%; upper secondary – 94,4%; VET – 95,7%. This means they are used in a lower manner (Never or Often) as follows: Early years – 0%; Lower secondary – 5,4%; primary school – 3,3%; upper secondary – 5,6%; VET – 4,3%.
4. Resources for creating/editing audio, video, and graphics content are more often used by teachers as follows: Early years – 65%; Lower secondary – 54%; primary school – 50%; upper secondary – 47,6%; VET – 65,2%. This means they are used in a lower manner (Never and Sometimes) as follows: Early years – 35%; Lower secondary – 45,9%; primary school – 50%; upper secondary – 52,4%; VET – 34,7%.
5. Resources for creating blogs, sites, hypertexts are most often used by teachers as follows: Early years – 20%; Lower secondary – 13,5%; primary school – 20%; upper secondary – 27,1%; VET – 26%. This means they are



used in a lower manner (Never and Sometimes) as follows: Early years – 80%; Lower secondary – 86,4%; primary school – 80%; upper secondary – 72,9%; VET – 73,9%.

6. Digital environments for learning, sharing, communication and collaborating online are used by teachers more often as follows: Early years – 75%; Lower secondary – 62,1%; primary school – 76,6%; upper secondary – 66,4%; VET – 73,9%. This means they are used in a lower manner (Never and Sometimes) as follows: Early years – 25%; Lower secondary – 37,8%; primary school – 23,3%; upper secondary – 33,6%; VET – 26,1%.

7. Digital Educational Content and OER (Open Educational Resources) are more often used by teachers as follows: Early years – 45%; Lower secondary – 46,8%; primary school – 50%; upper secondary – 55,1%; VET – 43,5%. This means they are used in a lower manner (Never and Sometimes) as follows: Early years – 55%; Lower secondary – 53,1%; primary school – 50%; upper secondary – 44,9%; VET – 56,5%.

8. Educational multimedia programs for discipline are Often used by teachers as follows: Early years – 40%; Lower secondary – 39,6%; primary school – 50%; upper secondary – 41,1%; VET – 43,4%. This means they are used in a lower manner (Never and Sometimes) as follows: Early years – 60%; Lower secondary – 60,3%; primary school – 50%; upper secondary – 58,9%; VET – 56,5%.

9. Coding - Computational thinking are most often used by teachers as follows: Early years – 10%; Lower secondary – 9%; primary school – 26,6%; upper secondary – 25,3%; VET – 21,7%. This means they are used in a lower manner (Never and Sometimes) as follows: Early years – 90%; Lower secondary – 91%; primary school – 73,4%; upper secondary – 74,8%; VET – 78,3%. **(see Table 38.)**

Frequency of use of digital resources in the classroom for teaching activities (q0009) by age (q0003)

We analyse the distribution of frequency of using the digital resources in the classroom for teaching activities by age, and consider the most used resources the Always and Often items.

1. Office and similar package for text, numeracy, presentations etc. are the most used resources for the following age groups: up to 25 (100,00%); 25-30 (77,80%); 31-40 (81,90%); 41-50 (85,40%); 51-60 (86,60%); 60+ (100,00%). This tool is more used by 84,9% of respondents.

2. Software for downloading audio/video files are the most used resources for the following age groups: up to 25 (50,00%); 25-30 (66,60%); 31-40 (67,60%); 41-50 (65,70%); 51-60 (68,60%); 60+ (60,00%). This tool is used by 66,70% of respondents.

3. Search tools are the most used resources for the following age groups: up to 25 (100,00%); 25-30 (77,80%); 31-40 (63,60%); 41-50 (58,80%); 51-60 (59,70%); 60+ (60,00%). This tool is more used by 61,20% of respondents.

4. Resources for creating/editing audio, video, and graphics content are the most used resources for the following age groups: up to 25 (0,00%); 25-30 (44,40%); 31-40 (48,10%); 41-50 (53,40%); 51-60 (59,70%); 60+ (60,00%). This tool is used by 52,9% of respondents.



5. Resources for creating blogs, sites, hypertexts; are most used resources for following groups age: up to 25 (0%); 25-30 (22,20%); 31-40 (15,6%); 41-50 (19,9%); 51-60 (25,4%); 60+ (60,00%). This tool is used by 20,6% between respondents.
6. Digital environments for learning, sharing, communication and collaborating online; are most used resources for following groups age: up to 25 (50,00%); 25-30 (66,6%); 31-40 (61,1%); 41-50 (70,9%); 51-60 (67,2%); 60+ (60,00%). This tool is used by 23% of respondents.
7. Digital Educational Content and OER (Open Educational Resources); are most used resources for following groups age: up to 25 (50,00%); 25-30 (44,4%); 31-40 (40,3%); 41-50 (51,1%); 51-60 (58,2%); 60+ (60,00%). This tool is used by 49,8% of respondents.
8. Educational multimedia programs for discipline; are most used resources for following groups age: up to 25 (100,00%); 25-30 (33,3%); 31-40 (32,5%); 41-50 (44,3%); 51-60 (49,3%); 60+ (40,00%). This tool is used by 41,6% of respondents.
9. Coding - Computational thinking. are most used resources for following groups age: up to 25 (0%); 25-30 (11,1%); 31-40 (16,9%); 41-50 (18,4%); 51-60 (17,9%); 60+ (40,00%). This tool is used by 17,8% of respondents (see Table 39.)

Frequency of use of digital resources in the classroom for teaching activities (q0009) by gender (q0004)

We consider Often and Always to be *Most Often*.

1. Office and similar package for text, numeracy, presentations etc. are *more often* used by 83,4% of women and by all men. 84,9% of all respondents use them more often.
2. Software for downloading audio/video files are *more often* used by 65,9% of women and 74% men. 66,7% of all respondents use them more often.
3. Search tools are *more often* used by 62,1% of women and 51,9% of men. These resource are in all applied *more often* by 61,2%.
4. Resources for creating/editing audio, video, and graphics content are *more often* used by 52,7% of women and 55,5% of men, and in all are used by 52,9%
5. Resources for creating blogs, sites, hypertexts are *more often* used by 19,3% of women and 33,3% of men. These resources are *more often* utilised by all in percentage of 20,6%.
6. Digital environments for learning, sharing, communication and collaborating online are *more often* used by 68,2% of women and 55,5% of men. Total percentage for *more often* use of digital environments in education is 67%.
7. Digital Educational Content and OER (Open Educational Resources) are *more often* used by 49,6% of women and 51,8% of men, all it *more often* used in percent by 49,8%.
8. Educational multimedia programs for discipline are *more often* used by 40,9% of women and 41,6% of men. All respondents use in a *more often* manner in percent of 41,6%



9. Coding - Computational thinking are *more often* used by 17,4% of women and 22,2% of men. TOF all respondents, they are used *more often* by 17,8% (**see Table 40.**)

Frequency of use of digital resources in the classroom for teaching activities (q0009) by teaching area (q0005)

The most often used (top three) digital resources for each teaching area is presented in descending order for all subject areas (**See Tables 41, 42 and 43**):

Literacy - Search tools; Office and similar package for text, numeracy, presentations etc.; Software for downloading audio/video files;

Numeracy - Search tools; Office and similar package for text, numeracy, presentations etc. ; Digital environments for learning, sharing, communication and collaborating online;.

Science - Search tools; Office and similar package for text, numeracy, presentations etc. ; Software for downloading audio/video files;

History - Search tools; Office and similar package for text, numeracy, presentations etc. ; Resources for creating/editing audio, video, and graphics content;

Arts - Search tools; Office and similar package for text, numeracy, presentations etc. ; Software for downloading audio/video files;

Music - Search tools; Office and similar package for text, numeracy, presentations etc.; Digital environments for learning, sharing, communication and collaborating online;

Physical Education - Search tools; Resources for creating/editing audio, video, and graphics content; Office and similar package for text, numeracy, presentations etc.;

Personal Social and Health Education - Search tools; Office and similar package for text, numeracy, presentations etc. ; Digital environments for learning, sharing, communication and collaborating online;

Religious Education - Search tools; Office and similar package for text, numeracy, presentations etc. ; Software for downloading audio/video files;

Ethics and Democratic Citizenship - Search tools; Office and similar package for text, numeracy, presentations etc.; Software for downloading audio/video files;

Social Sciences - Search tools; Office and similar package for text, numeracy, presentations etc. ; Software for downloading audio/video files;

ICT - Search tools - Office and similar package for text, numeracy, presentations etc. ; Digital environments for learning, sharing, communication and collaborating online;



Modern Foreign Languages - Search tools; Software for downloading audio/video files; Office and similar package for text, numeracy, presentations etc.

Learning Approaches - Search tools; Office and similar package for text, numeracy, presentations etc.; Software for downloading audio/video files;

Special Educational Needs - Search tools; Office and similar package for text, numeracy, presentations etc.; Software for downloading audio/video files;

Other - Search tools; Office and similar package for text, numeracy, presentations etc.; Software for downloading audio/video files;

Frequency of use of digital resources in the classroom for teaching activities (q0009) by type of contract in the school (q0006)

1. Office and similar package for text, numeracy, presentations etc. are used more often by 84,9% of respondents. Of them, 86,6% have permanent contract, and 61,9% have temporary contract.

2. Software for downloading audio/video files are used more often by 66,7% of respondents; of them, 67,4% have permanent contract and 57,1% have temporary contract.

3. Search tools are used more often by 95,2% of respondents; of them, 95,2% have permanent contract and 95,3% have temporary contract.

4. Resources for creating/editing audio, video, and graphics content are used more often by 52,9% of respondents; of them, 52,6% have permanent contract and 57,1% have temporary contract.

5. Resources for creating blogs, sites, hypertexts are used more often by 20,6% of respondents; of them, 21,1% have permanent contract and 14,3% have temporary contract.

6. Digital environments for learning, sharing, communication and collaborating online are used more often by 67% of respondents; of them, 67,8% have permanent contract and 57,1% have temporary contract.

7. Digital Educational Content and OER (Open Educational Resources) are used more often by 49,8% of respondents; of them, 51,4% have permanent contract and 28,6% have temporary contract.

8. Educational multimedia programs for discipline are used more often by 41,6% of respondents; of them, 42,6% have permanent contract and 28,6% have temporary contract.

9. Coding - Computational thinking are used more often by 17,8% of respondents; of them, 18,5% have permanent contract and 9,5% have temporary contract (**see Table 44.**)

Frequency of use of digital resources in the classroom for teaching activities (q0009) by teaching role (q0007)



1. Office and similar package for text, numeracy, presentations etc.; This tools are Most Often used in percent by 91,7% of the respondents with leadership role, 88,8% of the respondents with management role and by 85,2% of the respondents with teaching role.
2. Software for downloading audio/video files; This tools are Most Often used in percent by 72,2% of the respondents with leadership role, 66,7% of the respondents with management role and by 67,6% of the respondents with teaching role.
3. Search tools; This tools are Most Often used in percent by 69,5% of the respondents with leadership role, 61,1% of the respondents with management role and by 60,6% of the respondents with teaching role.
4. Resources for creating/editing audio, video, and graphics content; This tools are Most Often used in percent by 52,8% of the respondents with leadership role, 61,1% of the respondents with management role and by 53,5% of the respondents with teaching role.
5. Resources for creating blogs, sites, hypertexts; This tools are Most Often used in percent by 13,9% of the respondents with leadership role, 19,4% of the respondents with management role and by 20,8% of the respondents with teaching role.
6. Digital environments for learning, sharing, communication and collaborating online; This tools are Most Often used in percent by 72,2% of the respondents with leadership role, 72,2% of the respondents with management role and by 67,3% of the respondents with teaching role.
7. Digital Educational Content and OER (Open Educational Resources); This tools are Most Often used in percent by 69,5% of the respondents with leadership role, 58,3% of the respondents with management role and by 49,5% of the respondents with teaching role.
8. Educational multimedia programs for discipline; This tools are Most Often used in percent by 50% of the respondents with leadership role, 41,7% of the respondents with management role and by 42% of the respondents with teaching role.
9. Coding - Computational thinking. This tools are Most Often used in percent by 25% of the respondents with leadership role, 22% of the respondents with management role and by 17,1% of the respondents with teaching role. **(see Table 45.)**

Familiarity with the main teaching practices in use (q0010)

Familiarity with the main teaching practices in use (q0010) by school type (q0001)

The teachers in pre-primary schools are “aware” in higher percentages of collaborative learning (70%) in comparison to the teachers from other educational levels; similar, teachers for pre-primary school are in higher



percentages “unaware” of active methodologies (75%); teachers from VET and those from upper secondary education declare in higher percentages than teachers from other educational levels that they are really “using in practice” project-based learning (73,9% respectively 78,5%) and problem-based learning (82,6% respectively 77,6%) (see Table 46.).

Familiarity with the main teaching practices in use (q0010) by age (q0003)

High percentages of all age categories are “unaware” of **active methodologies**, comparative with the other types of methodologies; related to “the use in practice”, the percentages are low for **active methodologies** for all age categories (14,3% - 33%), between 40% and 50% for **collaborative learning** and between 50% and 70% for **project-based**, **problem-based** and **case-based learning** (see Table 47.)

Familiarity with the main teaching practices in use (q0010) by gender (q0004)

Higher percentages of men than women are „aware” of **active methodologies** and higher percentages of men in comparison to women are “using” this methodology in practice; higher percentages of men than women are “aware” of **collaborative learning** and **case-based learning**, but lower percentages of men in comparison to women are “using” this methodology in practice; related to **project-based learning** and **problem-based learning**, similar percentages of men and women are „aware” (around 30%) and similar percentages of both gender categories are „using” them in practice (around 65%)(see Table 48.).

Familiarity with the main teaching practices in use (q0010) by teaching area (q0005)

High percentages of teachers from all disciplines declare that they are “not aware” of **active methodologies** (20% - 60%) in comparison with low percentages for the other 4 methodologies (0% - 20%); ICT teachers declare in similar percentages with teachers from other disciplines that they are “aware” or “not aware” of the 5 methodologies under scrutiny, but in the same time their percentages are higher for the “use” in practice of all methodologies (exception: **active methodologies** where percentages for “the use” in practice are still low - 20%). ICT teachers declare in higher percentages than other disciplines “the use” in practice of the **collaborative learning** (70%); for **project-based**, **problem based** and **case-based learning**, teachers of Social sciences declare in similar percentages with ICT teachers “the use” in practice of these methodologies (70%-80%)(see Table 49.).

Familiarity with the main teaching practices in use (q0010) by type of contract in the school (q0006)

Higher percentages of teachers with permanent contracts than teachers with temporary contracts are „aware” of **active methodologies** and **collaborative learning**, but lower percentages of them in comparison with teachers with temporary contracts are “using” these technologies in practice; lower percentages of teachers with



permanent contracts than teachers with temporary contracts are “aware” of **project-based learning** and **problem-based learning**, but higher percentages of them are “using” this methodology in practice (for example, 70% of the teachers with permanent contract declare that they are „using” in practice **project-based learning**); related to **case-based learning**, similar percentages of teachers with permanent and temporary contracts are „aware” of this methodology (around 40%) and similar percentages of both categories are „using” them in practice (58%) (see Table 50.).

Familiarity with the main teaching practices in use (q0010) by teaching role (q0007)

All three roles are in similar percentages „aware” of all five teaching methodologies (between 30 and 44%, with a peak for managers and leaders of 44,4% for **active methodologies**). Nevertheless, high percentages of all three teaching roles declare that they are „unaware” of **active methodologies** (around 40% in comparison with lower percentages for the other methodologies – between 0 and 11%). Moreover, low percentages of all three roles declare that they are „using” in practice **active methodologies** (percentages between 11 and 18%) in comparison to „the use” in practice of other types of methodologies (percentages between 46% and 72,7%, with a peak at 72,7% of those who have a teaching role who declare that they are using in practice **problem-based learning**)(see Table 51.).

Frequency of activities as part of teaching (q0012)

Frequency of activities as part of teaching (q0012) by school type (q0001)

High percentages of teachers from pre-primary education “never” use any of the six activities (example: 90% of pre-primary teacher “never” used **online students assessment**) and only low percentages of teachers from the other educational levels declare that they are “always” using these activities in their daily practice. The use in practice of the six activities increase by the school type: the lowest percentages (25%-45%) for using with some regularity (“sometimes” and “often”) all six activities can be found in early education, while the highest percentages (50%-91%) can be found in VET and upper secondary education (for example, 45% of the pre-primary teachers declare that they are “sometimes” and “often” **asking students to document online what they have learnt**, in comparison with 63% of the primary education teachers, 72% of the lower secondary teachers, 78% of the upper secondary teachers and 91% of the VET teachers) (see Table 52.).

Frequency of activities as part of teaching (q0012) by age (q0003)

Higher percentages of teachers over 60 than younger colleagues use all six activities with some regularity (“often” or “sometimes”). For example, 80% of teachers aged over 60 declare that they are using with some regularity (“sometimes” and “often”) **the involvement of students in collaborative work online** in comparison



to 58% of the teachers aged 51-60 years, 70% of the teachers aged 41-50 years, 52% of the teachers aged 31-40 years, 55% teachers aged 25-30 years and 0% teachers aged up to 25 years (see Table 53.).

Frequency of activities as part of teaching (q0012) by gender (q0004)

Men are using in higher percentages than women „always” all the six activities; also, men declare in lower percentages than women that they are “never” using all the six activities in their daily teaching; differences are bigger between men and women (between 5 and 13%) for **online student assessment**, **creative work using online applications** and **encourage interdisciplinary projects through the use of online technologies** where, even if the percentages are still low, men declare in higher percentages than women that they are using “often” these activities in practice (example: 18,5% men and 5,3% women declare they are using often **online student assessment**). The **online students assessment** is declared to be “never” used in practice by the highest percentages of both men and women in comparison with the other activities (59,3% respective 69,7%) (see Table 54.).

Frequency of activities as part of teaching (q0012) by teaching area (q0005)

High percentages (40%-100%) of teachers from all teaching areas declare that they “never” use **online student assessment** in comparison with the other activities (with the lowest percentages 40% for ICT teachers); also, this activity is used with some regularity (“often” and “sometimes”) in lower percentages (20%-30%) by all teaching areas than other activities (an exception: 50% of ICT teachers who declare that they are using it with some regularity) (see Tables 55, 56 and 57.).

Frequency of activities as part of teaching (q0012) by type of contract in the school (q0006)

All six activities are used with some regularity (“often” and “sometimes”) in higher percentages by teachers with permanent contracts than teachers with temporary contracts, with a difference of over 10% between the two categories (for example, 58% of teachers with permanent contacts are contacting with some regularity **students through online communication**, in comparison to 43% of teachers with temporary contracts); higher percentages of teachers with temporary contracts than teachers with permanent contracts are „never” using all the six activities in their practice (the highest percentages for „never” using one of the six activities are given for the **online student assessment**: 67,1% of teachers with permanent contracts and 81% of teachers with temporary contracts declare they “never” using this activity) (see Table 58.).

Frequency of activities as part of teaching (q0012) by teaching role (q0007)

High percentages of all three roles declare that they are „never” using **online student assessment** and „never” **encourage interdisciplinary projects through the use of online technologies** than other activities; higher percentages of teachers than managers and leaders declare that they “never” **encourage interdisciplinary**



projects through the use of online technologies (50,9%); higher percentages of managers than and leaders and teachers declare that they are establishing with some regularity (“often” and “sometimes”) **contacts with students through online communication** (77,8% respectively 58,3% and 56,9%) (see Table 59.).

Perception of the utility of digital tools and technologies (q0013)

Perception of the utility of digital tools and technologies (q0013) by school type (q0001)

43,3% of primary school teachers consider “very useful” the digital tools and technologies for the **integration of formal, non-formal and informal learning** and for **improving teacher CDP** (which is the highest percentage for considering one of the ten instruments “very useful”), while 60,9% teachers from VET schools consider “useful” the digital tools for **making the learning process more efficient for students** (which is the highest percentage for considering one of the ten instruments “useful”). Very small percentages of teachers from all types of schools are considering all digital tools and technologies “not useful at all” in relation to all the ten activities (see Table 60.).

Perception of the utility of digital tools and technologies (q0013) by age (q0003)

All teachers up to 25 consider „useful” the digital tools and technologies for **making the students more autonomous** and for the **integration of formal, non-formal and informal learning**. Very small percentages of teachers of all ages consider these tools and methodologies “not useful at all” (with higher percentages for teachers aged 51-60 (6%) who consider “not useful at all” those instruments for **linking the school activities with work experience**) (see Table 61.).

Perception of the utility of digital tools and technologies (q0013) by gender (q0004)

Higher percentages of women than men consider that digital tools and technologies are “not useful at all” for **linking the school activities with work experience**; higher percentages of women in comparison to men (difference of 10%) consider that digital tools and technologies are “very useful” for **making students more autonomous**, for the **integration of formal, non-formal and informal learning**, for **improving communication, collaboration and coordination between colleagues, students and institutions** and for **improving teacher CDP**; higher percentages of men (around 60%) than women (around 45%) consider “useful” the ICT tools for **making the learning process more efficient to students** and for **integration of formal, non-formal and informal learning** (see Table 62.).



Perception of the utility of digital tools and technologies (q0013) by teaching area (q0005)

High percentages of teachers from all teaching areas (over 50%) consider “useful” the digital tools and technologies for all the ten activities (for example, 70% of Ethics and democratic citizenship teachers consider “useful” the ICT tools for **making the students more autonomous** and for **improving communication, collaboration and coordination between colleagues, students and institutions**; 70% of Modern foreign languages teachers consider “useful” the ICT tools for **making the learning process more efficient to students**). Very low percentages of teachers from all disciplines (0-10%) consider either “not at all useful” or “very useful” these tools for all ten activities (exception: 50% Physical education teachers who consider the tools “very useful” for **making the learning process more meaningful for the student**, for **making the learning process more efficient**, for **improving communication, collaboration and coordination between colleagues, students and institutions**, and for **improving teacher CDP**) (See tables 63, 64, 65, 66 and 67.).

Perception of the utility of digital tools and technologies (q0013) by type of contract in the school (q0006)

Very low percentages of both teachers with permanent and temporary contracts consider ICT tools “not useful” for the ten activities (4.8% represents the highest percentages of teachers with temporary contracts considering the digital tools and technologies “not at all” useful for **making the learning process more meaningful for the student**, **making the learning process more efficient**, **making the learning process more effective** and for **linking school activities with work experience**). Higher percentages of teachers with temporary contracts than teachers with permanent contracts consider digital tools and technologies “very useful” for **making the learning process more effective** (19% respective 14,4%) as well as for **linking school activities with work experience** (28,6% respective 14,8%) (see Table 68.).

Perception of the utility of digital tools and technologies (q0013) by teaching role (q0007)

Low percentages of teachers in all three roles consider “not at all” useful digital tools and technologies for all the ten activities (3,7%-5,6% represent the highest percentages of teachers in all three roles considering the digital tools and technologies “not at all” useful for **linking school activities with work experience**). Lower percentages of managers in comparison with leaders and teachers consider digital tools “very useful” for **empowering students in their own education** and for **linking school activities with work experience** (around 10% difference between management and the others two teaching roles) (see Table 69.).

5.3 Teachers among training and accompaniment needs

Training attended around using digital technologies in education (q0014)



Training attended around using digital technologies in education (q0014) by school type (q0001)

75% teachers from pre-primary schools and 47,8% of teachers from VET schools developed their ICT abilities by attending **formal education** (which are the highest and lowest percentages in relation to formal courses); related to **non-formal education**, smaller percentages of VET teachers (47,8%) than teachers from other educational levels declare that they developed their ICT skills through this kind of education; 70% of the teachers from pre-primary level and 39,1% VET teachers declare that they attended **face to face training** (the highest and the lowest percentage for this kind of courses), while higher percentages of VET teachers (73,9%) than teachers from other educational levels attended **blended** learning course. The **fully online** courses have been attended by the lowest percentages of teachers from all educational levels in comparison with other types of courses (33,3%-15,9%)(see Table 70.).

Training attended around using digital technologies in education (q0014) by age (q0003)

88,9% teachers aged 25-30 years attended **formal courses** for developing their ICT skills, while 20% teachers over 60 declare that they attended this type of courses (which are the highest and lowest percentages for this type of courses). 80% teachers aged over 60 declare that they attended **non formal** courses and the same percentage declare that they attended **face to face** courses (the highest percentages in relation to teachers of different age categories); 100% teachers up to 25 developed ICT skills through **informal** activities; the **fully online** courses have been attended by the lowest percentages of teachers from all categories (with a peak for teachers aged 51-60 years - 28,4%).

Training attended around using digital technologies in education (q0014) by gender (q0004)

Similar percentages of men and women attended the six types of courses (see Table 71.). Nevertheless, some slight differences can be observed: 44% women in comparison to 37% men declared that they developed their ICT skills through **informal** activities, 63% men in comparison to 58% women attended **blended** learning courses. The **fully online** courses have been attended by the lowest percentages of both men and women.

Training attended around using digital technologies in education (q0014) by teaching area (q0005)

High percentages of Arts teachers and Physical education teachers attended **formal education** courses (90%); percentages around 50%-60% of teachers from all disciplines attended **non formal** activities; high percentages of Practical abilities teachers and Religious education teachers declare that they attended **face to face** courses (80%-100%); high percentages of Arts, Music and Religious education teachers declared that they attended **blended** learning courses for developing their ICT skills (80%-100%, which are the highest percentages in comparison with teachers of other disciplines as far as the blended courses are concerned); the **fully online**



courses have been attended by the lowest percentages of teachers from all disciplines (example: 0% Religious education teachers, 50% Music teachers).

Training attended around using digital technologies in education (q0014) by type of contract in the school (q0006)

Higher percentages of teachers with permanent contracts than teachers with temporary contracts declared that they attended **formal courses** (61,1% respective 33,3%), **non-formal** (56,7% respective 33,3%), **informal** (44,1% respective 38,1%), **blended** (60,7% respective 33,3%), **fully online** courses (21,5% respective 4,8%). Higher percentages of teachers with temporary contracts than teachers with permanent contracts declared that they attended **face to face** courses (61,9% respective - 52,2%). The **fully online** courses have been attended by the lowest percentages of teachers with both forms of contracts.

Training attended around using digital technologies in education (q0014) by teaching role (q0007)

75% of leaders declared that they attended **formal courses** (the highest percentages from the three roles); higher percentages of managers and leaders than teachers declared that they attended **blended** learning courses for developing their ICT skills (80% managers, 75% leaders and 57,2% teachers); higher for developing their ICT skills of leaders and managers (55% respective 50%) than teachers (44,6%) declared that they learnt from **informal** activities; higher percentages of leaders (63%) than the other two roles attended **face to face** courses. The percentages for **non-formal** activities are similar for the three roles (around 55%), while for **fully online** courses the percentages are the lowest for all three roles (with a peak of 21% for the teaching role).

Training attended around using digital technologies in education (q0014) by frequency of use of digital resources in the classroom for teaching activities (q0009)

80% teachers who attended **formal** courses declare that they “never” use in practice **office and similar packages** (in higher percentages than teachers who attended other form of training); 80% teachers who attended **blended** learning courses declare that they are “always” using in **practice resources for creating/editing audio/video content and graphics** (in higher percentages than teachers attending other forms of training), also 80% of teachers who attended **blended** learning courses declare that they are “often” using in practice **multimedia programs relevant for your discipline** and **coding - computational thinking** (in higher percentages than teachers attending other forms of training). 50% teachers who attended **fully online** courses declare that they are “always” using **coding - computational thinking**.

Training attended around using digital technologies in education (q0014) by familiarity with the main teaching practices in use (q0010)



Higher percentages of teachers who attended **non formal** courses (70%) than teachers who attended other form of training, declare that they “use” in practice **collaborative learning**; low percentages of teachers who attended **face to face** and **blended** courses (0%) declare that they are “not aware” of **project-based** learning (0%); lower percentages of teachers who attended **fully online courses** than teachers who attended other kind of courses declare that they are “aware”, “not aware” or “use in their daily practice” all activities.

Evaluation of the digital competency level of teachers (DigCompEdu)

Professional engagement (q0015)

Professional engagement (q0015) by age (q0003)

Teachers over 60 declare in higher percentages (up to 60%) than the other age categories that they are „redesigning and reinnovating” (C2) **organizational communication, professional collaboration, reflective practice** and the **digital continuous professional development**, while the other percentages for „redesigning and reinnovating” for all age categories are very low (0,0-11,9%); the highest percentages of teachers of all ages declare that they use „basic criteria, basic strategies, some advanced features” (B1) for all items under scrutiny (with a peak (around 50%) for young teachers up to 25 and aged 25-30 years who declare using „basic criteria, basic strategies, some advanced features” (B1) for **professional collaboration** and **digital continuous professional development**) (see Table 72.).

Professional engagement (q0015) by gender (q0004)

Higher percentages of men in comparison to women declare that they are „redesigning and reinnovating” (C2) **organisational communication, professional collaboration, reflective practice** and the **digital continuous professional development**. Nevertheless, the percentages for „redesigning and reinovating” (C2) for both men and women for all items under scrutiny are the lowest in comparison with the other types of rating; the highest percentages of both men and women declare that they use „basic criteria, basic strategies, some advanced features” (B1) for all items under scrutiny; higher percentages of men than women (33,3% respective 28,2%) declare they use the „basic criteria, basic strategies, some advanced features” (B1) for **digital continuous professional development**.

Professional engagement (q0015) by type of contract in the school (q0006)

Higher percentages of teachers with permanent contracts than teachers with temporary contracts are „redesigning and reinnovating” (C2) **professional collaboration, reflective practice** and the **digital**



continuous professional development. Nevertheless, the percentages for C2 are the lowest for all items under scrutiny, for both types of contracts; higher percentages of teachers with temporary contracts than teachers with permanent contracts (38,1% respective 28,5%) declare they use the „basic criteria, basic strategies, some advanced features” (B1) for **digital continuous professional development**, while percentages for B1 are the highest for both men and women for all items under scrutiny.

Professional engagement (q0015) by teaching role (q0007)

High percentages of all three roles are using the „basic criteria, basic strategies, some advanced features” (B1) for all 4 items under scrutiny, the highest percentages can be found at leaders - 38,9%). Low percentages of all three roles are „redesigning and reinovating” (C2) for all items under scrutiny (the highest percentage (11,1%) can be found at managers for **organizational collaboration** and **professional collaboration** while the highest percentages of teachers are using C2 for **digital continuous professional development**).

Professional engagement (q0015) by motivation to use digital instruments in your didactic and professional practice (q0024)

100% teachers who declared that they are “making little use/ are unsure” (A1) of their ICT competency for **organisational communication** and for **digital continuous professional development**, also declare that they “never” used in their practice ICT tools for **personal and professional growth**. High percentages of teachers who declared that they are “aware and use basic tools use” (B1) for **professional collaboration**, also declare that they “never” used ICT tools for **professional networking** or for **leisure** (66,7% respective 80%).

Professional engagement (q0015) by needs of training to be able to use digital technologies effectively in the classroom (q0021)

High percentages of teachers who declare that they have a medium level of ICT competence (“effective use; responsible use, experimentation” - B1) declare also that they need training in all 6 areas under scrutiny, in order to be able to use technology efficiently in the classroom (**basic uses of ICT, design, planning and classroom delivery, organisation and management of educational spaces and resources, communication and collaboration, digital ethics, professional development**). Meanwhile, low percentages of teachers who declare that they have a high level of ICT competence (“redesign and innovating” - C2) declare that they need training in the all six areas (with a peak for the training needs in the area of **professional development**, 10-14%).

Digital resources (q0016)

Digital resources (q0016) by age (q0003)



100% teachers up to 25 years declare that they do use medium digital competencies like “being aware and use basic tools” (B1) for **managing, protecting and sharing digital resources**; higher percentages of teachers aged up to 25 (50%) than teachers from other age categories are using medium digital competencies like B1 and “advanced strategies, complex criteria, creating resources” (B2) for **selecting digital resources** and for **creating and modifying digital resources**; higher percentages of teachers over 60 (60%) than teachers from other age categories use high digital competencies like “comprehensively using advanced tools, publishing resources” (C1) for **managing, protecting and sharing digital resources**; the lowest percentages of teachers from all age categories declare that they use high digital competences like “professionally creating and publishing” (C2) for all 3 items under scrutiny (0%-20%).

Digital resources (q0016) by gender (q0004)

Higher percentages of men than women declare that they use high digital competencies like “professionally creating and publishing” (C2) for all items under scrutiny; the lowest percentages of both men and women are using C2 for all items under scrutiny; the highest percentages of both women and men are using “basic criteria, basic strategies, some advanced features” (B1) for all items under scrutiny (with a peak of 39% men and 37% women who are using medium digital competencies B1 for **selecting digital resources**).

Digital resources (q0016) by type of contract in the school (q0006)

Higher percentages of teachers with temporary contracts (42,9%) than teachers with permanent contracts (28,9%) are using “basic criteria, basic strategies, some advanced features” (B1) for **creating and modifying digital resources**; higher percentages of teachers with permanent contracts than teachers with temporary contracts are using “advanced strategies, complex criteria, creating resources” (B2) for **creating and modifying digital resources** and for **managing, protecting and sharing digital resources** (over 10% difference); higher percentages of teachers with temporary contracts than teachers with permanent contracts are using “advanced strategies, complex criteria, creating resources” (B2) for **selecting digital resources** (over 10% difference).

Digital resources (q0016) by teaching role (q0007)

The lowest percentages of all three categories are using advanced digital competencies like “professionally creating and publishing” (C2) for all three items under scrutiny (example: 0% managers are using C2 for **managing, protecting and sharing digital resources**); higher percentages of all three roles are using “basic criteria, basic strategies, some advanced features” (B1) for **selecting digital resources** (39% managers, 38% teachers and 30% leaders).

Digital resources (q0016) by frequency of use of digital resources in the classroom for teaching activities (q0009)



High percentages of teachers declaring that they “are making little use/are unsure” (A1) or “are aware/are using basic tools” (A2) in **selecting digital resources** and in **creating and modifying digital resources** declare also that they “never” used **software for downloading audio/video files** (60% respective 70%).

Digital resources (q0016) by needs of training to be able to use digital technologies effectively in the classroom (q0021)

High percentages of teachers with medium ICT abilities in all three areas under scrutiny (B1) declare also in higher percentages that they need training in all six areas under scrutiny (for example, 44,6% of teachers who declare that they have B1 level of competence in using ICT for **selecting digital resources** also declare that they need training in order to use ICT in **communication and collaboration**; 38% of teachers who declare that they have B1 level of competence in using ICT in **managing, protecting and sharing digital resources** also declare that they need training in order to use ICT in **digital ethics**).

Teaching and learning (q0017)

Teaching and learning (q0017) by age (q0003)

When asked to what extent do teachers consider themselves able to *plan for and implement digital devices and resources in the teaching process, so as to enhance the effectiveness of teaching interventions, to appropriately manage and orchestrate digital teaching interventions and to experiment with and develop new formats and pedagogical methods for instruction*, of all age categories that had a number of responses large enough to be relevant, those of 25-30 years have declared themselves to the greatest extent (11,1%) to be able to innovate teaching, in other words, to be experts in the above mentioned abilities. At the same time, they are the age category that also recorded the highest percentage (11,1%) among those who declared that are making little use of digital technology and rated their knowledge as very limited in respect with the same mentioned abilities.

But, in general, most from all age categories (except for those who did not have a relevant number of responses) are rating their level in the above-mentioned abilities as functional or good knowledge. To be more precise, most of those aged 25-30 years (33,3%), but also of those aged 31-40 years (27,3%) and of those aged 41-50 years (25,2%) say they have a good knowledge. On the other hand, most of those aged 51-60 years (23,9%) say they have a functional knowledge level of competence in respect with the above-mentioned abilities.

When it comes to **guidance** (to use digital technologies and services to enhance the interaction with learners, individually and collectively, within and outside the learning session, to use digital technologies to offer timely and targeted guidance and assistance and to experiment with and develop new forms and formats for offering guidance and support), **collaborative learning** (to use digital technologies to foster and enhance learner collaboration, to enable learners to use digital technologies as part of collaborative assignments, as a means of enhancing communication, collaboration and collaborative knowledge creation) and **self-regulated learning** (to



use digital technologies to support self-regulated learning processes, i.e. to enable learners to plan, monitor and reflect on their own learning, provide evidence of progress, share insights and come up with creative solutions.) the youngest are also the most probable to consider themselves experts and able to innovate, and the percentages are similar (11,1%) with the exception of abilities regarding **guidance**, in which case the percentage is higher (22,2%).

But, in general, most from all age categories are rating their level of digital technology as functional or good knowledge, with the exception of abilities regarding **self-regulated learning**, in which case most from those of 31-50 years (approximately 24%) consider themselves to have limited knowledge of digital technology and also, those of 25-31 years have equally evaluated themselves as with limited knowledge and functional knowledge (33,3%), and in a lower extent with good knowledge of digital technology (22,2%).

Teaching and learning (q0017) by gender (q0004)

When looking at gender distribution, males tend to evaluate themselves in a higher extent than women as experts of digital technology in the case of all sets of the above abilities (teaching, guidance, collaborative learning, self-regulated learning), and, with the exception of collaborative learning, in which case the difference is only around 2%, in all other abilities the difference is around 10%.

But, in general, most males consider themselves to have excellent knowledge of digital technology in all sets of abilities, with the exception of **collaborative learning**, in which case most of them consider to have good knowledge (37%). On the other hand, females tend to see their level lesser as excellent knowledge of digital technology, and more as limited, functional or good knowledge, with similar percentages (around 20% or 25%) in the case of all sets of abilities and with a more balanced distribution between these three levels of evaluation (limited, functional, good knowledge of digital technology).

Teaching and learning (q0017) by type of contract in the school (q0006)

With regard to type of contract in school, none of those with temporary contract evaluate themselves as experts of digital technology, unlike those with permanent contract, from which between 5,9% and 8,1% tend to evaluate themselves as such, depending on the set of abilities referred to. Looking at the highest percentages, 38,1% from those with temporary contract think they have excellent knowledge of digital technology in collaborative learning, 28,6% think they have excellent knowledge or functional knowledge of digital technology in guidance, and very limited knowledge of digital technology in self-regulated learning, 33,3% think they have functional knowledge of digital technology in teaching. In the case of those with permanent contract, the highest percentages are: 24,1% think they have limited knowledge of digital technology in self-regulated learning, but good knowledge of digital technology in teaching, 26,3% think they have good knowledge of digital technology in collaborative learning and around 23% think they have limited knowledge, functional knowledge or good knowledge of digital technology in guidance.



Teaching and learning (q0017) by teaching role (q0007)

In respect with the role undertaken within the school, most of those with leadership roles think they have good knowledge of digital technology in guidance (38,9%), collaborative learning (36,1%), teaching (30,6%) and in self-regulated learning (27,8%). Most of those with management roles think they have good knowledge of digital technology in guidance and collaborative learning (33,3%), while to a bit lesser extent (30,6%) they consider to have good knowledge of digital technology in self-regulated learning and excellent knowledge of digital technology in teaching. Of those with teaching roles, most consider to have good knowledge of digital technology in teaching (24,9%), guidance (24,2%) and collaborative learning (23,4%) and limited knowledge in self-regulated learning (23,8%).

Teaching and learning (q0017) by familiarity with the main teaching practices in use (q0010)

Regarding the familiarity with the main teaching practices in use, most of those who use active methodologies (such as Flipped Classroom) think they have good knowledge of digital technology in collaborative learning (33,3%), most of those who are only aware of this methodologies think the same (30,2%), but most of those who are not aware of this methodologies think they only have limited knowledge of digital technology in collaborative learning (29,8%). Of those who use collaborative learning most consider to have good knowledge of digital technology in collaborative learning (28,7%), while most of those who only are aware of collaborative learning think they have good knowledge of digital technology in collaborative learning and in guidance (27,2%). Those who are not aware of collaborative learning think they only have limited knowledge of digital technology in collaborative learning and in self-regulated learning (29,3%).

The highest percentage of respondents who use project-based learning say they have good knowledge of digital technology in collaborative learning (27,3%), while most of those who are only aware of project-based learning think they have limited knowledge of digital technology in teaching (30%). Of those who use problem-based learning, most consider to have good knowledge of digital technology in collaborative learning (26,9%) and of those who are only aware of problem-based learning, most think they have good knowledge of digital technology in teaching (28%), while most of those who are not even aware of problem-based learning consider to have limited knowledge of digital technology in teaching (50%). Finally, most of those who use case-based learning think they have good knowledge of digital technology in teaching (26,9%), compared to those who are only aware of case-based learning, most of which think they have good knowledge of digital technology in guidance (29,2%), and with those who are not even aware of case-based learning, most of which think they have only limited knowledge of digital technology in teaching and self-regulated learning (57,1%).

Teaching and learning (q0017) by needs of training to be able to use digital technologies effectively in the classroom (q0021)

Regarding the needs of training to be able to use digital technologies effectively in the classroom, most of those who feel they need training in how to use ICT and digital technologies from a novice level, think they only have



limited knowledge of digital technology in teaching, guidance, collaborative learning and self-regulated learning (25% in average). Similar percentage of those who feel they need training in how to use ICT and digital technologies to aid with lesson planning and preparation, think they have good knowledge of digital technology in teaching, guidance or collaborative learning and limited knowledge of digital technology in self-regulated learning. Most of those who feel they need training in how to use ICT and digital technologies to facilitate and improve working environments, think they have good knowledge of digital technology in teaching, guidance or collaborative learning (23%-24%). About 25% of those who feel they need training in how to use ICT and digital technologies to communicate, collaborate, create, share content and build knowledge in the classroom and of those who feel they need training in how to use ICT and digital technologies for their own teaching development, think they have good knowledge of digital technology in all four areas. Most of those who feel they need training in how to use ICT and digital technologies for issues relating to legality, security and digital identity, think they have limited knowledge of digital technology in teaching (26%) and guidance (28%), but excellent knowledge of digital in technology collaborative learning (26%), and equal rates of them (24%) think they have excellent or limited knowledge of digital in technology in self-regulated learning.

Digital Assessment (q0018)

Digital Assessment (q0018) by age (q0003)

When asked in what extent do they consider themselves able *to use digital technologies for formative and summative assessment and to enhance the diversity and suitability of assessment formats and approaches*, the age distribution shows that 55,6% of respondents from 25-30 years age category and 34,3% of those aged 51-60 years think they have functional knowledge of digital in technology in **assessment strategies**, while 33,8% of those aged 31-40 years and 28,2% of those aged 41-50 years think they have limited knowledge of digital in technology in this matter. In regard with the ability *to generate, select, critically analyse and interpret digital evidence on learner activity, performance and progress, in order to inform teaching and learning (analysing evidence)*, the age distribution shows similar percentages as above. When it comes to **feedback and planning**, meaning *to use digital technologies to provide targeted and timely feedback to learners, to adapt teaching strategies and to provide targeted support, based on the evidence generated by the digital technologies used and to enable learners and parents to understand the evidence provided by digital technologies and use it for decision-making*, distribution by age is as follows: 33,3% of those aged 25-30 years and 28,4% of those aged 51-60 years consider to have functional knowledge of digital in technology in this matter, while a similar percentage of those aged 31-50 years consider to have limited knowledge.

Digital Assessment (q0018) by gender (q0004)

Distribution by gender indicates a higher rate of those who think they have expert knowledge of digital technology in the case of all sets of the above abilities among males (11,1%.-14,8%). Females feel more insecure than males about their knowledge of digital technology in all three mentioned abilities.



Digital Assessment (q0018) by type of contract in the school (q0006)

Regarding the type of contract in school, none of those with temporary contract think they have expert knowledge of digital technology in analysing evidence or feedback and planning, but more of them compared with those who have a permanent contract think they have expert knowledge of digital technology in assessment strategies, although, the percentages are small for both categories (around 4%). Those with permanent contract feel most insecure about their knowledge of digital technology in feedback and planning, while those with temporary contract are most insecure about their knowledge of digital technology in analysing evidence.

Digital Assessment (q0018) by teaching role (q0007)

Most of those with leadership roles (36,1%) think they have functional knowledge of digital technology in assessment strategies and feedback and planning. The same percentage from those with management roles think they have functional knowledge of digital technology in assessment strategies, but limited knowledge of digital technology in feedback and planning. Also, most of those with teaching roles believe to have limited knowledge of digital technology in assessment strategies (29,7%) and feedback and planning (30,5%).

Digital Assessment (q0018) by use of digital technologies for assessment methods (q0011)

As expected, there is a clearly observable relation between the self-perceived competence assessment methods and the frequency of using different assessment methods.

Very few of those who say they use no assessment method consider themselves to be above level A2 in proficiency. In the case of “Assessment strategies” it’s in fact 0%, while in the cases of both “Analysing evidence” and in the case of “Feedback and Planning” it’s 15,4%.

For those who say that they use different methods of evaluation, we can observe a Gauss-like distribution of values, which mostly peaks at level B1, with some case at A2 or B2, and tails-off towards A1 and C2.

Digital Assessment (q0018) by frequency of activities as part of teaching (q0012)

There is a clear relation between the frequency of use of certain activities and the self-perceived competence in assessment. People who perceive themselves at a high degree of proficiency in assessment, are extremely unlikely to say that they never use certain activities. At the other end of the spectrum, people who seldom use the activities listed in the questionnaire, are more likely to evaluate themselves as being at levels A1 to B2 in assessment proficiency.

Digital Assessment (q0018) by perception of the utility of digital tools and technologies (q0013)



Less proficient teachers tend to evaluate the utility of different tools as being lower, with the opposite being true for those who perceive themselves as being more proficient.

Teachers rating the different tools as not being useful rarely evaluate themselves at a proficiency level above A2, and never consider themselves experts (C1 and C2).

People describing themselves as experts have a higher opinion of the tools and technologies, with C2 level teachers overtaking even C1 level teachers in their positive perception.

Digital Assessment (q0018) by needs of training to be able to use digital technologies effectively in the classroom (q0021)

The training needs of teachers in regard to certain aspects, such as basic ICT use, classroom delivery, communication, organisation and management, digital ethics or professional development, increases the lower their perceived competence level is.

When it comes to teachers who perceive themselves as experts in assessment (C level), the highest scoring aspects they would like to pursue is digital ethics and professional development. At the other end, training needs in all aspects peak at level A2. We take this to mean that those who have started on their way to acquire different competences are the most likely to want to pursue that goal.

Empowering Learners (q0019)

Empowering Learners (q0019) by age (q0003)

Age distribution in respect with the ability to empower learners shows that the youngest respondents (25-30 years) feel most prepared to use digital technologies to address learners' diverse learning needs and to follow individual learning pathways and objectives. 31-40 years age group seems to be less confident in this matter, but more able to actively engage learners and to ensure accessibility to learning resources and activities, for all learners, including those with special needs. Older respondents (41-50 years) consider themselves more capable to actively engage learners, while the oldest ones (51-60 years) seem to be equally confident in all three abilities considered.



Empowering Learners (q0019) by gender (q0004)

Males are more likely than females to consider themselves to have excellent knowledge or to be experts in all three abilities regarding the empowering of learners (accessibility and inclusion, differentiation and personalisation, actively engaging learners).

Empowering Learners (q0019) by type of contract in the school (q0006)

The aspect that stands out is that teachers on a temporary contract are more likely to evaluate themselves as A1 than their colleagues on a permanent contract, but never evaluate themselves at C2 level. In the mid-tiers, values between the two groups tend to be similar.

Empowering Learners (q0019) by teaching role (q0007)

No difference can be highlighted between the three groups (teachers, management, leaders) in regard to their perceived competence to empower learners. This can be due to the similar background and tasks they have to perform for of all three groups. Taking management and leadership roles does not exempt school staff from teaching tasks.

Empowering Learners (q0019) by familiarity with the main teaching practices in use (q0010)

People not aware of teaching practices such as active, collaborative, case-based, project-based or problem-based indicate lower levels of proficiency in empowering learners, with very few or none indicating expert level proficiency (C level) – between 3% and 5% in the case of active methods, but 0% for all other. Conversely, indicating that one actively uses the methods correlates with higher perceived competence in empowering learners. This is very much what we would expect in this situation, with competence being derived from practice.

Empowering Learners (q0019) by use of digital technologies for assessment methods (q0011)

Between 69% and 84% of those who do not use any of the assessment methods described by the questionnaire (portfolio, rubrics, conceptual maps, self- and peer assessment) consider themselves to be at the lower levels of competence (A) when checked compared to the three dimensions of learner empowerment.

Those who use the above mentioned assessment methods tend to have very similar distributions when it comes to the six levels of proficiency of the scale that was used. B1 is the dominant level for all and significantly more people at levels A1 and A2, that at C1 and C2.

Empowering Learners (q0019) by frequency of activities as part of teaching (q0012)



A clear relation can be observed between the use of ICT for different purposes and how competent teachers feel about empowering pupils to learn.

Not using certain tools and services in their activity makes it more likely that teachers assess themselves as lacking in competence. Very few (below 6 % in all cases) rate themselves at level C1 and virtually none at level C2.

No matter the degree to which they use or not ICT, all groups peak at level B1 in proficiency.

Empowering Learners (q0019) by perception of the utility of digital tools and technologies (q0013)

In the case of teachers who indicate lower use of digital tools and technologies for communication purpose, the distribution of self-perceived competence is polarised with roughly equal numbers indicating very low proficiency (A level) as they indicate very high proficiency (C level) and virtually none indicating mid-level proficiency. This could be a measure of the divide between teachers who wish to incorporate ICT in their regular practice and those who feel they can be just as efficient in its absence.

The phenomenon of polarisation of options of those who do not use the respective tools is repeated in the case of other tools, albeit with different patterns. This could mean that some teachers acquire a sense of competence outside the actual use of tools. This could be symptomatic, but was not observed in the case of other cross-referenced variables.

Those indicating partial or average use of the digital tools mentioned in the questionnaire tend to be assess themselves at either A or B levels, with very few choosing C level.

Finally, higher levels of use seem to correlate with an increasing sense of competence.

Empowering Learners (q0019) by needs of training to be able to use digital technologies effectively in the classroom (q0021)

The results of this cross-tabulation closely mirror those of the cross-tabulation of the previous question, in which teachers were asked to rate their competence in assessment, with the training needs.

Teachers with higher degrees of competence indicate professional development and ethics as their main interests for training, while the use of basic ICT is needed by A1 and A2 level teachers.

These results paint a coherent image, in which lower skills correlate with more basic needs and higher skills with more advanced aspects.

Facilitating Learners' Digital Competence (q0020)



Facilitating Learners' Digital Competence (q0020) by age (q0003)

Regarding the ability to facilitate learners' digital competence, those aged 25-30 years consider themselves less capable to do this when it comes to digital content creation but think to a greater extent that they have good knowledge about information and media literacy and are strategically using a range of strategies in order to facilitate learners' digital competence in this matter. Those a little older (31-40 years) think they are less capable to facilitate learners' digital competence in information and media literacy or digital content creation, but more able to do this in relation to responsible use. Respondents from 41-50 years age group evaluated themselves as less competent in facilitate learners' digital competence when it comes to digital problem solving, but more able to do this regarding digital communication & collaboration, or responsible use. The oldest age group (51-60 years) seem to be most unsecure about facilitating learners' digital competence in digital content creation, but more confident with respect to responsible use, information and media literacy, or digital communication & collaboration.

Facilitating Learners' Digital Competence (q0020) by gender (q0004)

Extreme answers tend to differentiate men and women, with men more confident (less A1 levels and more C2 levels), but mid-tier answers seem to be comparable in numbers. This should be understood through the limitations of the sample, in which the number of men providing answers was relatively low.

Facilitating Learners' Digital Competence (q0020) by type of contract in the school (q0006)

Permanent contract holders are more confident on all levels of facilitating learners' digital competences, than temporary contract holders. About 2/3 of temporary contract holders do not surpass A level in any of the five dimensions of facilitating learners' digital competences, compared to 1/2 of permanent contract holders who are in the same situation. This is easily explained by the fact that the former have, on average, much more experience in terms of teaching practice.

Facilitating Learners' Digital Competence (q0020) by teaching role (q0007)

It is not easy to point out differences or trends when it comes to the different roles of school staff and their self-rated ability of facilitating learners' digital competences. The bulk of answers for all three roles is concentrated at A2 and B1 levels, with a combined total of around 55% for each dimension.

We put these results down to the same training and tasks performed by all school staff, even if senior roles should, in theory have more experience.



Facilitating Learners' Digital Competence (q0020) by frequency of use of digital resources in the classroom for teaching activities (q0009)

Though there were differences in the rates of use of the different resources, based on their requirements, when paired with the proficiency levels in facilitating learners' digital competences the dynamics were very similar.

The frequency of using digital resources, of any kind, seems to correlate positively with a higher perceived level of competence in facilitating learners' digital competences. Between 65 and 90% of those who do not use one of the types of digital resource enumerated in the questionnaire consider themselves to be at level A. For those who always use those tools the percentages for A level vary between 30 and 40.

Facilitating Learners' Digital Competence (q0020) by familiarity with the main teaching practices in use (q0010)

Not being aware of certain teaching practices (such as active, collaborative, case-based, project-based or problem-based) was a good predictor for low levels (around 70% A level) of self-perceived competence in the five dimensions of facilitating learners' digital competences. Only those who make direct use of the respective teaching practices surpass 20% when it comes to expert level (C). It should be noted that the median level for all groups is A2, rather than B1, as was the case for most of the cross-tabulations described above.

Facilitating Learners' Digital Competence (q0020) by use of digital technologies for assessment methods (q0011)

Not using any assessment method strongly correlates with very low abilities in facilitating learners' digital competences. Over 90% of those who indicated they are not using any digital technologies for assessment indicated their level of competence as being A, in all five dimensions of facilitating learners' digital competences.

Conversely, using any assessment method by digital means has similar distributions, in the shape of a pyramid, with lower numbers as you go from level A to level B and, then, to level C.

These distributions can be seen as natural, with non-users indicating low levels of competence and users being at different stages of proficiency.

Facilitating Learners' Digital Competence (q0020) by frequency of activities as part of teaching (q0012)

70 to 80 percent of those who never use ICT as part of teaching practices feel they are only in the beginning stages (A level) of acquiring the necessary competences for facilitating learners' own digital competences. A similar perception can be encountered with those that only sometimes use ICT. Their percentages for A level vary between 30 and 50.



As expected, the more frequent the use of ICT, the more confident in their abilities the teachers grow. Those who say that they always use ICT regularly (20 to 30 percent) indicate that they have reached a high level of expertise.

Facilitating Learners' Digital Competence (q0020) by perception of the utility of digital tools and technologies (q0013)

Teachers who find ICT "not at all useful", in most cases, evaluate their abilities at A level. 100% of teachers which chose this option for "improve teacher CDP", "improve communication, collaboration and coordination between colleagues, students and institutions", "involve other actors in the learning process", "make the learning process more efficient", "make the learning process more meaningful for the student" ranked their abilities to facilitating learners' own digital competences at levels A1 and A2.

Respondents who found digital tools and technologies "very useful" had a balanced distribution of self-assessed competence in facilitating learners' own digital competences.

Facilitating Learners' Digital Competence (q0020) by needs of training to be able to use digital technologies effectively in the classroom (q0021)

We can observe that teachers, regardless of their competence level, tend to maintain a constant interest in attending all types of courses, which is characteristic to each group. For A level teachers the interval is 40% to 50%, for B level teachers the interval is 30% to 40%, while for expert level teachers it varies between 10% and 20%. Teachers with higher degrees of competence are likelier to indicate professional development and ethics interests for training, while the use of basic ICT is needed by A1 and A2 level teachers.

Needs of training to be able to use digital technologies effectively in the classroom (q0021)

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by age (q0003)

Regarding the needs of training to be able to use digital technologies effectively in the classroom, most of those who feel they need training in how to use ICT and digital technologies from a novice level are from the 51-60 years age group (37,3%), most of those who feel they need training in how to use ICT and digital technologies to aid with lesson planning and preparation are from the 25-30 years age group (66,7%), most of those who feel



they need training in how to use ICT and digital technologies to facilitate and improve working environments are from the 51-60 years age group (64,2%), Training in how to use ICT and digital technologies to communicate, collaborate, create, share content and build knowledge in the classroom 66,7% Training in how to use ICT and digital technologies for issues relating to legality, security and digital identity 22,2% Training in how to use ICT and digital technologies for their own teaching development 64,9%.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by gender (q0004)

The gender distribution reveals that both females (58,0%) and males (66,7%) need most further training in how to use ICT and digital technologies for their own teaching development.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by type of contract in the school (q0006)

Distribution based on type of contract in school shows that both those with temporary (61,9%) and those with permanent contract (58,5%) also feel in the highest extent the need for further training in how to use ICT and digital technologies for their own teaching development.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by teaching role (q0007)

Distribution based on the roles undertaken within the school is also revealing that for those with leadership and teaching roles the need for further training reaches highest rates in respect with the use of ICT and digital technologies for their own teaching development. Only for those with management roles the highest need for further training is in the use of ICT and digital technologies to facilitate and improve working environments.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by frequency of use of digital resources in the classroom for teaching activities (q0009)

Those who never use the different digital resources in the classroom are more likely to ask for training in the basic use of ICT, communication and collaboration tools and professional development in general. Those who always use ICT in their practice, on the other hand, would like to receive training on organisation and management of educational spaces and resources.

While lower numbers indicate that they would like to be trained in the digital ethics, it is those who use ICT most often that would like to have this kind of training.



Thus, awareness regarding the need for training seems to decrease with the complexity of the proposed training, with people concentrating on their immediate training needs.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by familiarity with the main teaching practices in use (q0010)

Using any of the types of teaching practices listed in the questionnaire reduces the need for further training. Not being aware of the types of teaching practices significantly increases the need for training, but only for basic ICT, design and delivery of teaching and management of space and resources.

It is those who always use of the types of teaching practices listed in the questionnaire which mostly indicate the need for training in digital ethics and professional development.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by use of digital technologies for assessment methods (q0011)

Either using or not using any of the assessment methods listed, does not seem to impact on the choice of trainings. All groups indicate similar percentages when it comes to each type of training.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by frequency of activities as part of teaching (q0012)

No trend could be inferred from the data. All groups (always, often, sometimes, never) have expressed similar opinions regarding training needs, with the lowest numbers of respondents indicating digital ethics and the largest numbers indicating professional development as a whole.

Needs of training to be able to use digital technologies effectively in the classroom (q0021) by perception of the utility of digital tools and technologies (q0013)

No trends could be identified in the relation between training needs and the perception regarding the utility of different tools and technologies. Regardless of their opinion of ICT, teachers seemed to indicate similar levels of desire to attend trainings (between 30% and 60%). One exception was the “not useful” option, which due to low numbers of respondents tended to vary more.

Digital skills qualifications (q0022)

Digital skills qualifications (q0022) by age (q0003)



Considering the types of digital skills qualifications (ECDL, EIPASS, MICROSOFT MOUS (Microsoft Office User Specialist), Global standard, CISCO, PEKIT, Teacher of software (ro.: *Profesorul creator de soft*), Intel-Teach), 33,3% of respondents aged 25-30 years have no official certification, while the same percentage from this age group has ECDL certification and another 11,1% of them has Intel-Teach certification. Of those from the 31-40 age group, 45,5% have no official certification, 19,5% have ECDL certification, 1,3% have either EIPASS or Global standard certification, 2,6% have either MICROSOFT MOUS or CISCO certification, 14,3% have Intel-Teach certification and 10,4% have Teacher of software certification. Of those from the 41-50 age group, 29,8% have no official certification, 34,4% have ECDL certification, 0,8% have EIPASS certification, 2,3% have MICROSOFT MOUS certification, 1,5% have Global standard certification, 4,6% have CISCO certification, 21,4% have Intel-Teach certification and 9,2% have Teacher of software certification. Finally, of those from the 51-60 age group, 38,8% have no official certification, 20,9% have ECDL certification, 9% have MICROSOFT MOUS certification, 4,5% have CISCO certification, 29,9% have Intel-Teach certification and 4,5% have Teacher of software certification.

As we can see, those with no certification are most from the 31-40 age group and that the most frequent certification obtained among all ages is ECDL.

Digital skills qualifications (q0022) by gender (q0004)

Gender distribution shows that mostly females are among those that don't have a certification of digital skills.

Digital skills qualifications (q0022) by type of contract in the school (q0006)

Regarding the type of contract, considerably more of those with temporary contract (57,1%) than of those with permanent contract (34,1%) don't have a certification of digital skills. Also, those with temporary contract have less diverse certification (only ECDL, MICROSOFT MOUS, Intel-Teach and Teacher of software).

Digital skills qualifications (q0022) by teaching role (q0007)

Concerning the roles undertaken within the school, those with management roles and teaching roles have higher rates of non-certification of digital skills than those with leadership roles. Only those with teaching roles have EIPASS and PEKIT certification.

Digital skills qualifications (q0022) by frequency of use of digital resources in the classroom for teaching activities (q0009)

Very few teachers have formal certification, but this does not stop them from using ICT in the classroom. Only when it comes to "coding - computational thinking" and "resources for creating blogs, websites etc." the numbers that say they never use them are much higher than those that say they use them.



The type of certification shows that the most common are ECDL, Intel-teach, Profesorul creator de soft. Among those who have ECDL certification, the most frequent used ICT tool is “coding - computational thinking” and the most rarely used are “resources for creating blogs, websites” and “Digital Educational Content and OER (Open Educational Resources)”. Among those who have Intel-teach certification, the most frequent used ICT tools are “digital environments for learning, sharing, communication and collaborating (online platforms, websites, blogs, social and educational social networks, gamification, edutainment etc.)”, “Digital Educational Content and OER (Open Educational Resources)” and “multimedia programs relevant for their discipline”. Among those who have *Profesorul creator de soft* certification, the most frequent used ICT tool is “coding - computational thinking”.

Digital skills qualifications (q0022) by familiarity with the main teaching practices in use (q0010)

Because the numbers of those who have some types of certification (EIPASS, MICROSOFT MOUS, Global standard, CISCO, PEKIT) are very small, it is difficult to highlight a connection between types of certification and the familiarity with different teaching practices, but those who lack a certification have the highest rate of being unaware of the investigated digital teaching methods, especially of “project-based learning”. In the case of those with the most common types of certification, the ECDL group and Intel-teach group are the most unaware of “case-based learning”.

Digital skills qualifications (q0022) by use of digital technologies for assessment methods (q0011)

Not having a certification seems to be a predictor for not using ICT for assessment (over 60%), while for those with ECDL and Intel-teach certifications these numbers drop to around 20%. Also, the Intel-teach group seems to use ICT for conceptual maps more than for other assessment methods.

Digital skills qualifications (q0022) by frequency of activities as part of teaching (q0012)

Not having a certification also seems to be a predictor for not carrying out different types of ICT activities, around 45% of respondent that don't have a certification say they have never carried out the mentioned activities. Although, for the most part, it is difficult to highlight a connection between the main types of certification (ECDL, Intel-teach, Profesorul creator de soft) and the frequency of ICT activities as part of teaching, it seems that those that have *Profesorul creator de soft* certification are most frequently encouraging interdisciplinary projects through the use of online technologies and those that have ECDL certification are most frequently carrying out online student assessment.

Digital skills qualifications (q0022) by perception of the utility of digital tools and technologies (q0013)

It is difficult to highlight a connection between either the main types of certification (ECDL, Intel-teach, Profesorul creator de soft) or lack of certification and the perception of usefulness for different digital tools and technologies.

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Co-funded by the
Erasmus+ Programme
of the European Union



Conclusion

Based on a template for quantitative national research, the survey aimed to answer questions like: *Does the school provide sufficient technological facilities to use in lessons? How are digital technologies used in daily professional practice and teaching work? How experienced are teachers in using these digital technologies and tools? What are the most relevant innovations in the field?*

The framework of teachers' personal views regarding using digital technologies shows a critical understanding and appreciation of using ICT tools in the process of training, teaching and learning. Although the overwhelming majority of teachers does acknowledge the importance and benefits of the use of ICT in teaching and professional practices, especially when designing and organising educational materials and for its positive outcomes in developing responsible media and digital skills, influencing how learners behave, developing basic skills and encouraging self-assessment among students, teachers also believe that using such technologies does not replace traditional didactics and that daily use of technology in the classroom is not enough. Their view supports the integration of the e-learning into teaching activities, alongside traditional classroom-based teaching methods. Their moderate evaluation of risks that ICT tools can present, like cyberbullying and distraction for pupils, is also a sign of teachers' digital awareness.

The main motivations for teachers to use digital instruments in their didactic and professional practice are for helping their personal and professional development and for professional network.

Their perception of the utility of digital tools and technologies is highly connected to the integration of formal learning with non-formal and informal learning, to improving teachers' CDP, as well as to communication, collaboration and coordination between relevant teachers, students and organizations.

The reconstruction of the teaching practice in ICT reveals teachers' inclination to use more facile tools. The most common digital resources used in the classroom for teaching activities are tools for text editing, spreadsheets, presentations, audio/video downloading software, resources for creating/editing audio or video content and search tools. The more complex tools like coding - computational thinking or resources for creating blogs or websites are not very popular among teachers, probably because they do not prepared for using such tools.

Regarding digital teaching methodologies, teachers are more familiar with project-based learning, problem-based learning and case-based learning than active methodologies.

In terms of evaluation practices, there are very few teachers who answered that they do not integrate digital tools in any of the assessment methods, the most used method being the portfolio.

Regular use of digital tools as part of the teaching activities is not very common, although some practices – like online documentation on certain topics, collaborative work online, creative activities using online applications – are more frequent than others – online student assessment and interdisciplinary projects through the use of online technologies being the most rarely used.



Teachers digital training experience has been mostly in the form of blended training or face-to-face training and in a formal education frame.

Self-assessment of digital competency shows a relative hierarchy among the considered competences:

- ICT in teaching (mostly at B2 and B1 levels)
- ICT in Guidance, Professional engagement, Selecting digital resources (mostly B1 and B2 levels)
- ICT in Collaborative learning (mostly B2 and A2)
- ICT in Self-regulated learning (mostly A2 and B2)
- ICT in Creating and modifying digital resources, Managing, protecting and sharing digital resources and Empowering Learners (mostly B1 and A2)
- ICT in Digital Assessment and Facilitating Learners' Digital Competence (Information and media literacy, Digital communication & collaboration, Responsible Use) (mostly A2 and B1)
- ICT in Digital problem solving (mostly A2 and B1 equal with A1)
- ICT in Digital content creation (mostly A2 and A1)

As we can see, in general, teachers tend to evaluate their digital competency as mediocre.

Very few teachers have formal certification, with the most common types of certification being ECDL, Intel-teach, Profesorul creator de soft.

The identified needs for further training in order to be able to use digital technologies effectively in the classroom indicate that over 50% of teacher feel they need more training in how to use ICT and digital technologies for their own teaching development, for organizing and managing educational spaces and resources and for communicating, collaborating, creating, sharing content and building knowledge in the classroom. Training in how to use ICT and digital technologies to aid with lesson planning and preparation and even training for basic uses of ICT are also highly needed.

The identikit of the "Digital teacher" shows that, in general:

- men tend to be more confident in their level of digital abilities than women.
- teachers with permanent contract evaluate their digital abilities above those with temporary contract.
- men and teachers with permanent contract say they use more frequent digital technologies in their teaching practice of any kind than women and teachers with temporary contract.
- men and teachers with permanent contract have more digital skills certifications than women and teachers with temporary contract.
- the use in practice of all kinds of teaching activities that involves digital technologies increases by the school type: the lowest percentages can be found in early education, while the highest percentages can be found in VET and upper secondary education.
- higher levels of ICT tool use seem to go hand in hand with an increased sense of competence.
- lower skills correlate with more basic needs and higher skills with more advanced ones.
- there is a clearly observable relation between the self-perceived competence assessment methods and the frequency of using different assessment methods.
- there is a relation between the frequency of use of certain activities and the self-perceived competence in assessment.



- less proficient teachers tend to evaluate the utility of different tools as being lower, with the opposite being true for those who perceive themselves as being more proficient.



Annexes

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Annex 2. Tables

Table 1.



		a. v.	%
School Type	Early Years (3-6 years)	20	6,9
	Primary School (6/7-11/12 years)	30	10,3
	Lower secondary (11/12-15/16 years)	111	38,1
	Upper secondary (15/16-19/20 years)	107	36,8
	VET (15/16-18/19 years)	23	7,9
	Tot.	291	100,0

Table 2.

		a. v.	%
County	Alba	8	2,7%
	Argeş	3	1,0%
	Bacău	25	8,6%
	Bihor	3	1,0%
	Bistriţa Năsăud	9	3,1%
	Botoşani	6	2,1%
	Braşov	1	,3%
	Bucureşti	31	10,7%
	Buzău	3	1,0%
	Călăraşi	18	6,2%
	Cluj	3	1,0%
	Constanta	12	4,1%
	Dâmboviţa	10	3,4%
	Dolj	3	1,0%
	Galaţi	3	1,0%
	Ialomiţa	3	1,0%
	Iaşi	43	14,8%
	Ilfov	5	1,7%
	Maramureş	9	3,1%
	Mehedinţi	1	,3%
	Mureş	6	2,1%
	Neamţ	14	4,8%
	Olt	3	1,0%



	Prahova	5	1,7%
	Sibiu	9	3,1%
	Suceava	5	1,7%
	Teleorman	15	5,2%
	Timiș	9	3,1%
	Tulcea	1	,3%
	Vaslui	1	,3%
	Vâlcea	6	2,1%
	Vrancea	18	6,2%
	Tot.	291	100,0%

Table 3.

		a. v.	%
Area	Rural	70	24,1%
	Urban	221	75,9%
	Tot.	291	100,0%

Table 4.

		a. v.	%
Age range	Up to 25	2	,7%
	25 - 30	9	3,1%
	31 - 40	77	26,5%
	41 - 50	131	45,0%
	51 - 60	67	23,0%
	60+	5	1,7%
	Tot.	291	100,0%

Table 5.

		a. v.	%
Gender	Female	264	90,7%
	Male	27	9,3%
	Tot.	291	100,0%

Table 6.

Teaching area	a. v.	%
Literacy	47	16,2



Numeracy	50	17,2
Science	102	35,1
History	19	6,5
Arts	28	9,6
Music	22	7,6
Physical Education	11	3,8
Development of practical abilities	35	12,0
Religious Education	2	0,7
Ethics and Democratic Citizenship	15	5,2
Social Sciences	62	21,3
ICT	33	11,3
Modern Foreign Languages	24	8,2
Learning Approaches	26	8,9
Special Educational Needs	31	10,7
Other	77	26,5

Table 7.

		a. v.	%
Current employment status	Permanent contract	270	92,8
	Temporary contract	21	7,2
	Tot.	291	100,0

Table 8.

Roles undertaken within the school over the past three years	a. v.	%
Leadership role	36	12,4
Management role	36	12,4
Teaching role	269	92,4

Table 9.

Are you currently a designated ICT/Digital Coordinator?	a. v.	%
No	232	79,7
Yes	59	20,3
Tot.	291	100,0

Table 10.



Status within the education system	a. v.	%
Beginner	9	3,1
Permanent status	38	13,1
Level II	43	14,8
Level I	201	69,1
Tot.	291	100,0

Table 11.

Personal opinions. How strongly you agree or disagree with the following list of statements:		a. v.	%
The use of digital technologies helps when designing and organising educational materials	Strongly agree	81	27,8
	Agree	207	71,1
	Disagree	2	,7
	Strongly disagree	1	,3
	Tot.	291	100,0
The use of digital technologies promotes the development of basic skills (reading, writing, comprehension)	Strongly agree	43	14,8
	Agree	201	69,1
	Disagree	44	15,1
	Strongly disagree	3	1,0
	Tot.	291	100,0
The use of digital technologies promotes the development of responsible media and digital skills	Strongly agree	68	23,4
	Agree	210	72,2
	Disagree	12	4,1
	Strongly disagree	1	,3
	Tot.	291	100,0
The use of digital technologies creates positive learning outcomes by influencing how learners behave	Strongly agree	64	22,0
	Agree	211	72,5
	Disagree	16	5,5
	Tot.	291	100,0
The use of digital technologies should not replace traditional teaching methods	Strongly agree	96	33,0
	Agree	164	56,4
	Disagree	29	10,0
	Strongly disagree	2	,7
	Tot.	291	100,0
The use of digital technologies encourages self-assessment among students	Strongly agree	50	17,2
	Agree	205	70,4
	Disagree	34	11,7
	Strongly disagree	2	,7
	Tot.	291	100,0



	Tot.	291	100,0
The use of digital technologies increases the level of cyberbullying	Strongly agree	24	8,2
	Agree	102	35,1
	Disagree	132	45,4
	Strongly disagree	33	11,3
	Tot.	291	100,0
The use of digital technologies is a distraction for students	Strongly agree	20	6,9
	Agree	78	26,8
	Disagree	151	51,9
	Strongly disagree	42	14,4
	Tot.	291	100,0
Digital technologies do not improve education processes, learning, etc.	Strongly agree	11	3,8
	Agree	48	16,5
	Disagree	143	49,1
	Strongly disagree	89	30,6
	Tot.	291	100,0
It is necessary to integrate e-learning into teaching activities, alongside traditional classroom-based teaching methods	Strongly agree	71	24,4
	Agree	203	69,8
	Disagree	16	5,5
	Strongly disagree	1	,3
	Tot.	291	100,0
Daily use of technology in the classroom is not enough, students need to learn how to use books	Strongly agree	144	49,5
	Agree	141	48,5
	Disagree	5	1,7
	Strongly disagree	1	,3
	Tot.	291	100,0
Daily use of technology in the classroom is not enough, students need to learn how to use lab equipment	Strongly agree	141	48,5
	Agree	145	49,8
	Disagree	5	1,7
	Tot.	291	100,0

Table 12.

How often do you use digital technologies for the following scenarios:		a. v.	%
Social networking	Always	74	25,4



	Often	148	50,9
	Sometimes	60	20,6
	Never	9	3,1
	Tot.	291	100,0
Professional networking	Always	126	43,3
	Often	137	47,1
	Sometimes	25	8,6
	Never	3	1,0
	Tot.	291	100,0
Personal and professional growth	Always	189	64,9
	Often	96	33,0
	Sometimes	4	1,4
	Never	2	,7
	Tot.	291	100,0
Leisure (<i>culture, hobbies, entertainment, travel, etc.</i>)	Always	71	24,4
	Often	146	50,2
	Sometimes	69	23,7
	Never	5	1,7
	Tot.	291	100,0

Table 13.

To what extent do digital tools and technologies support the following:		a. v.	%
Make students more autonomous	Very Useful	48	16,5
	Useful	148	50,9
	Average	75	25,8
	Partially	16	5,5
	Not at all	4	1,4
	Tot.	291	100,0
Empower students in their own education	Very Useful	44	15,1
	Useful	131	45,0
	Average	90	30,9
	Partially	21	7,2
	Not at all	5	1,7
	Tot.	291	100,0
Make the learning process more meaningful for the student	Very Useful	59	20,3
	Useful	122	41,9
	Average	84	28,9



	Partially	23	7,9
	Not at all	3	1,0
	Tot.	291	100,0
Make the learning process more effective (students achieving higher results than expected)	Very Useful	43	14,8
	Useful	122	41,9
	Average	100	34,4
	Partially	23	7,9
	Not at all	3	1,0
	Tot.	291	100,0
Make the learning process more efficient (achievements with less effort and/or lower costs)	Very Useful	46	15,8
	Useful	138	47,4
	Average	80	27,5
	Partially	25	8,6
	Not at all	2	,7
	Tot.	291	100,0
Integrate formal, non-formal and informal learning	Very Useful	78	26,8
	Useful	145	49,8
	Average	59	20,3
	Partially	9	3,1
	Tot.	291	100,0
Involve other actors in the learning process	Very Useful	42	14,4
	Useful	139	47,8
	Average	85	29,2
	Partially	21	7,2
	Not at all	4	1,4
	Tot.	291	100,0
Improve communication, collaboration and coordination between colleagues, students and institutions	Very Useful	66	22,7
	Useful	135	46,4
	Average	73	25,1
	Partially	14	4,8
	Not at all	3	1,0
	Tot.	291	100,0
Improve teacher CDP	Very Useful	78	26,8
	Useful	128	44,0
	Average	70	24,1
	Partially	14	4,8
	Not at all	1	,3
	Tot.	291	100,0
	Useful	104	35,7



Link school activities with work experience placements	Very Useful	46	15,8
	Average	92	31,6
	Partially	38	13,1
	Not at all	11	3,8
	Tot.	291	100,0

Table 14.

How often do you use the following digital tools and technologies in your teaching activities:		a. v.	%
Office and similar packages	Often	126	43,3
	Always	121	41,6
	Sometimes	36	12,4
	Never	8	2,7
	Tot.	291	100,0
Software for downloading audio/video files	Always	57	19,6
	Often	137	47,1
	Sometimes	88	30,2
	Never	9	3,1
	Tot.	291	100,0
Search tools	Always	164	56,4
	Often	113	38,8
	Sometimes	14	4,8
	Tot.	291	100,0
Resources for creating/editing audio/video content and graphics	Always	37	12,7
	Often	117	40,2
	Sometimes	114	39,2
	Never	23	7,9
	Tot.	291	100,0
Resources for creating blogs, websites etc.	Always	10	3,4
	Often	50	17,2
	Sometimes	117	40,2
	Never	114	39,2
	Tot.	291	100,0
Digital environments for learning, sharing, communication and collaborating (online platforms, websites, blogs, social and educational social networks, gamification, edutainment etc.)	Always	67	23,0
	Often	128	44,0
	Sometimes	84	28,9
	Never	12	4,1
	Tot.	291	100,0



Digital Educational Content and OER (Open Educational Resources)	Always	30	10,3
	Often	115	39,5
	Sometimes	111	38,1
	Never	35	12,0
	Tot.	291	100,0
Multimedia programs relevant for your discipline	Always	25	8,6
	Often	96	33,0
	Sometimes	123	42,3
	Never	47	16,2
	Tot.	291	100,0
Coding - Computational thinking	Always	10	3,4
	Often	42	14,4
	Sometimes	83	28,5
	Never	156	53,6
	Tot.	291	100,0

Table 15.

Please indicate which of the following digital teaching methods you use/ are aware of:		a. v.	%
Active methodologies (such as Flipped Classroom)	Use	51	17,5
	Aware of	116	39,9
	Not aware of	124	42,6
	Tot.	291	100,0
Collaborative learning	Use	136	46,7
	Aware of	114	39,2
	Not aware of	41	14,1
	Tot.	291	100,0
Project-based learning	Use	198	68,0
	Aware of	90	30,9
	Not aware of	3	1,0
	Tot.	291	100,0
Problem-based learning	Use	193	66,3
	Aware of	82	28,2
	Not aware of	16	5,5
	Tot.	291	100,0
Case-based learning	Use	171	58,8
	Aware of	106	36,4
	Not aware of	14	4,8



	Tot.	291	100,0
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Table 16.

Please indicate which assessment methods you use digital technologies for	a. v.	%
Portfolios	242	83,2
Rubrics	191	65,6
Conceptual maps	92	31,6
Self- and peer assessment	186	63,9
Nothing	13	4,5

Table 17.

Please indicate how often you have carried out the following activities as part of your teaching in the past two years		a. v.	%
Regular contact with my students through online communication (email, forums, blogs etc.) to continue the learning process outside the classroom	Always	54	18,6
	Often	68	23,4
	Sometimes	97	33,3
	Never	72	24,7
	Tot.	291	100,0
Ask students to document online what they have learnt	Always	31	10,7
	Often	78	26,8
	Sometimes	138	47,4
	Never	44	15,1
	Tot.	291	100,0
Involve students in collaborative online work	Always	25	8,6
	Often	57	19,6
	Sometimes	123	42,3
	Never	86	29,6
	Tot.	291	100,0
Online student assessment	Always	7	2,4
	Often	19	6,5
	Sometimes	65	22,3
	Never	200	68,7
	Tot.	291	100,0
Creative work using online applications	Always	13	4,5
	Often	45	15,5
	Sometimes	121	41,6
	Never	112	38,5



	Tot.	291	100,0
Encourage interdisciplinary projects through the use of online technologies	Always	14	4,8
	Often	32	11,0
	Sometimes	98	33,7
	Never	147	50,5
	Tot.	291	100,0

Table 18.		
Please indicate the types of training you have attended around using digital technologies in education:	a. v.	%
Formal learning	172	59,1
Non formal learning	160	55,0
Informal learning	127	43,6
Face to face	154	52,9
Blended	171	58,8
Fully Online	59	20,3

Table 19.			
Professional Engagement		a. v.	%
Organisational communication	A1	23	7,9
	A2	63	21,6
	B1	98	33,7
	B2	64	22,0
	C1	30	10,3
	C2	13	4,5
	Tot.	291	100,0
Professional collaboration	A1	12	4,1
	A2	48	16,5
	B1	96	33,0
	B2	70	24,1
	C1	44	15,1
	C2	21	7,2
	Tot.	291	100,0



Reflective practice	A1	25	8,6
	A2	53	18,2
	B1	85	29,2
	B2	72	24,7
	C1	42	14,4
	C2	14	4,8
	Tot.	291	100,0
Digital Continuous Professional Development	A1	11	3,8
	A2	40	13,7
	B1	85	29,2
	B2	64	22,0
	C1	61	21,0
	C2	30	10,3
	Tot.	291	100,0

Table 20.

Digital Resources		a. v.	%
Selecting digital resources	A1	11	3,8
	A2	54	18,6
	B1	113	38,8
	B2	59	20,3
	C1	40	13,7
	C2	14	4,8
	Tot.	291	100,0
Creating and modifying digital resources	A1	47	16,2
	A2	65	22,3
	B1	87	29,9
	B2	57	19,6
	C1	24	8,2
	C2	11	3,8
	Tot.	291	100,0
Managing, protecting and sharing digital resources	A1	46	15,8
	A2	67	23,0
	B1	93	32,0
	B2	52	17,9
	C1	22	7,6
	C2	11	3,8
	Tot.	291	100,0



Table 21.

Teaching and Learning		a. v.	%
Teaching	A1	20	6,9
	A2	59	20,3
	B1	67	23,0
	B2	72	24,7
	C1	50	17,2
	C2	23	7,9
	Tot.	291	100,0
Guidance	A1	26	8,9
	A2	63	21,6
	B1	69	23,7
	B2	67	23,0
	C1	49	16,8
	C2	17	5,8
	Tot.	291	100,0
Collaborative learning	A1	27	9,3
	A2	62	21,3
	B1	59	20,3
	B2	73	25,1
	C1	54	18,6
	C2	16	5,5
	Tot.	291	100,0
Self-regulated learning	A1	53	18,2
	A2	66	22,7
	B1	49	16,8
	B2	61	21,0
	C1	44	15,1
	C2	18	6,2
	Tot.	291	100,0

Table 22.

Digital Assessment		a. v.	%
Assessment strategies	A1	50	17,2
	A2	82	28,2
	B1	74	25,4
	B2	55	18,9
	C1	19	6,5



	C2	11	3,8
	Tot.	291	100,0
Analysing evidence	A1	54	18,6
	A2	74	25,4
	B1	75	25,8
	B2	62	21,3
	C1	15	5,2
	C2	11	3,8
	Tot.	291	100,0
Feedback and Planning	A1	45	15,5
	A2	86	29,6
	B1	64	22,0
	B2	60	20,6
	C1	22	7,6
	C2	14	4,8
	Tot.	291	100,0

Table 23.

Empowering Learners		a. v.	%
Accessibility and inclusion	A1	45	15,5
	A2	68	23,4
	B1	101	34,7
	B2	46	15,8
	C1	19	6,5
	C2	12	4,1
	Tot.	291	100,0
Differentiation and personalisation	A1	39	13,4
	A2	70	24,1
	B1	87	29,9
	B2	62	21,3
	C1	19	6,5
	C2	14	4,8
	Tot.	291	100,0
Actively engaging learners	A1	29	10,0
	A2	63	21,6
	B1	101	34,7
	B2	58	19,9
	C1	26	8,9



	C2	14	4,8
	Tot.	291	100,0

Table 24.

Facilitating Learners' Digital Competence		a. v.	%
Information and media literacy	A1	42	14,4
	A2	102	35,1
	B1	64	22,0
	B2	46	15,8
	C1	27	9,3
	C2	10	3,4
	Tot.	291	100,0
Digital communication & collaboration	A1	49	16,8
	A2	90	30,9
	B1	64	22,0
	B2	51	17,5
	C1	27	9,3
	C2	10	3,4
	Tot.	291	100,0
Digital content creation	A1	74	25,4
	A2	80	27,5
	B1	47	16,2
	B2	51	17,5
	C1	26	8,9
	C2	13	4,5
	Tot.	291	100,0
Responsible Use	A1	40	13,7
	A2	86	29,6
	B1	64	22,0
	B2	58	19,9
	C1	30	10,3
	C2	13	4,5
	Tot.	291	100,0
Digital problem solving	A1	65	22,3
	A2	80	27,5
	B1	65	22,3
	B2	41	14,1
	C1	23	7,9



	C2	17	5,8
	Tot.	291	100,0

Table 25.		
Where do you feel that you need further training to be able to use digital technologies effectively in the classroom	a. v.	%
Basic uses of ICT	92	31,6
Design, planning and classroom delivery	134	46,0
Organisation and management of educational spaces and resources	161	55,3
Communication and collaboration	157	54,0
Digital ethics	50	17,2
Professional development	171	58,8

Table 26.		
Please indicate if you have any digital skills qualifications:	a. v.	%
ECDL	81	27,8
EIPASS	2	,7
MICROSOFT MOUS	13	4,5
IC3 Global standard	4	1,4
CISCO	13	4,5
PEKIT	1	,3
I have no official certification	104	35,7
Intel-Teach	61	21,0
Profesorul creator de soft	24	8,2

Table 27.						
	Age range					
	25 - 30	31 - 40	41 - 50	51 - 60	60+	Up to 25



	a.v	%	a.v	%	a.v	%	a.v	%	a.v	%	a.v	%
Literacy	1	11,1	15	19,5	20	15,3	11	16,4	0	,0	0	,0
Numeracy	2	22,2	12	15,6	19	14,5	16	23,9	0	,0	1	50,0
Science	2	22,2	14	18,2	50	38,2	34	50,7	2	40,0	0	,0
History	0	,0	3	3,9	12	9,2	4	6,0	0	,0	0	,0
Arts	1	11,1	8	10,4	10	7,6	9	13,4	0	,0	0	,0
Music	1	11,1	5	6,5	9	6,9	7	10,4	0	,0	0	,0
Physical Education	0	,0	3	3,9	3	2,3	5	7,5	0	,0	0	,0
Development of practical abilities	1	11,1	10	13,0	10	7,6	12	17,9	2	40,0	0	,0
Religious Education	0	,0	1	1,3	1	,8	0	,0	0	,0	0	,0
Ethics and Democratic Citizenship	0	,0	5	6,5	6	4,6	4	6,0	0	,0	0	,0
Social Sciences	2	22,2	22	28,6	28	21,4	10	14,9	0	,0	0	,0
ICT	1	11,1	5	6,5	18	13,7	8	11,9	1	20,0	0	,0
Modern Foreign Languages	1	11,1	9	11,7	12	9,2	2	3,0	0	,0	0	,0
Learning Approaches	1	11,1	8	10,4	9	6,9	8	11,9	0	,0	0	,0
Special Educational Needs	0	,0	9	11,7	14	10,7	8	11,9	0	,0	0	,0
Other	4	44,4	24	31,2	35	26,7	12	17,9	1	20,0	1	50,0

Table 28.

	Gender
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	Female		Male	
Which subject area have you taught over the past three years	a. v.	%	a. v.	%
Literacy	46	17,4	1	3,7
N/A	218	82,6	26	96,3
Numeracy	44	16,7	6	22,2
N/A	220	83,3	21	77,8
Science	89	33,7	13	48,1
N/A	175	66,3	14	51,9
History	17	6,4	2	7,4
N/A	247	93,6	25	92,6
Arts	28	10,6	0	,0
N/A	236	89,4	27	100,0
Music	22	8,3	0	,0
N/A	242	91,7	27	100,0
Physical Education	11	4,2	0	,0
N/A	253	95,8	27	100,0
Development of practical abilities	32	12,1	3	11,1
N/A	232	87,9	24	88,9
Religious Education	0	,0	2	7,4
N/A	264	100,0	25	92,6
Ethics and Democratic Citizenship	15	5,7	0	,0
N/A	249	94,3	27	100,0
Social Sciences	57	21,6	5	18,5
N/A	207	78,4	22	81,5
ICT	29	11,0	4	14,8
N/A	235	89,0	23	85,2
Modern Foreign Languages	24	9,1	0	,0
N/A	240	90,9	27	100,0
Learning Approaches	24	9,1	2	7,4
N/A	240	90,9	25	92,6
Special Educational Needs	31	11,7	0	,0
N/A	233	88,3	27	100,0
Other	74	28,0	3	11,1
N/A	190	72,0	24	88,9



Table 29.

	Age range											
	25 - 30		31 - 40		41 - 50		51 - 60		60+		Up to 25	
Current employment status	a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%
Permanent contract	8	88,9	69	89,6	120	91,6	66	98,5	5	100,0	2	100,0
Temporary contract	1	11,1	8	10,4	11	8,4	1	1,5	0	,0	0	,0

Table 30.

		Gender					
		Female		Male		Tot.	
		a. v.	%	a. v.	%	a. v.	%
Current employment status	Permanent contract	244	92,4	26	96,3	270	92,8
	Temporary contract	20	7,6	1	3,7	21	7,2

Table 31

	Leadership role		Management role		Teaching role	
	a.v.	%	a.v.	%	a.v.	%
Permanent contract	36	100,0	35	97,2	249	92,6
Temporary contract	0	,0	1	2,8	20	7,4

Table 32

	Role as digital coordinator	
	No	Yes



	a.v.	%	a.v.	%
Permanent contract	212	91,4	58	98,3
Temporary contract	20	8,6	1	1,7

Table 33.

		Age range											
		25 - 30		31 - 40		41 - 50		51 - 60		60+		Up to 25	
		a . v .	%	a . v .	%	a . v .	%	a . v .	%	a . v .	%	a . v .	%
Roles which you have undertaken within the school over the past three years	Leadership role	1	11,1	7	9,1	20	15,3	7	10,4	1	20,0	0	,0
	N/A	8	88,9	70	90,9	11	84,7	60	89,6	4	80,0	2	100,0
	Management role	0	,0	9	11,7	18	13,7	8	11,9	1	20,0	0	,0
	N/A	9	100,0	68	88,3	11	86,3	59	88,1	4	80,0	2	100,0
	Teaching role	9	100,0	75	97,4	12	92,4	57	85,1	5	100,0	2	100,0
	N/A	0	,0	2	2,6	10	7,6	10	14,9	0	,0	0	,0

Table 34.

		Gender			
		Female		Male	
		a. v.	%	a. v.	%
Roles which you have undertaken within the school over the	Leadership role	31	11,7	5	18,5
	N/A	233	88,3	22	81,5
	Management role	30	11,4	6	22,2
	N/A	234	88,6	21	77,8
	Teaching role	243	92,0	26	96,3
	N/A	21	8,0	1	3,7



past three years					
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Table 35.

		Are you currently a designated ICT/Digital Coordinator at your school?			
		No		Yes	
		a. v.	%	a. v.	%
Roles which you have undertaken within the school over the past three years	Leadership role	18	7,8	18	30,5
	N/A	214	92,2	41	69,5
	Management role	20	8,6	16	27,1
	N/A	212	91,4	43	72,9
	Teaching role	219	94,4	50	84,7
	N/A	13	5,6	9	15,3

Table 36.

		Age range													
		25 - 30		31 - 40		41 - 50		51 - 60		60+		Up to 25		Tot.	
		a . v .	%	a . v .	%	a. v.	%	a . v .	%	a . v .	%	a . v .	%	a. v.	%
Are you a designated ICT/ Digital Coordinator?	N o	7	77, 8	6 1	79, 2	10 7	81, 7	5 2	77, 6	3	60, 0	2	100, 0	23 2	79, 7
	Y e s	2	22, 2	1 6	20, 8	24	18, 3	1 5	22, 4	2	40, 0	0	,0	59	20, 3

Table 37.



		Gender					
		Female		Male		Tot.	
		a. v.	%	a. v.	%	a. v.	%
Are you a designated ICT/ Digital Coordinator?	No	213	80,7	19	70,4	232	79,7
	Yes	51	19,3	8	29,6	59	20,3

Table 38

		School type									
		Early Years (3-6 years)		Lower secondary (11/12-15/16 years)		Primary School (6/7-11/12 ani)		Upper secondary (15/16-19/20 years)		VET (15/16-18/19 years)	
		a.v.	%	a.v.	%	a.v.	%	a.v.	%	a.v.	%
Office and similar packages	Always	8	40,0	39	35,1	13	43,3	51	47,7	10	43,5
	Never	2	10,0	1	,9	1	3,3	4	3,7	0	,0
	Often	7	35,0	51	45,9	9	30,0	46	43,0	13	56,5
	Sometimes	3	15,0	20	18,0	7	23,3	6	5,6	0	,0
Software for downloading audio/video files	Always	7	35,0	15	13,5	6	20,0	24	22,4	5	21,7
	Never	0	,0	2	1,8	0	,0	7	6,5	0	,0
	Often	11	55,0	54	48,6	12	40,0	49	45,8	11	47,8
	Sometimes	2	10,0	40	36,0	12	40,0	27	25,2	7	30,4
Search tools	Always	15	75,0	55	49,5	17	56,7	61	57,0	16	69,6
	Often	5	25,0	50	45,0	12	40,0	40	37,4	6	26,1



	Sometimes	0	,0	6	5,4	1	3,3	6	5,6	1	4,3
Resources for creating/editing audio/video content and graphics	Always	2	10,0	13	11,7	4	13,3	15	14,0	3	13,0
	Never	3	15,0	6	5,4	2	6,7	11	10,3	1	4,3
	Often	11	55,0	47	42,3	11	36,7	36	33,6	12	52,2
	Sometimes	4	20,0	45	40,5	13	43,3	45	42,1	7	30,4
Resources for creating blogs, websites etc.	Always	1	5,0	1	,9	3	10,0	4	3,7	1	4,3
	Never	8	40,0	48	43,2	13	43,3	38	35,5	7	30,4
	Often	3	15,0	14	12,6	3	10,0	25	23,4	5	21,7
	Sometimes	8	40,0	48	43,2	11	36,7	40	37,4	10	43,5
Digital environments for learning, sharing, communication and collaborating	Always	7	35,0	25	22,5	10	33,3	23	21,5	2	8,7
	Never	1	5,0	6	5,4	1	3,3	4	3,7	0	,0
	Often	8	40,0	44	39,6	13	43,3	48	44,9	15	65,2
	Sometimes	4	20,0	36	32,4	6	20,0	32	29,9	6	26,1
Digital Educational Content and OER	Always	1	5,0	10	9,0	7	23,3	12	11,2	0	,0
	Never	2	10,0	16	14,4	3	10,0	11	10,3	3	13,0
	Often	8	40,0	42	37,8	8	26,7	47	43,9	10	43,5
	Sometimes	9	45,0	43	38,7	12	40,0	37	34,6	10	43,5
Multimedia programs relevant for your discipline	Always	2	10,0	5	4,5	8	26,7	9	8,4	1	4,3
	Never	4	20,0	22	19,8	2	6,7	17	15,9	2	8,7
	Often	6	30,0	39	35,1	7	23,3	35	32,7	9	39,1



	Sometimes	8	40,0	45	40,5	13	43,3	46	43,0	11	47,8
Coding - Computational thinking	Always	0	,0	1	,9	1	3,3	8	7,5	0	,0
	Never	15	75,0	63	56,8	14	46,7	52	48,6	12	52,2
	Often	2	10,0	9	8,1	7	23,3	19	17,8	5	21,7
	Sometimes	3	15,0	38	34,2	8	26,7	28	26,2	6	26,1

Table 39

		Age range													
		25 - 30		31 - 40		41 - 50		51 - 60		60+		Up to 25		Total	
		a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%
Office and similar packages	Always	2	2,2	2	3,7	5	4,6	3	4,3	3	6,0	0	,0	1	4,2
	Never	0	,0	2	2,6	4	3,1	2	3,0	0	,0	0	,0	8	2,7
	Often	5	5,5	3	4,6	5	4,6	2	3,5	2	4,0	2	10,0	1	4,2
	Sometimes	2	2,2	1	1,6	1	1,5	7	1,4	0	,0	0	,0	3	1,6
Software for downloading audio/video files	Always	2	2,2	1	2,6	2	1,5	1	1,9	2	4,0	0	,0	5	1,7
	Never	0	,0	3	3,9	5	3,8	1	1,5	0	,0	0	,0	9	3,1
	Often	4	4,4	3	4,6	6	4,1	3	5,4	1	2,0	1	50,0	1	4,3
	Sometimes	3	3,3	2	2,6	4	3,0	2	2,9	2	4,0	1	50,0	8	3,0



Search tools	Always	5	5 5, 6	4 5	5 8, 4	7 2	5 5, 0	3 7	5 5, 2	3	6 0, 0	2	10 0,0	1 6 4	5 6, 4
	Often	2	2 2, 2	2 8	3 6, 4	5 4	4 1, 2	2 7	4 0, 3	2	4 0, 0	0	,0	1 1 3	3 8, 8
	Sometimes	2	2 2, 2	4	5, 2	5	3, 8	3	4, 5	0	,0	0	,0	1 4	4, 8
Resources for creating/editing audio/video content and graphics	Always	2	2 2, 2	9	1 1, 7	1 8	1 3, 7	7	1 0, 4	1	2 0, 0	0	,0	3 7	1 2, 7
	Never	2	2 2, 2	1 0	1 3, 0	7	5, 3	4	6, 0	0	,0	0	,0	2 3	7, 9
	Often	2	2 2, 2	2 8	3 6, 4	5 2	3 9, 7	3 3	4 9, 3	2	4 0, 0	0	,0	1 1 7	4 0, 2
	Sometimes	3	3 3, 3	3 0	3 9, 0	5 4	4 1, 2	2 3	3 4, 3	2	4 0, 0	2	10 0,0	1 1 4	3 9, 2
Resources for creating blogs, websites etc.	Always	0	,0	3	3, 9	4	3, 1	3	4, 5	0	,0	0	,0	1 0	3, 4
	Never	4	4 4, 4	4 0	5 1, 9	4 7	3 5, 9	2 1	3 1, 3	1	2 0, 0	1	50, 0	1 1 4	3 9, 2
	Often	2	2 2, 2	9	1 1, 7	2 2	1 6, 8	1 4	2 0, 9	3	6 0, 0	0	,0	5 0	1 7, 2
	Sometimes	3	3 3, 3	2 5	3 2, 5	5 8	4 4, 3	2 9	4 3, 3	1	2 0, 0	1	50, 0	1 1 7	4 0, 2
Digital environments for learning, sharing, communi	Always	2	2 2, 2	2 3	2 9, 9	2 6	1 9, 8	1 5	2 2, 4	0	,0	1	50, 0	6 7	2 3, 0
	Never	1	1 1, 1	6	7, 8	3	2, 3	2	3, 0	0	,0	0	,0	1 2	4, 1



cation and collabora ting	Often	4	4 4, 4	2 4	3 1, 2	6 7	5 1, 1	3 0	4 4, 8	3	6 0, 0	0	,0	1 2 8	4 4, 0
	Somet imes	2	2 2, 2	2 4	3 1, 2	3 5	2 6, 7	2 0	2 9, 9	2	4 0, 0	1	50, 0	8 4	2 8, 9
Digital Educatio nal Content and OER	Always	2	2 2, 2	8	1 0, 4	1 0	7, 6	9	1 3, 4	1	2 0, 0	0	,0	3 0	1 0, 3
	Never	2	2 2, 2	1 6	2 0, 8	1 2	9, 2	5	7, 5	0	,0	0	,0	3 5	1 2, 0
	Often	2	2 2, 2	2 3	2 9, 9	5 7	4 3, 5	3 0	4 4, 8	2	4 0, 0	1	50, 0	1 1 5	3 9, 5
	Somet imes	3	3 3, 3	3 0	3 9, 0	5 2	3 9, 7	2 3	3 4, 3	2	4 0, 0	1	50, 0	1 1 1	3 8, 1
Multimed ia programs relevant for your discipline	Always	1	1 1, 1	6	7, 8	1 1	8, 4	6	9, 0	1	2 0, 0	0	,0	2 5	8, 6
	Never	2	2 2, 2	1 7	2 2, 1	1 9	1 4, 5	9	1 3, 4	0	,0	0	,0	4 7	1 6, 2
	Often	2	2 2, 2	1 9	2 4, 7	4 7	3 5, 9	2 7	4 0, 3	1	2 0, 0	0	,0	9 6	3 3, 0
	Somet imes	4	4 4, 4	3 5	4 5, 5	5 4	4 1, 2	2 5	3 7, 3	3	6 0, 0	2	10 0,0	1 2 3	4 2, 3
Coding - Computa tional thinking	Always	0	,0	1	1, 3	4	3, 1	4	6, 0	1	2 0, 0	0	,0	1 0	3, 4
	Never	5	5 5, 6	4 6	5 9, 7	6 3	4 8, 1	3 9	5 8, 2	2	4 0, 0	1	50, 0	1 5 6	5 3, 6
	Often	1	1 1, 1	1 2	1 5, 6	2 0	1 5, 3	8	1 1, 9	1	2 0, 0	0	,0	4 2	1 4, 4



	Somet imes	3	3 3, 3	1 8	2 3, 4	4 4	3 3, 6	1 6	2 3, 9	1	2 0, 0	1	50, 0	8 3	2 8, 5
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Table 40

		Gender					
		Female		Male		Total	
		a.v.	%	a.v.	%	a.v.	%
Office and similar packages	Always	105	39,8	16	59,3	121	41,6
	Never	8	3,0	0	,0	8	2,7
	Often	115	43,6	11	40,7	126	43,3
	Sometimes	36	13,6	0	,0	36	12,4
Software for downloading audio/video files	Always	49	18,6	8	29,6	57	19,6
	Never	9	3,4	0	,0	9	3,1
	Often	125	47,3	12	44,4	137	47,1
	Sometimes	81	30,7	7	25,9	88	30,2
Search tools	Always	150	56,8	14	51,9	164	56,4
	Often	100	37,9	13	48,1	113	38,8
	Sometimes	14	5,3	0	,0	14	4,8
Resources for creating/editing audio/video content and graphics	Always	34	12,9	3	11,1	37	12,7
	Never	23	8,7	0	,0	23	7,9
	Often	105	39,8	12	44,4	117	40,2
	Sometimes	102	38,6	12	44,4	114	39,2
Resources for creating blogs, websites etc.	Always	9	3,4	1	3,7	10	3,4
	Never	107	40,5	7	25,9	114	39,2
	Often	42	15,9	8	29,6	50	17,2
	Sometimes	106	40,2	11	40,7	117	40,2
Digital environments for learning, sharing, communication and collaborating	Always	62	23,5	5	18,5	67	23,0
	Never	10	3,8	2	7,4	12	4,1
	Often	118	44,7	10	37,0	128	44,0
	Sometimes	74	28,0	10	37,0	84	28,9
Digital Educational Content and OER	Always	27	10,2	3	11,1	30	10,3
	Never	34	12,9	1	3,7	35	12,0
	Often	104	39,4	11	40,7	115	39,5
	Sometimes	99	37,5	12	44,4	111	38,1



Multimedia programs relevant for your discipline	Always	24	9,1	1	3,7	25	8,6
	Never	45	17,0	2	7,4	47	16,2
	Often	84	31,8	12	44,4	96	33,0
	Sometimes	111	42,0	12	44,4	123	42,3
Coding - Computational thinking	Always	8	3,0	2	7,4	10	3,4
	Never	143	54,2	13	48,1	156	53,6
	Often	38	14,4	4	14,8	42	14,4
	Sometimes	75	28,4	8	29,6	83	28,5

Table 41.

			Office and similar packages				Software for downloading audio/video files				Search tools		
			Always	Never	Often	Sometimes	Always	Never	Often	Sometimes	Always	Often	Sometimes
Literacy	%		.3	.1	.4	.1	.3	.0	.4	.2	.7	.2	.1
Numeracy	%		.5	.1	.4	.1	.2	.0	.4	.3	.7	.3	.0
Science	%		.4	.0	.5	.1	.3	.0	.4	.3	.6	.4	.0
History	%		.4	.1	.5	.1	.4	.0	.3	.4	.7	.3	.0
Arts	%		.4	.1	.4	.1	.3	.0	.4	.3	.8	.3	.0
Music	%		.5	.0	.4	.1	.4	.0	.4	.2	.8	.2	.0
Physical Education	%		.5	.1	.3	.1	.4	.0	.5	.2	.9	.1	.0
Development of practical abilities	%		.5	.1	.4	.0	.3	.0	.5	.2	.8	.2	.0
Religious Education	%		.5	.0	.5	.0	.5	.0	.5	.0	.5	.5	.0
Ethics and Democratic Citizenship	%		.3	.1	.3	.3	.2	.0	.4	.4	.5	.5	.0
Social Sciences	%		.4	.0	.5	.2	.2	.1	.4	.3	.5	.5	.0
ICT	%		.7	.0	.3	.0	.2	.0	.4	.3	.7	.3	.0
Modern Foreign Languages	%		.4	.0	.4	.2	.2	.0	.7	.1	.7	.3	.0
Learning Approaches	%		.3	.0	.5	.2	.2	.1	.5	.2	.6	.4	.0
Special Educational Needs	%		.4	.0	.5	.1	.1	.0	.6	.3	.5	.5	.1
Other	%		.4	.0	.4	.1	.2	.1	.5	.2	.6	.4	.1

Table 42.

		Resources for creating/editing audio/video content and graphics				Resources for creating blogs, websites etc.				Digital environments for learning, sharing, communication and collaborating			
		Always	Never	Often	Sometimes	Always	Never	Often	Sometimes	Always	Never	Often	Sometimes
Literacy	%	.2	.1	.4	.4	.1	.3	.1	.5	.3	.1	.3	.3
Numeracy	%	.1	.0	.5	.4	.1	.3	.2	.5	.3	.0	.4	.2
Science	%	.2	.0	.4	.4	.1	.3	.2	.4	.2	.0	.5	.3
History	%	.2	.0	.5	.3	.2	.3	.1	.4	.3	.1	.4	.2
Arts	%	.2	.0	.5	.3	.1	.2	.1	.6	.4	.1	.4	.2
Music	%	.2	.0	.5	.2	.1	.1	.1	.6	.4	.0	.4	.1
Physical Education	%	.2	.1	.7	.0	.1	.2	.2	.5	.5	.0	.4	.2
Development of practical abilities	%	.2	.0	.5	.3	.1	.2	.2	.5	.4	.1	.4	.2
Religious Education	%	.0	.0	1.0	.0	.0	.0	.0	1.0	.5	.0	.0	.5
Ethics and Democratic Citizenship	%	.1	.1	.3	.5	.0	.5	.0	.5	.0	.1	.4	.5
Social Sciences	%	.1	.1	.4	.4	.0	.5	.1	.4	.2	.1	.4	.3
ICT	%	.2	.0	.5	.3	.1	.1	.3	.4	.3	.0	.5	.2
Modern Foreign Languages	%	.2	.1	.3	.4	.0	.3	.2	.5	.3	.0	.5	.3
Learning Approaches	%	.1	.1	.4	.3	.0	.4	.2	.3	.2	.0	.3	.5
Special Educational Needs	%	.1	.1	.5	.4	.0	.4	.1	.5	.2	.0	.4	.5
Other	%	.1	.1	.4	.3	.0	.5	.2	.3	.2	.0	.4	.3



Table 43.

		Digital Educational Content and OER				Multimedia programs				Coding - Computational thinking			
		Always	Never	Often	Sometimes	Always	Never	Often	Sometimes	Always	Never	Often	Sometimes
Literacy	%	.2	.1	.3	.4	.1	.2	.3	.4	.1	.6	.1	.2
Numeracy	%	.1	.0	.5	.4	.1	.1	.4	.4	.0	.4	.2	.4
Science	%	.2	.1	.5	.3	.1	.1	.4	.4	.0	.4	.1	.4
History	%	.2	.0	.3	.5	.1	.1	.5	.3	.1	.4	.2	.3
Arts	%	.2	.0	.4	.4	.2	.1	.4	.4	.0	.5	.2	.3
Music	%	.3	.0	.4	.3	.2	.0	.4	.3	.0	.4	.2	.3
Physical Education	%	.2	.0	.5	.4	.1	.2	.4	.4	.0	.5	.2	.3
Development of practical abilities	%	.2	.0	.5	.3	.1	.1	.5	.3	.1	.5	.2	.2
Religious Education	%	.0	.0	.5	.5	.0	.0	.5	.5	.0	.5	.5	.0
Ethics and Democratic Citizenship	%	.0	.3	.2	.5	.0	.2	.5	.3	.0	.7	.1	.3
Social Sciences	%	.1	.2	.3	.5	.0	.3	.2	.5	.0	.7	.1	.2
ICT	%	.2	.0	.5	.2	.3	.0	.4	.3	.3	.2	.2	.4
Modern Foreign Languages	%	.2	.1	.5	.2	.1	.2	.4	.3	.0	.6	.3	.1
Learning Approaches	%	.2	.3	.2	.3	.0	.3	.3	.4	.0	.6	.1	.2
Special Educational Needs	%	.1	.2	.3	.5	.1	.2	.2	.5	.0	.6	.1	.3
Other	%	.1	.2	.3	.4	.1	.2	.3	.5	.0	.6	.1	.2



Table 44.

		Type of contract in the school					
		Permanent contract		Temporary contract		Total	
		a.v.	%	a.v.	%	a.v.	%
Office and similar packages	Always	114	42,2	7	33,3	121	41,6
	Never	7	2,6	1	4,8	8	2,7
	Often	120	44,4	6	28,6	126	43,3
	Sometimes	29	10,7	7	33,3	36	12,4
Software for downloading audio/video files	Always	52	19,3	5	23,8	57	19,6
	Never	6	2,2	3	14,3	9	3,1
	Often	130	48,1	7	33,3	137	47,1
	Sometimes	82	30,4	6	28,6	88	30,2
Search tools	Always	155	57,4	9	42,9	164	56,4
	Often	102	37,8	11	52,4	113	38,8
	Sometimes	13	4,8	1	4,8	14	4,8
Resources for creating/editing audio/video content and graphics	Always	32	11,9	5	23,8	37	12,7
	Never	18	6,7	5	23,8	23	7,9
	Often	110	40,7	7	33,3	117	40,2
	Sometimes	110	40,7	4	19,0	114	39,2
Resources for creating blogs, websites etc.	Always	8	3,0	2	9,5	10	3,4
	Never	102	37,8	12	57,1	114	39,2
	Often	49	18,1	1	4,8	50	17,2
	Sometimes	111	41,1	6	28,6	117	40,2
Digital environments for learning, sharing, communication and collaborating	Always	62	23,0	5	23,8	67	23,0
	Never	9	3,3	3	14,3	12	4,1
	Often	121	44,8	7	33,3	128	44,0
	Sometimes	78	28,9	6	28,6	84	28,9
Digital Educational Content and OER	Always	29	10,7	1	4,8	30	10,3
	Never	31	11,5	4	19,0	35	12,0
	Often	110	40,7	5	23,8	115	39,5
	Sometimes	100	37,0	11	52,4	111	38,1
Multimedia programs relevant for your discipline	Always	25	9,3	0	,0	25	8,6
	Never	42	15,6	5	23,8	47	16,2
	Often	90	33,3	6	28,6	96	33,0
	Sometimes	113	41,9	10	47,6	123	42,3



Coding - Computational thinking	Always	10	3,7	0	,0	10	3,4
	Never	146	54,1	10	47,6	156	53,6
	Often	40	14,8	2	9,5	42	14,4
	Sometimes	74	27,4	9	42,9	83	28,5

Table 45.		Leadership role		Management role		Teaching role	
		a.v.	%	a.v.	%	a.v.	%
Office and similar packages	Always	20	55,6	16	44,4	111	41,3
	Never	0	,0	1	2,8	7	2,6
	Often	13	36,1	16	44,4	118	43,9
	Sometimes	3	8,3	3	8,3	33	12,3
Software for downloading audio/video files	Always	4	11,1	5	13,9	56	20,8
	Never	0	,0	1	2,8	8	3,0
	Often	22	61,1	19	52,8	126	46,8
	Sometimes	10	27,8	11	30,6	79	29,4
Search tools	Always	24	66,7	21	58,3	151	56,1
	Often	11	30,6	14	38,9	106	39,4
	Sometimes	1	2,8	1	2,8	12	4,5
Resources for creating/editing audio/video content and graphics	Always	6	16,7	5	13,9	36	13,4
	Never	0	,0	1	2,8	22	8,2
	Often	13	36,1	17	47,2	108	40,1
	Sometimes	17	47,2	13	36,1	103	38,3
Resources for creating blogs, websites etc.	Always	1	2,8	0	,0	10	3,7
	Never	14	38,9	12	33,3	102	37,9
	Often	4	11,1	7	19,4	46	17,1
	Sometimes	17	47,2	17	47,2	111	41,3
Digital environments for learning, sharing, communication and collaborating	Always	8	22,2	8	22,2	63	23,4
	Never	1	2,8	3	8,3	11	4,1
	Often	18	50,0	18	50,0	118	43,9
	Sometimes	9	25,0	7	19,4	77	28,6
Digital Educational	Always	2	5,6	3	8,3	29	10,8
	Never	3	8,3	7	19,4	30	11,2



Content and OER	Often	23	63,9	18	50,0	104	38,7
	Sometimes	8	22,2	8	22,2	106	39,4
Multimedia programs relevant for your discipline	Always	3	8,3	1	2,8	24	8,9
	Never	4	11,1	7	19,4	42	15,6
	Often	15	41,7	14	38,9	89	33,1
	Sometimes	14	38,9	14	38,9	114	42,4
Coding - Computational thinking	Always	2	5,6	1	2,8	10	3,7
	Never	17	47,2	16	44,4	144	53,5
	Often	7	19,4	7	19,4	36	13,4
	Sometimes	10	27,8	12	33,3	79	29,4

Table 46.

		School Type:									
		Early Years (3-6 years)		Lower secondary (11/12-15/16 years)		Primary School (6/7-11/12 years)		Upper secondary (15/16-19/20 years)		VET (15/16-18/19 years)	
Please indicate which of the following digital teaching methods you use/ are aware of:		a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%
Active methodologies (such as Flipped Classroom)	Aware of	4	20,0	43	38,7	8	26,7	48	44,9	13	56,5
	Not aware of	15	75,0	50	45,0	16	53,3	38	35,5	5	21,7
	Use	1	5,0	18	16,2	6	20,0	21	19,6	5	21,7
Collaborative learning	Aware of	14	70,0	44	39,6	7	23,3	42	39,3	7	30,4
	Not aware of	4	20,0	18	16,2	8	26,7	8	7,5	3	13,0
	Use	2	10,0	49	44,1	15	50,0	57	53,3	13	56,5
Project-based learning	Aware of	9	45,0	41	36,9	13	43,3	21	19,6	6	26,1
	Not aware of	1	5,0	0	,0	0	,0	2	1,9	0	,0



	Use	1 0	50, 0	70	63, 1	1 7	56, 7	84	78, 5	1 7	73, 9
Problem-based learning	Aware of	9	45, 0	40	36, 0	9	30, 0	20	18, 7	4	17, 4
	Not aware of	4	20, 0	5	4,5	3	10, 0	4	3,7	0	,0
	Use	7	35, 0	66	59, 5	1 8	60, 0	83	77, 6	1 9	82, 6
Case-based learning	Aware of	1 1	55, 0	42	37, 8	1 3	43, 3	33	30, 8	7	30, 4
	Not aware of	2	10, 0	5	4,5	3	10, 0	4	3,7	0	,0
	Use	7	35, 0	64	57, 7	1 4	46, 7	70	65, 4	1 6	69, 6

Table 47.

		Age range													
		25 - 30		31 - 40		41 - 50		51 - 60		60+		Up to 25		Total	
		a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%
Active methodologies	Aware of	1	11, ,1	2 5	32, ,5	5 6	42, ,7	3 2	47, ,8	2	40, 0	0	,0	1 1 6	39, ,9
	Not aware of	5	55, ,6	4 1	53, ,2	5 1	38, ,9	2 5	37, ,3	0	,0	2	10 0,0	1 2 4	42, ,6
	Use	3	33, ,3	1 1	14, ,3	2 4	18, ,3	1 0	14, ,9	3	60, 0	0	,0	5 1	17, ,5
Collaborative learning	Aware of	3	33, ,3	3 2	41, ,6	5 0	38, ,2	2 4	35, ,8	3	60, 0	2	10 0,0	1 1 4	39, ,2
	Not aware of	1	11, ,1	1 1	14, ,3	2 1	16, ,0	8	11, ,9	0	,0	0	,0	4 1	14, ,1



	Use	5	55,6	34	44,2	60	45,8	35	52,2	2	40,0	0	,0	136	46,7
Project-based learning	Aware of	2	22,2	25	32,5	43	32,8	18	26,9	0	,0	2	100,0	90	30,9
	Not aware of	0	,0	1	1,3	1	,8	1	1,5	0	,0	0	,0	3	1,0
	Use	7	77,8	51	66,2	87	66,4	48	71,6	5	100,0	0	,0	198	68,0
Problem-based learning	Aware of	4	44,4	26	33,8	33	25,2	17	25,4	1	20,0	1	50,0	82	28,2
	Not aware of	0	,0	1	1,3	11	8,4	4	6,0	0	,0	0	,0	16	5,5
	Use	5	55,6	50	64,9	87	66,4	46	68,7	4	80,0	1	50,0	193	66,3
Case-based learning	Aware of	2	22,2	28	36,4	46	35,1	26	38,8	2	40,0	2	100,0	106	36,4
	Not aware of	1	11,1	0	,0	8	6,1	5	7,5	0	,0	0	,0	14	4,8
	Use	6	66,7	49	63,6	77	58,8	36	53,7	3	60,0	0	,0	171	58,8



Table 48.

		Gender					
		Female		Male		Total	
		a.v.	%	a.v.	%	a.v.	%
Active methodologies	Aware of	102	38,6	14	51,9	116	39,9
	Not aware of	118	44,7	6	22,2	124	42,6
	Use	44	16,7	7	25,9	51	17,5
Collaborative learning	Aware of	101	38,3	13	48,1	114	39,2
	Not aware of	39	14,8	2	7,4	41	14,1
	Use	124	47,0	12	44,4	136	46,7
Project-based learning	Aware of	81	30,7	9	33,3	90	30,9
	Not aware of	2	,8	1	3,7	3	1,0
	Use	181	68,6	17	63,0	198	68,0
Problem-based learning	Aware of	74	28,0	8	29,6	82	28,2
	Not aware of	15	5,7	1	3,7	16	5,5
	Use	175	66,3	18	66,7	193	66,3
Case-based learning	Aware of	93	35,2	13	48,1	106	36,4
	Not aware of	13	4,9	1	3,7	14	4,8
	Use	158	59,8	13	48,1	171	58,8

Table 49.

		Active methodologies			Collaborative learning			Project-based learning			Problem-based learning			Case-based learning		
		Aware of	Not aware of	Use	Aware of	Not aware of	Use	Aware of	Not aware of	Use	Aware of	Not aware of	Use	Aware of	Not aware of	Use
Literacy	%	.3	.6	.1	.4	.2	.3	.3	.0	.6	.4	.2	.4	.5	.1	.4
Numeracy	%	.4	.4	.2	.4	.1	.5	.4	.0	.6	.2	.1	.7	.5	.0	.4
Science	%	.5	.3	.2	.3	.1	.6	.3	.0	.7	.2	.0	.8	.4	.1	.6
History	%	.4	.3	.3	.4	.1	.5	.4	.0	.6	.4	.1	.6	.6	.0	.4
Arts	%	.3	.5	.1	.5	.1	.3	.4	.0	.6	.3	.2	.5	.6	.1	.3
Music	%	.3	.5	.2	.4	.2	.4	.3	.0	.7	.3	.1	.6	.5	.1	.4
Physical Education	%	.3	.5	.2	.5	.1	.4	.2	.1	.7	.2	.2	.6	.6	.1	.3
Development of practical abilities	%	.4	.4	.2	.5	.1	.4	.3	.0	.7	.2	.1	.7	.5	.1	.4
Religious Education	%	.0	1.0	.0	1.0	.0	.0	.0	.0	1.0	1.0	.0	.0	.5	.0	.5
Ethics and Democratic Citizenship	%	.4	.6	.0	.3	.4	.3	.5	.0	.5	.5	.1	.4	.5	.1	.4
Social Sciences	%	.5	.4	.1	.4	.2	.4	.3	.0	.7	.2	.1	.7	.2	.1	.8
ICT	%	.5	.2	.2	.3	.0	.7	.2	.0	.8	.2	.0	.8	.3	.0	.7
Modern Foreign Languages	%	.4	.4	.2	.3	.1	.5	.2	.0	.8	.6	.0	.4	.7	.0	.3
Learning Approaches	%	.5	.5	.0	.5	.2	.3	.4	.0	.6	.3	.1	.6	.3	.1	.6
Special Educational Needs	%	.5	.4	.1	.5	.1	.4	.5	.0	.5	.3	.2	.5	.3	.1	.6
Other	%	.2	.6	.2	.4	.2	.3	.3	.0	.7	.3	.1	.6	.3	.1	.6



Table 50.

		Type of contract in the school			
		Permanent contract		Temporary contract	
		a.v.	%	a.v.	%
Active methodologies	Aware of	111	41,1	5	23,8
	Not aware of	116	43,0	8	38,1
	Use	43	15,9	8	38,1
Collaborative learning	Aware of	109	40,4	5	23,8
	Not aware of	37	13,7	4	19,0
	Use	124	45,9	12	57,1
Project-based learning	Aware of	78	28,9	12	57,1
	Not aware of	3	1,1	0	,0
	Use	189	70,0	9	42,9
Problem-based learning	Aware of	73	27,0	9	42,9
	Not aware of	16	5,9	0	,0
	Use	181	67,0	12	57,1
Case-based learning	Aware of	97	35,9	9	42,9
	Not aware of	14	5,2	0	,0
	Use	159	58,9	12	57,1

Table 51.

		Leadership role		Management role		Teaching role	
		a.v.	%	a.v.	%	a.v.	%
Active methodologies	Aware of	16	44,4	16	44,4	108	40,1
	Not aware of	16	44,4	14	38,9	111	41,3
	Use	4	11,1	6	16,7	50	18,6
Collaborative learning	Aware of	13	36,1	13	36,1	107	39,8
	Not aware of	4	11,1	6	16,7	36	13,4
	Use	19	52,8	17	47,2	126	46,8
Project-based learning	Aware of	12	33,3	12	33,3	83	30,9
	Not aware of	0	,0	0	,0	3	1,1
	Use	24	66,7	24	66,7	183	68,0
Problem-based learning	Aware of	12	33,3	13	36,1	78	29,0
	Not aware of	3	8,3	2	5,6	14	5,2
	Use	21	58,3	21	58,3	177	65,8
Case-based learning	Aware of	15	41,7	12	33,3	98	36,4
	Not aware of	3	8,3	2	5,6	13	4,8
	Use	18	50,0	22	61,1	158	58,7



Table 52.

		School type									
		Early Years (3-6 years)		Lower secondary (11/12-15/16 years)		Primary School (6/7-11/12 ani)		Upper secondary (15/16-19/20 years)		VET (15/16-18/19 years)	
		a.v	%	a.v	%	a.v	%	a.v	%	a.v	%
Regular contact with my students through online communication	Always	1	5,0	18	16,2	4	13,3	28	26,2	3	13,0
	Never	14	70,0	30	27,0	11	36,7	15	14,0	2	8,7
	Often	3	15,0	22	19,8	8	26,7	23	21,5	12	52,2
	Sometimes	2	10,0	41	36,9	7	23,3	41	38,3	6	26,1
Ask students to document online what they have learnt	Always	2	10,0	11	9,9	3	10,0	14	13,1	1	4,3
	Never	9	45,0	17	15,3	8	26,7	9	8,4	1	4,3
	Often	4	20,0	29	26,1	5	16,7	29	27,1	11	47,8
	Sometimes	5	25,0	54	48,6	14	46,7	55	51,4	10	43,5
Involve students in collaborative online work	Always	0	,0	9	8,1	4	13,3	10	9,3	2	8,7
	Never	15	75,0	37	33,3	9	30,0	21	19,6	4	17,4
	Often	2	10,0	18	16,2	4	13,3	23	21,5	10	43,5
	Sometimes	3	15,0	47	42,3	13	43,3	53	49,5	7	30,4
Online student assessment	Always	0	,0	2	1,8	0	,0	4	3,7	1	4,3
	Never	18	90,0	78	70,3	26	86,7	67	62,6	11	47,8
	Often	0	,0	3	2,7	1	3,3	13	12,1	2	8,7



	Sometimes	2	10,0	28	25,2	3	10,0	23	21,5	9	39,1
Creative work using online applications	Always	0	,0	5	4,5	1	3,3	5	4,7	2	8,7
	Never	15	75,0	40	36,0	16	53,3	35	32,7	6	26,1
	Often	2	10,0	12	10,8	5	16,7	21	19,6	5	21,7
	Sometimes	3	15,0	54	48,6	8	26,7	46	43,0	10	43,5
Encourage interdisciplinary projects through the use of online technologies	Always	0	,0	4	3,6	2	6,7	6	5,6	2	8,7
	Never	14	70,0	61	55,0	17	56,7	46	43,0	9	39,1
	Often	0	,0	8	7,2	3	10,0	17	15,9	4	17,4
	Sometimes	6	30,0	38	34,2	8	26,7	38	35,5	8	34,8

Table 53.

		Age											
		25 - 30		31 - 40		41 - 50		51 - 60		60+		Up to 25	
		a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%	a. v.	%
Regular contact with my students through online communication	Always	1	11,1	15	19,5	24	18,3	14	20,9	0	,0	0	,0
	Never	5	55,6	25	32,5	27	20,6	13	19,4	1	20,0	1	50,0
	Often	1	11,1	15	19,5	28	21,4	21	31,3	2	40,0	1	50,0
	Sometimes	2	22,2	22	28,6	52	39,7	19	28,4	2	40,0	0	,0
Ask students to document online what they have learnt	Always	1	11,1	12	15,6	10	7,6	7	10,4	1	20,0	0	,0
	Never	3	33,3	16	20,8	17	13,0	7	10,4	0	,0	1	50,0
	Often	1	11,1	16	20,8	34	26,0	24	35,8	2	40,0	1	50,0
	Sometimes	4	44,4	33	42,9	70	53,4	29	43,3	2	40,0	0	,0



Involve students in collaborative online work	Always	1	11,1	5	6,5	7	5,3	12	17,9	0	,0	0	,0
	Never	3	33,3	32	41,6	32	24,4	16	23,9	1	20,0	2	100,0
	Often	0	,0	13	16,9	27	20,6	15	22,4	2	40,0	0	,0
	Sometimes	5	55,6	27	35,1	65	49,6	24	35,8	2	40,0	0	,0
Online student assessment	Always	1	11,1	2	2,6	1	,8	3	4,5	0	,0	0	,0
	Never	8	88,9	65	84,4	79	60,3	44	65,7	2	40,0	2	100,0
	Often	0	,0	2	2,6	11	8,4	4	6,0	2	40,0	0	,0
	Sometimes	0	,0	8	10,4	40	30,5	16	23,9	1	20,0	0	,0
Creative work using online applications	Always	1	11,1	3	3,9	7	5,3	2	3,0	0	,0	0	,0
	Never	5	55,6	38	49,4	46	35,1	21	31,3	1	20,0	1	50,0
	Often	0	,0	9	11,7	18	13,7	16	23,9	2	40,0	0	,0
	Sometimes	3	33,3	27	35,1	60	45,8	28	41,8	2	40,0	1	50,0
Encourage interdisciplinary projects through the use of online technologies	Always	1	11,1	2	2,6	6	4,6	5	7,5	0	,0	0	,0
	Never	6	66,7	52	67,5	61	46,6	25	37,3	1	20,0	2	100,0
	Often	1	11,1	5	6,5	15	11,5	10	14,9	1	20,0	0	,0
	Sometimes	1	11,1	18	23,4	49	37,4	27	40,3	3	60,0	0	,0



Table 54.

		Gender			
		Female		Male	
		a.v.	%	a.v.	%
Regular contact with my students through online communication	Always	48	18,2	6	22,2
	Never	67	25,4	5	18,5
	Often	62	23,5	6	22,2
	Sometimes	87	33,0	10	37,0
Ask students to document online what they have learnt	Always	27	10,2	4	14,8
	Never	43	16,3	1	3,7
	Often	70	26,5	8	29,6
	Sometimes	124	47,0	14	51,9
Involve students in collaborative online work	Always	22	8,3	3	11,1
	Never	76	28,8	10	37,0
	Often	54	20,5	3	11,1
	Sometimes	112	42,4	11	40,7
Online student assessment	Always	4	1,5	3	11,1
	Never	184	69,7	16	59,3
	Often	14	5,3	5	18,5
	Sometimes	62	23,5	3	11,1
Creative work using online applications	Always	10	3,8	3	11,1
	Never	105	39,8	7	25,9
	Often	39	14,8	6	22,2
	Sometimes	110	41,7	11	40,7
Encourage interdisciplinary projects through the use of online technologies	Always	12	4,5	2	7,4
	Never	137	51,9	10	37,0
	Often	28	10,6	4	14,8
	Sometimes	87	33,0	11	40,7



Table 55.

		Regular contact with my students through online communication				Ask students to document online what they have learn			
		Alway s	Neve r	Ofte n	Sometime s	Alway s	Neve r	Ofte n	Sometime s
Literacy	%	.2	.3	.3	.2	.1	.2	.3	.4
Numeracy	%	.2	.3	.3	.2	.1	.3	.2	.4
Science	%	.2	.2	.3	.3	.1	.1	.3	.4
History	%	.2	.2	.3	.3	.2	.2	.4	.3
Arts	%	.2	.4	.3	.2	.2	.3	.3	.3
Music	%	.2	.3	.3	.2	.2	.2	.3	.3
Physical Education	%	.0	.5	.2	.4	.1	.4	.3	.3
Development of practical abilities	%	.2	.3	.3	.2	.2	.2	.3	.3
Religious Education	%	.0	.5	.0	.5	.0	.0	.0	1.0
Ethics and Democratic Citizenship	%	.1	.6	.1	.2	.0	.3	.1	.6
Social Sciences	%	.1	.3	.2	.4	.1	.1	.3	.5
ICT	%	.4	.1	.4	.2	.2	.0	.3	.5
Modern Foreign Languages	%	.3	.2	.1	.3	.2	.0	.3	.5
Learning Approaches	%	.3	.3	.2	.3	.1	.2	.2	.5
Special Educational Needs	%	.1	.4	.2	.3	.1	.3	.2	.4
Other	%	.2	.4	.1	.3	.1	.2	.2	.5



Table 56.

		Involve students in collaborative online work				Online student assessment			
		Always	Never	Often	Sometimes	Always	Never	Often	Sometimes
Literacy	%	.1	.3	.2	.4	.0	.7	.1	.2
Numeracy	%	.1	.4	.1	.4	.0	.7	.1	.2
Science	%	.1	.3	.2	.4	.0	.7	.1	.2
History	%	.2	.3	.1	.4	.1	.7	.1	.2
Arts	%	.2	.4	.2	.3	.0	.8	.0	.2
Music	%	.2	.3	.2	.3	.0	.8	.0	.2
Physical Education	%	.1	.5	.1	.3	.0	.8	.0	.2
Development of practical abilities	%	.1	.3	.3	.3	.0	.7	.1	.2
Religious Education	%	.0	1.0	.0	.0	.0	1.0	.0	.0
Ethics and Democratic Citizenship	%	.0	.4	.1	.5	.0	.8	.0	.2
Social Sciences	%	.1	.4	.1	.4	.0	.8	.0	.2
ICT	%	.2	.1	.3	.5	.1	.4	.2	.3
Modern Foreign Languages	%	.1	.2	.3	.4	.1	.7	.1	.1
Learning Approaches	%	.0	.2	.3	.5	.0	.6	.1	.3
Special Educational Needs	%	.1	.3	.2	.5	.0	.8	.0	.2
Other	%	.1	.4	.1	.4	.0	.7	.1	.2



Table 57.

		Creative work using online applications				Encourage interdisciplinary projects through the use of online technologies			
		Always	Never	Often	Sometimes	Always	Never	Often	Sometimes
Literacy	%	.1	.4	.1	.4	.0	.5	.1	.3
Numeracy	%	.0	.4	.2	.4	.1	.5	.1	.3
Science	%	.0	.3	.2	.4	.0	.4	.1	.4
History	%	.1	.5	.2	.2	.2	.5	.1	.3
Arts	%	.1	.5	.2	.3	.1	.5	.1	.2
Music	%	.1	.5	.2	.2	.1	.5	.1	.3
Physical Education	%	.0	.6	.3	.1	.1	.5	.1	.3
Development of practical abilities	%	.0	.4	.3	.2	.1	.4	.2	.3
Religious Education	%	.0	.5	.0	.5	.0	1.0	.0	.0
Ethics and Democratic Citizenship	%	.0	.5	.1	.4	.0	.6	.0	.4
Social Sciences	%	.0	.5	.1	.4	.1	.6	.1	.2
ICT	%	.2	.1	.3	.5	.1	.3	.2	.4
Modern Foreign Languages	%	.1	.3	.2	.4	.1	.3	.2	.4
Learning Approaches	%	.0	.5	.2	.3	.0	.6	.2	.2
Special Educational Needs	%	.0	.5	.1	.4	.0	.7	.1	.2
Other	%	.1	.5	.1	.3	.0	.6	.1	.3



Table 58.

		Type of contract in the school			
		Permanent contract		Temporary contract	
		a.v.	%	a.v.	%
Regular contact with my students through online communication	Always	51	18,9	3	14,3
	Never	63	23,3	9	42,9
	Often	67	24,8	1	4,8
	Sometimes	89	33,0	8	38,1
Ask students to document online what they have learnt	Always	30	11,1	1	4,8
	Never	38	14,1	6	28,6
	Often	74	27,4	4	19,0
	Sometimes	128	47,4	10	47,6
Involve students in collaborative online work	Always	25	9,3	0	,0
	Never	76	28,1	10	47,6
	Often	55	20,4	2	9,5
	Sometimes	114	42,2	9	42,9
Online student assessment	Always	7	2,6	0	,0
	Never	183	67,8	17	81,0
	Often	19	7,0	0	,0
	Sometimes	61	22,6	4	19,0
Creative work using online applications	Always	12	4,4	1	4,8
	Never	101	37,4	11	52,4
	Often	42	15,6	3	14,3
	Sometimes	115	42,6	6	28,6
Encourage interdisciplinary projects through the use of online technologies	Always	13	4,8	1	4,8
	Never	133	49,3	14	66,7
	Often	29	10,7	3	14,3
	Sometimes	95	35,2	3	14,3



Table 59.

		Leadership role		Management role		Teaching role	
		a.v.	%	a.v.	%	a.v.	%
Regular contact with my students through online communication	Always	3	8,3	4	11,1	51	19,0
	Never	12	33,3	4	11,1	65	24,2
	Often	8	22,2	11	30,6	60	22,3
	Sometimes	13	36,1	17	47,2	93	34,6
Ask students to document online what they have learnt	Always	3	8,3	3	8,3	29	10,8
	Never	5	13,9	3	8,3	40	14,9
	Often	12	33,3	17	47,2	71	26,4
	Sometimes	16	44,4	13	36,1	129	48,0
Involve students in collaborative online work	Always	2	5,6	4	11,1	22	8,2
	Never	12	33,3	7	19,4	80	29,7
	Often	8	22,2	13	36,1	51	19,0
	Sometimes	14	38,9	12	33,3	116	43,1
Online student assessment	Always	1	2,8	2	5,6	6	2,2
	Never	23	63,9	20	55,6	186	69,1
	Often	2	5,6	2	5,6	18	6,7
	Sometimes	10	27,8	12	33,3	59	21,9
Creative work using online applications	Always	2	5,6	3	8,3	13	4,8
	Never	11	30,6	8	22,2	103	38,3
	Often	7	19,4	10	27,8	40	14,9
	Sometimes	16	44,4	15	41,7	113	42,0
Encourage interdisciplinary projects through the use of online technologies	Always	2	5,6	1	2,8	13	4,8
	Never	15	41,7	14	38,9	137	50,9
	Often	7	19,4	9	25,0	28	10,4
	Sometimes	12	33,3	12	33,3	91	33,8



Table 60.

		School type									
		Early Years (3-6 years)		Lower secondary (11/12-15/16 years)		Primary School (6/7-11/12 ani)		Upper secondary (15/16-19/20 years)		VET (15/16-18/19 years)	
		a.v	%	a.v	%	a.v	%	a.v	%	a.v	%
Make students more autonomous	Average	6	30,0	37	33,3	6	20,0	22	20,6	4	17,4
	Not at all	0	,0	2	1,8	0	,0	2	1,9	0	,0
	Partially	1	5,0	6	5,4	2	6,7	4	3,7	3	13,0
	Useful	9	45,0	54	48,6	17	56,7	57	53,3	11	47,8
	Very Useful	4	20,0	12	10,8	5	16,7	22	20,6	5	21,7
Empower students in their own education	Average	6	30,0	42	37,8	11	36,7	29	27,1	2	8,7
	Not at all	0	,0	3	2,7	0	,0	1	,9	1	4,3
	Partially	2	10,0	8	7,2	1	3,3	6	5,6	4	17,4
	Useful	7	35,0	48	43,2	14	46,7	51	47,7	11	47,8
	Very Useful	5	25,0	10	9,0	4	13,3	20	18,7	5	21,7
Make the learning process more meaningful for the student	Average	6	30,0	36	32,4	11	36,7	28	26,2	3	13,0
	Not at all	0	,0	2	1,8	0	,0	1	,9	0	,0
	Partially	2	10,0	10	9,0	0	,0	8	7,5	3	13,0
	Useful	6	30,0	45	40,5	13	43,3	45	42,1	13	56,5



	Very Useful	6	30,0	18	16,2	6	20,0	25	23,4	4	17,4
Make the learning process more effective	Average	7	35,0	41	36,9	15	50,0	31	29,0	6	26,1
	Not at all	0	,0	1	,9	0	,0	1	,9	1	4,3
	Partially	1	5,0	10	9,0	1	3,3	9	8,4	2	8,7
	Useful	8	40,0	45	40,5	10	33,3	48	44,9	11	47,8
	Very Useful	4	20,0	14	12,6	4	13,3	18	16,8	3	13,0
Make the learning process more efficient	Average	4	20,0	34	30,6	10	33,3	29	27,1	3	13,0
	Not at all	0	,0	1	,9	0	,0	1	,9	0	,0
	Partially	0	,0	12	10,8	3	10,0	7	6,5	3	13,0
	Useful	11	55,0	50	45,0	10	33,3	53	49,5	14	60,9
	Very Useful	5	25,0	14	12,6	7	23,3	17	15,9	3	13,0
Integrate formal, non-formal and informal learning	Average	6	30,0	22	19,8	8	26,7	19	17,8	4	17,4
	Partially	0	,0	2	1,8	2	6,7	3	2,8	2	8,7
	Useful	8	40,0	58	52,3	8	26,7	61	57,0	10	43,5
	Very Useful	6	30,0	29	26,1	12	40,0	24	22,4	7	30,4
Involve other actors in the learning process	Average	7	35,0	29	26,1	7	23,3	35	32,7	7	30,4
	Not at all	0	,0	2	1,8	1	3,3	1	,9	0	,0
	Partially	0	,0	9	8,1	2	6,7	7	6,5	3	13,0
	Useful	10	50,0	58	52,3	13	43,3	49	45,8	9	39,1
	Very Useful	3	15,0	13	11,7	7	23,3	15	14,0	4	17,4
Improve communication	Average	5	25,0	29	26,1	4	13,3	28	26,2	7	30,4



, collaboration and coordination between colleagues, students and institutions	Not at all	0	,0	2	1,8	0	,0	0	,0	1	4,3
	Partially	1	5,0	5	4,5	3	10,0	4	3,7	1	4,3
	Useful	8	40,0	48	43,2	14	46,7	54	50,5	11	47,8
	Very Useful	6	30,0	27	24,3	9	30,0	21	19,6	3	13,0
Improve teacher CDP	Average	5	25,0	25	22,5	4	13,3	30	28,0	6	26,1
	Not at all	0	,0	1	,9	0	,0	0	,0	0	,0
	Partially	1	5,0	7	6,3	2	6,7	3	2,8	1	4,3
	Useful	8	40,0	52	46,8	11	36,7	44	41,1	13	56,5
	Very Useful	6	30,0	26	23,4	13	43,3	30	28,0	3	13,0
Link school activities with work experience placements	Average	9	45,0	34	30,6	11	36,7	29	27,1	9	39,1
	Not at all	0	,0	7	6,3	2	6,7	2	1,9	0	,0
	Partially	2	10,0	12	10,8	3	10,0	18	16,8	3	13,0
	Useful	7	35,0	41	36,9	8	26,7	40	37,4	8	34,8
	Very Useful	2	10,0	17	15,3	6	20,0	18	16,8	3	13,0

Table 61.

		Age range					
		25 - 30	31 - 40	41 - 50	51 - 60	60+	Up to 25
		%	%	%	%	%	%
Make students more autonomous	Average	55,6	23,4	29,0	19,4	20,0	,0
	Not at all	,0	1,3	1,5	1,5	,0	,0
	Partially	,0	6,5	6,1	4,5	,0	,0
	Useful	44,4	49,4	50,4	50,7	80,0	100,0
	Very Useful	,0	19,5	13,0	23,9	,0	,0
Empower students in their own education	Average	66,7	26,0	32,8	25,4	60,0	50,0
	Not at all	,0	1,3	2,3	1,5	,0	,0



	Partially	,0	10,4	6,1	6,0	,0	50,0
	Useful	33,3	40,3	47,3	49,3	40,0	,0
	Very Useful	,0	22,1	11,5	17,9	,0	,0
Make the learning process more meaningful for the student	Average	33,3	18,2	38,2	19,4	40,0	100,0
	Not at all	,0	,0	1,5	1,5	,0	,0
	Partially	11,1	13,0	6,9	4,5	,0	,0
	Useful	55,6	44,2	35,9	50,7	40,0	,0
	Very Useful	,0	24,7	17,6	23,9	20,0	,0
Make the learning process more effective	Average	44,4	33,8	36,6	29,9	20,0	50,0
	Not at all	,0	1,3	,8	1,5	,0	,0
	Partially	,0	6,5	12,2	3,0	,0	,0
	Useful	55,6	45,5	38,9	40,3	60,0	50,0
	Very Useful	,0	13,0	11,5	25,4	20,0	,0
Make the learning process more efficient	Average	33,3	19,5	35,1	22,4	,0	50,0
	Not at all	,0	,0	,8	1,5	,0	,0
	Partially	11,1	10,4	9,2	4,5	20,0	,0
	Useful	55,6	50,6	41,2	52,2	80,0	50,0
	Very Useful	,0	19,5	13,7	19,4	,0	,0
Integrate formal, non-formal and informal learning	Average	33,3	14,3	24,4	19,4	,0	,0
	Partially	,0	2,6	3,8	3,0	,0	,0
	Useful	55,6	49,4	48,9	47,8	80,0	100,0
	Very Useful	11,1	33,8	22,9	29,9	20,0	,0
Involve other actors in the learning process	Average	33,3	27,3	26,0	35,8	40,0	50,0
	Not at all	,0	,0	3,1	,0	,0	,0
	Partially	,0	5,2	7,6	9,0	20,0	,0
	Useful	55,6	54,5	48,9	38,8	20,0	50,0
	Very Useful	11,1	13,0	14,5	16,4	20,0	,0
Improve communication, collaboration and coordination between colleagues, students and institutions	Average	33,3	31,2	24,4	20,9	,0	,0
	Not at all	,0	,0	2,3	,0	,0	,0
	Partially	,0	2,6	6,1	4,5	,0	50,0
	Useful	33,3	40,3	49,6	44,8	100,0	50,0
	Very Useful	33,3	26,0	17,6	29,9	,0	,0
Improve teacher CDP	Average	33,3	20,8	25,2	20,9	80,0	,0
	Not at all	,0	,0	,8	,0	,0	,0
	Partially	,0	2,6	6,9	3,0	,0	50,0
	Useful	33,3	49,4	44,3	41,8	,0	50,0
	Very Useful	33,3	27,3	22,9	34,3	20,0	,0
	Average	44,4	27,3	34,4	26,9	60,0	50,0



Link school activities with work experience placements	Not at all	,0	1,3	4,6	6,0	,0	,0
	Partially	,0	7,8	15,3	17,9	,0	,0
	Useful	33,3	40,3	32,8	37,3	20,0	50,0
	Very Useful	22,2	23,4	13,0	11,9	20,0	,0

Table 62.

		Gender	
		Female	Male
		%	%
Make students more autonomous	Average	25,8	25,9
	Not at all	1,1	3,7
	Partially	5,7	3,7
	Useful	50,0	59,3
	Very Useful	17,4	7,4
Empower students in their own education	Average	31,1	29,6
	Not at all	1,9	,0
	Partially	7,2	7,4
	Useful	45,1	44,4
	Very Useful	14,8	18,5
Make the learning process more meaningful for the student	Average	28,0	37,0
	Not at all	1,1	,0
	Partially	8,3	3,7
	Useful	42,4	37,0
	Very Useful	20,1	22,2
Make the learning process more effective	Average	34,8	29,6
	Not at all	1,1	,0
	Partially	8,3	3,7
	Useful	40,5	55,6
	Very Useful	15,2	11,1
Make the learning process more efficient	Average	28,4	18,5
	Not at all	,8	,0
	Partially	8,7	7,4
	Useful	45,8	63,0
	Very Useful	16,3	11,1
Integrate formal, non-formal and informal learning	Average	20,1	22,2
	Partially	3,0	3,7
	Useful	48,5	63,0
	Very Useful	28,4	11,1



Involve other actors in the learning process	Average	29,9	22,2
	Not at all	1,5	,0
	Partially	7,2	7,4
	Useful	47,0	55,6
	Very Useful	14,4	14,8
Improve communication, collaboration and coordination between colleagues, students and institutions	Average	25,4	22,2
	Not at all	1,1	,0
	Partially	4,9	3,7
	Useful	45,1	59,3
	Very Useful	23,5	14,8
Improve teacher CDP	Average	23,5	29,6
	Not at all	,4	,0
	Partially	4,9	3,7
	Useful	43,6	48,1
	Very Useful	27,7	18,5
Link school activities with work experience placements	Average	32,2	25,9
	Not at all	4,2	,0
	Partially	12,9	14,8
	Useful	34,8	44,4
	Very Useful	15,9	14,8

Table 63.

	Make students more autonomous					Empower students in their own education				
	Average	Not at all	Partially	Useful	Very Useful	Average	Not at all	Partially	Useful	Very Useful
Literacy	,2	,0	,0	,6	,2	,3	,0	,1	,4	,3
Numeracy	,3	,0	,0	,6	,1	,3	,0	,0	,5	,1
Science	,3	,0	,1	,5	,2	,3	,0	,1	,4	,2
History	,2	,0	,1	,5	,2	,2	,0	,0	,6	,2
Arts	,3	,0	,0	,5	,1	,3	,0	,0	,5	,2
Music	,2	,0	,0	,5	,2	,3	,0	,0	,5	,2
Physical Education	,3	,0	,0	,5	,3	,4	,0	,0	,4	,3
Development of practical abilities	,3	,0	,0	,5	,2	,3	,0	,0	,5	,2
Religious Education	,0	,0	,0	1,0	,0	,0	,0	,0	1,0	,0



Ethics and Democratic Citizenship	,1	,1	,1	,7	,1	,3	,1	,1	,4	,2
Social Sciences	,3	,0	,0	,5	,2	,3	,0	,1	,5	,2
Modern Foreign Languages	,2	,0	,0	,6	,2	,3	,0	,0	,5	,2
Learning Approaches	,2	,0	,0	,6	,2	,3	,0	,1	,4	,3
Special Educational Needs	,3	,0	,0	,6	,1	,3	,0	,0	,5	,1
Other	,3	,0	,1	,5	,2	,3	,0	,1	,4	,2

Table 64.

	Make the learning process more meaningful for the student					Make the learning process more effective				
	Average	Not at all	Partially	Useful	Very Useful	Average	Not at all	Partially	Useful	Very Useful
Literacy	.3	.0	.0	.3	.3	.4	.0	.1	.3	.2
Numeracy	.2	.0	.0	.5	.3	.4	.0	.1	.4	.1
Science	.3	.0	.0	.4	.2	.3	.0	.1	.4	.2
History	.3	.0	.1	.4	.3	.5	.0	.1	.4	.1
Arts	.3	.0	.0	.4	.3	.4	.0	.1	.3	.2
Music	.2	.0	.0	.4	.4	.4	.0	.0	.3	.2
Physical Education	.2	.0	.0	.3	.5	.5	.0	.0	.3	.3
Development of practical abilities	.3	.0	.0	.4	.3	.4	.0	.1	.3	.2
Religious Education	.0	.0	.0	.5	.5	.0	.0	.0	1.0	.0
Ethics and Democratic Citizenship	.3	.1	.1	.3	.2	.3	.0	.1	.4	.1
Social Sciences	.2	.0	.2	.5	.1	.5	.0	.1	.4	.1
Modern Foreign Languages	.2	.0	.0	.6	.2	.3	.0	.0	.6	.1
Learning Approaches	.0	.0	.1	.5	.3	.3	.0	.1	.5	.2
Special Educational Needs	.1	.1	.1	.5	.3	.3	.0	.1	.4	.1
Other	.3	.0	.1	.4	.2	.3	.0	.1	.5	.1



Table 65.

	Make the learning process more efficient					Integrate formal, non-formal and informal learning			
	Average	Not at all	Partially	Useful	Very Useful	Average	Partially	Useful	Very Useful
Literacy	.2	.0	.1	.4	.2	.2	.0	.4	.4
Numeracy	.3	.0	.1	.4	.2	.2	.0	.5	.3
Science	.3	.0	.1	.5	.2	.2	.0	.5	.3
History	.4	.0	.1	.3	.2	.2	.1	.5	.3
Arts	.3	.0	.1	.3	.3	.2	.0	.4	.4
Music	.3	.0	.1	.3	.3	.2	.0	.3	.5
Physical Education	.3	.0	.0	.3	.5	.2	.0	.5	.4
Development of practical abilities	.3	.0	.1	.3	.3	.2	.0	.5	.3
Religious Education	.0	.0	.0	1.0	.0	.0	.0	.5	.5
Ethics and Democratic Citizenship	.3	.0	.1	.5	.1	.3	.0	.4	.3
Social Sciences	.4	.0	.0	.4	.1	.3	.0	.5	.3
Modern Foreign Languages	.2	.0	.0	.7	.1	.2	.0	.5	.3
Learning Approaches	.3	.0	.0	.5	.1	.2	.1	.5	.2
Special Educational Needs	.3	.0	.1	.4	.2	.2	.1	.4	.3
Other	.3	.0	.1	.5	.1	.2	.1	.5	.3

Table 66.

	Involve other actors in the learning process					Improve communication, collaboration and coordination between colleagues, students and institutions				
	Average	Not at all	Partially	Useful	Very Useful	Average	Not at all	Partially	Useful	Very Useful
Literacy	.2	.0	.1	.6	.1	.2	.0	.0	.5	.3
Numeracy	.3	.0	.0	.5	.2	.1	.0	.0	.5	.3
Science	.3	.0	.1	.4	.2	.2	.0	.1	.5	.2
History	.2	.0	.1	.5	.3	.2	.0	.1	.5	.3
Arts	.3	.0	.0	.5	.2	.1	.0	.0	.5	.3



Music	.2	.0	.0	.5	.2	.1	.0	.0	.5	.4
Physical Education	.1	.0	.1	.5	.3	.2	.0	.0	.4	.5
Development of practical abilities	.3	.0	.1	.4	.2	.1	.0	.0	.4	.4
Religious Education	.5	.0	.0	.5	.0	.0	.0	.0	1.0	.0
Ethics and Democratic Citizenship	.3	.0	.1	.6	.1	.1	.1	.0	.7	.1
Social Sciences	.3	.0	.0	.5	.1	.4	.0	.0	.4	.2
Modern Foreign Languages	.3	.0	.0	.6	.1	.2	.0	.0	.4	.3
Learning Approaches	.3	.0	.1	.5	.0	.3	.0	.1	.3	.2
Special Educational Needs	.2	.1	.1	.6	.1	.2	.1	.0	.4	.3
Other	.2	.0	.1	.6	.1	.3	.0	.1	.5	.2

Table 67.

	Improve teacher CDP					Link school activities with work experience placements				
	Average	Not at all	Partially	Useful	Very Useful	Average	Not at all	Partially	Useful	Very Useful
Literacy	.2	.0	.0	.4	.3	.4	.0	.1	.3	.1
Numeracy	.2	.0	.0	.4	.4	.4	.0	.1	.3	.2
Science	.2	.0	.0	.4	.3	.4	.1	.1	.3	.1
History	.1	.0	.1	.5	.4	.3	.1	.2	.2	.3
Arts	.2	.0	.0	.4	.4	.4	.1	.1	.3	.1
Music	.1	.0	.0	.4	.5	.5	.0	.1	.3	.1
Physical Education	.3	.0	.0	.3	.5	.5	.0	.0	.4	.1
Development of practical abilities	.2	.0	.0	.3	.4	.4	.0	.1	.3	.2
Religious Education	.0	.0	.0	1.0	.0	.0	.0	.0	.5	.5
Ethics and Democratic Citizenship	.1	.0	.1	.6	.1	.2	.1	.2	.5	.0
Social Sciences	.4	.0	.0	.4	.2	.3	.0	.1	.4	.2
Modern Foreign Languages	.3	.0	.0	.4	.3	.4	.0	.0	.5	.1



Learning Approaches	.3	.0	.1	.3	.3	.4	.0	.0	.3	.2
Special Educational Needs	.1	.0	.1	.4	.3	.3	.1	.1	.3	.2
Other	.2	.0	.1	.5	.3	.3	.0	.1	.4	.1

Table 68.

		Type of contract in the school	
		Permanent contract	Temporary contract
		%	%
Make students more autonomous	Average	25,6	28,6
	Not at all	1,5	,0
	Partially	5,6	4,8
	Useful	50,4	57,1
	Very Useful	17,0	9,5
Empower students in their own education	Average	31,9	19,0
	Not at all	1,9	,0
	Partially	6,3	19,0
	Useful	44,1	57,1
	Very Useful	15,9	4,8
Make the learning process more meaningful for the student	Average	29,6	19,0
	Not at all	,7	4,8
	Partially	7,4	14,3
	Useful	41,5	47,6
	Very Useful	20,7	14,3
Make the learning process more effective	Average	35,6	19,0
	Not at all	,7	4,8
	Partially	7,4	14,3
	Useful	41,9	42,9
	Very Useful	14,4	19,0
Make the learning process more efficient	Average	28,1	19,0
	Not at all	,4	4,8
	Partially	8,5	9,5
	Useful	47,0	52,4



	Very Useful	15,9	14,3
Integrate formal, non-formal and informal learning	Average	20,4	19,0
	Partially	3,0	4,8
	Useful	49,6	52,4
	Very Useful	27,0	23,8
Involve other actors in the learning process	Average	29,6	23,8
	Not at all	,7	9,5
	Partially	7,4	4,8
	Useful	47,4	52,4
	Very Useful	14,8	9,5
Improve communication, collaboration and coordination between colleagues, students and institutions	Average	25,2	23,8
	Not at all	1,1	,0
	Partially	4,8	4,8
	Useful	45,9	52,4
	Very Useful	23,0	19,0
Improve teacher CDP	Average	24,4	19,0
	Not at all	,4	,0
	Partially	5,2	,0
	Useful	43,0	57,1
	Very Useful	27,0	23,8
Link school activities with work experience placements	Average	33,3	9,5
	Not at all	3,7	4,8
	Partially	13,3	9,5
	Useful	34,8	47,6
	Very Useful	14,8	28,6



Table 69.

		Leadership role	Management role	Teaching role
		%	%	%
Make students more autonomous	Average	22,2	13,9	27,1
	Not at all	2,8	2,8	1,1
	Partially	5,6	2,8	4,8
	Useful	55,6	69,4	50,6
	Very Useful	13,9	11,1	16,4
Empower students in their own education	Average	30,6	22,2	32,0
	Not at all	2,8	2,8	1,5
	Partially	8,3	5,6	7,1
	Useful	47,2	63,9	43,5
	Very Useful	11,1	5,6	16,0
Make the learning process more meaningful for the student	Average	19,4	16,7	29,4
	Not at all	2,8	2,8	,7
	Partially	5,6	8,3	7,8
	Useful	50,0	55,6	41,6
	Very Useful	22,2	16,7	20,4
Make the learning process more effective	Average	30,6	27,8	35,7
	Not at all	,0	,0	1,1
	Partially	11,1	5,6	7,1
	Useful	50,0	61,1	41,6
	Very Useful	8,3	5,6	14,5
Make the learning process more efficient	Average	22,2	13,9	28,3
	Not at all	,0	,0	,7
	Partially	16,7	8,3	8,2
	Useful	47,2	66,7	47,6
	Very Useful	13,9	11,1	15,2
Integrate formal, non-formal and informal learning	Average	19,4	11,1	20,8
	Partially	2,8	2,8	2,6
	Useful	50,0	58,3	49,8
	Very Useful	27,8	27,8	26,8
Involve other actors in the learning process	Average	30,6	22,2	29,4
	Not at all	,0	,0	1,5
	Partially	13,9	13,9	6,3
	Useful	47,2	55,6	48,3



	Very Useful	8,3	8,3	14,5
Improve communication, collaboration and coordination between colleagues, students and institutions	Average	22,2	19,4	25,3
	Not at all	2,8	2,8	,7
	Partially	11,1	5,6	4,1
	Useful	44,4	52,8	47,2
	Very Useful	19,4	19,4	22,7
Improve teacher CDP	Average	33,3	22,2	23,8
	Not at all	,0	,0	,4
	Partially	8,3	8,3	4,1
	Useful	33,3	52,8	44,2
	Very Useful	25,0	16,7	27,5
Link school activities with work experience placements	Average	16,7	19,4	32,0
	Not at all	5,6	5,6	3,7
	Partially	19,4	11,1	12,3
	Useful	47,2	58,3	35,7
	Very Useful	11,1	5,6	16,4

Table 70.					
	School Type:				
	Early Years (3-6 years)	Lower secondary (11/12-15/16 years)	Primary School (6/7-11/12 years)	Upper secondary (15/16-19/20 years)	VET (15/16-18/19 years)
Please indicate the types of training you have attended around using digital technologies in education	%	%	%	%	%
Formal learning	75,0	54,1	70,0	60,7	47,8
N/A	25,0	45,9	30,0	39,3	52,2
Non formal learning	60,0	51,4	56,7	58,9	47,8
N/A	40,0	48,6	43,3	41,1	52,2
Informal learning	50,0	43,2	60,0	40,2	34,8
N/A	50,0	56,8	40,0	59,8	65,2



Face to face	70,0	52,3	60,0	51,4	39,1
N/A	30,0	47,7	40,0	48,6	60,9
Blended	40,0	57,7	60,0	59,8	73,9
N/A	60,0	42,3	40,0	40,2	26,1
Fully Online	30,0	16,2	33,3	15,9	34,8
N/A	70,0	83,8	66,7	84,1	65,2

Table 71.

	Gender	
	Female	Male
Please indicate the types of training you have attended around using digital technologies in education	%	%
Formal learning	59,1	59,3
N/A	40,9	40,7
Non formal learning	54,9	55,6
N/A	45,1	44,4
Informal learning	44,3	37,0
N/A	55,7	63,0
Face to face	52,7	55,6
N/A	47,3	44,4
Blended	58,3	63,0
N/A	41,7	37,0
Fully Online	20,5	18,5
N/A	79,5	81,5

Table 72.

		Age range					
Professional Engagement		25 - 30	31 - 40	41 - 50	51 - 60	60+	Up to 25
		%	%	%	%	%	%
Organisational communication	A1	22,2	9,1	6,9	7,5	,0	,0
	A2	,0	27,3	20,6	22,4	,0	,0
	B1	55,6	27,3	36,6	32,8	20,0	50,0
	B2	11,1	24,7	19,8	22,4	40,0	50,0
	C1	11,1	3,9	11,5	14,9	20,0	,0
	C2	,0	7,8	4,6	,0	20,0	,0
Professional collaboration	A1	11,1	5,2	3,1	4,5	,0	,0
	A2	11,1	24,7	11,5	19,4	,0	,0
	B1	33,3	29,9	35,1	34,3	,0	50,0
	B2	22,2	24,7	26,0	17,9	40,0	50,0
	C1	22,2	6,5	17,6	20,9	,0	,0



	C2	,0	9,1	6,9	3,0	60,0	,0
Reflective practice	A1	11,1	11,7	5,3	11,9	,0	,0
	A2	22,2	22,1	19,1	13,4	,0	,0
	B1	44,4	29,9	25,2	35,8	,0	50,0
	B2	,0	19,5	31,3	22,4	,0	50,0
	C1	22,2	13,0	15,3	11,9	40,0	,0
	C2	,0	3,9	3,8	4,5	60,0	,0
Digital Continuous Professional Development	A1	11,1	2,6	3,8	4,5	,0	,0
	A2	11,1	15,6	15,3	10,4	,0	,0
	B1	55,6	29,9	29,0	25,4	20,0	50,0
	B2	,0	27,3	22,1	20,9	,0	,0
	C1	22,2	13,0	22,9	26,9	20,0	,0
	C2	,0	11,7	6,9	11,9	60,0	50,0