The training of Digital Education professionals.

La formazione delle figure professionali della Digital Education.

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ABSTRACT ITALIANO

Quali sono le caratteristiche delle figure professionali della Digital Education? Come in un corso di laurea si può potenziare lo sviluppo professionale dei futuri professionisti di questo settore emergente nello scenario internazionale? Il CdL in Digital Education dell'Università di Modena e Reggio Emilia rappresenta un caso unico in Italia e in Europa nel quale i temi della progettazione didattica e conoscenza di strumenti e ambienti digitali sono stati integrati nella formazione di tre figure: il Digital Instructional Designer, l'Educatore psicosociale in contesti digitali, l'Educatore digitale nei contesti socio-sanitari.

Il contributo, come studio di caso, descrive e individua scelte innovative nell'organizzazione di un corso di laurea in grado di formare e sostenere professionisti dell'educazione digitale. Nell'analisi si propongono le azioni messe in atto e il punto di vista degli studenti focalizzando l'attenzione su quattro elementi: le figure professionali in uscita, il ciclo di seminari #GenerazioniDigitali, le esigenze degli studenti adulti e occupati, le competenze digitali degli studenti.

ENGLISH ABSTRACT

What are the relevant features of the professional figures of Digital Education? How can a course degree enhance the professional development of future professionals in this sector? The degree course in Digital Education at the University of Modena and Reggio Emilia represents a unique case in Italy and Europe (according to our information) that mixed the themes of education and digital tools and environments in the training of three professional figures: Digital Instructional Designer, Psycho-social educator in digital contexts, Digital educator in social-health contexts.

The contribution is a case study that aims to describe and identify innovative choices in the organization of a degree programme capable of training and supporting Digital Education professionals, taking into account the actions carried out in the programme and the students' views. It focuses on four elements: the professional output figures, the seminars cycle called #GenerazioniDigitali, the needs of adult and employed learners, the students' digital skills.

Digital Education framework: between design and research

The construction of a Digital Education framework must necessarily be linked to a careful analysis of the requests coming from the training context and the corporate world – with a specific reference to the ICT sector – to develop specific soft skills. A recent study conducted by the Osservatorio delle Competenze Digitali – an Italian monitoring center on digital skills – (2019) shows that ICT companies demand training related to soft skills and digital enablers; and soft skills are more necessary than skills related to ICT processes.

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What are the most relevant training needs according to the survey?

"For soft skills the most urgent training needs concern: the development of communication skills (4,42 out of 6), team management (4,34 out of 6), problem solving (4,26 out of 6), proactivity (4,26 out of 6) and stress management (4,20 out of 6). The survey reveals a greater need for training for skills related to ICT processes, that require a combination of technological, business and transversal skills, such as project management" (p. 23, our translation). The attention of different business contexts to training is strong; 80% of ICT companies have a budget designed for training, "54% requires employees to have compulsory access to some essential courses, while 26% offers all courses on an optional basis" (*ibid*.).

How are the training paths defined?

It emerges that "58% of companies resort to requesting standards or certification, 54% also resort to monitoring the various levels of existing skills", with a specific interest in areas that concern "Cloud computing, Cybersecurity and Network & Information Security, Mobile Development, Web Application Framework, User Experience Design and Web Marketing" (*ibid.*).

Training has profoundly modified due to the COVID-19 emergency. As indicated in the Digital Education Action Plan (2021-2027) there is a need to adapt education and training systems to the digital age which is linked to the development of "a European content framework for digital education based on European cultural and creative diversity" (Communication from the Commission to the European Parliament, 2020, p. 22, our translation). Several critical points emerge from the Action Plan related to the use of distance learning – the result of a public consultation carried out between June and September 2020 – where 60% of respondents state that they had never used such tools and resources before the health emergency. However, 95% of respondents believe that the "COVID-19-related crisis represents a point of no return for the way technology is used in education and training [...] over 60% believe they have:

1. basic digital skills and competences from an early age;
2. digital literacy, including combating misinformation;
3. computer science teaching;
4. good knowledge and understanding of data-intensive technologies such as artificial intelligence;
5. advanced digital skills that produce more digital specialists and also ensure that girls and young women are equally represented in digital studies and careers."

From the international research context, of particular interest for our study, we find the framework of Sharpe and Beetham (2010) also proposed within the Jisc Developing Digital Literacies programme (2011-2013) that "describes digital literacy as a development process from access and functional skills to higher level capabilities and identity. However, this will change depending on the context so it also reflects how individuals can be motivated to develop new skills and practices in different situations".

For this complex picture, there emerges the need to construct a Digital Education Framework for the training of professional figures in the educational area with advanced digital skills who can put together the realization of (online, mixed and face-to-face)

training environments and the teaching/instructional design of different training paths (e.g. medical area, professional or business area etc.) with the possibility of combining these aspects with the requests coming from the business world. This figure represents a "bridge" between (increasingly hybrid and mixed) environments, needs, and educational objectives that can appear divergent. The description of the case study in this contribution focuses precisely on this apparent divergence, on the diversity and richness of professional profiles in Digital Education. These figures need targeted actions for their recognition in different contexts related to education and training and concerning integration in business contexts. This long-standing issue regards many professionals in the educational area that in the Italian context is also associated to the recent "Iori Law" that encouraged the recognition of the professional figures of educator.

These are only some of the aspects and variables that contribute to constructing a possible framework related to specific research trajectories on these professional profiles. In this sense, it is necessary to refer also to the Digital Competence Framework for Educators (DigCompEdu), the European framework for digital competence that illustrates what to be digitally competent means for educators (from early childhood to higher and adult education, including general and vocational education and training, special needs education and non-formal learning contexts). Moreover, one should not overlook the standards and their updates related to the European standard "e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all industry sectors - Part 1: Framework", "on the basis of the 41 e-CF competences CEN has defined 30 European ICT Professional Profiles that briefly describe also in terms of mission, deliverables, main activities and Key Performance Indicators some typical ICT roles" (AICA, n.d.).

Although traced, this is a complex path, both in terms of training designing for the construction of solid professional identities - in line with European indications - and possible research actions to be put in place through a comparison with different models, experiences, and frameworks (Tiven et al., 2018; Education and Training Foundation, 2018).

Moreover, the COVID-19 emergency has had direct repercussions on numerous aspects related to teaching in hybrid learning environments; these are new opportunities and challenges to be taken up, for example the need to rethink classroom lessons, assessment, and learners' collaboration (Luke, 2021; Carlson, 2020; Lucisano, 2020).

What are the relevant aspects of the professional figures of Digital Education in the Italian and foreign scenario? How can a course degree enhance the professional development of future professionals in Digital Education?

Method

The research aims to describe and identify innovative choices in the organization of a degree programme capable of training and supporting Digital Education professionals, taking into account the actions carried out in the programme and the students' views.

The contribution represents a case study that, according to Ary and colleagues (2010), is "particularistic (focused on a particular phenomenon, situation, or event), descriptive

(providing as an end result a thick rich description), and heuristic (focused on providing new insights)" (p. 454). We can define it as an "intrinsic case study" (*ibid.*) because we focus on a unique case that is the degree in Digital Education at the University of Modena and Reggio Emilia, the unique course in Italy and Europe (according to our information) that put together the themes of Education and Digital tools and environments. The newly established degree course differs from others courses in Education for this reason and because it is delivered in a blended mode.

Behind the description of the teaching activities/initiatives and professional profiles trained, we provided the students' opinions regarding the course, enrolment reasons, future professional career. The structure chosen to realize and present the case study can be defined as *comparative* (Robson, 2002 in Cohen, Manion & Morrison, 2007, p. 263) because we use two different points of view to provide information and explanations to the readers: the authors' point of view and the students' point of view. The description of the activities reports organizational and design strategies of the degree course in which the authors are involved; students' opinions have been collected through a questionnaire administered online that consisted of 34 (closed and open) questions about personal data, working status, participation in degree activities, and opinions about digital and professional skills acquired during the training. The data collected in the survey were analysed using the tools of descriptive statistics.

Participants to the Questionnaire

149 students replied to our survey. 75 were attending the first course year, 63 were attending the second year (the degree has been activated in a.y. 2019/20, so the third year has not yet started). In university archives, the official number of students enrolled in the first course year is 195, the number of students enrolled in the second year is 86. So, the sub-population of first-year students is underrepresented.

The respondents were mainly women (79%). More than 50% of the students were more than 27 years old. 16% had already completed a degree course before enrolling in Digital Education degree; 36% declared that they dropped out of a course or transferred from another. 77% of students were working at the administration of the questionnaire, and 38% of respondents were not engaged in non-work activities; volunteering, sport, and associations are the principal leisure activities declared by students.

Results and Discussion

This section focuses on four elements that we identified as essential in our analysis of the degree course in Digital Education: the professional output figures, the seminars cycle called #GenerazioniDigitali, the needs of adult and employed learners, the students' digital skills.

Professional figures of Digital Education

We describe the three professional output figures that the degree course in Digital Education aims to train: Digital Instructional Designer, Psycho-social educator in digital contexts, Digital educator in social-health contexts.

The three profiles have in common the basic disciplines (education, psychology, English language B2, teaching methodologies, law, and research methods) and the acquisition of competences related to the use of digital learning environments.

In the second and third course year, the three curricula are characterized by specific courses and disciplines. Opportunities for future employment sometimes can overlap; however, the training for each professional figure has been designed to let students acquire skills that enable them to work in specific areas (Tab. 1).

Digital Instructional Designer (DID) has mainly skills in the instructional design of blended or online courses; technical skills for the production of multimedia contents and the management of online platforms; skills in data analysis to monitor learning processes.

The Psycho-social educator in digital contexts (PSED) is a professional figure who, in agreement with psychologists and other specialists, organises courses and initiatives to manage online communities and (re)educate subjects in the use of digital tools and environments.

The Digital educator in social-health contexts (DSHE) is a designer of training paths for health professionals and has technical and design skills and knowledge about applying Digital Education in health and social contexts.

TAB.1 - DISCIPLINES AND EMPLOYMENT OPPORTUNITIES FOR EACH CURRICULUM IN THE DIGITAL EDUCATION DEGREE COURSE

Curriculum	Specialist disciplines	Employment opportunities
Digital Instructional Designer (DID)	• Instructional Design for digital environments • Statistics • Multivariate Data Analysis • New Media • Labour Law in digital context • Technologies for Training and Digital Content Production	• (also public) agencies, companies and organizations active in training and professional updating • staff training and business planning offices, local authorities and public administration • NGO and non-profit training and cooperation offices • organization and networks for personnel training in the company, in services and in the public administration • vocational training centres • publishing
Psycho-social educator in digital contexts (PSED)	• Cognitive psychology in digital contexts • Digital technologies and psychological development • Digital citizenship • Psychopathology in digital contexts • Online communities • Statistics • Labour Law in digital context	• youth centres • community recreation centres • services of public and private bodies active in training and digital education • training services for public and private social-health companies • organizations, social cooperatives, NGOs active in supporting interventions (including educational ones) in the area of hardship and digital dependencies

Digital educator in social-health contexts (DSHE)	• Instructional design for health training programmes • Digital Education for health and medicine • Multimedia contents design for training in social-health contexts • Labour law in social-health contexts • Statistics for health contexts	• agencies and companies for training and professional updating in social-health contexts • providers and training agencies in the field of Continuing Medical Education • training offices/services of public and private social-health facilities

University data showed that 27 students enrolled in the second year chose the first curriculum, DID; 21, the second one, PSED, and 28, the third, DSHE. Only in the first year of activation of the degree course, a fourth curriculum, Digital humanities for training, that has after been included in the curriculum Digital Instructional Designer, has been proposed; 12 students chose that curriculum.

In the questionnaire, the students of both course years distributed equally in the three curricula (already chosen or to be chosen). In particular, there seems to be more interest in the curriculum of Educator in digital contexts among the first-year students than the second-year students.

We identified some differences among the respondents belonging to the three curricula. Some of them concern personal data: the number of male students enrolled in DID was higher than in the other two curricula (17 out of 27 male students enrolled in DID). DSHE students had on average a lower age than the other two (mean age: DID = 36, PSED = 29, DSHE = 26). 41% of DID students had attended technical high schools; the percentage dropped by about 10% for the other two profiles. 39% of students in the DSHE curriculum attended a high school on social sciences (only 26% in PSED and 20% in DID).

Older students with a more technical background chose the DID curriculum; the health field (DSHE) attracted the interest of younger students with a social studies background; more varied characteristics in terms of age and qualifications distinguished students in the PSED curriculum.

55% of respondents said that at the time of registration, they were well-informed not at all about the objectives, areas of study, and professional profiles of the degree course; the awareness on course features seemed to have been lower for students enrolled in the second year (65%), who were probably affected by the fact that they enrolled in the course in the first year of activation.

Nevertheless, the distinction of the areas of study essential for the specific professional figure and the professional activities in their curriculum is clear for the three groups of students. We asked the students to reorder basic disciplines according to importance in their curriculum and choose the three most complying professional activities. Table 2 shows some results in this respect: the percentage of disciplines indicated at first or second place in the list by students is in column 2; column 3 contains the professional activities that gathered more preferences. Education and Technology prevailed among the disciplines for DID students; Education and Psychology, for PSED; Education and

Psychology with also high values for Sociology and Technology for DSHE. In addition: in DID curriculum, 62% put Psychology at third and fourth place, 38% Statistics, 34% Sociology. In PSED, 75% chose sociology for the third and fourth place, 63% technology, 27% linguistics. For DSHE, 48% put sociology at third and fourth place, 51% technology.

Students of all three curricula recognised the design and evaluation of training interventions and the use of technologies and online environments for training as principal among the professional activities. PSED students confirmed that training interventions on the correct use of technologies, carried out in agreement with other professionals, are at the core of their activities. The activities chosen by DID and DSHE students were similar but with different percentages: data showed a greater focus by DSHE students on identifying the needs of specific categories of learners and more attention on technological aspects in DID curriculum.

The students' opinions suggested that the construction of the study plan for each curriculum and the communication regarding the professional tasks of each figure are functional.

TAB. 2 - STUDENTS' OPINIONS ON BASIC DISCIPLINES AND PROFESSIONAL ACTIVITIES ESSENTIAL FOR THEIR CURRICULUM

Curriculum	Basic Disciplines listed	Professional Activities
Digital Instructional Designer (DID)	**Education, 68%** Psychology, 26% Sociology, 24% **Technology, 62%** Law, 4% Statistics, 10% Linguistics, 8%	Designing and producing digital content for training, 72% Proposing innovative solutions for online training, 59% *Using digital technologies and online environments for training, 53%* *Designing and evaluating training interventions, 51%*
Psycho-social educator in digital contexts (PSED)	**Education, 85%** **Psychology, 73%** Sociology, 8% Technology, 17% Law, 5% Statistics, 5% Linguistics, 5%	Collaborating with psychologists in the implementation of educational interventions on digital themes, 74% Recognising risk behaviour in digital contexts or digital addiction, 67% Implementing interventions that (re)educate on the use of communication technologies, 57% *Designing and evaluating training interventions, 48%* *Using digital technologies and online environments for training, 43%*
Digital educator in social-health contexts (DSHE)	**Education, 53%** **Psychology, 58%** Sociology, 30% Technology, 36% Law, 8% Statistics, 10% Linguistics, 5%	*Using digital technologies and online environments for training, 58%* Designing and producing digital content for training, 55% Proposing innovative solutions for online training, 50% *Designing and evaluating training interventions, 50%* Defining training needs and strategies for specific contexts, 47%

Seminars cycle #GenerazioniDigitali

Since the first year of activation of the degree course, teachers and head organized a seminar cycle called #GenerazioniDigitali (Digital Generation) to propose students experts' opinions, criticalities, and good practises on the use of digital tools for Education in real working contexts. The seminars are free and open to all persons interested inside or outside the university. One of the best ways students can acquire professional knowledge for their future work is to listen to experts and professionals, discuss with them and collect experiences in the educational and digital fields from the beginning.

In the first semester of a.y. 2019/2020, ten seminars were held in the class, streamed on the course website, and recorded for distribution. Students participated live or remotely with an interactive system to participate in the discussion (wooclap.it). They received an attendance certificate and an open badge for participation in each seminar. The certificate for teachers who attended the seminars could be useful for training recognition at school. We issued ten badges and 636 credentials among 140 recipients that, of course, are not only the students enrolled in the degree course. On average, each recipient received 4.5 badges/ certificates, 258 on 636 engaged credentials. The cycle of seminars aimed to explore the characteristics of the digital society and the consequent transformations that its advent has brought about in training, educational, behavioural, and cognitive contexts. We proposed the analysis of ten keywords in ten meetings lasting approximately 2 hours. The themes of the events were chosen as linked to the relationship between the digital revolution and relevant words as citizenship, abuses, childhood, professionals, risky behaviours, social cooperatives, training in healthcare, cognitive development, inclusion, dependencies. Managers of e-Learning offices at hospitals and entrepreneurship, university teachers, medical marketing managers, social cooperatives teams, councillors, and members of associations and institutes on abuses, risks and innovative teaching, were the experts who held the conferences, told their experience and answered students' questions.

After a stop at the beginning of the pandemic, the seminars have started again wholly online in a.y. 2020/21. In the first semester, we invited educational researchers from Italy and foreign countries, particularly South America.

The list of events organized for the second semester (just finished) included meetings related to communication and training in healthcare, instructional design, open education, language studies. These webinars are declined on the curricula chosen by students for their specialization.

About 40% of the students declared to participate in the #GenerazioniDigitali webinars. Of these, 60% are second-year students. Almost all of those who participated in the seminars considered them useful for deepening some study topics (91%), for professional development (88%) and identifying unknown professional characteristics of the outgoing profile (71%). Lower percentages were registered for other goals such as choosing the curriculum (50%), passing exams more easily (38%), defining a topic for the final dissertation (29%), the internship project (26%), and a destination for Erasmus (5%). In particular, concerning the last three elements, it is relevant to know that the students were not yet in the phase of their study path deputed to the choice of the internship and thesis and that the emergency slowed down the Erasmus mobility. The students' positive

opinions on many aspects suggested that the seminars are fundamental for students' professional development but were less well attended than we would have liked. Therefore, to make them more effective, we need to find strategies to encourage participation (for example assigning additional university credits). In the open-ended answers students suggested to rethink the activities timing for workers and propose workshops or hackathons (not only seminar/webinar). Also in other questions, students underlined the need to optimise synchronous and asynchronous teaching and laboratories (also about seminars, virtual classrooms, and group work deliveries).

Adult and employed learners in university training

The course is delivered in a blended mode, and this can facilitate the participation of both working and adult learners (Kocanova et al., 2011; Korr et al., 2012) and a return to university after previous dropouts. As pointed out by Deschacht and Goeman (2015), adult learners often "have re-joined the formal education system after a certain period outside. Their educational engagement differs significantly from younger students due to family and/or work obligations" (p. 83). Further, taking up Chyung's studies (2001), they assert that "adult learners tend to drop out because their interests and the course structure do not match or because they are not confident in a distance learning environment or simply, because they have learned what they intended to learn" (Deschacht and Goeman, 2015, p. 86).

In this case, as already mentioned, 77% of the students in our survey were employed. Of these, 41% had a stable/long-term job. 22% of workers were engaged more than 5 days a week. How does this relate to the training of specific professional figures? We asked ourselves whether participation in the degree course represented just a lifelong learning opportunity for the worker-students, whether it served the workers to deepen their job-related topics, whether it was a solution for changing jobs. About half of them said that their work dealt with the education and/or digital sector. 81% believed that obtaining the qualification will certainly allow them to change jobs, 66% thought to use the skills acquired to improve their current job practises and around 48% sustained that the final qualification will lead to a career progression in their current work. Worker-students are readier to identify the characteristics of the outgoing professional profiles by comparing proposed mechanisms and concepts with their current job, probably also by differentiation. It is essential in the teaching practices, mainly aimed at adults, to start from the students' professional competences to anchor the new ones.

Digital skills and professional development

Batini and D'Ambrosio (2008) underlined that in many cases, digital skill is more accessible in "younger segments of our population both because of their greater plasticity and ease of learning and because of the multiple opportunities they have in formal and informal learning environments, through imitation and use of high-tech tools, in peer groups" (p. 22, our translation).

On the contrary, substantial difficulties emerge in different age groups. Can this be linked to the lack of opportunities for comparison in professional contexts? Or to the lack

of propensity for personal and professional updating? To the low diffusion of an authentic digital culture? As pointed out by Maria Lucia Giovannini (2017), "in an increasingly globalised, competitive and complex labour market, the traditional sequence – phase of education to prepare for work, followed by that of entry into a stable and continuous job role – is entirely outdated. Alongside the serious problem of young people's integration into the labour market, there is the challenge of instability and transitions at work, which is linked to the fragmentation and complexity of professional trajectories" (p. 15, our translation).

This situation generates strong generational contrasts between young people looking for their first job and adults searching for a new professional position (due to redundancies, search for a more welcoming working environment, difficulties linked to gender, personal and professional time management).

In line with what has already emerged from the various studies carried out in recent years by the Osservatorio delle Competenze Digitali (2019), the construct of digital culture concerns different levels of knowledge and skills that relate to the four features in Table 3. The curricula and the design of the Digital Education degree course encourage its development in various ways.
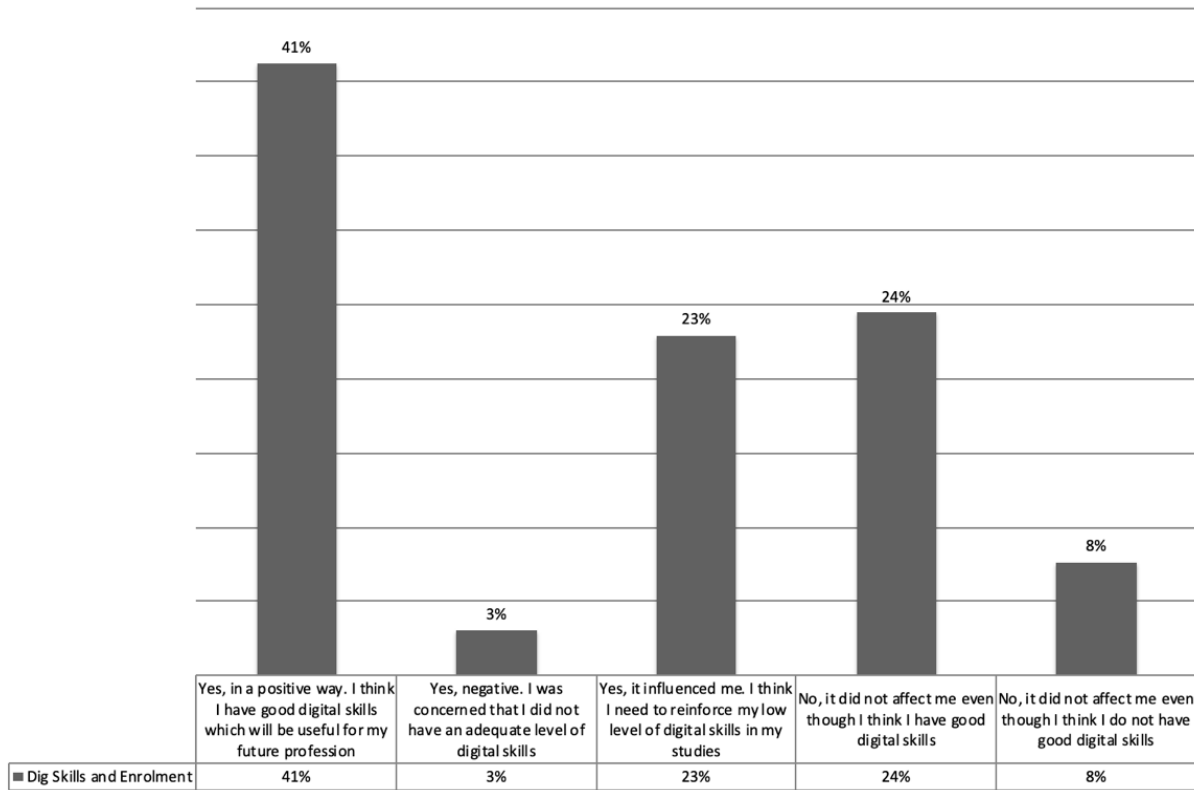
TAB. 3 - DIGITAL CULTURE AND SKILLS (OSSERVATORIO DELLE COMPETENZE DIGITALI, 2019, P. 29, OUR TRANSLATION)

skills for digital citizenship	necessary for all citizens to be able to keep up with the digitisation of the social context
digital skills for all workers	ability to use IT tools in everyday working life, irrespective of one's job function
specialist ICT skills	typical of figures working within the ICT structures of private and public companies or within the operational divisions of ICT technology and service providers
e-Leadership skills	characterising those who associate digital culture with particular attitudes to envisage paths of change within their organisation

In the questionnaire, we asked students to self-assess their digital skills on a 4-level scale (Low, Medium-Low, Good, Excellent). 66% of respondents rated their digital skills as Good; only 9% chose the item Excellent; 24% indicated the Medium-Low level. This aspect highlights how the choice of the study path is not necessarily influenced by the possession of high levels of skills seen as necessary to tackle the degree and the individual courses. This sentence was confirmed in the following question "Has the level of your digital competencies influenced your choice to enrol in the degree course?" as shown in Figure 1.

The training pathway is seen as a valuable opportunity to develop these competences or to strengthen them. In fact, in the following question, "How much do you think the possession of high-level digital competences can affect the success of your education?", 68% of the respondents chose the option Much (on a 4-level scale: Very Little, Little, Much, Very Much), and only 9% the option Little. 56% of students indicate Much and 40% Very

Much for the close link between digital skills and employability levels ("How do you think having good digital skills might affect your chances of finding a job after graduation?").

	Yes, in a positive way. I think I have good digital skills which will be useful for my future profession	Yes, negative. I was concerned that I did not have an adequate level of digital skills	Yes, it influenced me. I think I need to reinforce my low level of digital skills in my studies	No, it did not affect me even though I think I have good digital skills	No, it did not affect me even though I think I do not have good digital skills
■ Dig Skills and Enrolment	41%	3%	23%	24%	8%

FIG. 1 – "HAS THE LEVEL OF YOUR DIGITAL COMPETENCES INFLUENCED YOUR CHOICE TO ENROL IN THE DEGREE COURSE?"

We also investigated the relationship between digital skills and elements linked to job expectations by asking: "Can the possession of specialist digital skills influence employability levels, career progression, salary, job satisfaction and professional growth (not only economic), the possibility of experimenting with innovative solutions and starting an autonomous work activity?". Figure 2 shows the results: Much is the most frequent answer for all the items. According to the students, digital skills have a higher influence on the possibility of trying out innovative solutions (Very much, 46%) and professional satisfaction (Very much, 28%). They have less influence on retribution (Little, 41%) and career progression (Little, 26%).

This last aspect is also linked to the time to graduation ("Can the possession of digital competences speed up the time to graduation?"). The analysis of the open-ended questions showed strong attention for the possession of digital skills which can directly influence:
-    the outcome of the exercises foreseen in the individual courses;
-    the learning processes;
-    the production of digital content required in the courses;

- individual study and relationship with the teacher of reference.

In personal and professional growth, it becomes crucial to experiment with resources, tools, and elements linked to the work context already during individual courses of the degree.
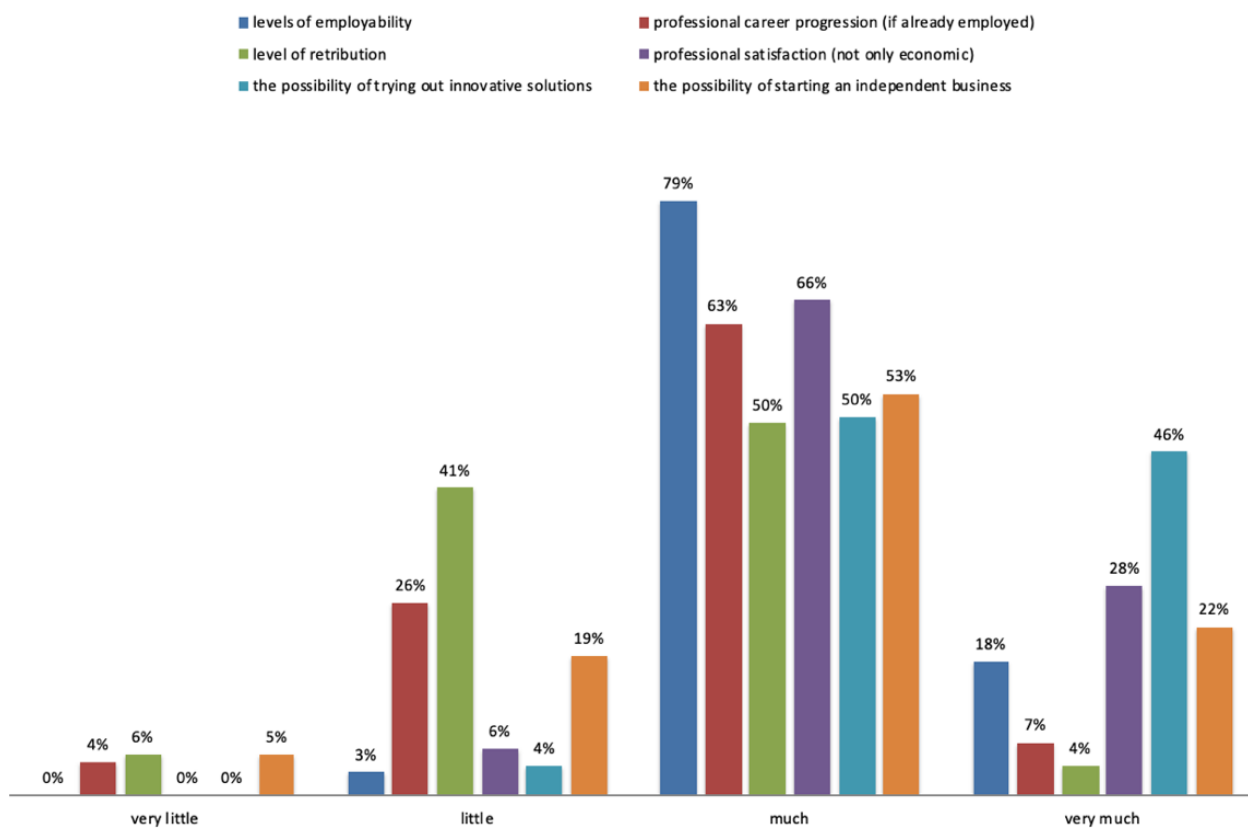
FIG. 2 – "CAN THE POSSESSION OF SPECIALIST DIGITAL SKILLS INFLUENCE…"

Therefore, the possibility to "get involved/try/experiment" without the heaviness of final examination and the comparison in groups are experienced as added value (even in the period related to the COVID-19 emergency).

The answers to the open-ended question "What do you think are the most relevant digital competencies concerning the professional figures trained in the degree course?" reported strong interest in the relationship between digital competencies and the knowledge of specific technological tools (learning environments, digital platforms, apps, software etc.). They also highlighted the importance of teaching and instructional design skills for the learning needs analysis and the management of evaluation processes in a broad sense. Attention to pedagogical and psychological models and theories was seen as a starting point for building pathways based on teaching technologies (for instance, about the critical use of media). There is methodological and technical strong interest in the use of digital tools and resources and the creation of multimedia teaching materials.

Conclusion and future researches

The case study aimed to describe the professional scenario of Digital Education to identify good practises in the training of specific professional figures from the point of view of students and the organizational team. For this reason, we presented features and profiles of the degree course in Digital Education and opinions by students. The survey shows the richness of the perspectives and needs of learners, which are linked to the complex framework of competencies of future education professionals. Our reflection considered the role of digital skills (but not only) which, together with a solid pedagogical-didactic framework, characterise the design and structuring of the degree course. The training proposal stems from careful context analysis of the geographical area where our university is located to reconstruct the link between the outgoing profiles and the demands and needs of the production and business fabric. This idea contributes to building strong, up-to-date professional figures who are ready to face the major challenges taking place in the related professional context and the changes that the various training contexts (school, associations, professional and medical education etc.) will necessarily have to face in the digital society, especially in the post-emergency period. Some good practices linked to digital technology will not disappear but rather will require renewed didactic and methodological guidance that the professionals trained by the degree course in Digital Education will be ready to take on. These professionals are preparing to guide the choices linked to digital technology, to educational and training design, to rethinking the assessment methods used in formal and non-formal courses, to redesign and reconstruct paths and enhance relationships between learners and teachers, in the peer group and among different professional figures with specializations in technological, medical, psychological and sociological field.

In the analysis, we identify some good practises and some elements to enhance:
- the features of the three professional figures - Digital Instructional Designer, Psycho-social educator in digital contexts, Digital educator in social-health contexts - are well understood by the students that recognize disciplines and professional tasks for each curriculum.
- #GenerazioniDigitali, the seminars cycle organized in the course to present experience and theories related to Digital Education, can be a valuable resource for students' professional development but needs more participation among students probably in workshops starting from the beginning of the training;
- the presence of a high number of worker-students lead to a reflection of the teaching methods used that have to consider the professional skills already acquired by the learners and their need to enhance/change their working status;
- digital skills are crucial in the training process for Digital Education students and require a practical and dynamic approach to teaching and learning activities.

Besides trying to apply the obtained results in the Digital Education course to make better the efficiency of the training path, future research works could:
- propose the questionnaire at the end of the degree and in the following years, to collect students' new opinions also about real opportunities in the labour market;

- compare the activities and questionnaire with other blended degree courses related to educational and digital contexts and delivered in blended mode.

Authors' note

The contribution represents the result of a joint work of the authors that collaborated in all the phases of the research work and in the writing of "Conclusion and future researches". Tommaso Minerva, scientific responsible for the planning of the research project, provided the general setting of the paper; Annamaria De Santis wrote "Method", "Professional figures of Digital Education", "Seminars cycle #GenerazioniDigitali"; Katia Sannicandro "Digital Education framework: between design and research", "Digital skills and professional development"; Claudia Bellini "Participants to the Questionnaire" and "Adult and employed learners in university training".

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