



HIT BUT NOT OVERWHELMED. A MODEL TO CAPTURE THE EFFICACY OF DISTANCE LEARNING: THE REPORT FROM REGIONE LIGURIA (ITALY)

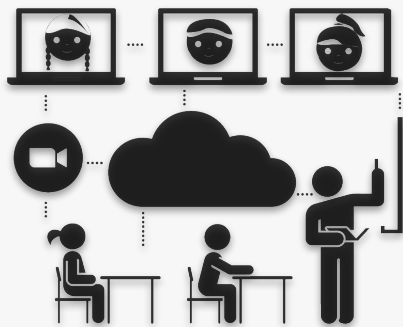


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Focus on...



Our paper focuses on **the context and results of the survey** conducted as part of the regional project "Scuola Digitale Liguria" to detect, thanks to the responses of the teachers of Liguria, the methods of remote learning and the perception of impact of this on students during the school year 2020/2021 characterized by Distance Learning and the new form of mixed teaching in the Italian context called "Integrated Digital Education" to indicate lessons with the simultaneous presence of students both at home and in the classroom.

«Scuola Digitale Liguria» Project



“**Progetto Scuola Digitale Liguria**” is the strategic project of **Regione Liguria** to support teachers and educators with tools and opportunities useful to highlight the innovative experience realized with digital technologies.

GOAL Supporting Liguria’s education system to realize a school of quality, an open and innovative space forming youth with new skills required by the labour market and digital literacy.

The project coordinates all activities between various entities and administrations and works with the Regional School Office. It is entrusted to Liguria Digitale, in-house ICT society, carrying out all digital regional strategy.

«Scuola Digitale Liguria» Tools

There are already available **many tools and opportunities** for the Ligurian community of teachers and educators:



The Observatory, a digital platform, representing a repository of digital innovative activities for the Ligurian schools and the Map [4] of the innovative schools which are posted on the website that anybody can look up.



The Community, the community gathering Ligurian teachers who, both on line and in presence, take part in the Project's activities using also social media;



The Digital Team, a team of IT experts who supports teachers and educators as a free-of-charge and tailored service which can be asked, in a smart way, through a dedicated and intuitive web app;



The website section with many useful content for remote schooling

«Scuola Digitale Liguria» Numbers



«Scuola Digitale Liguria» Connection

The regional project is on the **Repubblica Digitale platform** [10], which is a strategic initiative promoted by the “Dipartimento per la Trasformazione Digitale of the Presidenza del Consiglio dei Ministri” in the area of strategy for digital skills in the country. Liguria brings its experience with schools in the government board and can contribute to lower the population digital device.



There is currently a working group with **Polimi – Osservatori.net** [11] where Progetto Scuola Digitale Liguria is an international case study on digital skills.



In the institutional context Regions-State, starting from education, it contributes to the forming of **Desi 2021** indicators for Italy.



...from lockdown to “Digital Integrating Teaching”

In 2020 was conducted a survey on Distance Learning (DaD) during the lockdown emergency was made with the to find out how the Ligurian school was facing the emergency using digital tools.

The survey presented in our paper - titled "**DAD and DDI a year later**", (DaD stands for Didattica a Distanza and DDI for Didattica Digitale Integrata)“ was carried out at the end of the 2020/2021 school year; as for the previous one, the results will serve to identify the good practices and the challenges still open in order to support them with targeted actions by the regional administration.



The objectives of the survey were the following:

- describe the professional and digital citizenship skills of the Ligurian teachers according to the common language of the European frameworks DigCompEdu [13] and DigComp 2.1 [14].
- identify digital teaching elements with a positive impact on learning and growth of students
- make a comparison with what was found in the May 2020 survey carried out during the first lockdown.

The questionnaire: target

To collect the data, a personalized questionnaire was created on **7 teacher profiles** based on the concrete contexts of school year 2020/2021:

- **first cycle schools** (primary and first level of secondary school) did face-to-face teaching but some classes carried out periods at distance due to quarantines in the presence of students with Covid-19
 - Profile 1 - curricular teachers - in presence didactic with use of ICT
 - Profile 2 - curricular teachers - periods of remote learning
 - Profile 3 - curricular / SEN teachers - in presence didactic with NO use of ICT, but use of ICT for organizational issues
- **the schools of the second cycle** have always done Integrated Digital Teaching or Distance Teaching
 - Profile 4 - curricular teachers
- **it was necessary to distinguish between curricular teachers and SEN teachers**
 - Profile 5 - First cycle SEN teachers - in presence didactic with use of ICT
 - Profile 6 - First cycle SEN teachers - periods of remote learning
 - Profile 7 - Second cycle SEN teachers

The following personal and professional characteristics of teachers were found: age, geographical origin, subject taught.

We collected the **answers of 2381 teachers**, representing in a proportional way the distribution of Ligurian teachers by school and territoriality.

The questionnaire: structure

The questions in the questionnaire were **multiple choice with some Likert scales**. In order to make analysis simpler, only two were formulated as open answers. All the questions except a very limited number, were set to mandatory to have a quantity of meaningful and homogeneous data.

It was possible to develop closed-ended questions with options able to capture all the aspects of digital teaching thanks to the experience of the Project team that take monitored the ever new forms of digital teaching thanks to the continuous dialogue with academic experts, digital industry stakeholders, with the community of teachers of Liguria.



The questionnaire has been validated by a large selected group of teachers who have been collaborating closely with the regional project for years.

The questionnaire: questions



The questions of the questionnaire may be divided into thematic sections to investigate - in line with the European framework for digital teaching DigCompEdu - the practices of digital teaching.

Below are reported the **types of questions related to the European framework**:

- **Professional engagement:** questions about how teachers communicate and collaborate through digital technologies with each other and with families; reflective questions on digital teaching practices most discussed among teachers and which have demonstrated such validity as to justify their adoption even beyond moments of emergency;
- **Digital Resources:** questions on the types of teaching materials developed and used by the teachers and how they are shared with students;
- **Teaching and learning:** questions on teaching methodologies, on type of learning activities, devices used, digital guide practices and focus on collaborative learning;
- **Assessment:** questions on the use of digital technologies to carry out the evaluation
- **Empowering learners:** questions to verify SEN teachers practices, curricular teachers practices for students with SEN; questions about student engagement strategies through digital tools and environments;
- **Facilitating Learners Digital Competences:** questions to verify students' development of digital skills with specific focus on wellness and safety aspects.

Results: Professional Engagement



The habit of using synchronous and asynchronous communication tools for professional interaction is now consolidated: **the virtual world is now known** as a known counterpart to the physical world where one knows how to "move" and "interact".

The habit of using online collaboration tools is widespread, and **the habit of reflecting on how to find concrete solutions for the use of digital technology** for teaching and the organizational activities of the School has begun.

The interest in **continuous training with formal and non-formal training** is detected thanks to the comparison with colleagues or with the use of the web for individual training aimed at solving specific needs.

Results: Digital Resources



We can say that the use of resources traced online as didactic material to be placed side by side with the textbook is consolidated, which - paper - represents however (and rightly given the investments made by families!) the main resource of knowledge used to support lessons and learning.

To underline the habit that seems to be consolidating the creation of multimedia materials (texts, presentations, maps) and the presence of a trend towards the creation of interactive and audio / video materials.

Results: Teaching and Learning



The most frequent remote lessons are the "basic" ones with the teacher explaining via videoconference, but also using digital whiteboards to make the training action more lively. Infrequent both for the first cycle and for the second, remote laboratory activities. The teachers consolidated the ability to guide students individually at a distance using email and videoconferencing.

We highlight weaknesses both in the proposal of group work (collaborative learning) and in the management of online group work: the teachers propose asynchronous collaboration activities (collaborative writing on shared documents) and do not provide precise indications for the management of collaborative activities.

Based on the teachers' responses, attending distance lectures supported by e-learning portals has a positive impact on the development of self-regulated learning.

In conclusion, the perception of self-efficacy as a digital teacher is good with a significant trend towards full satisfaction

Results: Assessment



In the questionnaire we investigated which assessment tools were used to verify students' learning.

The results affirm that the moment of the evaluation took place mainly in the traditional way: oral questions in videoconference or left at the moment of the frontal teaching; the presence of formative assessment strategies is highlighted with the use of notes and comments on the margins of digital tasks.

The use of digital questionnaires for formative and summative evaluation is noted as a prerequisite for the possibility of statistical analysis of evaluation data for possible customizations and rescheduling of teaching; this is not accompanied by the use of the tools made available by the portals (evaluation grids) for a timely assessment aimed at customization and re-design.

Results: Assessment



In the paper presented at ICERI we present the responses of the curricular teachers who said what actions they performed aimed at the inclusion and accessibility, personalization and active involvement of students. Data referred to answers by SEN teachers will be analyzed in a second phase.

Only 4.5% of the students did not have enough digital tools available to be able to follow the lessons at a distance.

On the inclusion front, although it was possible for students with SEN to attend in presence, most did not take advantage of the opportunity.

Teachers declared not to have done much personalization of digital learning materials and learning activities for SEN students.

The most engaging activities such as group work, complex production activities, are not represented as prevalent; teachers have identified the use of surveys as a way to involve students.

Teachers found good student participation during remote learning periods

Results: Facilitating Learners' Digital Competence



We find a difference between perception in the first and second cycle. In the first cycle, the ability to use the Internet as a resource of knowledge (the "digital literacy") stands out, followed by the ability to create digital content.

In the second cycle, all digital skills are practiced almost equally with a slight prevalence of Internet use skills and the ability to behave correctly online.

Responsible Use. In the first cycle the teachers declared with their answers that they did not detect any inconvenience deriving from the use of digital tools, but rather that they had found satisfaction from the students who were able to use digital technologies "close to their world". In the second cycle the teachers declared that they had found a high degree of discomfort in reference to "demotivation and isolation", with a particular aspect, namely the reluctance and discomfort of students to share their own home environment.

E-safety: on which topics was training focused more on this topic?

Both in the first and in the second cycle, the theme on which the greatest emphasis was placed was that of correct behaviors in online relationships

Results: Conclusions and future agenda

What are the next steps?

The Liguria Digital School regional project that developed and developed the survey among Ligurian teachers will be able to support the development and dissemination of good practices created by enhancing the experience of the most innovative teachers, with the aim of raising human capital. of the region and fulfill its mission: to make the school the engine of territorial development. With targeted actions it will be necessary to work to increase the skills of teachers for the creation of: 1) more interactive digital teaching materials, 2) more complex digital lessons than the exhibition video-conference, 3) remote group work, 4) of assessment activities with digital tools 5) of digital teaching materials and digital learning activities attentive to special needs, 6) of activities aimed at developing students' digital skills.

The regional project has already carried out events and research-action activities on the weakest topics in the questionnaire and will be able to repeat the activities already carried out to reach more and more teachers



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CONTATTI



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