# Unequal Educational Opportunities During the Covid-19 Pandemic: On Long- Distance Teaching and Early Tracking in Italy

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Abstract: The Covid-19 pandemic radically changed learning approaches by introducing long-distance teaching methods that are being applied both partially or completely. However, this emergency solution has not allowed everyone access to primary and secondary education and has resulted in various forms of discomfort due to students' socio-economic and cultural backgrounds. This contribution aims to demonstrate how long-distance teaching has produced different effects in the diverse pathways of study within the Italian school system which is based on early tracking and is characterized by the persistence of social reproduction mechanisms that have long been called attention to. In order to highlight how long-distance learning has been experienced differently by technical, vocational, and liceo students, an exploratory qualitative study focused on different upper secondary pathways within some schools in Tuscany was carried out. From the data collected, it was revealed that the greatest difficulties were encountered by students from low-SES families mostly concentrated in vocational schools. The pandemic emergency, therefore, seems to have further underscored the relational and educational needs of the most disadvantaged students. Overcoming an educational system based on early tracking could be a first necessary response to dealing with these problems.

Keywords: Long-distance Teaching, Early tracking, Italian school system, Inequalities in education

## 1. Introduction

The Covid-19 pandemic has radically changed learning approaches by introducing long-distance teaching methods that are being applied both partially or completely as home-based learning and blended learning in most OECD countries (OECD, 2021).

The sudden change has led to numerous problems primarily because schools and universities were not prepared to deliver online classes and simply attempted to replace face-to-face classes with the use of commercial online platforms made by large corporations for synchronous lessons (mainly Zoom, Google Meet & Hangout, Microsoft Teams), pre-recorded seminars (Youtube), and sharing materials (Google Classroom, Google Drive, Microsoft Teams). Although many platformization processes (van Dijk, Poell & De Waal, 2018) had already been utilized in education for a long time, many teachers and professors had not received specific training and had to learn the use of these tools by themselves. However, mastering these technologies was not the only challenge that had to be faced – a further obstacle was to adapt traditional teaching styles to remote lessons with a consequent increase in workload and stress.

Above all, this emergency solution did not permit everyone equal accesses to education and caused various forms of student discomfort.

Long-distance teaching revealed the persistence of different levels of the digital divide related to people's socio-economic and cultural backgrounds (van Dijk, 2012; van Deursen & Helsper, 2015; van Dijck, 2020). Many children did not receive any form of education as a result since they lacked the technological tools or lived in a country where there was not enough infrastructure to support the Internet (first-level digital divide). As far as skills were concerned, students appeared much less competent than the oft-used "digital natives" metaphor would suggest (Suša Vugec & Stjepić, 2022; Dastane & Haba, 2023), as some of those with access to ICTs were unable to use them adequately (second-level digital divide). Furthermore, a segment of the teenagers and young people also seemed to encounter significant difficulties in transforming the use of ICTs into advantageous offline outcomes (third-level digital divide).

Additionally, even students who were capable of taking advantage of long-distance learning had to face various problems in adapting their styles and study plans to the change. The absence and reduction of face-to-face teaching also affected their social relationships, with various consequences on a psychological level. Lastly, families, and women in particular (Colombo, Poliandri & Rinaldi, 2020; Evans, 2020), had to support younger children in long-distance learning, coping with major problems in an attempt to reconcile their work position with parental care.

After a brief exposition of the main problems created by long-distance learning by way of a review of the main international studies on the subject, this contribution aims to examine several critical issues that have emerged in Italy. It is intended more specifically to demonstrate how within the Italian school system, characterized by early tracking, long-distance teaching has produced different effects across diverse pathways of study. In order to highlight how long-distance learning has been experienced differently by technical, vocational, and *liceo* students, data collected by several national research institutes are also exhibited. The preliminary results of an exploratory study focused on different upper secondary pathways within some schools in Tuscany are then also presented.

To conclude, an explanation of how the use of long-distance teaching in Italy has produced different effects across the diverse pathways of study on the basis of students' social origins is elaborated, a circumstance that further underscores the unequal educational opportunities in early tracking school systems.

## 2. The Covid-19 pandemic and education worldwide

The emergency caused by the Covid-19 pandemic in 2020 led to the replacement of face-to-face lessons with home-based learning for an average of 4-9 weeks in most OECD countries (OECD, 2021).

In order to offer education during the shutdown of schools and universities, the duration of which varied state by state as a consequence of health policies and school calendars, governments adopted different solutions based on the media at their disposal (printed materials, radio, television, and online platforms for synchronous and asynchronous teaching). Data indicated that the education systems of high-income countries generally supported disadvantaged students by providing devices for access to long-distance learning and the promotion of interventions to remedy gaps in students' education, while only a third of low-income countries were able to provide aid to those who requested it (UNESCO, UNICEF and the World Bank, 2020; World Bank, 2021). However, within those countries where more resources were made available, not all educational institutions had the opportunity to work within the same conditions. Affluent schools which had been making use of new technologies since before the pandemic crisis were somewhat prepared to face the emergency, whereas other schools with minor economic resources were less organized for remote learning (Azevedo et al., 2022).

Professors, school principals, and teachers had to face an emergency situation for which they were largely unprepared despite digital competences developed in recent years. Their preparation was mainly related to aspects of ITCs but was also characterized by a lack of pedagogical strategies spe-

cifically designed for distance education (Bergdahl & Nouri, 2021; Marek, Chew & Wu, 2021). As a consequence, they bore the burden of having to rely on their own ability to adapt to the situation which resulted in an overload of work. Teachers, in particular, experienced a condition of general isolation and a lack of adequate devices combined with discomfort due to the difficulties of coping with students' inequality of access to long-distance learning that increased stress and even burnout (Lavonen & Salmela-Aro, 2022).

Despite these efforts, it has been calculated that during the first phase of the pandemic as many as 500 million children went without access to public education (Giannini, 2020).

Between the end of 2020 and mid-2021, due to the resumption of the Covid-19 emergency, it was necessary in some countries to suspend face to face educational activities once again, albeit only partially and on the basis of one's level of schooling. The loss of learning during this two-year period was considerable both from an educational point of view and with regard to the repercussions these deficiencies could end up having on the world economy (Reimers, 2022). A simulation estimated that the loss of a school year corresponded to a 7.7% decline in gross domestic product (GDP) (Hanushek & Woessman, 2020) and the World Bank calculated learning losses of 5 months to be equal to a loss of 10 trillion dollars (Azevedo et al., 2020).

Additionally, deficiencies in education are not only a vulnerability for countries but also represent a strong limit on individual opportunities, as a lack of education affects the labor sector, with consequences that reverberate and impact social mobility (Blau & Duncan, 1967). The effects of school and university education on incomes are indeed significant, as documented by research that shows a clear correlation between employment levels and qualifications achieved (OECD, 2018).

What clearly emerges from this emergency is that the pandemic not only displayed a varied spread in relation to socio-economic and cultural factors (Stojkoski et al., 2020) but has also increased inequalities in educational opportunities (Andrew et al., 2020; Bayrakdar & Guveli, 2020; Cullinane & Montacute, 2020; Doyle, 2020; Green, 2020; Kuhfeld et al., 2020; Lucas, Nelson & Sims, 2020; Domingue et al., 2021; Littlejohn et al., 2021; Azevedo et al., 2022; Blikstad-Balas et al., 2022; Costa, Baptista & Carvalho, 2022; Costin & Coutinho, 2022; Haelermans et al., 2022; Hamilton & Ercikan, 2022; Thorn & Vincent-Lancrin, 2022; Easterbrook et al., 2023).

The Covid-19 pandemic forcefully entered the field of education by reducing learning time, a fundamental variable in the relationship between aptitude (time needed to learn) and learning (Carroll, 1963) and a positive predictor of academic achievement (Clark & Hawkins, 2010). However, the pandemic crisis did not affect all students equally, as those who possessed

material and social resources due to their socioeconomic status ended up being in a position of advantage over others.

As a matter of fact, it was primarily students from disadvantaged socio-economic and cultural backgrounds who encountered greater difficulties in accessing long-distance learning. In many cases, this was due to a lack of devices which prevented them from staying in contact with their educational institutions. Furthermore, even those who had the opportunity to use suitable tools to overcome this first-level digital divide encountered other problems as well.

Low-SES families often did not have sufficient living space to allow their children to benefit from spatial and aural privacy, which was also a necessary condition in order to attend long-distance classes (Littlejohn et al., 2021; Azevedo et al., 2022; Easterbrook et al., 2023). Above all, parents from the working class generally spent less time homeschooling than middle-class parents and did not have the opportunity to help their children make use of the platforms, supervise their schoolwork, and guide and encourage them (Andrew et al., 2020; Doyle, 2020; Cullinane & Montacute, 2020; Blikstad-Balas et al., 2022; Costa, Baptista & Carvalho, 2022).

Such deficient support in children's educational activities generally affects outcomes in the short and long term (Castro et al., 2015; Guterman & Neuman, 2018). In the context of the pandemic, well-off families had the means and the time to absorb a large part of the learning shock by supporting their children in this educational transition, while students coming from disadvantaged families encountered greater difficulties in using learning platforms, felt less engaged than before, and ended up studying less (Bayrakdar & Guveli, 2020; Lucas, Nelson & Sims, 2020). Furthermore, stress, anxiety, intra-household violence, and abuse, often associated with low family income, all increased during the school shutdown and had a negative influence on students' socio-emotional skills and learning achievements (Azevedo et al., 2022).

Researchers found a general decrease in student learning outcomes that had less of an effect on those from better-off families and fell more squarely upon those from low-SES families (Reimers, Ed., 2022), with worse results in mathematics (Contini et al., 2021; Hamilton & Ercikan, 2022), a fundamental discipline for successfully facing STEM studies that allow access to higher-level job positions. Especially in primary schools, where support at home was essential since students were not yet independent in their educational activities, there was a sharp decline in learning among less well-off children (Haelermans et al., 2022). However, autonomous students from low-SES families also encountered different challenges even in higher education. In addition to a decline in learning, economically disadvantaged students faced problems replacing campus resources that were no longer available

such as computers, libraries, as well as accommodation and student canteens (Marek, Chew & Wu, 2021).

The unequal impact of the pandemic also created growing disparities in learning for students from diverse ethnic backgrounds who were already in a disadvantaged position (Hamilton & Ercikan, 2022) and also deepened gender differences, with a significant disparity between boys and girls in favor of the latter, who spent more time on their schoolwork, but only in high-income states (Green, 2020). On the other hand, in developing countries, low-SES girls often had to take care of their brothers and sisters or were engaged in housework, a condition that led to less learning or even dropping out from school (Azevedo et al., 2022).

Despite these significant problems, it has been noted that the total or partial loss of face-to-face classes was also sometimes an opportunity for those who refused to go to school, shy students, or disabled children who benefited from remote learning environments by actively participating in lessons (Bergdahl & Nouri, 2021; Bruining et al., 2021); although this possibility seemed limited to students who had already obtained their own learning autonomy or were supported by their families (Blanco et al., 2020; Iivari et al., 2020).

The measures taken within the education sector during the pandemic also made it possible to foster ICT skills and develop more effective and enjoyable teaching strategies in some countries (Lestari & Gunawan, 2020; Valle & de Olagüe-Smithson, 2022). Furthermore, they forced professors and teachers to rethink their cognitive biases, prompting them to find new strategies to promote learning (Boys, 2021).

However, researchers agree that the pandemic entailed a reduction in learning, especially for those whose need to learn is greater due to a lack of institutionalized cultural capital within the family setting (Bourdieu, 1979). As has recently been noted, "the combination of lack of access to a device with an internet connection, and parents with low education levels and working in the informal sector with little or no time to assist their children in the learning process, makes the impact of school closures highly regressive" (Azevedo et al., 2022).

## 3. Long-distance learning in the Italian education system

The Covid-19 pandemic strained the Italian education system, which suffers from many deficiencies, especially with regard to fundamental infrastructure like school buildings. The complete resumption of face-to-face lessons during the 2020-2021 school year was in fact also hindered by a lack of space necessary for maintaining the minimum safe distances deemed sufficient for avoiding contagion.

Another critical issue concerned an incomplete coverage of broadband and insufficient information devices for Italian schools and private homes (OECD, 2020) – with important territorial and social inequalities due to the economic resources available (Vaira & Romito, 2020) – even though the National Digital School Plan (law 13 July 2015, n. 107, co. 56-59) had provided for the widespread acquisition of tools for promoting digital literacy for a long time.

Furthermore, both the ministry of education and of the university and research did not set up specific platforms or provide indications on solutions to be adopted for remote teaching, which requires a change of perspective from traditional classroom lessons (Giancola & Piromalli, 2020; Salmieri & Visentin, 2020). Consequently, in Italy, as in other countries, schools and universities resorted to commercial platforms (especially Microsoft Teams and Google Classroom) the functions of which had to be learned on the go by professors and teachers with very different attitudes toward the task (Grimaldi, Landri & Taglietti, 2020).

The management staff of schools and universities attempted to respond to the deficiency in top-down guidance by organizing themselves autonomously and proposing educational activities that represented important support for students living in unusual conditions on an emotional level (Capogna, De Angelis, & Musella, 2022; Ramella & Rostan, 2022). At the life-world level, teachers in particular had to use coping strategies and complained of a widespread sense of loneliness and alienation in a profession that has always been characterized by face-to-face relationships within a social dimension (Colombo, Poliandri & Rinaldi, 2020; Barberis et al., 2022).

On the other side of the desk, 8% of Italian students were completely excluded from any form of education during the first phase of the pandemic (Istat, 2021: 68) and many others had a difficult time finding suitable tools to access online classes. Furthermore, many students appeared less competent in the use of digital platforms than might have been expected, perhaps due to a habit of using extremely simplified ICTs such as smartphone applications (Vaira & Romito, 2020). The reorganization of daily living and work routines represented a complex challenge for both students and parents who had to support their younger children in particular (Merico & Scardigno, 2020; Santagati & Barabanti, 2022).

The emergency situation also put a strain on the Italian model of school inclusion, though vulnerable or disabled students were often supported by teachers so as to allow them the opportunity to participate in scholastic activities both in their presence and online (Istat, 2022), improving their skills and enhancing their independence (Colombo & Santagati, 2021).

In fact, research shows that the unusual circumstances did not have exclusively negative consequences (Tzankova et al., 2022). While it is true that

absenteeism increased for online lessons and students generally experienced fatigue due to a lack of socialization with their peers, an excessive use of digital technology, and an increased focus on studying, the obligation to stay at home allowed some to learn new things from a different perspective, engage in hobbies, and pursue new interests. Moreover, data suggested that students appreciated their school organization and teachers' understanding and supportive attitude during the emergency.

However, despite these positive experiences, the use of long-distance learning in Italy underscored the unequal educational opportunities experienced by students from different cultural and socioeconomic backgrounds (Vaira & Romito, 2020; Colombo et al., 2022). In particular, migrant children's scholastic disadvantage increased during this period (Ferrari, 2021). In a situation where learning activities were forcibly and more extensively delegated to students, the influence of families' material, relational, and cultural resources on children's educational attainments emerged clearly. Data confirm that in the context of a general decline in learning achievements due to measures taken during the pandemic, children of parents without much education performed significantly worse in mathematics than their culturally advantaged peers (Contini et al., 2021).

Furthermore, long-distance teaching produced different effects on various pathways of study, as a consequence of early tracking that channels students with low-SES origins toward less prestigious study paths, due to mechanisms of social reproduction that have long been highlighted (Ballarino & Schizzerotto, 2011; Contini & Scagni, 2013; Azzolini & Vergolini, 2014; Cataldi & Pitzalis, 2014; Romito, 2016; Parziale, 2016; Argentin, Barbieri & Barone, 2017; Barone et al., 2018; Giancola & Salmieri, 2020; Benadusi & Giancola, 2021).

According to Almadiploma (2020), within *liceo* study paths, mostly attended by children of middle-class families, a majority of students from the fourth and fifth years had a PC or tablet for their exclusive use, 37.0% had a PC or tablet for shared use, and only 3.3% took online classes via smartphone. On the other hand, in technical and vocational schools, teenagers from less well-off or low-SES families used shared tools in 39.9% and 40.4% of cases respectively and 4.8% of students in technical schools and 15.3% of those attending vocational schools had to participate in long-distance learning via smartphone only, which resulted in greater difficulties following lessons and, consequently, reduced the quantity and effectiveness of educational activities. In addition, during the first school shutdown, 78.2% of *liceo* students were able to take advantage of online classes every day for at least half of the time in attendance, while 68.6% of those who attended technical institutes and only 51.4% of those enrolled in vocational institutes had this same opportunity.

Despite the various limitations of long-distance teaching, which affected low-SES students more than others, those in vocational schools reported emotionally intensified relationships with their peers and teachers to a greater extent than did *liceo* teenagers (*ibidem*). The pandemic emergency, thus, seems to have further underscored the relational and educational needs of the most disadvantaged students.

## 4. Online educational experiences in different study pathways: exploratory research

### 4.1. Methodology

For the purposes of investigating how long-distance teaching was experienced by students from technical institutes, vocational schools, and *licei*, a theoretical sampling was used (Gobo, 2001) to administer a short online questionnaire[1] mainly consisting of open questions, in three secondary schools that represented these three different study pathways in the Livorno and Pisa area. By using the CAWI technique, in the presence of a teacher, 115 fifth-year students (last year students) responded during a period between the second half of April 2022 and the end of the school year. Among those who answered the questions, 51 attended a *liceo*, 46 a technical institute, and 18 a vocational school.

Due to the difficulty in finding teachers willing to devote part of their time to such research during a difficult period in which teaching times were increasingly reduced by many extracurricular commitments and other non-avoidable tests like the Invalsi, the data collected were small. As a consequence, it was considered more appropriate to use the open answers for qualitative analysis (Gobo, 2004; Flyvbjerg, 2006), as the sample did reach an adequate level of theoretical saturation (Glaser & Strauss, 1967) in relation to the study pathways and the ascriptive variables considered most significant (parental work and educational qualifications) (Cardano, 2003).

In order to deepen these data and investigate the role of the environment of origin and its relationship to distance learning, further open questions[2] were administered to the 51 *liceo* students as they were enrolled in two diverse *liceo* pathways (a traditional scientific *liceo* and a human sciences *liceo*), typically attended by students of different socio-economic and cultural backgrounds.

This small sample seemed to confirm that children from low-SES families were more concentrated in the vocational school, widely represented in the

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[1] The questionnaire was created using Google modules.
[2] Unlike the first questionnaire, these in-depth questions were inserted in a word file to allow students to further expound their answers.

technical institute, and generally decreased in number at the *liceo*, particularly at the scientific *liceo* attended by students whose parents were generally degree-holding, self-employed professionals.

All the responses were then subjected to a thematic analysis, in order to identify macro and micro-units of text with particular relevance for the purposes of the investigation. The data collected in this way were then compared through a transverse procedure that made it possible to compare responses to the same main questions (Gianturco, 2005). Finally, the passages of the interviews were further selected so that only the statements deemed most significant could be cited.

### 4.2. Findings: studying online during the pandemic

First of all, it should be noted that students from the territorial area under consideration all had the opportunity to take lessons online using either their own tools or devices made available by the schools themselves. As a result, no first-level digital divide phenomena were detected. However, in answering the question "which tool did you use to follow remote classes?", some students affirmed that they were primarily forced to use their smartphones - certainly a suboptimal condition due to the size of the device which is not very suitable for prolonged viewing and writing.

Although the small sample size does not allow for generalization regarding the higher incidence of smartphone use by vocational and technical institute students which emerged from the data, it is interesting to observe that those who resorted to this tool came from disadvantaged social origins. One student of the technical institute for example, the son of parents who work in executive professions, complained about a "lack of material [tools?] for some poorer students, even though everyone now has a mobile phone and it is easy to follow [the lessons] even from a mobile phone" (02_T)[3]. On the other hand, the use of a personal computer, a laptop, or a tablet does not seem to be the exclusive prerogative of students from affluent families as some low-SES parents had these devices available for their sons and daughters, although they had to share (with siblings) in some cases.

With regard to the question "did you find it difficult to use the platforms chosen for long-distance learning?", almost all respondents stated they did not encounter any problems utilizing them, without any significant difference between the vocational school students, those from the technical institute, and those from the *liceo*. Only a few students indicated some critical issues: "registration problems on different platforms" (15_V); "'Meet' is badly

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[3] For the purposes of attributing the citations to the various respondents, numbers, and acronyms corresponding to the study areas were used. Numbers were assigned based on the order in which responses were received. "SL" stands for scientific *liceo*, "HSL" for human sciences *liceo*, "T" for technical school, "V" for vocational school.

done" (16_T); "I only had problems in creating an account with the school email" (01_SL). Due to the intuitive nature of the commercial software utilized for learning, the majority of responses testifying to a lack of difficulties are plausible and seem to highlight the absence of a second-level digital divide, albeit an absence with regard to these specific tools. However, it would be interesting to ask teachers' opinions to better understand the real level of their students' familiarity with such software.

The questions administered to students did not allow for measurement of offline outcomes and competences in the various subjects acquired by way of the remote classes (the third-level digital divide). Nevertheless, the ability to effectively use ICTs for studying can be traced to some responses that referred to questions of a more general nature. In this sense, for instance, responses to the request to evaluate the amount of studying carried out during the period of remote lessons were interesting, as a necessary, though not sufficient, condition for learning is commitment in terms of hours devoted to one's schoolwork.

The trend that emerges from the data of our sample also confirmed other research findings (Almadiploma, 2020). Two-thirds of vocational school students stated they had studied "little", "less", "much less," and "zero", and even admitted to unethical behavior ("much less, I cheated"' 13_V). Others found there to be little difference with respect to face-to-face teaching and only one student declared: "I studied more at home because I had more free time" (10_V).

Among the technical institute students, just over half declared they had studied "less", "much less", "certainly less", or "zero". Some did not respond or said they found no difference from the past and only five of them affirmed that they studied "more" or "much more". One student, in particular, seemed to have detected a critical issue with remote learning: "during the long-distance teaching period we studied a lot more, but it made us less prepared for the following year" (03_T).

Like the technical institute students, more than half of the *liceo* students also responded they studied less, others stated that not much had changed, and only eight affirmed they studied more during the period of long-distance teaching, while highlighting some critical issues: "I studied more but got the same results" (24_HSL); "the average time per day I dedicated to studying didn't decrease, however the quality of studying did" (06_SL).

When asked to justify such responses, remarkable aspects of the particular context emerged. Some students complained of a concentration deficit while studying due to the particular ITCs adopted: "lack of attention for following teachers" (05_V); "I had a harder time following the lessons from a distance as it is not easy to maintain concentration in front of a computer for many hours" (19_HSL). Others pointed out problems caused by the home

environment: "home distractions" (08_V); "at home, I can't concentrate due to many distracting elements" (41_T); "the difficulties in following online classes are greater, because the lessons aren't engaging and there are many distractions like the phone and all the comforts of home, as well as other members of my family" (12_HSL); "having my smartphone available at all times it was much easier to get distracted and write friends very frequently" (01_SL).

It is interesting to highlight how some *liceo* students noted critical issues related to the length of long-distance teaching and highlighted how some subjects, math in particular, were penalized more than others: "personally I believe that the duration of online classes (45 minutes) significantly reduced the possibility of studying some topics in-depth" (25_SL); "I believe that some lessons, especially those of mathematics, are very difficult to follow online" (14_SL).

Above all, it is clear from the responses that a decisive role was played by school staff in whether students did or did not study for their subjects, as the students themselves claimed they considered some subjects and neglected others on the basis of the efforts made by the various teachers to stimulate their attention: "the amount of study depends on the teacher. I did not study some subjects at all, because the teachers did not show up for class (or in any case they showed up late and did 10-minute lessons) or were not interested in repeating again what was explained" (02_SL); "through long-distance teaching, [...] it is possible to have more organization also thanks to the great availability and ability of teachers to repeat things or to publish documents on platforms such as PowerPoint or handouts" (02_HSL).

More specifically, regarding the relationships with teachers during online learning, trends already detected by the Almadiploma survey (Almadiploma, 2020) were also confirmed. Almost all the students from the vocational school affirmed they had no problems getting in touch with their teachers, about a fifth of technical institute students declared they had encountered some problems, while more than a third of the *liceo* students complained that they had encountered difficulties ("it was difficult to get in touch with some teachers", 04_SL). The students' responses within this limited sample seem to confirm the greater commitment of vocational and technical institute teachers in trying to maintain an open channel of contact with students from disadvantaged backgrounds in order to offer emotive support, even though, as already noted, this did not seem to produce greater motivation to study. Teachers' awareness that most *liceo* students, especially in the traditional scientific pathway, could count on the support of their families with a high level of institutionalized cultural capital, seemed in some cases to make the relationship with them more emotionally uninvolved during online lessons:

"the relationship with teachers [...] was much more detached than being in the classroom" (05_SL).

Beyond the interesting reasons given by students explaining their generally reduced scholastic commitment, what emerges from an analysis of students' social background is that those with parents that have low educational qualifications – mostly represented in the vocational school – declared to have dedicated less time to studying than they did in the pre-pandemic period. This seems to testify to the difficulty of finding family support in order to cope with teaching deficiencies during the Covid-19 emergency.

### 4.3. Shadows and light on long-distance teaching

The issue of relationships and human contact found ample space in responses to the question "which aspects of long-distance teaching do you think are the most negative?"

Students underlined, above all, how they missed face-to-face meetings with classmates: "not seeing my classmates anymore" (13_V); "not having a relationship with classmates" (17_V); "relationships with classmates, especially when you have no way of having a break together" (10_T); "the lack of human contact" (21_T); "social relationships with classmates. The lack of empathy created in a face-to-face lesson" (10_HSL); "the closeness and contact with classmates, the ability to move and joke or study in a group. The alienation produced by the absence of contact"(12_HSL); "I missed being able to have a desk mate and being able to share the feelings and emotions you experience during school hours live with someone (for example from a school grade)" (17_SL).

Others underlined the lack of a direct relationship with teachers too, and more generally the absence of the whole educational context, sometimes described as joyful and fun: "completely different atmosphere from the one you have in-classroom both with teachers and with classmates" (39_T); "the moments of fun during the online classes were almost absent" (01_SL); "loss of the collective sense of the school lesson on behalf of a greater depersonalization" (03_SL); "I mainly lacked the context of face-to-face lessons, being in the classroom with your classmates next to you and the teacher giving the lesson a few meters from you facilitates concentration and I think it can also allow teachers to transfer greater interest to students" (06_SL); "sometimes in the classroom, obviously in the less demanding lessons, we can also laugh with teachers, who are essential figures in our life path. Presence amplifies the personal relationship, which is almost impossible through a screen" (12_SL).

Online lessons seem to have clearly highlighted the importance of eye contact, which was lacking or overly mediated on educational platforms, and the physical relationships with others on the students' psychological

well-being. Among the most negative aspects of distance learning it was reported that a lack of: "physical relationship, feeling of abandonment and loneliness" (06_T); "physical contact with classmates. Loneliness" (08_HSL); "human and visual relationships" (15_HSL); "visual and personal contact with all class members (teachers and classmates)" (21_HSL).

Attention to the material dimensions of educational processes also emerged from the responses of the vocational, technical institute, and *liceo* students who complained of a lack of laboratories, practical activities, or even just the use of pen and paper: "you did not come to school and [...] you could not practice" (14_V); "lack of practical lessons, to do exercises on paper" (40_T); "the thing I missed most about face-to-face lessons is the chance to go to the lab and experience. Seeing the various experiments on video is not the same as seeing them in person" (02_SL).

Online education was also stigmatized for its harmful effects on health: "[long-distance learning] can lead to physical problems and pains, such as eye pain. [...] I had to go to a physiotherapist for my back and pelvis because I was sitting too long at a desk, perhaps too high for me, in an often uncomfortable position to be able to see the PC screen" (02_HSL); "one of the negative aspects is eye strain after many hours spent on the computer" (15_SL).

Finally, some students sought to indicate that the loss of a pleasant daily routine was the most negative aspect of online teaching: "maybe I missed the morning routine more, then leaving the house, getting ready to go to school" (21_SL); "to go out in the morning to see the city that wakes up" (22_HSL).

Moving on to examine responses to the question "Are there any aspects of distance learning that you think were positive? If so, which ones?", it was interesting to note, instead, that some students emphasized more the convenience of staying at home without having to travel to reach their school, a problem that was not secondary especially for commuter students: "to stay at home and to be more rested" (03_V); "to get more sleep in the morning" (13_V); "the lack of travel from home to school" (15_V); "the timetable, because I didn't have to make the journey from home to school, I could sleep more" (41_T); "the advantage of not having to carry books in a backpack and not having a very large weight to carry on your back" (02_HSL); "at home there are all the possibilities and if, for example, it rains it is convenient not to have to go out to school by putting yourself in danger using vehicles on the wet road" (12_HSL); "honestly, it was very comfortable to have the lessons at home during winter days, or in any case days characterized by bad weather" (12_SL).

Students generally described their home as a comfortable environment: "comfort of the house" (07_V); "the comfort zone in which to be able to act" (12_T); "the convenience of the bathroom, snack, a more comfortable place, etc." (41_T). In emphasizing the comfort of one's home, they highlighted is-

sues with school buildings and their furnishings: "unclean bathrooms, old and dusty facilities" (10_T); "90% of school environments are reduced badly, just think that in my school two years ago it rained in 3 classrooms; it is often cold, we students one day all left school as a protest against the cold" (16_T); "the school environment provides uncomfortable furniture such as chairs and desks" (26_T); "in winter school is too cold, in summer it's too hot, uncomfortable chairs" (41_T); "rooms sometimes dirty and with dust, which is a problem for allergy sufferers like me" (02_HSL). Despite these inconveniences, some students from disadvantaged families affirmed that the home environment in certain cases was not suitable for study: "[online classes], in my opinion, do not allow you to enjoy a comfortable environment" (24_T); "the environment in which online learning is practiced is not very comfortable if you live in a house with many people or even with pets" (02_HSL); "I live with my mother, and my 'study corner' is in an area shared by both of us in the house, so when I got sick with Covid-19, I had various difficulties in following the lessons, protecting her and trying to take notes" (12_SL).

A lot of students believe that the most positive aspect of online classes was the numerous possibilities offered by ICTs at home: "meeting recordings to review whenever you want" (2_T); "having learned an alternative study and learning method" (05_T); "the possibility to carry out interactive lessons, without wasting time with the problems of school connection" (04_HSL); "the discovery and birth of new platforms led us students and teachers to have new digital skills and found a useful solution to a disastrous situation" (19_HSL); "some [teachers] uploaded videos, cards or PowerPoint to the classroom to better follow lessons. I find that having these materials makes studying easier and more complete because it is not always possible in the classroom to take notes well or understand every single step" (02_SL); "having started using online platforms to share school materials in a faster and easier way" (07_SL); "in the classroom, the blackboard is always a bit far away, while on the PC screen I have it in front of me" (21_SL).

According to some students, online lessons also helped to ease some tensions experienced in the school environment, creating a less stressful and more inclusive atmosphere, which allowed even the most shy students to intervene during lessons: "the possibility of following [classes] in a very comfortable and stress-free environment, especially from a mental point of view and with less general heaviness" (10_T); "because school generates stress and frustration in students" (05_HSL); "the stress was much lower than in person" (16_SL); "for those who have problems with shyness or with communication, staying in their environment helps them to communicate" (03_T); "I am a very introverted person, and online learning gave me the possibility to intervene much more, because the feeling of external judgment from the teacher, and thus my classmates' judgment, fell into the back-

ground, also because you don't hear or see all the eyes aimed at you, ready to judge your answer" (02_HSL); "perhaps thanks to the fact that in some cases we were able to keep the cameras off, this meant that even the most reserved people intervened not feeling observed or uncomfortable" (21_SL).

Other students pointed out how the use of ICTs could allow sick students not to miss their lessons: "the possibility of following lessons even in the case of illness" (21_HSL); "not missing classes if you are positive but asymptomatic or simply in quarantine is the great advantage of online learning" (14_SL); "I believe that being able to take classes from home could be useful in the future. A person with a mild flu, for example, could still attend some lessons" (25_SL).

Above all, some students credit online lessons with allowing for the continuation of learning and avoiding dangerous infections in the worst period of the pandemic: "in a period of the pandemic, it was the most suitable choice for avoiding contagion" (26_T); "continuing studies despite the situation" (42_T); "I felt safe during the first few [pandemic] waves, it was reassuring to study and follow the lessons without the risk of getting sick or infecting my loved ones" (12_SL).

The pros and cons of online teaching seem to be recurrent and transversal within the sample of students from the vocational school, technical institute, and *liceo*. However, what emerged from the responses is a generally uncooperative attitude towards the educational institution from the low-SES students who attended vocational school during the pandemic, as many of them stated that the most positive aspect of online learning was: "doing nothing" (12_V); "playing play [station] with my friends during video lessons" (16_V); "that everyone does his business like turning off the camera and playing play [station] with friends" (17_V).

Relegated to the margins of the educational system, disadvantaged students seem to have experienced the particular situation caused by the pandemic with a resigned and pragmatic disenchantment.


## 5. Conclusion

The Covid-19 pandemic posed a challenge to the world's educational systems that highlighted numerous existing critical issues and the consequent need to make radical changes.

Professors and teachers tried to guarantee long-distance teaching but were forced to use already existing commercial platforms by adapting to them. This situation brought out the necessity of improving teaching methodologies and exploiting the potentialities of ICTs by creating specific platforms conceived of as common goods and managed according to democratic forms (Grimaldi, Landri & Taglietti, 2020).

Furthermore, the conversion of face-to-face lessons into online lessons underscored the existence of different forms of the digital divide that ranged from the unavailability of technological tools (or their quality or also shared nature) and the internet to a lack of the digital skills necessary to make the best use of them. Since these shortcomings were strictly connected to the social origins of students, policies aimed at supporting low-income families are necessary so that they can have access to the purchase of ITCs as well as to specific training courses.

However, even these actions risk being insufficient, as research shows that students from disadvantaged families often do not have a private room available at home to study (Littlejohn et al., 2021; Azevedo et al., 2022; Easterbrook et al., 2023). Furthermore, less affluent parents working many hours a day do not have the time, or the institutionalized cultural capital needed to help their children with their studies, a circumstance that has significant effects on school engagement, studying, and educational achievement (Castro et al., 2015; Guterman & Neuman, 2018; Andrew et al., 2020; Bayrakdar & Guveli, 2020; Doyle, 2020; Cullinane & Montacute, 2020; Lucas et al., 2020; Blikstad-Balas et al., 2022; Costa, Baptista & Carvalho, 2022).

Long-distance teaching has highlighted clear inequalities in educational opportunities, which appears more evident in a country like Italy where early tracking fosters forms of segregation based on students' social origins.

The exploratory research presented here, despite having been conducted on a very limited sample of students, confirms the results of the survey conducted by Almadiploma (2020) during a period of long-distance learning regarding the major difficulties studying encountered by low-SES students, who are mainly concentrated in vocational schools. Almost all the students in the sample examined highlighted different forms of discomfort, especially due to a lack of face-to-face interaction, while those from affluent families, most represented in the *licei*, showed greater reflexivity and awareness of the need to overcome a difficult context by continuing to study. On the other hand, from the responses of vocational students a greater disengagement emerged even in the presence of frequent communication with teachers, which sometimes resulted in a real refusal to study.

Although many students also highlighted several positive aspects of online learning, especially with regard to the possibility of using ICTs to share educational materials or being able to connect with the school in case of illness, the importance of face-to-face lessons emerged, especially for disadvantaged students who did not have the opportunity to find adequate support from their families and were consequently more at risk of dropping out of school. Due to the inadequacy of Italian school buildings, it therefore appears necessary to intervene in the first instance on the structures, adopting systems for the purification of the environments that can guarantee lessons

on-site in real safety. The number of students per class should also then be reduced, not only for health reasons but also and above all to allow teachers to individually follow and adequately motivate low-SES students. Furthermore, in order to overcome learning gaps compensatory education policies, such as additional teaching time and tutoring within schools, should also be implemented (Azevedo et al., 2022).

Above all, as the pandemic emergency seems to have even further underscored the relational and educational needs of the most disadvantaged students, it is also necessary to overcome the current educational system based on early tracking that directs low-SES children to "institutions and school careers which entice them with the false pretences of apparent homogeneity only to ensnare them in a truncated educational destiny" (Bourdieu & Passeron, 1970, Engl. transl. 1990: 158).

## References

AlmaDiploma (2020). *Indagine sulla Didattica a Distanza (Dad).* https://www.almadiploma.it/ info/pdf/indagini/altro/2020/AD_IndagineSullaDidatticaADistanza.pdf

Andrew, A., Cattan, S., Costa-Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A., & Sevilla, A. (2020). *Family time use and home learning during the COVID-19 lockdown.* London: The Institute for Fiscal Studies. https://ifs.org.uk/sites/default/files/output_url_ files/R178-Family-time-use-and-home-learning-during-the-COVID-19-lockdown-1.pdf

Argentin, G., Barbieri, G., & Barone, C. (2017). Origini sociali, consiglio orientativo e iscrizione al liceo: un'analisi basata sui dati dell'Anagrafe Studenti. *Politiche Sociali*, *1*, 53-74. doi: 10.7389/86412

Azevedo, J.P., Gutierrez, M., de Hoyos, R., & Saavedra, J. (2022). The Unequal Impacts of COVID-19 on Student Learning. In F.M. Reimers (Ed.). *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 421-459). Cham: Springer.

Azevedo, J.P., Hasan, A., Goldemberg, D., Iqbal, S.A., & Geven, K. (2020). *Simulating the Potential Impacts of the COVID-19 School Closures on Schooling and Learning Outcomes: A set of Global Estimates.* World Bank Group. https://documents1.worldbank.org/curated/ en/329961592483383689/pdf/Simulating-the-Potential-Impacts-of-COVID-19-School-Closures-on-Schooling-and-Learning-Outcomes-A-Set-of-Global-Estimates.pdf

Azzolini, D., & Vergolini, L. (2014). Tracking, inequality and education policy. Looking for a recipe for the Italian Case. *Scuola democratica*, *2*, 1-11. doi: 10.12828/77685

Ballarino G., & Schizzerotto A. (2011). Le disuguaglianze intergenerazionali di istruzione. In A. Schizzerotto, U. Trivellato, N. Sartor (a cura di), *Generazioni disuguali* (pp. 71-110). Bologna: il Mulino.

Barberis, E., Bazzoli, N., Carbone, D. & Dagnes, J. (2022). Digital Teaching from the Point of View of Teachers. In M. Colombo, M. Romito, M. Vaira, & M. Visentin (Eds.), *Education and Emergency in Italy. How the Education System Reacted to the First Wave of Covid-19* (pp. 175-191). Leiden: Brill.

Barone, C., Assirelli, G., Abbiati, G., Argentin, G., & De Luca, D. (2018). Social origins, relative risk aversion and track choice: A field experiment on the role of information biases. *Acta Sociologica*, *61*(4), 441-459. doi: 10.1177/0001699317729872

Bayrakdar, S., & Guveli, A. (2020). Inequalities in home learning and schools' provision of distance teaching during school closure of COVID-19 lockdown in the UK. *ISER Working Paper Series*, *2020-09*, 2-39. https://www.econstor.eu/ bitstream/10419/227790/1/1703719352.pdf

Benadusi L., & Giancola O. (2021). *Equità e merito nella scuola. Teorie, indagini empiriche, politiche.* Nuova edizione. Milano: FrancoAngeli (2ª ed. 2022).

Bergdahl, N. & Nouri, J. (2021). Covid-19 and Crisis-Prompted Distance Education in Sweden. *Technology, Knowledge and Learning*, *26*, 443-459. doi: 10.1007/s10758-020-09470-6

Blanco, Q.A., Carlota, M.L., Nasibog, A.J., Rodriguez, B., Saldaña, X.V., Vasquez, E.C., & Gagani, F. (2020). Probing on the Relationship between Students' Self-Confidence and Self-Efficacy while engaging in Online Learning amidst COVID-19. *Journal La Edusci*, *1*(4), 16-25. doi: 10.37899/journallaedusci.v1i4.220

Blau, P.M., & Duncan, O.D. (1967). *The American Occupational Structure.* New York: Free Press.

Blikstad-Balas, M., Roe, A., Pedersen Dalland, C., & Klette, K. (2022). Homeschooling in Norway During the Pandemic-Digital Learning with Unequal Access to Qualified Help at Home and Unequal Learning Opportunities Provided by the School. In F.M. Reimers (Ed.), *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 177-201). Cham: Springer.

Bourdieu, P. (1979). Les trois états du capital culturel. *Actes de la recherche en sciences sociales*, *30*(1), 3-6.

Bourdieu, P., & Passeron, J.C. (1970). *La reproduction. Éléments pour une théorie du système d'enseignement.* Paris: Les Éditions de Minuit. English transl.: *Reproduction in Education, Society and Culture.* London – Thousand Oaks – New Delhi: Sage Publications, 1990.

Boys, J. (2022). Exploring Inequalities in the Social, Spatial and Material Practices of Teaching and Learning in Pandemic Times. *Postdigital Science and Education*, *4*(2), 13-32. doi: 10.1007/s42438-021-00267-z

Bruining, H., Bartels, M., Polderman, T.J.C., & Popma, A. (2021). COVID-19 and child and adolescent psychiatry: an unexpected blessing for part of our population? *European Child & Adolescent Psychiatry. Advance online publication*, *30*(7): 1139-1140. doi: 10.1007/ s00787- 020- 01578-5

Capogna, S., De Angelis, M.C. & Musella, F. (2022). Distance Learning/Teaching during the Covid-19 Emergency. The Perspective of School Principals. In M. Colombo, M. Romito, M. Vaira, & M. Visentin (Eds.), *Education and Emergency in Italy. How the Education System Reacted to the First Wave of Covid-19* (pp. 192-218). Leiden: Brill.

Cardano, M. (2003). *Tecniche di ricerca qualitativa. Percorsi di ricerca nelle scienze sociali.* Roma: Carocci.

Carroll, J.B. (1963). A model for school learning. *Teachers College Record*, *64*(8), 723-733.

Castro, M., Expósito-Casas, E., López-Martín, E., Lizasoain, L., Navarro-Asencio, E., & Gaviria, J.L. (2015). Parental involvement on pupil academic achievement: A meta-analysis. *Educational Research Review*, *14*, 33-46. doi: 10.1016/j.edurev.2015.01.002

Cataldi, S., & Pitzalis, M. (2014). Transizioni e disuguaglianze scolastiche: approcci teorici, modelli di analisi, risultati empirici. In P. Calidoni & S. Cataldi (Ed.), *Transizioni scolastiche: un'esplorazione multidisciplinare. Per un progetto di ricerca su orientamento e scelte scolastiche e professionali* (pp. 17-54). Milano: FrancoAngeli.

Clark, C., & Hawkins, L. (2010). *Young People's Reading: The Importance of the home environment and family support. More findings from our national survey.* London: National Literacy Trust. https://files.eric.ed.gov/fulltext/ED510272.pdf

Colombo, M., Poliandri, D., & Rinaldi, E. (2020). Gli impatti dell'emergenza COVID-19 sul sistema scolastico-formativo in Italia. *Scuola democratica. Early access*, 1-10.

Colombo, M., Romito, M., Vaira, M., & Visentin, M. (2022). Introduction: Social Needs, Emergency Policies and Solidaristic Attitudes throughout the Italian Education System. In M. Colombo, M. Romito, M. Vaira, & M. Visentin (Eds.), *Education and Emergency in Italy. How the Education System Reacted to the First Wave of Covid-19* (pp. 1-31). Leiden: Brill.

Colombo, M., & Santagati, M. (2022). The Inclusion of Students With Disabilities: Challenges for Italian Teachers During the Covid-19 Pandemic. *Social Inclusion*, *10*(2), 1-11. doi: 10.17645/si.v10i2.5035

Contini D., Di Tommaso M.L, Muratori C, Piazzalunga D, & Schiavon L. (2021).The COVID-19 Pandemic and School Closure: Learning Loss in Mathematics in Primary Education. *Institute of Labor Economics (IZA)*, *14785*, 1-30. https://docs.iza.org/dp14785.pdf

Contini, D., & Scagni, A. (2013). Social Origin Inequalities in Educational Careers in Italy: Performance or Decision Effects? In M. Jackson (Ed.), *Determined to Succeed? Performance Versus Choice in Educational Attainment* (pp. 149-184). Stanford: Stanford University Press.

Costa, E., Baptista, M., & Carvalho, C. (2022). The Portuguese Educational Policy to Ensure Equity in Learning in Times of Crises. In F.M. Reimers (Ed.), *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 203-224). Cham: Springer.

Costin, C., & Coutinho, A. (2022). Experiences with Risk-Management and Remote Learning During the COVID-19 Pandemic in Brazil: Crises, Destitutions, and (Possible) Resolutions. In F.M. Reimers (Ed.), *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 39-78). Cham: Springer.

Cullinane, C., & Montacute, R. (2020). COVID-19 and Social Mobility Impact Brief# 1: School Closures. *The Sutton Trust*, 1-11. https://www.suttontrust.com/wp-content/uploads/2021/01/School-Shutdown-Covid-19.pdf

Dastane, O., & Haba, H.F. (2023). The Landscape of Digital Natives Research: A Bibliometric and Science Mapping Analysis. *FIIB Business Review*, *OnlineFirst*. doi: 10.1177/23197145221137960

Domingue, B.W., Hough, H.J., Lang, D., & Yeatman, J. (2021). Changing Patterns of Growth in Oral Reading Fluency During the COVID-19 Pandemic. *Policy Analysis for California Education*, 1-32. https://edpolicyinca.org/sites/default/ files/ 2021-03/wp_domingue_mar21-0.pdf

Doyle, O. (2020). COVID-19: Exacerbating Educational Inequalities? *Public Policy.IE*, 1-10. https://publicpolicy.ie/papers/covid-19-exacerbating-educational-inequalities/

Easterbrook, M.J., Doyle, L., Grozev, V.H., Kosakowska-Berezecka, N., Harris, P.R., & Phalet, K. (2023). Socioeconomic and gender inequalities in home learning during the COVID-19 pandemic: examining the roles of the home environment, parent supervision, and educational provisions, *Educational and Developmental Psychologist*, *40*(1), 27-39. doi: 10.1080/20590776.2021.2014281

Evans, D. (2020), *How Will COVID-19 Affect Women and Girls in Low- and Middle-Income Countries?* Center For Global Development. https://www.cgdev.org/blog/how-will-covid-19-affect-women-and-girls-low-and-middle-income-countries

Ferrari, M. (2021). *Resilience, Vulnerability And Inequality In Immigrant Children During The Covid 19 Pandemic.* 4th International Academic Conference on Research in Social

Sciences (Barcelona, 10-12 December 2021), 54-77. https://www.dpublication.com/wp-content/uploads/2021/12/41-5090.pdf

Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, *12*(2), 219-245. doi: 10.1177/1077800405284363

Giancola, O., & Piromalli, L. (2020). Apprendimenti a distanza a più velocità. L'impatto del COVID-19 sul sistema educativo italiano. *Scuola democratica. Early access*, 1-10.

Giancola, O., & Salmieri, L., (2020). Family Background, School-Track and Macro-Area: the Complex Chains of Education Inequalities in Italy. *DiSSE Working Papers 4/20*. Roma: Università "Sapienza".

Giannini, S. (2020). *Distance Learning Denied. Over 500 million of the world's children and youth not accessing distance learning alternatives.* UNESCO. https://world-education-blog.org/2020/05/15/distance-learning-denied/

Gianturco, G. (2005). *L'intervista qualitativa. Dal discorso al testo scritto.* Nuova edizione riveduta e ampliata. Milano: Guerini.

Glaser, B.G., & Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for qualitative Research.* New Brunswick (USA) – London (UK): Aldine Transaction.

Gobo, G. (2001). *Descrivere il mondo. Teoria e pratica del metodo etnografico in sociologia.* Roma: Carocci.

Gobo, G. (2004). Generalizzare da un solo caso? Lineamenti di una teoria idiografica dei campioni. *Rassegna Italiana di Sociologia*, *1*, 103-130. doi: 10.1423/13200

Green, F. (2020). Schoolwork in lockdown: new evidence on the epidemic of educational poverty, *LLAKES Research Paper*, *67*, 1-21. https://www.llakes.ac.uk/wp-content/uploads/2021/01/67-Francis-Green-Research-Paper-combined-file.pdf

Grimaldi, E., Landri, P., & Taglietti, D. (2020). Una sociologia pubblica del digitale a scuola. *Scuola democratica. Early access*, 1-10.

Guterman, O., & Neuman, A. (2018). Personality, socio-economic status and education: Factors that contribute to the degree of structure in homeschooling. *Social Psychology of Education*, *21*(1), 75-90. doi: 10.1007/s11218-017-9406-x

Haelermans, C., Korthals, R., Jacobs, M., de Leeuw, S., Vermeulen, S., van Vugt, L., Aarts, B., Prokic-Breuer, T., van der Velden, R., van Wetten, S., & de Wolf, I. (2022). Sharp increase in inequality in education in times of the COVID-19-pandemic. *PLOS ONE*, *17*(*2*), 1-11. doi: 10.1371/journal.pone.0261114

Hamilton, L.S., & Ercikan, K. (2022). COVID-19 and U.S. Schools: Using Data to Understand and Mitigate Inequities in Instruction and Learning. In F.M. Reimers (Ed.). *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 327-351). Cham: Springer.

Hanushek, E.A., Woessmann, L. (2020). *The economic impact of learning losses.* Paris: OECD Publishing

Iivari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital transformation of everyday life – How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International Journal of Information Management*, *55*, 1-6. doi: 10.1016/j.ijinf omgt.2020.102183

ISTAT (2021). *Bes 2020. Il benessere equo e sotenibile in Italia.* Roma: Istat. https://www.istat.it/it/files//2021/03/BES_2020.pdf

ISTAT (2022). *L'inclusione scolastica degli alunni con disabilità. A.S. 2021-2022.* Roma: Istat. https://www.istat.it/it/files//2022/12/Alunni-con-disabilita-AS-2021-2022.pdf

Kuhfeld, M., Soland, J., Tarasawa, B., Johnson, A., Ruzek, E., & Liu, J. (2020). Projecting the Potential Impact of COVID-19 School Closures on Academic Achievement. *Educational Researcher*, *49*(8), 549-565. doi: 10.3102/0013189X20965918

Lavonen, J., & Salmela-Aro, K. (2022). Experiences of Moving Quickly to Distance Teaching and Learning at All Levels of Education in Finland. In F.M. Reimers (Ed.). *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 105-123). Cham: Springer.

Lestari, P.A.S., & Gunawan, G. (2020). The Impact of Covid-19 Pandemic on Learning Implementation of Primary and Secondary School Levels. *Indonesian Journal of Elementary and Childhood Education*, *1*(2), 58–63. https://journal.publication-center.com/index.php/ijece/article/view/141/68

Littlejohn, A., Gourlay, L., Kennedy, E., Logan, K., Neumann, T., Oliver, M., Potter, J., & Rode, J. (2021). Moving Teaching Online: Cultural Barriers Experienced by University Teachers During Covid-19. *Journal of Interactive Media in Education*, *1*, 1-15. doi: 10.5334/ jime.631

Lucas, M., Nelson, J., & Sims, D. (2020). *Schools' responses to COVID-19: pupil engagement in remote learning*. National Foundation for Educational Research. https://www.nfer.ac.uk/media/4073/schools_responses_to_covid_19_pupil_engagement_in_remote_learning.pdf

Marek, M.W., Chew, C.S., & Wu, W.-C. V. (2021). Teacher experiences in converting classes to distance learning in the COVID-19 pandemic. *International Journal of Distance Education Technologies (IJDET)*, *19*(1), 89-109. doi: 10.4018/IJDET.20210101.oa3

Merico, M., & Scardigno, F. (2020). Ri-emergenze. Il no schooling ai tempi del COVID-19. *Scuola democratica. Early access*, 1-8.

OECD (2018). *Equity in Education: Breaking Down Barriers to Social Mobility*. Paris: OECD Publishing. doi: 10.1787/9789264073234-en

OECD (2020). *Learning Remotely When Schools Close: How Well Are Students and Schools Prepared? Insights from PISA*. Paris: OECD Publishing. https://read.oecd-ilibrary.org/view/?ref=127_127063-iiwm328658&title=Learning-remotely-when-schools-close

OECD (2021). *The State of School Education: One year into the COVID Pandemic*. Paris: OECD Publishing. doi: 10.1787/201dde84-en

Parziale, F. (2016). *Eretici e respinti. Classi sociali e istruzione superiore in Italia*. Milano: FrancoAngeli.

Ramella, F. & Rostan, M. (2022). A New World Is Open? Distance Teaching in Italian Universities during the Covid-19 Emergency. In M. Colombo, M. Romito, M. Vaira, & M. Visentin (Eds.), *Education and Emergency in Italy. How the Education System Reacted to the First Wave of Covid-19* (pp. 122-150). Leiden: Brill.

Reimers, F.M. (Ed.) (2022). *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic*. Cham: Springer.

Reimers, F.M. (2022). Learning from a Pandemic. The Impact of COVID-19 on Education Around the World. In F.M. Reimers (Ed.), *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 1-37). Cham: Springer.

Romito, M. (2016). *Una scuola di classe. Orientamento e disuguaglianza nelle transizioni scolastiche*. Milano: Guerini Scientifica.

Salmieri, L, & Visentin, M. (2020). Il mondo che abbiamo perso. L'università e l'ecologia della presenza. *Scuola democratica. Early access*, 1-08.

Santagati, M., & Barabanti, P. (2022). Rhetoric, Problem or Necessity? A Study of Parental Involvement during Covid-19. In M. Colombo, M. Romito, M. Vaira, & M. Visentin (Eds.), *Education and Emergency in Italy. How the Education System Reacted to the First Wave of Covid-19* (pp. 77-103). Leiden: Brill.

Stojkoski, V., Utkovski, Z., Jolakoski, P., Tevdovski, D., & Kocarev, L. (2020). The Socio-Economic Determinants of the Coronavirus Disease (COVID-19) Pandemic. *MedRxiv*, 1-30. https://arxiv.org/pdf/2004.07947.pdf

Suša Vugec, D., Stjepić, A.M. (2022). Digital Literacy of Digital Natives. In C. Machado (Ed.), *Technological Challenges: The Human Side of the Digital Age* (pp. 61-91). Cham: Springer.

Thorn, W., & Vincent-Lancrin, S. (2022). Education in the Time of COVID-19 in France, Ireland, the United Kingdom and the United States: the Nature and Impact of Remote Learning. In F.M. Reimers (Ed.), *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 383-419). Cham: Springer.

Tzankova, I., Compare, C., Marzana, D., Guarino, A., Di Napoli, I., Rochira, A., Calandri, E., Barbieri, I., Procentese, F., Gatti, F., Marta, E., Fedi, A., Aresi, G., & Albanesi, C. (2022). Emergency online school learning during COVID-19 lockdown: A qualitative study of adolescents' experiences in Italy. *Current Psychology*. doi: 10.1007/s12144-021-02674-8

UNESCO, UNICEF, World Bank. (2020). *What Have We Learnt? Overview of findings from a survey of ministries of education on national responses to COVID-19*. Paris: the United Nations Educational, Scientific and Cultural Organization. *file:///C:/Users/utente/ Downloads/National-Education-Responses-COVID-19-v2_2020.pdf*

Vaira, M., & Romito, M. (2020). L'emergenza COVID-19 e la scuola. Una riflessione su alcune contraddizioni emergenti dalla crisi. *Scuola democratica. Early access*, 1-10.

Valle, J.M., & de Olagüe-Smithson, C. (2022). The Spanish Response to the Covid-19 Pandemic: From Joint Governance to Lack of Governance. In F.M. Reimers (Ed.), *Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic* (pp. 283-300). Cham: Springer.

van Deursen, & A.J., Helsper, E.J. (2015). The Third-Level Digital Divide: Who Benefits Most From Being Online? *Communication and Information Technologies Annual. Studies in Media Communications*, *10*, 29-52. doi:10.1108/S2050-206020150000010002

van Dijk, J. A. (2012). The Evolution of the Digital Divide. The Digital Divide turns to Inequality of Skills and Usage. In J. Bus, M. Crompton, M. Hildebrandt, & G. Metakides (Eds.), *Digital Enlightenment Yearbook 2012* (pp. 57-75). Amsterdam: IOS Press.

van Dijck, J. (2020). *The digital divide*. Cambridge, UK: Polity Press.

van Dijck, J., Poell, T. & De Waal, M. (2018). *The Platform Society: Public Values in a Connective World*. Oxford: Oxford University Press.

World Bank (2021). *Education Systems' Response to COVID-19: Brief April 26th*. https://thedocs. worldbank.org/en/doc/fd793d65db942691db78378c2ea483ae-0090012021/original/2001-COVID19-Education-Sector-Brief-April-26.pdf