

Students' Perceptions of Distance Learning: A Qualitative Analysis of Open-Ended Responses

Mara Marini ¹, Alessandra Natalini ^{2*} and Stefano Livi ³

¹ Research group of Sapienza University of Rome; mara.marini@uniroma1.it

² Link Campus University; a.natalini@unilink.it

³ Sapienza University of Rome; stefano.livi@uniroma1.it

* Correspondence: a.natalini@unilink.it

Abstract: This contribution presents the results of a qualitative analysis of open-ended responses collected through a questionnaire investigating students' perceptions of distance learning. The analysis focused on three key areas: perceived positive aspects, negative elements, and features students would like preserved in the future. Through inductive coding, the study identified recurring themes that highlight the ambivalent nature of distance learning experiences. Positive aspects include flexibility, improved time management, and greater accessibility of digital resources. Negative elements relate primarily to reduced social interaction, lower engagement, and difficulties in maintaining motivation and concentration. The responses also reveal students' desire to retain practices developed during the Covid-19 emergency, such as recorded lessons, digital materials, and hybrid configurations that support personalised learning rhythms. The findings offer a nuanced understanding of how students interpret the affordances and constraints of distance learning and provide useful insights for designing future hybrid and technology-enhanced learning environments.

Keywords: distance learning perceptions; student experience; hybrid education



Copyright: © 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

In a society undergoing constant transformation, such as the present one, it is necessary to reflect on the role of technologies in teaching-learning processes. Emergency periods, such as those associated with the COVID-19 pandemic, have highlighted both the strengths and critical issues in the use of digital tools in school contexts.

During the pandemic, it emerged that the educational relationship and the emotional bond between students and teachers, as well as among peers, should be considered a fundamental and indispensable resource for sustaining young people's motivation and learning (du Merac, Sensin & Livi, 2022; Means & Neisler, 2021; Means et al., 2021). From this perspective, it may be observed that "it was the contingency of the situation that determined the large-scale use of distance learning, proving to be a valuable ally in attempting to reduce the educational and formative damage re-

sulting from school closures” (Valenzano & Zamengo, 2020, p. 101). Indeed, some studies have shown that every ten-day period of school closure may lead to a 5% decrease in the number of students achieving the learning objectives expected by the end of the school year (Marcotte & Hemelt, 2008; Cooper et al., 1996).

It therefore becomes essential for online teaching to form part of teachers’ professional competences, requiring appropriate planning, adequate infrastructure and specific training (Hodges et al., 2020; Means & Neisler, 2021; Means et al., 2021). According to several studies, including the TALIS 2018 Survey (OECD, 2019), teachers report the greatest need for training in the use of information and communication technologies for teaching.

The obligation to conduct activities exclusively at a distance also suggested the need to redesign the teaching relationship, rethinking spaces, time, and tools (Muoio, 2020). The use of technology in schools, in fact, requires appropriate teacher mediation and careful selection of the characteristics and functions of digital devices based on the educational objectives to be pursued and the teaching strategies adopted (Calvani, 2025). It is therefore necessary to adopt new strategies and training pathways capable of responding to students’ real educational needs by fostering: creativity and innovation; responsible and effective use of media; critical and reflective thinking; and the soft skills that are essential for personal, professional and civic development (Muoio, 2020).

In line with the relevant literature, it appears to be a priority to ensure continuity, that is, to integrate digital resources and activities into the school context daily, even when face-to-face teaching is not interrupted by adverse events, to allow for a less disruptive transition to online learning in the event of new emergencies. Such integration would also enable the promotion of self-regulated learning and its adaptation to students’ individual needs.

Another essential element for the genuine integration of digital technologies in the school environment is that teachers acquire the competencies necessary to foster engagement, community building, and online communication. This involves promoting active learning in online settings, proposing problem-solving activities, designing strategies to build a sense of community within the class, and using group work and techniques to create an online “presence” and regular communication between teachers and students. Teachers are therefore required to clearly explain the available resources, the assessment criteria, and the forms of support provided, as well as to plan procedures for contacting students who experience difficulties or fail to participate in distance learning activities (Means & Neisler, 2021; Means et al., 2021).

Regarding the critical issues highlighted by the COVID-19 pandemic, it is evident that physical distancing often gave rise to emotional and affective distance, accompanied by students’ perceived fear of losing contact with their teachers and classmates (Mosconi, 2021). Consequently, some studies emphasise a dichotomy in the literature on distance learning (DAD). On the one hand, DAD appears to have generated a sense of loneliness, limiting contact to the virtual dimension; on the other hand, it has promoted learner agency and enabled students to acquire greater autonomy and an enhanced capacity to organise their time (Mosconi, 2021).

Following the pandemic, students acknowledged that technology enabled them to maintain a sense of “normality”, and they expressed a desire to promote integrated (blended) learning in the future, emphasising the importance of online teaching (Mosconi, 2021; Biasioli, 2022).

Other studies, however, underline that pupils tend to perceive “traditional” education as higher quality than online education, emphasising the importance of aspects such as direct and physical interaction with classmates, the absence of technical connectivity problems associated with this modality, and the possibility of interacting directly with the teacher (Biasioli, 2022).

The literature also highlights that among the positive aspects of distance learning identified by students are primarily: the possibility of recording lessons and having constant access to the materials provided by teachers; the convenience of attending classes from home; and greater attention to the development of digital competences among both teachers and students (Valenzano & Zamengo, 2020). Concerning negative aspects, students emphasise: the limited interactivity of lessons (Scarpellini, 2020); the lack of adequate spaces; difficulties in organising study time and homework and in managing the greater “freedom” and responsibility offered by distance learning; problems in the use of digital technologies (such as unstable internet connections); and lower motivation to learn (Valenzano & Zamengo, 2020).

Beyond the strengths and weaknesses of distance learning, studies also underscore the importance of the educational relationship, which must be cultivated in both face-to-face and online contexts (Valenzano & Zamengo, 2020). From this perspective, it is essential that teachers possess the ability to engage students even at a distance, together with disciplinary and relational-communicative competences; that they pay appropriate attention to students’ cognitive, emotional, affective and social dimensions; and that they demonstrate flexibility and the ability to adapt to the digital environment, reshaping their teaching interventions and proposals based on students’ responses and feedback (Mosconi, 2021).

In conclusion, the findings confirm the importance of teaching that is more flexible in its modes of delivery, more interactive and engaging, attentive to students’ cognitive styles, and mindful of the social, emotional and experiential dimensions of learning. Only by integrating technological tools into innovative, well-structured teaching processes will it be possible to respond to students’ evolving educational needs and contribute to the development of the competencies required in the workplace (Muio, 2020). This necessitates further studies on the integration of digital technologies into teaching–learning processes, particularly by exploring the mediating role of the teacher and the competencies required (Martin, Sun & Westine, 2020).

2. Materials and Methods

The present research forms part of a broader study concerning students’ perceptions of distance learning (DAD). This contribution presents the results of the qualitative investigation, aimed at addressing the following research questions:

- What are the positive aspects of distance learning (DAD), according to secondary school students?

- What are the negative aspects of distance learning (DAD), according to secondary school students?
- Which elements of distance learning would secondary school students like to retain in the future?

The study sample comprises 297 students (212 boys, 84 girls, 1 student did not respond). Among these participants, 82 did not specify the level of schooling they attend, 203 are enrolled in upper secondary school, and 12 are enrolled in lower secondary school.

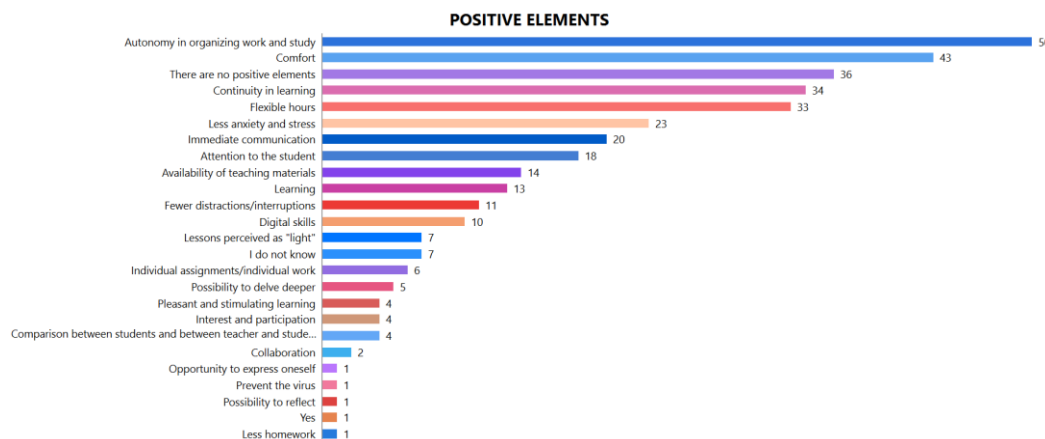
With regard to the instruments used for data collection, the research employed a questionnaire comprising both closed-ended and open-ended items. In this paper, only the results derived from participants' responses to the open-ended questions are presented. These responses were analysed through inductive coding using MAXQDA. The study thus identified recurring themes, grouping them into micro- and macro-categories to highlight the ambivalent nature of the distance learning experience from the students' perspective (Trinchero, 2002).

3. Results

Based on the data collected, the positive aspects of distance learning (DAD), according to the students, mainly include: autonomy in organising work and study (50) and in managing time (33); the flexibility and convenience offered by distance learning—resulting, among other things, in reduced travel time (43); continuity (34) and improvement in the learning process (13); a perceived reduction in anxiety and stress (23); the possibility of immediate communication between teachers and students (20); greater attention devoted to each learner (18); fewer distractions and interruptions (11); the possibility of recording lessons and having constant access to the materials provided by teachers (10); and increased attention to the development of digital competences among both teachers and students (10).

It should also be noted that 36 participants did not identify any positive aspects of distance learning. All these categories are illustrated in Figure 1 below.

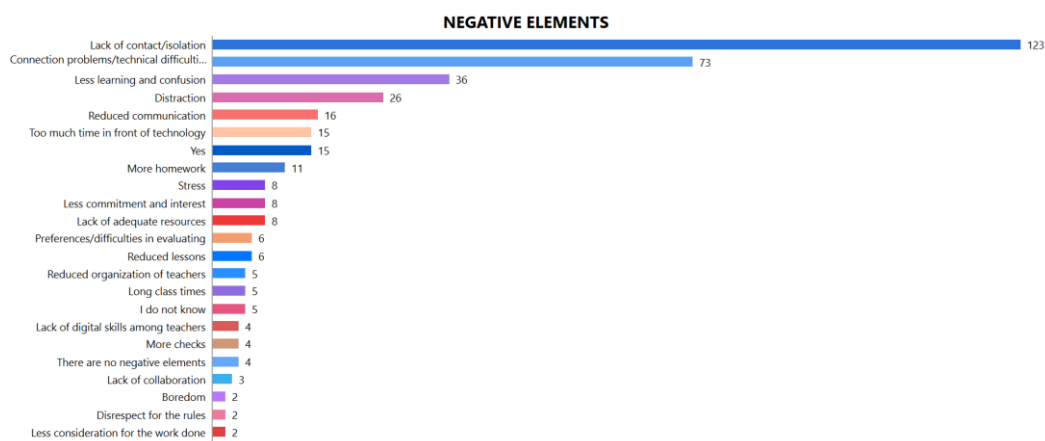
Figure 1. Positive aspects of distance learning according to students' opinions



As shown in Figure 2, among the negative aspects of distance learning (DAD) identified by students are primarily: a reduction in social interaction and an increased sense of isolation (123), as well as issues related to unstable internet connections (73). It should also be noted that some students report greater confusion, difficulties in learning (36), increased distraction (26), and fewer opportunities for direct communication between teachers and students (16).

Finally, 15 participants stated that distance learning leads students to spend excessive time in front of technological devices. In contrast, another 15 students indicate that DAD has negative aspects without specifying them, and only 4 students do not identify any critical issues associated with distance learning.

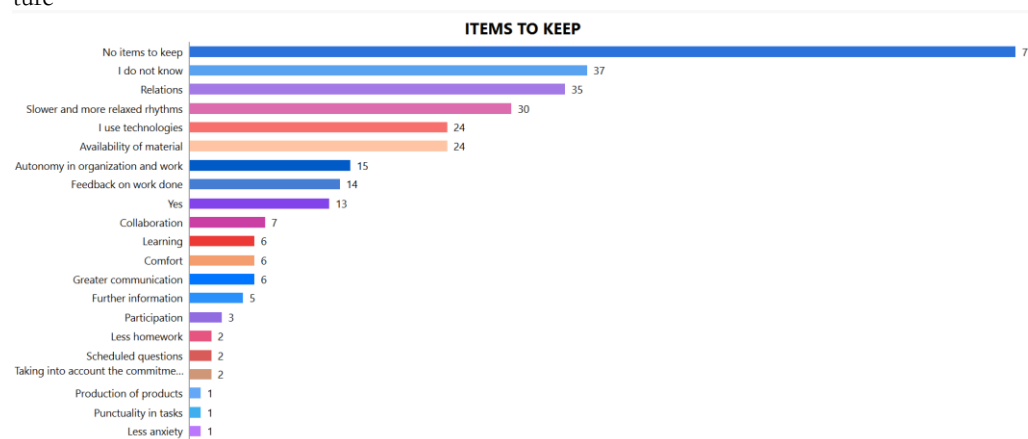
Figure 2. Negative aspects of distance learning according to students' opinions



When students were asked which elements of distance learning (DAD) they would like to retain in the future, the majority of participants appeared to prefer face-to-face teaching (77). Nevertheless, some respondents expressed a desire to

preserve: improvements in relationships and interactions, both between students and teachers and among peers (35); slower and more relaxed learning rhythms (30); and the possibility of using digital devices and developing related competencies (24). Finally, 37 students reported being unable to provide an answer to this question, as shown in Figure 3.

Figure 3. Elements of distance learning that secondary school students would like to keep in the future



The findings provide a nuanced understanding of how students interpret the potential and limitations of distance learning, offering useful indications for the design of future hybrid and technologically enhanced learning environments. The analysis also shows that the data are fully consistent with studies conducted so far at the national level (Valenzano & Zamengo, 2020) and highlight an internal variability in students' experiences of distance learning.

In conclusion, in line with the existing literature, the research emphasises the centrality of the educational relationship in both face-to-face and distance teaching.

4. Discussion

In light of the theoretical framework and findings from the research, several concluding reflections can be formulated to situate the experience of distance learning within a broader, future-oriented pedagogical perspective. First, the study confirms what has already been highlighted in the literature: distance learning, widely adopted during the COVID-19 pandemic, served as a necessary emergency response, ensuring educational continuity during a critical situation (Valenzano & Zamengo, 2020). However, as emphasised by Means et al. (2021) and Hodges et al. (2020), the effectiveness of online learning cannot be improvised; it requires intentional design, specific competences and adequate infrastructure.

The data collected confirm a dual dimension. On the one hand, distance learning was a valuable ally in mitigating pandemic-related difficulties, helping to reduce physical and emotional distance; on the other hand, it highlighted structural and re-

lational limitations. While distance learning fostered autonomy, organisational skills, and time management, it also generated feelings of loneliness, isolation, and reduced social interaction. These findings strongly recall the importance of the relational dimension of learning, which should be considered a structural element (Marini & Santini, 2024; Marini et al., 2023). In many cases, physical distance translated into emotional distance, affecting students' motivation and their sense of belonging to the school community.

Moreover, the results confirm that students continue to prefer face-to-face teaching over online learning, particularly about direct interaction, immediate communication and the stability of the learning environment (Biasioli, 2022). At the same time, students appear to be aware of the added value of certain practices experienced during the emergency, such as the availability and constant accessibility of teaching materials, organisational flexibility, and the numerous opportunities to develop digital competences. This suggests that the pandemic experience should not be interpreted as an opposition between presence and distance, but rather as an opportunity for transformation and integration within the school context.

The future of education, therefore, appears to be oriented toward blended models that combine the relational richness of face-to-face learning with the opportunities offered by digital technologies. In line with the indications proposed by Muoio (2020), a form of teaching that is more flexible, interactive, and attentive to the cognitive, emotional, and social dimensions of learning appears not only desirable but also necessary. The systematic integration of digital tools within teaching practices can foster continuity, the personalisation of learning pathways and the development of self-regulated learning, while also making the education system more resilient in the face of potential future emergencies.

Another crucial aspect concerns the role of the teacher. The centrality of the educational relationship, emphasised both by the empirical data and by the literature (Martin, Sun & Westine, 2020), calls for a redefinition of professional competences: not only disciplinary mastery, but also digital, communicative and relational skills. The “Three Cs” — engagement, community building and communication — become the pillars of effective teaching, both online and face-to-face. Teachers are called upon to design active learning environments, promote problem-solving and collaboration, monitor participation, and support students experiencing difficulties, constantly adjusting their teaching practices on the basis of the feedback received.

Finally, the research highlights that technology in itself does not guarantee innovation; rather, it is the pedagogically grounded use of digital tools that determines the quality of the learning experience. When integrated into structured teaching processes oriented towards the development of transversal competences — such as critical thinking, creativity and soft skills — technologies can make a significant contribution to preparing students for the world of work and for active citizenship.

In conclusion, the experience of distance learning during the pandemic represents an unprecedented pedagogical laboratory. It has revealed fragilities and inequalities, but it has also opened spaces for innovation. The current challenge is not to choose between presence and distance, but to integrate thoughtfully and intentionally the potential of both, while keeping the educational relationship at the centre as an indispensable foundation of every teaching–learning process.

References

- Biasioli, P. (2022). *L'efficacia dell'istruzione on-line rispetto all'istruzione in presenza*. Tesi di laurea. Università degli Studi di Padova. https://thesis.unipd.it/retrieve/b44f50fd-b400-41fb-a2a6-76b44fe4388b/Biasioli_Paolo.pdf
- Calvani, A. (2025). *Tecnologie per l'inclusione. Quando e come avvalersene*. Carocci Editore.
- Cooper, H., Nye, B., Charlton, K., Lindsay, J., & Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of educational research*, 66(3), 227-268.
- Du Merac, E., Sensin, C., & Livi, S. (2022). The importance of teacher-student relationship for distance learning during Covid-19 pandemic. *Journal of Educational Cultural and Psychological Studies*, 2022(25).
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*. <https://vtechworks.lib.vt.edu/server/api/core/bitstreams/f1ff0c45-771f-4b45-9671-dfe06d6944c6/content>
- Marcotte D.E., Helmet S.W. (2008). Unscheduled School Closings and Student Performance. *Education Finance and Policy*, 3, 316-338.
- Marini, M., & Santini, F. (2024). L'importanza della relazione educativa per il benessere e il successo scolastico di studenti e studentesse: un'indagine empirica tra adolescenti della scuola secondaria di secondo grado. In P. Lucisano & A. Marzano (a cura di), *Quale scuola per i cittadini del mondo? A cento anni dalla fondazione della Ligue Internationale de l'Éducation Nouvelle*. Atti del convegno "Quale scuola per i cittadini del mondo? A cento anni dalla fondazione della Ligue Internationale de l'Éducation Nouvelle". Roma, Italia, 25-26 novembre 2021.
- Marini, M., Livi, S., Cecalupo, A., Scarci, F., Santini, F., Parisse, C., & Benvenuto, G. (2023). "I feel good with my teachers". The effects of positive teacher-student relationship on students' self-esteem and perceptions about their future. *Psychology Hub*, 40(1), 63-72.
- Martin, F., Sun, T., & Westine, C. D. (2020). A systematic review of research on online teaching and learning from 2009 to 2018. *Computers & education*, 159, 104009.
- Means, B., & Neisler, J. (2021). Remote learning during COVID-19: Lessons learned, approaches for the future. U.S. Department of Education. Giampalmi, J. (2021). *APA Style & Citations For Dummies*. John Wiley & Sons.
- Means, B., Peters, V., Neisler, J., Wiley, K., & Griffiths, R. (2021). Lessons from remote learning during COVID-19. *Digital Promise*. <https://doi.org/10.51388/20.500.12265/116>
- Mosconi, G. (2021). La scuola ai tempi del Covid-19: lo sguardo degli studenti della Scuola secondaria di II grado. *Nuova Secondaria*, 2.
- Muoio, P. (2020). Gioco e apprendimento: spazi, tempi e strumenti nella didattica a distanza. *DIDAMATiCA* 2020, 158.
- OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris. <https://doi.org/10.1787/1d0bc92a-en>

-
- Scarpellini, E. (2020). *La valutazione della didattica a distanza: costruzione e somministrazione di un questionario pilota*.
<https://tesi.univpm.it/bitstream/20.500.12075/719/2/TESI%20ELENA%20SCARPELLINI.pdf>
- Trinchero, R. (2002). *Manuale di ricerca educativa*. FrancoAngeli.
- Valenzano, N., & Zamengo, F. (2020). Imparare a distanza: risorse e criticità nell'opinione degli studenti di una scuola secondaria di secondo grado. *STUDIUM EDUCATIONIS-Rivista semestrale per le professioni educative*, (3), 99-114.