

Identification and remediation of students' disadvantages due to COVID-19

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Abstract

The coronavirus disease 2019 (COVID-19) pandemic has led to a number of problems of which the implications for the future are not minor. The main consequence of the COVID-19 breakout was that almost 100% of the Spanish population had to be confined from March to June. Despite the progressive normalisation of learning, the effects of the pandemic are expected to last for many years. This paper suggests the implications of those side effects that will require not few efforts to become overcome through a descriptive methodology. These effects are not only educational but may also have, according to several studies hereby addressed, an economic effect on the youth. The paper concludes that remedial measures should include additional teaching staff to increase the number of teaching hours in the academic year 2021–2022.

Keywords: Pandemic, COVID-19, education, technology, remedial.

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1. Introduction

On March 14, 2020, many were the schools in different regions that closed their doors. The rest of the regions did between the 14th and the 20th. People knew little about the dramatic changes in the following months. The adaptation to new environments needed to be carried out immediately for students and teachers (Konig et al., 2020; Watson, 2020), especially in the first weeks (Cavanaugh & DeWeese, 2020). However, in Spain very few changes were carried out in the teaching practice until the spring break (Easter week) holidays, 15 days after being sent confined, when most of the academic authorities recognised that their most optimistic hopes had failed. In those days, the expectations were that the economy would be closed for just a few months, but nobody actually acknowledged that the situation would last way more than a year.

Schools had to face a number of significant problems, which were as follows:

- Connections at home were limited (Kirshner, 2020; Villanueva et al., 2020). Due to the increasing use of the net and the limited number of computers or laptops in each home, students could only access very few hours a day and usually in bad conditions, including connectivity and length of connection;
- Internet companies were not ready for the dispersion of the net and the extensive use carried out in the different homes; therefore, there were restrictions in service and the signal was weak or even inexistent (Akbulut et al., 2020);
- Homes did not have as many computers as required for virtual work and education of their members and, as a consequence, families had to share keeping in mind that many parents were the main users because they were working online;
- Children were soon disappointed, tired, bored and lacked interest for virtual education (not a minor issue was that they were missing their classmates' interaction) because they lacked the interactive collaborative tasks in the school as well as the social relationships that can be found in any school such as games and socialising in the playground. Additionally, Kocoglu and Tekdal (2020) and also Klar and Lanzerath (2020) stated that not all parents and students were aware and assumed the intrinsic responsibilities associated to this limited confined situation;
- Teachers and students (Chung et al., 2020) did not always have the adequate skills to provide online education and that lead to missing lessons, especially during the first weeks, and thus students could not achieve part of their educational objectives and missed a significant part of the contents;
- Assessments whether formal or informal could not be properly carried out due to the insecurity of their proper delivery. Formative assessment increased and memory tasks were left aside (Cahapay, 2020);
- Lassoued et al. (2020) also assumed that some of the unexpected problems could have been produced by both students' and teachers' self-imposed drawbacks due to the resilience to the educational situation and context, but also due to overload of work, stress and fatigue (Gungor et al., 2020; Niemi & Kousa, 2020);
- Traumatic teaching experiences increased over time not only due to the psychological effects of the confinement, but also due to the teachers' stress of not achieving the full potential of instruction and assessment (Roman, 2020);
- Significant losses have been documented over the period of March–June 2020 (Kuhfeld, 2019);
- Parents had to become teachers when possible almost immediately, but the problem remained in those parents who could not really help them due to a number of situations like students attending bilingual schools while parents not being able to support their kids with both content and language skills; sometimes it was just missing to provide enough feedback and just struggling to get their children do their school assignments.

Most of the problems in many cases were due to the lack of resources as indicated in the above list (Cynthia & Starr, 2021). In general, it can be said that there were significant differences in digital education among students. However, while it is true that students with limited access relied more on the parents' support (Bhamani et al., 2020), it is unclear whether that could be positive. There are

many reasons that justify why unskilled parents may really determine an increase in the students' progress. Just to mention a few, previous preparation for teaching, knowledge of specific contents, familiarity with supporting resources, personal factors (such as patience, understanding of the students' realities and needs and so on). Additionally, the confinement led to an increasing situation of overstress due to the lack of contact that has eventually made teenagers and young people the most risky factors of disease dissemination (Palumbo, 2020; Socias et al., 2020) or lack of physical activity (Javier Cachon-Zagalaz et al., 2021).

2. Methodology

To carry out this research, on the effects and suggestions of improvement of COVID-2019 in education in Spain, we collected the current literature on the topic between June 2020 and March 2021.

3. Immediate effects

Much of the current literature states that the effects of the pandemic will mean a significant loss, especially in basic knowledge of first language and mathematics. Sainz and Sanz (2020) consider that a stoppage of 3 months plus the 3-month summer holidays will have a direct effect on students' content loss. This is due to the fact that the confinement without learning at a full potential (Wyse et al., 2020) and the inactivity soaring the summer time lead to the oblivion of significantly long and short chunks that may also be possibly associated/interconnected with new learning but without the previous one. Kuhfeld et al. (2020) consider that this loss may mean between 1 and 6 months (also Kuhfeld, 2019).

The effect in the long run may mean significant potential drawbacks in their higher education or college studies and, even worse, problems in finding a job or even diminished salaries. Karweit (1976) considers that a full year of additional education may mean an increase in the salary of a future professional; the loss of between 3 and 6 months may lead to the loss of a part of the future salary, which Sevilla, Sainz and Sanz consider to be around 3%–6%, although it is hard to support this statement due to its own tentativeness.

What seems to be clear according to everything said before is that the pandemic may have a significant socio-affective-economic effect on the students (Lake & Olson, 2020). It is also clear that those more affected will be those who come from a lower socio-economic status where technology may have had a more significant impact, therefore broadening the technical educational and economic breach.

4. National implications

Obviously, a situation like the one suffered in Spain in 2020 may perniciously effects the individuals, the 'peoples' and socio-economic net. Additionally, the large amounts of money devoted to treatments (health always first, naturally!), to provide immediate help and assistance to the companies and workers will reduce the capacity in social investment. However, in order to reduce the present and future gap, an additional effort is necessary, apart from the highest rate of employment possible (which is almost impossible to foresee give the current political situation and the near tax rises in the country). The measures that seem to be desirable would include the following:

- Additional classes for students at risk (Borup et al., 2020);
- Additional tutoring periods, especially in small groups (McBride & Baker, 2020);
- Increase teacher's efficacy through technology (Haverback, 2020; Hu, 2020; Martin, 2020);

- Increase in the capability of distance learning (but considering this is not a final solution) to reach significant familiarity and accessibility in face to face and online virtual distance education (Quinn, 2011; Young & Bruce, 2020);
- Preparation for teachers for hybrid learning (de Royston et al., 2020; Hammoud et al., 2020; Hirsch & Allison, 2020; Kaden, 2020; Smith et al., 2020);
- The development of a new paradigm of effort for education with dramatic changes in the attitudes towards learning and schooling (33% or more of the national population have not graduated in compulsory secondary education) (Trevors & Duffy, 2020; van der Spoel et al., 2020);
- Increasing the feelings of resilience and will of change (Eden, 2020; Talanquer et al., 2020; Torres et al., 2020);
- Development of a better pre-service teacher education (Keefe, 2020);
- Readaptation of teachers to the new circumstances of teaching between 2020 and 2022 (Konig et al., 2020);
- Revision and improvement of distance education considering the importance of face-to-face interaction (Nasr, 2020);
- The solution, indicate the professors of the URJC, involves an urgent supportive educational policy action, such as the reinforcement, orientation and support plan in primary and secondary education centres (PROA) (<https://sede.educacion.gob.es/publiventa/plan-de-refuerzo-orientacion-y-apoyo-proa-2011/educacion-infantil-y-primaria-educacion-secundaria/14880>).

5. 5. Conclusion

The pandemic breakout hit Spain hard in March 2020. The first remedial measure was the closing of all educational buildings and virtualisation of instruction (Szente, 2020). The length of the closure has proved to be a very negative force of impact. With regard to the future of many students all over the world, at this point, in the middle of March 2021, it is difficult to foresee what the near and, even more important, the distant future will bring. A number of measures have been suggested for short-term remediation, but there is still the need to assess the effects and, even more important, see the future evolution. Thus, this research-based essay has only intended to be a tentative approach. The future should look at indicators that are more accurate since the weakness of this paper is the difficulty to be able to design educational routes to overcome the current situation whose implications are very difficult to anticipate right now.

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