

Possibilities and limitations of social media in education processes during the pandemic: The teachers perspective

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Abstract. The health emergency derived from the spread of COVID-19 led to the declaration of confinement for the protection of the population. During this temporary period, the educational centers of the Spanish state were forced to suspend face-to-face classes at all educational levels. To safeguard the teaching processes, educational centers and teachers relied on social media to continue their work. The objective of this study is to understand the possibilities and limitations of social media as the only means of communication in the educational and socialization processes of students from the perspective of teachers. The methodology used is based on the collection of data through a questionnaire distributed in the secondary education centers of the autonomous regions of the Basque Country and Navarra. The questionnaire was distributed electronically, respecting the anonymity of the teaching staff and the center in which they practice. The results reveal that the digital media the possibilities and limitations of these media in the teaching processes, showing that some of these are surmountable and others are not.

Keywords: social media, educational inclusion, socialization, COVID-19, professorate

1. Introduction

The 2019-2020 academic year was disrupted due to the arrival of the SARS-CoV-2 virus that affected global health. Consequently, the World Health Organization (WHO) declared the COVID-19 disease a pandemic [22, 38]. According to the recommendations of the WHO, the state authorities and the local authorities, the educational centers of the Spanish state, considered contagion points, remained closed during the last quarter of the 2019-2020 school year [20, 29, 34, 36, 39]. This decision made the work of educational centers difficult, especially in states where the closure lasted more than a quarter [1, 6, 35].

Teachers and students were affected by the closure of educational centers and the interruption of face-to-face training. In such a situation, to safeguard the training and socialization processes of the students, the use of digital media and other channels that belong to Information and Communication Technologies (ICT) was chosen [7, 8]. The current customs of the population and the constant use of social media in the lives of citizens of all ages facilitated making this decision [25]. Teachers and students used these tools to be able to maintain a link of interaction and continue with the training and socialization processes [1, 18, 34]. In this line, the students connected to virtual classes on the center's own platform, mail or another channel.

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Experts from different disciplines recognize in various studies the benefits and advantages of a virtual education even before the pandemic [13]. However, the sudden transformation of educational processes from face-to-face to virtual altered group and learning dynamics. The main problems that teachers faced were the digital divide between students, establishing an approach focused on experiences and not on theoretical content, and stimulating a relationship of trust and sincerity between students and teachers [2, 3, 5, 6, 12, 24, 31].

Despite the presence of social media in the daily life of the population, these tools are still not adjusted to the needs of a fully distance secondary education [27]. In the case studied, the lack of a contact channel outside of these media questions the quality of the education and socialization processes of the students, showing their possibilities and limitations [1, 14, 18, 34]. In this article, socialization is considered as the ability of students to adhere to the norms of social behavior.

During the confinement, not all those involved in the education processes had the same practical possibilities. Most of the practical limitations of those involved were related to the lack of technological devices, high-speed Internet access, suitable sites for teleworking and material adapted to new needs [33]. These inequalities encourage the exclusion of the most unfortunate, considering as such exclusion the difficulty of access and participation of all students in the teaching processes [2, 3, 6, 12, 19, 24, 31].

Added to these limitations is the difficulty for teachers to quickly adapt to new technological demands and the lack of prior training in teaching distance learning [1, 37]. A totally virtual education demands different needs than a face-to-face or mixed education. Because of that, the material used so far was not suitable for distance education. Therefore, teachers and educational centers had to adapt the didactic material, the study plans and the way of working to the demands of the new needs, increasing the difficulty of teaching classes and limiting the staff with less technological skills [4, 9, 28]. However, the teachers who suffer the most from the limitations of distance education are those who teach subjects that require the development of experiments, practical examples and, sometimes, access to a laboratory or workshop for their understanding [37].

Along the same lines, part of the students and teachers do not have adequate devices and neither do they have high-speed Internet. These limitations made the transfer process from face-to-face to virtual education difficult and showed the situation of educational centers, teachers, students and the same social media. In addition, these limitations increased the working hours of the teaching staff [11]. However, overcoming the limitations, this forced use of ICT in the education and socialization processes made it possible to reduce the future digital gap of the students, since, after this experience, they increased their digital knowledge [16].

To cover the urgent need for technological devices during confinement, educational centers, local and state authorities and private companies made free devices and Internet access available to those who needed it to enable everyone involved to access classes. However, time was a key element in this situation. The devices did not always arrive on time and in many cases did not arrive; while the collapse of the lines made connections difficult.

Apart from practical limitations and possibilities, social media presented limitations and possibilities for socialization. Such limitations made educational processes difficult [21]. Social media cannot replace, at the desired level, the possibilities of socialization offered by face-to-face classes and direct contact between those involved. In the face-to-face school nucleus, students

come into contact with people of the same age, both inside and outside the classroom, learning to live together and socialize. However, this interaction of the students, which is part of the educational processes, was almost impossible to replace through social media.

This limitation of social media hinders the socialization processes of students [10, 15, 17, 24]. The restriction of student movements, such as the loss of physical activity, human contact, online teaching itself, negative emotions due to the pandemic environment, lack of routine, altered the psychological state, attitude, quality of sleep, the weight and performance of the students [23, 24, 26, 30, 32].

That said, this article attempts to understand the possibilities and limitations of using social media as the only contact channels for compulsory secondary education in the Autonomous Community of the Basque Country and the Foral Community of Navarra during confinement from the perspective of the teaching staff. Considering as social media all online communication platforms where the content is created by users, in this case by teachers, and facilitate the exchange of information.

2. Methodology

The objective of this study is to understand the possibilities and limitations of social media in teaching processes as the only communication channels in compulsory secondary education. During the months of confinement, compulsory secondary education was fully based on the possibilities of digital social media in order to continue with the teaching and socialization processes of the students. Therefore, this time period is significant to understand the current situation and the possibilities and limitations of these tools. For this, in the present work, the experience during the closure of educational centers is studied from the educational and social perspective, carrying out a bibliographic review that will be accompanied by the support of a questionnaire carried out in the teaching staff.

The last three months of the 2020-2021 academic year, a questionnaire was carried out to the teachers of compulsory secondary education, without specifying the courses. The author sent the survey to the educational centers by email and the reception department sent the survey to the participants. The survey was sent to all the educational centers of compulsory secondary education without making a distinction between public, private or subsidized. Specifically, contact was made with 332 centers of the Autonomous Community of the Basque Country present at ikasgunea.euskadi.eus and the 105 centers of the Foral Community of Navarra present at educacion.navarra.es. Acceptance responses were received from these centers from 150 centers in the Basque Country and 63 centers in Navarra, which in turn facilitated the survey for teachers. The initial purpose of the study was to make a distinction between public, private and subsidized centers. However, the results of the surveys showed that there is no interesting distinction in the possibilities and limitations of the social media used. The problems and advantages mentioned by the teaching staff of the centers were similar.

The questionnaire provided to the centers consists of 30 questions, all of which require a mandatory response, which are divided into two blocks. The first block contains questions related to the practicality of social media and the availability of resources (quality Internet, devices and adequate teaching material). The second block is made up of questions about the

impact of the lack of face-to-face classes, the exclusive use of these media and the confinement in social and emotional aspects of the students. All questions are closed in order to obtain accurate data and make it easier for participants to complete the survey, since open questions require more time to answer. However, to safeguard the quality of the study and give the faculty the opportunity to specify an answer or add something relevant, the battery of questions is accompanied by a section for observations. The analysis of the responses to the questionnaire is carried out in table format. Two tables are presented and each table corresponds to a block of questions.

The survey was completed by 186 participants, all of whom were teachers in educational centers in the Autonomous Community of the Basque Country and the Foral Community of Navarra who exercised during the months of confinement. The selection of the teaching staff was carried out by non-probabilistic sampling for the convenience of the centers that were willing to participate. The teachers contributed by contributing their experience and reflecting the reality of the months of confinement. The participants had a time period of 45 days to answer the questions. In order to safeguard the anonymity of educational centers, students and teachers, the questionnaire was based on the guidelines of Organic Law 3/2018. Following this line, the questionnaire was built with the help of the Google Forms application that does not reveal the information of the participants. The implementation of a self-administrative methodology, such as the present one, has several disadvantages. However, we opted for this format that maintains anonymity.

3. Results

The sudden transformation of the educational system from face-to-face to virtual created numerous challenges for schools, students and teachers. Without prior notice and without a specific date for the end of the confinement, the face-to-face classes were interrupted, initially for a period of 15 days, although it ended up lasting until the end of the quarter. This event caused the acceleration of the digital transformation in which until then the educational centers were adapting at different speeds.

In order to better understand the results of the survey, the data is presented in two tables. The table 1 deals with the possibilities and limitations of the practical aspects.

Table 1

Practical possibilities and limitations of social media in education.

Issue	Percentage
Suitable material	53.2%
Attend virtual classes and hand in homework	76.4%
Lack of high speed internet	87.4%
Suitable devices	76.4%
Suitable site	53.8%

The suspension of face-to-face classes forced the search for other forms of training. In this regard, the majority of teachers, when answering the question “Sociodigital media were

your main tool to communicate with the center, the teachers, the students, the students' legal guardians, etc. and carry out your duties as a teacher during the pandemic" confirms that he used social media to continue teaching and communicating with the students, the educational center and the rest of the teaching staff. The tools used were social media from the center itself, public or in common use. The selection of the medium used does not show any connection with whether the educational center is private, public or concerted. In this sense, it is understood that the centers had the same possibilities.

The educational processes of the autonomies studied are located in face-to-face environments with certain notions, in some centers, digital. In this aspect, a distinction between private, public and concentrated centers is not perceived either. Each center presents its own speed in the digitization processes, prior to the pandemic. Therefore, the material used in the centers may have certain digital parts, but it is mostly suitable for face-to-face classes. Specifically, 52.9% of teachers affirm that the material used regularly in their classes is not suitable for virtual classes. In this regard, with the sudden interruption of educational processes and the full introduction into the digital environment, teachers faced the shortage of adequate teaching material, creating the need to quickly adapt the material used to the new demands. Despite the efforts of teachers, educational centers and public administrations, in many cases it was not possible to adapt the available material in the required time. To the question about whether the material provided was adequate for online teaching, 53.2% of the teachers were satisfied with the material provided to carry out their teaching work, while almost the other half (46.8%) were not. The times and limitations of many centers and social media made it difficult to share the material. In these cases, teachers had to adapt the material on their own and create material from scratch, excluding content and increasing working hours.

Likewise, the technological devices to continue with the training processes were not adequate in all cases. The sudden suspension of face-to-face education did not make it possible for educational centers and students to have the appropriate devices. In addition, the confinement situation affected sectors other than education, as a consequence many mothers and fathers were teleworking at home. Therefore, the devices were not always enough for all family members trying to best manage their resources. Answering the question "Did all your students have the appropriate devices to attend classes and tutorials during confinement and distance learning?" only 76.4% of the students had these. This means that 23.6% of the students did not have devices to access the material and join the virtual classes. Along the same lines, mass teleworking on an unprepared system caused more problems than organizing devices. Teleworking from different sectors loaded Internet lines, complicating the continuation of work with an adequate connection. In this regard, 87.4% of the students did not have high-speed Internet at home, making it difficult for them to connect in virtual classes and to hand in their homework. In addition, due to the sudden teleworking of various family members, not all students had an adequate study environment. 53.8% say they did, but the rest either did not have a friendly environment or the teachers were unaware of it.

However, despite the practical limitations, most of the students made an effort to attend class and hand in their homework, although in many cases with setbacks. Specifically, 76.4% of teachers say they are satisfied with the attendance of students in virtual classrooms and the delivery of homework.

Next, the table 2 is presented, which includes the possibilities and social and emotional limita-

tions of students and teachers due to the exclusive use of digital social media for communication. These aspects affect the emotional and social development of students.

Table 2

Social possibilities and limitations of social media in education.

Issue	Percentage
Tutor activities and tasks	58.1%
Increased stress	80.3%
Coordination between teachers	84.1%
Fluid communication between teachers	67.3%
Difficulty perceiving problems and emotions	68.6%
Decreased socialization	93.7%
Increase in working hours	98.1%
Decreased performance	80.3%
Commitment	56.4%

The period of confinement affected the social life and emotional state of students and teachers. Without prior notice, both had to isolate themselves in their homes and limit human contact, while they continued with the training processes in a new and unknown system. The lack of face-to-face contact and the constant stay at home increased isolation, making it difficult for the school to contribute to the emotional and social development of the students. During this temporary period, digital social media were the only means of contact and socialization, clearly showing the possibilities and social limitations of these tools as the only means of education.

In this aspect, the teachers were present and accompanied the students in the transition. During this process, the teachers assure that social media made it possible to maintain contact, reducing isolation, but the lack of attendance had negative effects on emotional and social development. The new demands and the need to help students to adapt to this new system increased the working hours of the teaching staff. In this line, in order to minimize social damage and events of social exclusion during virtual classes, teachers continued and, in many cases increased, group and individual tutorials. 58.1% of the teaching staff indicated that it was possible to continue with their tutoring tasks without much difficulty, but that they required more hours of attention. In order to compensate for the lack of attendance, 39.5% of teachers confess that they interacted more than five times, 15.3% five times, 10.2% four times, while 21.7% three times a week. In this aspect, social media made it possible to maintain contact with students, but its limitations increased the working hours of teachers without being able to match the results of social development with face-to-face classes. Specifically, 98.1% of teachers say they had to work more hours than before and increase contact with students.

In order to achieve good coordination, maintain a common line of teaching and deal with emotional and social aspects of students, teachers, and especially tutors, need suitable communication. In order to coordinate, the teachers used social media, since, like the students, they were teleworking. Specifically, 67.3% of the teachers were satisfied with the communication devices and ensure that they had fluid communication with the rest of the teachers. To respond to practical demands and social and emotional needs, teachers had to achieve greater coordination with their peers. Specifically, 84.1% of teachers confirm that it was possible to coordinate with

their peers through social media, although this increased working hours even more.

Despite the communication and coordination of the teaching staff and the possibilities offered by social media, virtual classes could not provide the social and emotional contributions that face-to-face classes offer. The students showed a certain commitment by attending class and handing in their homework. Specifically, 56.4% of the teaching staff are satisfied with the commitment shown by the students, especially taking into account that academic performance during confinement would not be taken into account to pass the course. However, the commitment shown by the students was not enough to maintain the desired academic level. 80.3% of the teaching staff observe a decrease in the academic performance of the students that can be perceived even at the beginning of the following academic year. In addition, 93.7% of the teachers affirm that they saw the participation of the students decrease and perceived greater difficulty in ensuring the social inclusion of all the students.

The lack of participation on the part of the students and the physical distance made it difficult for the teachers to prevent emotional discomfort and socialization problems. Specifically, 68.6% of teachers say they had difficulties perceiving tense situations and emotional problems in class.

These difficulties and limitations presented by the exclusive use of social media increased stress in both students and teachers. The hours of dedication to classes and the study of students and teachers increased. The adaptation and work with a new material, the communication difficulties due to the collapse of the lines and the lack of devices, the need for coordination, etc., were just a few of the aspects that increased the stress experienced. In addition, the confinement situation made it difficult for the students to relieve themselves, generating problems with sleep, concentration, eating, etc. Specifically, 80.3% of teachers claim to feel more stress than usual.

4. Conclusions

The educational centers provide students with practical knowledge and social and emotional skills that help them function in society. Based on this premise, the health emergency affected the teaching and socialization processes of students at all educational levels. Specifically, an educational crisis was generated that affected the academic and social development of the students. However, social media helped mitigate the impact by offering opportunities to maintain contact, albeit limited, between students and teachers.

In this sense, despite the difficulties, the situation generated by the confinement was an opportunity to identify the possibilities and limitations of social media in the teaching and socialization processes of compulsory secondary education students. Starting with the possibilities, these means present practical, emotional and social facilities. The main contribution was the possibility of establishing contact at a distance, which, although limited, was able to reduce the feeling of isolation and made it possible to continue the training of the students.

The students were able to maintain contact with their classmates and teachers by participating in video calls. In this way, the emotional impact could be reduced. In addition, the continuation of the classes made possible the minimum continuation of the teaching processes, which, although the students could not participate and acquire knowledge as in the face-to-face classes, did maintain a certain contact. Similarly, the ability of students with technology increased.

Regarding the limitations of social media as unique tools for student socialization and educa-

tion, many of these come from the tools themselves and others from preparing the environment for this change. In order to continue with the teaching processes, it is necessary to have a quality Internet connection, suitable devices and adequate material for distance learning. On many occasions it was not possible to provide adequate resources to continue with the teaching processes in this format, increasing inequalities between different centers, students and teachers.

The lack of a fast and quality Internet connection, of sufficient devices and of material adapted to the needs of a fully distance education are limitations presented by the selection of social media as the main educational tool. As a result, part of the students attended class with inadequate devices, a poor quality connection and inadequate material. This had a negative impact on the education and socialization processes, since practical difficulties limited access to video calls. In addition, these digital barriers increased inequality among students.

Added to the practical limitations are the emotional and social problems derived from distance education. The impact and reduction of the socialization of the students during the months of confinement was perceived by the teachers. On the one hand, most of the students decreased their intervention in the classroom. On the other hand, it was a challenge for the teachers to detect the difficulties and emotions of the students during this time, a fact that if it lasts for a long period of time, it can have negative consequences on the development of the students. In addition, the teachers perceived an increase in stress in both students and teachers. The demands of a fully virtual system without prior preparation, apart from increasing working hours, had important consequences on stress levels and the emotional state of students and teachers.

The result of this study concludes that the possibilities of social media made it possible to continue the processes of education and socialization of the students. Without the contribution of these tools it would be impossible to continue and the impact on students would be even greater. However, the education sector was not prepared for this radical change. During the period of confinement, teachers perceive a negative impact on both academic performance and the emotional state of the students. Without diminishing the value and contribution of social media and ICT during this time, it is concluded that these tools, educational centers, teachers and students are not prepared for full distance education. In addition, even if the devices and material were suitable, it would still be pending to satisfy the socialization needs of the students, since secondary school students need face-to-face contact with their classmates and teachers.

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