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Theoretical and applied study of the psychological and educational effects of lockdown in primary school students in Argentina

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ABSTRACT

Emotions are complex states, which have a fundamental role for children's mental health and learning. The proper self-regulation of emotions allows to tolerate frustrations, improves social skills and healthy bonds with peers and adults in the environment (Bisquerra, 2003, p. 12). The lack of regulation causes discomfort that leads to a decrease in academic performance (Graziano, Reavis, Keanes & Calkins, 2006) and particularly in reading comprehension, because this competence requires motivation and cognitive processes that will allow to process the linguistic code, interpret it and represent it symbolically (Alonso-Tapia, 2005, p. 64). In this work, we show the essential relationship between emotional regulation and reading comprehension in primary school students. After that, we study the effect of lockdown on these two processes. The aim is to have preliminary information about the challenges and effects of the current situation. To do this, a semi-structured survey has been conducted of parents and teachers in order to assess the psychological and educational effects of the current health situation. The results of 40 semi-structured telephone surveys are analyzed, 20 of parents of children with learning disorders and 20 of their classroom teachers in Traslasierra, Córdoba-Argentina. The results inform that the students and their parents have difficulties to regulate their emotions and this emotional struggle has a negative impact on comprehension of texts. The problems that previously presented in these two areas have increased due to the lack of adaptation of activities by teachers, the lack of knowledge of their parents to help them and the difficulty in accessing digital technologies. Both parents and teachers express that lockdown affects learning processes, although parents are also concerned about the effects on social life.

1. Introduction to emotional regulation and reading comprehension

Emotions are complex states that have a fundamental role for children's mental health and learning processes. To express emotions is to communicate to others what we are feeling at a certain moment, a task that is often not easy (Ramos, 2011, p. 15). A suitable way of expressing emotions is called self-regulation of emotions. This allows children to tolerate frustrations, improve social skills and healthy bonds with peers and adults in the environment (Bisquerra, 2003, p. 12).

In early childhood, emotional regulation starts out precarious and depends entirely on protective adults. Around the age of 8, cognitive development makes children achieve self-regulation in a more conscious way, although early experiences and the established attachment to parents will continue to be very important (Páez, Fernández, Campos, Zubieta and Casullo, 2006; Garnessfski, Rieffe, Jellesma, Terwogt & Kraaij, 2007).

Therefore, a good cognitive development will be key in the childhood. Campos (2010) expresses that emotional processes give rise to a good brain functioning and executive components, and they will be the ones who promote the ability to regulate, reason, memorize, make decisions in learning processes (Páez, Fernández, Campos, Zubieta and Casullo, 2006).

In this work, we show the relationship of these psychological processes with linguistic performance. According to the results obtained by Graziano, Reavis, Keanes & Calkins (2007) and Alonso-Tapia (2005, p. 64), the lack of regulation causes discomfort that leads to a decrease in academic performance and particularly in reading comprehension (Ceballos-Marón & Sevilla-Vallejo, 2020). This is because this competence requires motivation and cognitive processes that will allow the linguistic code to be processed, interpreted and represented symbolically. Then, we will see how the current situation of lockdown or quarantine and preventive and compulsory social isolation affect both the regulation of emotions and the reading comprehension specifically of primary

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school students with learning disorders.¹ We are concerned about the importance of dealing with emotions to help students to improve in human and academic terms. This is even more necessary to be considered when we work with students having learning disorders. The aim of this study is to know in which sense emotional regulation and reading comprehension are affected by lockdown. It is essential to have some guidelines to improve the psychological and educational care of students. A comparison will be made between the gaze of the teacher and the student's parents. This study is justified by the collaboration between teachers and families which has become especially important in the current situation. Both the former's work and the latter's accompaniment have been transformed into a situation of social isolation. The teachers are in charge of the academic training and students' human development. In the family case, parents play a fundamental role in children's life and development because they can further promote an integral children's growth not only in their affective development but also in their regulation of their emotions. Besides, they can accompany academic learning. Regarding to learning, children's case with difficulties in academic learning, it is of great importance that parents have confidence that they will be able to achieve it and improve themselves day by day (Ramos, 2011, p. 30).

This study will focus on the effects of the health crisis in Argentina, because we have access to students, parents and teachers there. This allows us to collect testimonies of emotional regulation and reading comprehension to offer results that allow interventions in the current situation. Likewise, a comparative study of the responses to telephone interviews given by parents and teachers will be offered to analyze the effects on emotions and students' reading comprehension. This will allow us to know to what extent parents and teachers are finding ways to collaborate to overcome this crisis.

2. The regulation of emotions and reading comprehension in primary school students in lockdown

Teachers and psychologists must realize the complex relations between emotional regulation and reading comprehension. The former affects wellbeing and learning processes. The latter is an essential skill for any subject and it is important beyond education. We will start showing the relation between the necessary processes to regulate emotions and the necessary processes to read. In the case of children, processes such as motivation, self-esteem, and emotional regulation depend largely on the bond and attachment to the primary figures (Páez, Fernández, Campos, Zubieta, and Casullo, 2006, p. 340). So, it must be taken into account that the current situation also has an impact on parents who are living, at this particular moment, an atypical situation that affects them emotionally, physically and financially. We consider that at this uncertain moment the consequences for students could be reflected especially in reading comprehension, because the tasks that involve it demand a great deal of concentration. Reading is a complex task that requires adequate emotional regulation in order to be carried out satisfactorily. First, reading involves active meaning-building processes such as interpreting, discriminating, classifying, examining, criticizing, contrasting, and constructing representations of the information received (Sevilla Vallejo, 2018, p. 5). Secondly, the following must be born within the mind: "Motivation and processes are the two pillars on which understanding is based"² (Alonso-Tapia, 2005, p. 2). Motivation will be given by the interests of the students (Sevilla Vallejo, 2017, p. 291). Reading can be a

source of discovery for them: "our cognitive and emotional engagement with fiction is to a high degree and emotional engagement with fiction is to a high degree dependent on surprise" (Nikolajeva, 2016, p. 36). According to Jesús Alonso Tapia, motivation depends on the beliefs that readers have not only regarding the objective that they should achieve but also regarding what understanding implies. The teaching community is aware of the necessity to promote active reading among students and for this, we must keep in mind that "we always read with a purpose" (Alonso-Tapia, 2005, p. 14). The student needs to regulate his or her own emotions to maintain reading motivation and to carry out the cognitive processes involved.

As Panadero and Alonso-Tapia (2014 p. 454) have pointed out, although this model incorporates emotion to a lesser extent than cognition, it represents the psychological elaboration process necessary to manage complex tasks, such as reading. Alonso-Tapia (2005) adapts the previous model to the linguistic levels of reading:

1. Identification of graphic patterns. Graphemes are discriminated and are associated with their respective phonemes to recognize the words. It depends on learning factors, such as the identification of distinctive features of the letters or the practice of identifying them; but it is also related to neurological aspects such as "the necessity for the inhibition of perceptual representation mechanism to be intact, if this inhibition does not occur, the images overlap" (p. 67).
2. Recognition of the lexicon. This factor is about the amount of vocabulary, the closeness or familiarity of that vocabulary and the semantic context in which it is used and the use of that context.
3. Construction and integration of the meaning of the sentences. The meaning is constructed in cycles that correspond to the phrases. In these, each representation is connected and integrated with the previous one, as well as with prior knowledge. It depends on the recognition of the syntactic structure of the phrase (subject, predicate and hierarchical relations).
4. Integration of the cycle. The ideas of each proposition or phrase must be integrated in a coherent way. This would form a last set of ideas that would synthesize all the others that are called macro-propositions. To achieve this integration, one must rely on thematic progression to establish an understandable relationship between ideas.
5. Construction of the global meaning of the text. Finally, the ideas contained in the text must be integrated and simplified. For this, some strategies can be followed:

Selection: Set aside the sentences that do not provide necessary information or are accessory.

Generalization: Substitute specific phrases for more general ones that include them.

Construction: Substitute one series of sentences for another, which does not appear in the text, but which synthesizes the content of the others.

This theory allows us to divide the problems in reading comprehension into the levels of construction of the text (recognition of signs and understanding of words, sentences, ideas and of the text as a set of ideas). Up to this moment, there are no scientific studies on the effects of lockdown on reading comprehension; however, we hypothesize that this situation increases previous difficulties at any of these levels. Although the concision of this study does not allow us to delve deeper, it is evident that emotional regulation and reading comprehension are two related and educationally relevant aspects that have been influenced by lockdown. Nevertheless, we would like to provide some preliminary information about how this situation provokes a particular sense of lack or emotional regulation and increases problems of reading comprehension in specific linguistic levels. As we mentioned before, in the case of Argentina, the national government decided to suddenly implement that each student receive at home the same activities that they would have in their classrooms. As a result, teachers have to accompany their students in a virtual way, without in many cases having previous experience in

¹ In a previous work, we studied the relation between emotional awareness and reading comprehension: El efecto del aislamiento social por el Covid-19 en la conciencia emocional y en la comprensión lectora. Estudio sobre la incidencia en alumnos con trastornos de aprendizaje y menor acceso a las nuevas tecnologías. *Revista Internacional de Educación para la Justicia Social*, 9(3), número extraordinario.

² All translations are the author's.

digital technologies and in didactic procedures to do so. Suddenly, our society experienced physical restrictions, which implied compulsory social isolation or lockdown in order to avoid massive contagions. Family routines underwent a profound change, among which is that children must take classes at home. Teachers send the activities to the families through different virtual means that have been stipulated by the school institutions and the different teachers. As psychiatrists and psychologists who attend to this crisis situation have pointed out, this alteration causes feelings of discomfort at the individual and social level, physical and emotional disorders such as anxiety, anguish, fear, OCD ... (Diario Página 12, 2020). Specifically, María de los Ángeles López Geist, psychoanalyst, expresses the following: "There are immeasurable loneliness of children and adolescents due to parents overburdened with work or lack thereof."³ It also states that children have a childish view of their parents, which means that they do not trust that their parents are capable of protecting them and this in turn causes suffering and aggressive reactions from children. It is necessary for parents to manage their emotions and accompany their children in this process in order to avoid negative emotions that affect their personal and school life.

3. The regulation of emotions and reading comprehension in primary school students with learning disorders in lockdown

Our own teaching and psychological experience tells us that the difficulties to acquire the reading comprehension with confidence and quickness are related to the difficulties presented in the regulation of emotional states, because these affect behavior, bonds and social skills and, especially, regulation of the cognitive processes necessary for reading. Now, we should ask ourselves what is happening at this special moment with those children who have some type of learning disorder and are at home receiving tasks from teachers. It is worth asking if they learn and they continue a similar process that they would have had at the school in normal circumstances. The International Classification of Diseases describes in its latest version, ICD 11, learning disorder as a significant and persistent disorder in academic skills that include reading, writing and arithmetic. The intellectual performance of the child with this disorder is under what is expected at their chronological level, causing deterioration at the academic level at the present time and possible professional difficulties in the future. This problem usually appears during the first school years and it is not due to intellectual, sensory or neurological causes. Ramos (2011) also adds that children with these difficulties have problems in expressing emotions, thoughts and behaviors, as well as in understanding society when the context is changing (p. 16).

It is relevant to mention that, in the case of Argentina, on April 1, the National Disability Agency authorized the relaxation of social isolation for boys and girls diagnosed with mental, cognitive and psychosocial disabilities, as well as those with autism. That resolution became void hours later and it is expected that the Ministry of Health and Cabinet will be able to take measures in this regard. On a national broadcast, on April 10, the president commented that this decree is being studied at this moment to achieve its possible implementation, since it will decrease the emotional consequences on the mental health of children (Diario Página 12, reprint April 12, 2020). This is an example of the significant importance of isolation for students with learning disabilities. Regarding the use of technologies, it can be specified that the national government of Argentina encourages all students to own computers and thus achieve inclusion in a more formal education system, ensuring that everyone achieves general knowledge about the use of computer tools to give a new way of thinking and reflecting. The economic differences that hinder access to new technologies are very important for educational training (Finquelinch, 2000) and are having a decisive influence on the current situation of social isolation. In the province of Córdoba, a platform was

³ "Hay soledades inconmensurables de niños y adolescentes por padres sobrecargados de trabajo o por falta del mismo".

announced for teachers to work with students at different levels. It aims to continue school activities from home through the website.⁴ This is updated weekly and has essential contents for students (Government of Córdoba, 2020). These tools are not only intended to establish the means for the interaction of teachers, students and their families, but also, they transform the identities of students and they also modify their access to texts because it is opened up the possibility of dialogical education:

This particular theory of dialogic education implies an ontological vertical dimension of growth in education from a monologic ontology at one extreme and towards a dialogic ontology at the other extreme. A monologic ontology assumes identities with locations and boundaries. A dialogic ontology, on the other hand, asserts that every apparent identity is in dialogue with every other apparent identity (Wegerif et al., 2017, p. 2).

The current situation presents an educational challenge, but also an opportunity for an approach in which the student investigates and builds knowledge. The digital technologies can allow dialogic learning to be implemented because the forms of interaction are expanded. In this way, it could be possible for students to regulate their own emotions and access to reading. However, we are going to study how the current situation can also hinder the proper use of technologies to achieve these objectives.

4. Results

This study consists of 40 interviews, 20 with parents with children with learning disorders and 20 with their classroom teachers. In addition, students have comorbid disorders: 7 of them also have ASD, 6 ADHD, 2 epilepsy, 2 behavioral disorders, 2 fragile X disorders, 1 language disorder and 1 childhood psychosis. The sample is form out of the patients attended in Traslasierra, Córdoba-Argentina. It is not expected that this sample represents the situation of Argentina because it would be necessary to have a bigger number of cases and to choose them from different areas. However, we consider that it is more relevant to have some preliminary results during the current crisis rather. This study could help to wider and more rigorous following studies. We will not either differentiate between these comorbid diagnoses. We simply point them out to indicate that these are students who require very careful educational and emotional attention. We developed a semi-structured survey with questions about the effects on emotional regulation and reading comprehension (appendix A). The survey is composed by 13 questions. Questions 1 to 3 ask about the general effect of lockdown and the support that students receive from the therapeutic team or special education teacher, the school and parents. Questions 4 and 5 are about the emotional effects of lockdown on students and their parents. It was decided because we wanted to know in depth the situation of families. We have the hypothesis that the lockdown is making more difficult the emotional regulation of those people who are living together. Primary students are influenced by the emotions of their parents. Questions 6 to 12 are related to the educational adaptation to current situation and the lockdown effects on reading comprehension. This section ranges from quite open questions to more precise questions to know parents and teachers' concerns of the general situation and the specific effect on linguistic competence. Finally, question 13 is open to other comments to receive other information that we could have missed in the previous questions. The objective is to compare the views from teachers and parents in order to propose ways to improve collaboration. We are going to analyze the results according these sections.

4.1. General effect of lockdown and students' support

The first question of the survey asked for the implications of lockdown. The two most frequent responses of parents are delayed learning

⁴ The domain is the following: <https://tuescuelaencasa.isep-cba.edu.ar/>.

(8 cases) and lack of social bonds (8 cases). In other words, these two problems have an equivalent incidence in the sample taken. To a lesser extent, parents transmit problems regarding routines (2 cases) and see an improvement in assignments performance in the situation (2 cases). In other words, the first ones find it difficult to manage study routines and understand the educational needs of their children. They express the lack of tools to help their children ("I don't understand how to help him"⁵) and also that they have needed a long period of adaptation until they could contribute to the education of their children ("only now [20 days have passed] I understand how to help them to download the content and to enjoy it"⁶). However, the second ones have children who find it difficult to adapt to the educational center, and therefore they see a benefit in studying at home. This is, for example, the case of students diagnosed with ASD, in which it is found difficulties in admission and permanence in the school. On the other hand, when teachers are asked the same question, they consider that the greatest problem is the delay in learning (13 cases) and, secondly, the social bond. In other words, parents are equally concerned with academics and social issues, while teachers give more importance to the former.

In relation to support from teachers, 17 consider that there is accompaniment, and 3 that there is not. On the other hand, 13 of the teachers consider that families are accompanying their children with their homework, 5 comment that only some families do it and 2 do not answer. This indicates that the majority of families perceive school accompaniment and the majority of teachers receive family accompaniment. This is striking in relation to what has been said about the comprehension problems and emotional difficulties mentioned above.

Regarding the knowledge that teachers have about their students, 12 answered that they do recognize all the students in the classroom, 7 answered that they know some of them and 1 answered that she does not know her students. Most of the teachers comment the following: "We only attended 2 weeks of classes and we have been in virtual classes for a month."⁷ The teachers who answer that they do know their students express that they were able to internalize the diagnoses of those who have a school integration process and the rest were unable to read the documentation. The teachers indicate the difficulty of the situation due to the short time they had to work with their students.

4.2. Effect on emotions

Regarding the question of how their children felt, after approximately 20 days of quarantine, from the total parents, 25% answered that their children are "exhausted", "frustrated" and "irritable"; another 25% "distressed" and with feelings of uncertainty, 15% "sad"; 20% "happy" and another 15% "calm" and "bored".⁸ In addition, parents who expressed that their children were frustrated or distressed commented that the children presented maladaptive behaviors: "he cries silently", "constantly asks if he and the whole family are going to die", others refuse all the proposals from therapists and teachers: "he doesn't want to do anything", "he is distressed, I don't know what to do"⁹. They also express that they experience other disorders related to emotions: sleep problems ("they fall asleep late", "they sleep until afternoon"), anxiety

⁵ "Yo no entiendo cómo ayudarlo".

⁶ "recién ahora [pasaron 20 días] me doy cuenta cómo bajar el contenido y lo disfrute".

⁷ "asistimos sólo 2 semanas de clases y llevamos un mes de clases virtuales".

⁸ 5 respondieron "agotado", "frustrado" e "irritable"; 4 "angustiado" y con sentimientos de incertidumbre, 3 de ellos "triste"; 4 tienen días en que se sienten bien y días mal; 4 "alegres" y 3 "tranquilos" y "aburridos".

⁹ "llora en silencio", "pregunta constantemente si él y toda la familia nos vamos a morir", otros se niegan a todas las propuestas de los terapeutas y escolares: "no quiere hacer nada", "se angustia, no sé qué hacer".

¹⁰ problemas de sueño ("se duermen tarde", "duermen hasta pasado el mediodía"), ansiedad ("se come las uñas") y trastorno de alimentación ("comen más cantidad", "saltean comidas").

("they bite their nails") and eating disorder ("they eat more quantity", "skip meals"¹⁰).

Regarding parents' emotions, 40% of parents answered that they feel sad and/or distressed, 30% they are frustrated, exhausted and feel collapsed, 15% feel good, 10% do not know what is emotionally happening to them and 5% felt bad but it is improving. Likewise, 65% of them answered that these emotions affect their children, 20% that it does not affect because "I try not to seem worried"¹¹ and 15% answered that they do not know. This is coherent with the negative emotions of the students which were discussed previously. Most of the parents have emotional regulation problems, since only 3 of them have managed them properly. These difficulties in regulating their emotions have a negative impact on their children. In turn, it coincides with what the teachers have stated: 70% express that they perceive the families stressed and/or exhausted, 5% scared, 5% want to leave, another 5% who are calm and 15% do not know how they feel. That is, negative emotions in parents predominate both according to parents themselves and according to the teachers.

4.3. Effect on educational processes and reading processes

Regarding the accomplishment of the tasks, the majority of parents (70%) express that their children find it difficult to have to carry them out at home with their help and only 20% consider that their children are able to solve them without difficulty. Avoidance behaviors can be observed: the majority answered that their children "are apathetic", "they get angry",¹² they avoid sitting down and doing their homework, they make excuses: "she opens the folder and gets sick because it is difficult. She wants to go to school."¹³ These answers don't coincide with the ones given by the teachers, who express to a greater extent that the students have adapted to the new modality partially (40%), completely (25%), while the rest do not know if they adapt (25%) and only 10% consider that the students have not adapted.

When asked if the children understand the task that their teachers send, 65% families answer no, 20% of them do understand it and 15% do it but with difficulty. Families who answer that their children do not understand the activities to be carried out ask the special education teacher to explain it to them and then transmit it to their children. The problem is that the teachers wrote on the blackboards in capital letters and the students worked on copying and, at the current situation, parents express that they do not have the necessary tools such as blackboards and do not know how to adapt the tasks or how to teach their children. On the contrary, many teachers send activities to a WhatsApp group without such adaptation. Most of the students are not used to practice dictation with their parents, so they express ideas such as "we don't have a blackboard at home", "they don't know how to read the letters".¹⁴ On the other hand, teachers consider that students do not read with enough attention the tasks that are sent to them.

We also asked parents about the actions they take when they don't understand the tasks. 50% answered that they consult with the special education teacher, 30% ask close relatives and neighbors, 15% search the internet and only 5% of them ask their questions to the classroom teacher. Therefore, parents ask more frequently to the special education teacher and it is striking that, they ask to lesser extent to classroom teachers.

From 100% of parents, 45% answered that children did not read at home before social isolation, 40% of them did read and 15% only on some occasions. During quarantine, this behavior has increased in 65% of cases and it hasn't changed in 35% of cases. Before quarantine, reading at home was not very frequent, since 45% cases is almost half of the sample; and,

¹¹ "trato que no me vea mal".

¹² "están sin ganas", "se enojan".

¹³ "abre la carpeta y se pone mal, porque le cuesta. Ella quiere ir a la escuela".

¹⁴ "no tenemos pizarrón en casa", "no sabe leer la letra".

based on the responses, reading behavior has improved quantitatively.

On 18 occasions, parents comment that their children have a hard time reading, on 1 occasion there are minor difficulties and on 1 occasion there are no problems at all. About the main difficulties that children have when they read, in 50% of the cases they answer in vocabulary and text comprehension, 30% in sentences, 15% in vocabulary and 5% in pronunciation. These roughly coincide with the results of the teacher interviews. On 14 occasions they indicate difficulty in understanding and 6 occasions in vocabulary. According to the families, half of the students have a general problem to read a text, which affects all levels of comprehension. Secondly, the highest incidence is at the syntactic level. According to the teachers, the main problem is also the understanding as a whole, but the second aspect is the lexicon. Most of the teachers value the reading comprehension of texts through auditory or audiovisual means: audio and video on WhatsApp (11) and telephone calls (1). There are some teachers that send images of texts (3), who consider that if the students have answered correctly there must have been reading comprehension. The rest don't have a method: 1 of them still does not know how to evaluate reading ability, and 4 did not answer the question.

When receiving the teachers' assignments, 8 families respond that their children accept it very well, 6 indicate that they get upset and 6 do not answer. It can be observed that, with high frequency, receiving daily activities provokes emotional conflict in students. Teachers not only face the challenge about not knowing their students well but also about having technological difficulties in communicating with them.

Regarding the ways used to send assignments by most teachers, 17 use WhatsApp, 3 virtual platforms, 2 mail and 1 uses both a platform and WhatsApp. On this matter, teachers are very often using technological means. Instead, it is more debatable whether the use is appropriate. Families comment that, at first, the teachers were "inflexible", they use WhatsApp broadcast lists. This way of communication did not allow teachers to answer questions. However, after that, teachers opened other spaces to interact. In other words, it was not possible to take advantage of the dialogical character defined by [Wegerif et al. \(2017\)](#) from the beginning of the isolation. Teachers use these means to send photos of their folders, word files and other activities in PDF. Parents were not very happy with these means at the beginning, although the situation has improved.

4.4. Other comments

Parents point out that it is difficult to interact with the teachers and they do not have the adequate means to follow the teachers' instructions. On the other hand, teachers also have difficulties in communicating with families through technological tools on a continuous basis because many parents cannot receive the homework files and this establishes a significant inequality in their students.

5. Conclusions

The results presented by the carried-out surveys lead us to conclude that both, teachers and families, are making an additional effort due to isolation. It can be seen that both are using digital technologies to overcome the current situation. However, the responses indicate that reading comprehension has worsened and that students and parents have more difficulty to regulate their emotions. It has been observed that, although the number of students who read at home has increased in isolation, the proportion continues being low. This is very relevant in order to solve this situation because reading is essential as a tool for acquiring academic knowledge and for self-knowledge ([Sevilla Vallejo, 2019](#), p. 243). In this work, the sample is made up of students with learning disorders, whose requirement to achieve significant learning demands adjustments to access the curriculum. These students had problems with reading comprehension before lockdown, due to the diagnosis presented. Likewise, in the psychological work carried out with them, it is observed that not only do they present these difficulties, but

they also lack their regulation on an emotional level. In addition, it is verified that the students show negative emotions when they receive their tasks. This may be caused by a lack of understanding of them.

The circumstances in which social isolation has occurred have caused teachers not to know the diagnosis of the students and have not had time to prepare for the adaptation of their subjects, because the measure was established just 2 weeks after classes began. Although teachers use digital technologies to communicate with students and their families, parents rarely ask them and some teachers have not decided with which methodology to work students' reading comprehension. Parents prefer to contact special education teachers or close family members and neighbors first, to help them to solve the activities. In other words, due to the answers given, part of the classroom teaching responsibility has been transferred to the special education teachers. Furthermore, it is observed that families are equally concerned about the effects of the situation on sociability and on students' training, while teachers are more concerned about the latter. It can be seen that teachers have more difficulties accompanying students in the aspects most related to emotions.

We can conclude that isolation is causing a negative emotional impact on students with learning disorders, since it is currently observed that feelings of exhaustion, frustration, irritability, sadness, anguish and uncertainty prevail. Likewise, emotional instability is observed, which also affects academic performance. The lack of regulation of children's emotions is proportionally linked to that of their parents', who have equivalent emotions and have a negative impact on their children. In relation to reading comprehension, it has been observed that a generalized worsening occurs. Although students have increased their reading at home quantitatively, the emotional difficulties and the change in the situation in which they receive their training have qualitatively worsened their reading comprehension, which has been impaired in many cases in all linguistic levels that comprise it. The problem of some students' access to digital technologies is also very relevant in order to face the current situation of social isolation.

This study shows the necessity to make some changes to reduce the effect of lockdown on emotional regulation and reading comprehension. It is necessary to build a real dialogical education based on a deeper knowledge of the digital technologies and the access to them. Students, parents and teachers are not using these tools as effective and they have difficulties to understand their own roles in the current situation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRedit authorship contribution statement

Santiago Sevilla Vallejo: Writing - original draft. **Natalia Andrea Ceballos Marón:** Writing - original draft.

Appendix A

Interview with families

- Name and surname:
- Child's name:
- Diagnosis of the child:
- Grade and school:
 - 1 Does your child have a therapeutic team to accompany him or her at this time?
 - 2 What are the educational consequences at the time of compulsory social isolation?
 - 3 Do you think that the teacher and the school are supporting them adequately in the current situation? In what way?

- 4 How does your child feel right now?
- 5 How do you feel emotionally right now? Do you think it affects your children?
- 6 How would you evaluate the accomplishment of the school tasks?
- 7 Do you understand the tasks to be carried out?
- 8 What do you do when you don't understand the activities? Do you read generic bibliography, ask the teacher, search the internet, etc.?
- 9 How often do your children read at home? Has this behavior changed?
- 10 What are the main difficulties that your child has when reading? With the lexicon, with the sentences, with the meaning of the text?
- 11 Is your child having a harder time understanding texts these days? In what sense?
- 12 How does your child reacts when receiving the teacher's activity?
- 13 Do you want to comment on any other data of interest?

Interview with teachers

- Name and surname:
- Age:
- School and grade:
 - 1 Do you know all of your students and if any have a school inclusion process? If positive, what is the child's diagnosis?
 - 2 What are the educational implications at this time of compulsory social isolation?
 - 3 Are families supporting students appropriately?
 - 4 How do you think your student with a process of school inclusion feels emotionally? And his or her family?
 - 5 How do you accompany them at this time?
 - 6 How would you evaluate your student accomplishment of the school tasks?
 - 7 What is your teaching work method like at the moment?
 - 8 Do you think your students are adapting well to the change to remote methodology?
 - 9 How do you value the reading comprehension of the students? Have you change the methodology in the current situation?
 - 10 What are the main difficulties that your students have when reading? With the lexicon, with the sentences, with the meaning of the text?
 - 11 These days, do you think students are having a harder time understanding texts? In what sense?
 - 12 How does your students reacts when receiving the teacher's activity?
 - 13 Do you want to comment on any other data of interest?

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