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Troubled schools in troubled times: How COVID-19 affects educational inequalities and what measures can be taken

Julia Frohn (iD)

Goethe-Universität Frankfurt, Humboldt-Universität zu Berlin, Germany

Abstract

When discussing possible consequences of the COVID-19 pandemic, it seems certain that the effects of the pandemic will most likely magnify existing educational disparities in Europe and around the world. However, so far, little is known about how the conditions and consequences of distance learning intensify existing dynamics of educational inequalities. This paper aims at answering the question of how educational disadvantages in socially deprived settings are exacerbated through the pandemic. On this basis, it reflects on potential educational practices that can help countering these dynamics. For this study, interviews with teachers in socio-economically disadvantaged ($n = 12$) and in privileged settings ($n = 4$) were conducted, transcribed and investigated through qualitative data analysis. The data were categorized with reference to Pierre Bourdieu's theory of capital to analyze and systematize the empirical results. Finally, a case study from the interview material offers options for action that can counteract a possible worsening of educational disadvantages and help (re-)think school and teaching based on the experiences gained during the lockdown.

Keywords

Educational inequality, COVID-19, distance learning, educational disparities, pandemic, Pierre Bourdieu, digital teaching and learning

Introduction

In March 2020, countries all over the world ordered schools to close in an attempt to mitigate the spread of COVID-19, leaving students, teachers and parents in a state of uncertainty. While efforts were made to immediately adapt to distance learning, a broad consensus soon suggested that most disadvantaged students were falling even further behind, magnifying existing educational disparities

Corresponding author:

Julia Frohn, Goethe-Universität Frankfurt, Humboldt-Universität zu Berlin, Unter den Linden 6, Berlin 10099, Germany.
Email: julia.frohn@hu-berlin.de

in Europe and around the world (e.g. Fokken, 2020; Stein, 2020; Sweeney, 2020). In addition, initial empiric results support this assumption, claiming that 'educationally disadvantaged students in the current situation [. . .] will probably be students from socio-economically (highly) disadvantaged backgrounds'[1] (Huber et al., 2020: 7).

However, the question of how exactly the pandemic exacerbates disparities remains unanswered, making it difficult to identify practices to successfully facilitate teaching and learning from a distance. Hence, this paper conducts a deeper analysis of possible factors magnifying or altering mechanisms of educational inequalities due to the COVID-19 pandemic. Building on this foundation, it seeks to develop professional practices for effective distance learning, focusing on student–teacher relationships as a means of supporting at-risk students in particular.

To summarize different conditions for disparities to exacerbate, the following extract from an interview with a teacher based in Berlin[2] at a so-called 'troubled school'[3] offers a first glimpse at possible risk factors in distance learning:

> I have a student who has had serious problems learning on her own these past several weeks [. . .]. She lives in a three-room apartment together with her parents and her five brothers [. . .]. She doesn't have her own room, a computer or a tablet at home. All the other places where she used to study – at school, at the library, in a girls' group – were closed so that she could only study at home. And she said: 'Listen, I WANT to study but I CANNOT. I don't have a quiet place [. . .], I can't concentrate, I can't print the stuff you're sending out, and working on my cell phone is inconvenient.' [. . .]
>
> And then she is trapped in this strange feeling that I recognize from when I'm upset. And she can't escape because she rather cocoons at home, since the efforts it requires to even START to study are so great that it's difficult for her. [. . .] And I'd say that this applies to about 25% of the students in my class. And that's the 25% who could not. . . did not learn much over these last few weeks. And these are not the people who are necessarily bad at school. It's the people who struggle with these conditions at home, which very much exacerbates inequality [. . .]. (T11, 121)

The excerpt suggests that the conditions and consequences of distance learning are most disadvantaging when cumulating. However, since there are still many unanswered questions concerning the (re-)production of educational inequality through the COVID-19-pandemic, this paper seeks to systematically analyze the different dynamics arising from teaching and learning from a distance. The text aims to address *how* the pandemic worsens educational inequality and what measures can be taken. Therefore, an explorative, qualitative approach was chosen to generate a deeper understanding of the mechanisms in teaching and learning deriving from the pandemic.

After presenting the current state of research, the text provides a short overview of Pierre Bourdieu's (1986) capital theory, which serves as a framework for systematizing the study's results. Subsequently, the research design, based on 16 expert interviews with teachers in socially deprived (*n*=12) and in privileged (*n*=4) settings, is introduced. The main body of the article then presents the study's results, using Bourdieu's forms of capital as a system for ordering the data. Following these categorizations, professional practices for effective homeschooling are presented. Assuming that at-risk students face similar educational barriers throughout Europe (Verhoeven, 2011), the data collected in Berlin serves as a paradigmatic example for sketching out broader strategies to prevent the gap of educational inequality from widening on an international scale.

Current state of research

Recent research on educational disparities (e.g. Caturianas et al., 2017; Organisation for Economic Co-operation and Development (OECD), 2018; Teese et al., 2007) and on schools in socially

deprived settings (Bremm et al., 2016; Drucks et al., 2019; Huber, 2017; Meyers and Darwin, 2018) present a 'sharp increase in economic inequality in recent years' (OECD, 2018: 22). The topic of educational inequality also plays a major role in the COVID-19 research: according to an 'international review of 100 studies in the German-speaking countries' (Huber and Helm, 2021), 20 of 102 studies focused on 'inequality effects due to school closure' (Huber and Helm 2021). While these as well as studies from non-German-speaking countries are 'confirming worries about the uneven toll of the pandemic on children and families' (Engzell et al., 2021: 1; see also Andrew et al., 2020; Bayrakdar and Guveli, 2020; Benzeval et al., 2020) and point to an increase in educational inequality and thus in the social selectivity of the education system (Steiner et al., 2020), these works mostly present their important findings without a theoretical framework, making it more difficult to categorize and generalize the results. Hence, this study seeks to offer a systematic approach in researching possible factors of exacerbating inequalities in order to counter these effects by implementing systematic counteractions.

Pierre Bourdieu's capital theory as explanatory approach for educational inequalities

Since it was first published in the 1960s, 'Bourdieu's work has developed a global influence, utility and continued importance to educational research' (Rawolle and Lingard, 2013: 119). However, Bourdieu's theories have been used for many different purposes: While serving as explanatory variables in quantitative studies such as the Programme for International Student Assessment (PISA) (see Baumert and Schümer, 2002), for instance, they also provide the framework for investigating a 'number of educational and sociological issues, particularly those that refer to social and cultural reproduction' (Vryonides, 2009: 12). Due to space limitations, the following explanations are to serve as an overview to describe the specific reading of Bourdieu for this study, summarizing approaches towards his work (for more information see Trevor Gale's and Bob Lingard's (2015) special issue of the *Cambridge Journal of Education*, on Bourdieu's impact on educational research).

Bourdieu's capital theory differentiates between three main forms of capital that define a person's socio-economic status: '*economic capital*, which is immediately and directly convertible into money [. . .], *cultural capital*, which is convertible, on certain conditions, into economic capital [. . .] and *social capital*, made up of social obligations ("connections")' (Bourdieu, 1986: 243, emphasis in original). Cultural capital is further divisible into three dimensions that reciprocally influence one another:

> Cultural capital can exist in three forms: in the *embodied* state, i.e., in the form of long-lasting dispositions of the mind and body; in the *objectified* state, in the form of cultural goods (pictures, books, dictionaries, instruments, machines, etc.), which are the trace or realization off theories or critiques of these theories, problematics etc.; and in the *institutionalized* state [. . .] of educational qualifications. (Bourdieu, 1986: 243, emphasis in original)

In this paper, *embodied cultural capital* is interpreted as 'knowledge, abilities and skills in terms of lasting dispositions, mostly internalized through familial and educational socialization' (Rudolph, 2019: 97). It represents the educational notion of 'competence', in a broad sense, exceeding the definition of mere cognitive disposition and including facets such as motivation and language. Here, *objectified cultural capital*, which Bourdieu exemplifies through musical instruments or books, is also applied to instruments of digital teaching and learning. In addition, the *institutional cultural capital*, which according to Bourdieu includes degrees and qualifications, also

describes a student's prospective certificate and therefore a student's affiliation with a certain institution. In this sense, a so-called 'failing school' or 'troubled school', as represented through the sample, already suggests a very low institutional capital. Finally, Bourdieu's idea of *social capital* refers to a person's social network and its potential (often symbolic) value. The study broadens this notion to include the student's social educational environment, as in their familial and pedagogical networks.

In conclusion, Bourdieu's capital theory allows illustrating and analyzing the complex situation arising from the pandemic-related school closings, especially when investigating socially deprived settings. It shifts the focus to the system rather than individual players, preventing deficit-orientated attribution, and instead facilitates an exploration of the dynamics and accumulations of social and educational inequalities.

Research design

Based on a review of the international discourse on educational disparities (e.g. Bremm et al., 2016; Caturianas et al., 2017; Drucks et al., 2019; Huber, 2017; Meyers and Darwin, 2018; OECD, 2018; Teese et al., 2007), a semi-structured interview guide was created to capture the situation during the worldwide school lockdowns. In total, 16 schoolteachers in Berlin were interviewed between 13 and 26 April 2020. Semi-structured interviews organize questions according to the respective discourse while leaving room for unstructured exploration (Bryman, 2015). In a situation as unpredictable as the COVID-19 pandemic, this method provides the necessary flexibility and openness to address the topic of educational inequality in an unprecedented setting.

The sample was selected based on the neighborhoods where the teachers work – 12 work in socially deprived settings, and 4 in privileged settings – and on their level of expertise. In contacting schools to compose the sample, extraordinary competencies in the field of teaching and learning were requested, for example, emphasized through special positions and tasks among the faculty. The common denominator of the teachers in socially deprived settings (henceforth T1–T12) is that their schools all take part in the Berlin-Bonus-Program (see Böse et al., 2017), a program that supports students from disadvantaged backgrounds. Each of the 12 teachers works at a school categorized as 'A', meaning more than 75% of the students rely on funding by the state of Berlin and face the greatest socio-economic hardship in Germany's capital. In addition, teachers in privileged settings (henceforth T13–T16) who work at exceptionally successful secondary schools (*Gymnasium*; criterion: graduation average higher than 2.0 in the German grading system) were interviewed. These – significantly fewer interviews compared to the interviews in socially deprived settings – are not to contrast the findings from the first group, but to contextualize their statements. The overall group of teachers was composed of 9 women and 7 men who have taught for an average of 12.5 years, the majority of whom teach grades 7 to 10.

Carried out via video call, the interviews addressed questions of school organization, digital didactics and educational inequalities. On average, the interviews lasted 47 minutes. In Germany, social background is more intricately linked to successful learning than it is in many other countries (Schleicher, 2019), which is why the Berlin experiences and data are of broader concern when discussing the lack of social mobility on an international scale. The data were transcribed following the guidelines by Dresing et al. (2015), aiming at literal yet legible transcripts. Subsequently, they were categorized through qualitative data analysis (Strauss, 1987) using the software MAXQDA (Kuckartz, 2018). After inductively encoding and identifying the significant similarities to and overlaps with the theoretical framework by Bourdieu, categories were formulated following Bourdieu's theory of different forms of capitals. Coding was carried out at two different points in time (t1/t2) with eight weeks between the iterations. The comparison of the categories

from four exemplary interviews resulted in an intracoder-consistency of 0.93 (k). The individual coding steps and the resulting categories were further validated through expert discussions with four colleagues who work in educational research. In addition, the categories were discussed with two teachers interviewed (T1 and T13). The teachers found their experiences mirrored through the categories and emphasized the necessity not only to focus on the individual forms of capital according to Bourdieu, but to relate them to one another.

In the following analysis, the focus will first be on T1–T12 (socially deprived settings), then on T13–T16 (privileged settings).

Analysis

Economic capital

According to the teachers interviewed for this study, the pandemic-related concerns about the family's financial situations had a negative impact on students' learning behavior: 'There are not many families with a financial buffer, there are many worries. And those worries don't make studying easier' (T7, 85).

Space. This category is often mentioned and therefore strongly represented in the overall picture. It refers to possible disruptions ('Do I have a quiet place living with my family at home?', T6, 67), psychosocial challenges ('In a confined space with about six to ten people in two-room apartments; there are completely different challenges from our everyday life', T12, 16) and medical worries ('There are families who haven't been out in weeks, because they are afraid, [. . .] leaving no room for studying', T7, 104). In addition, reliable alternatives to the students' homes, such as libraries or school facilities, were closed during this period as well, making this matter even more dire.

Cultural capital

Institutionalized cultural capital. The 12 teachers from schools in socially deprived settings showed a high sensitivity for their special working environment (so called 'failing schools' or 'troubled schools'). Phrases like 'especially OUR kids' or 'our clientele in particular' were found throughout all interviews T1–T12. Teachers working at schools in socially deprived settings have been found to be prone to develop a deficit-orientated approach towards their students, fostering mechanisms of reproducing social inequality (Bremm, 2020). This deficit-orientation was also found among the interviewees, partially leading to resignation and therefore adding to the already disadvantageous circumstances: 'And then I actually stopped my efforts. [. . .] What makes it difficult is our clientele and their background. That is what makes it difficult' (T5, 13, 114). However, in accordance with recent findings (Drucks et al., 2019), most interviewees expressed appreciation for their students in their working conditions, opposing the notion of deficit-orientation: 'Another colleague said "They don't work anyway". Do you know how often I have heard this "they don't work anyway" in recent weeks, including our school principal? And that is just not true' (T9, 133). Therefore, low institutionalized cultural capital can add to inequality being exacerbated in distance learning, but the data also suggest that teachers reflect upon possible attitudes arising from institutional belonging, supporting students despite – or because of – being associated with the terms 'failing' or 'troubled'.

Objectified cultural capital

Technical equipment. Every interview partner addressed the question of the students' technical equipment, which made it the most frequently used category. Different devices were mentioned,

such as laptops, desktop computers, tablets, printers, scanners or cameras. However, a distinction was made concerning the different functions of the devices: from a basic contact medium ('They need devices so that I can stay in touch with them', T12, 196) to ways and forms of processing tasks ('I have only one student who types her answers on the computer. All the others do not have this medium. [. . .] There it's mostly done through a photo', T7, 12) to didactic questions ('You can't highlight anything on a cell phone', T2, 61; 'It's impossible to read an e-book on a cell phone', T7, 148). The teachers agreed on the comprehensive use of smartphones ('Everyone has a mobile phone', T11, 123), while also addressing the necessity of an Internet connection.

Non-technical equipment. Aside from technical equipment, classic learning media continue to play a major role, the lack of which appears problematic when teaching from a distance. Here, teachers mention the interaction between non-digital and digital media. In referring to an app that promotes reading skills, a teacher exemplifies the fundamental difficulty of such programs with regard to missing (educational) goods:

> There is a reading project showing how much these apps are [. . .] tailored to the educated middle class [. . .]. It is based on the assumption that the children have access to the books, or that [. . .] a teacher collects the books and has the children then choose. However, from a distance, when there is no literature available, you can't just hand it to them, that's difficult again. (T3, 51)

In addition, the lack of adequate workplaces is problematized ('Some of them have no tables, some have no bookshelves and so on', T4, 133), although these are not seen as absolutely essential for the working progress ('I know that you sit around the kitchen table and work, or sit on the sofa. [. . .] I like to do that, too', T7, 110).

Embodied cultural capital

Attitudes towards school. For many teachers surveyed, the families' relationships towards educational institutions – especially the parents' attitudes – played a crucial role in the potential success of learning during the lockdown. This affects both the level of communication ('The parents directly passed the phone along, "Do you want to speak to the child?" ', T1, 91) as well as the partial lack of motivation by the parents ('Sometimes there is no pressure at all, as in "At this and that time you will sit down and study" ', T8, 116). The separation of the organizational space school, on the one hand, and the (personal) responsibility of teaching and learning, as it arose from the temporary school closure, on the other hand, appears particularly challenging, as exemplified by one parent's comment: 'school is school at school' (T3, 80). Teachers also find it difficult to interpret reasons for students not to engage, not knowing whether their attitudes arise from problems at home, from a lack of motivation or from sheer irritation due to the institutional change.

Skills and competencies. According to the teachers, the existing skills and knowledge of both students and parents had a decisive effect on learning success or failure during the lockdown. In summary, the teachers in socially deprived situations give the impression of relatively poorly developed skills. However, there were numerous examples countering these results with positive impressions ('I am totally impressed with my class', T6, 9; 'Among the students, as I said, there were surprises, positive ones', T9, 179).

Subject-specific skills. The situation arising from the pandemic, as teachers pointed out, makes it even more difficult to promote subject-specific skills, especially when students lack foundations upon which they can build. Actual distance plays a central role here, since the teachers agree on the

importance of direct interaction in order to support subject-specific learning. The younger and less experienced the students, the more difficult the learning process proved. However, when discussing skills in a broader sense, they cannot be analyzed individually, since different dimensions of knowledge and skills often correlate with one another ('What good is it, if there's just no motivation amongst the students? Willingness and competence because that is mutually dependent', T2, 106).

Motivation. The teachers' impressions point to the idea that intrinsic and extrinsic motivation (see Ryan and Deci, 2000) are more difficult to obtain through distance learning compared to studying together in class ('Homeschooling doesn't have the compulsive character that school necessarily has. [. . .] In which you at least have to write your name on a paper or read something out loud or so. Just because you're sitting there', T4, 9). Still, the degrees of intrinsic motivation seem to differ from 'All in all there is very little motivation, very little commitment' (T2, 10) to '18 out of 23 students are working hard – and in terms of quality, the results are really good, too' (T9, 5).

Self-sufficiency. With numerous coded segments in all 12 documents T1–T12, the category of self-sufficiency stands out in the evaluation. First, because independent learning requires new approaches to teaching and learning; and second, because self-sufficiency seems to play a key role in questions of educational inequality ('The children finally HAVE to work independently and some of them actually do it – not all of them, others are left behind', T10, 7–8). Teachers face new didactic challenges in this area, from structuring learning processes to developing tasks that work from a distance:

> It really surprised me – negatively – how difficult it is for many students when I give them a task. Often they really don't understand what is in there or are not used to cracking it on their own. It's all written in the task, really. I actually put a lot of thought into what I'm writing there. (T11, 22)

Again, teachers mention the importance of direct contact between students and teachers for promoting self-sufficiency ('This is basically a self-organization competence or a methodical competence which could be taught in direct interaction', T1, 144). Some teachers are hopeful that this can also be done digitally ('I think we can take them towards independence and cooperation with one another at the moment. They can learn something there if we can keep in touch', T7, 127). In addition, many teachers mention how the situation increases different types of independent learning; for example, in organizing forms of communication ('We had the students organize their Whatsapp group', T6, 56), dealing with different formats of checking results ('So that you don't check it all yourself but rather learn to delegate it to the students', T10, 49) or structuring one's daily routines ('I have a student who really surprised me. He sets an alarm and gets up every morning at eight o'clock, waiting for me to send him his tasks', T9, 91).

Digital and media skills. As shown above, teachers report that the availability of technical and digital devices is essential for participating in distance learning. However, the extent of the problem can only be shown in connection with the skills necessary for handling the devices ('It's not always just the technical side. That's important, too, but you also have to ask how they deal with the devices', T10, 99). The 2013 and 2018 International Computer and Information Literacy Study (ICILS) studies show that students in Germany have very little computer and information-related skills and that the potential for individual support through digital media is not fully used (Eickelmann et al., 2019). In addition, 'the proportion of students from socially disadvantaged families [. . .] was particularly high' (Van Ackeren et al., 2020: 247) – a finding that the interviews con-

firm. It seems problematic that 'despite every student owning a smartphone, they don't know how to google terms and definitions' (T8, 39). Teachers mention the diverse levels of their students' skills, referring to communication ('It was quite a learning process for them to know their email address, then to check their accounts. But to send out e-mails on their own cannot be expected in seventh grade', T3, 14), to basic knowledge of digital processes ('Some fail at clicking on a link or entering a password correctly', T12, 31), to aspects of security or to adding attachments to messages. It seems striking that the data suggests digital learning should have been introduced through analogue means ('And even if we [. . .] had conjured up laptops for everyone over the weekend, we wouldn't have been able to instruct them at all', T7, 60), raising the question of how best to improve digital skills without classroom instruction. The teachers also point out their own lack of digital skills, making the process of teaching and learning even more complicated.

Language skills. The teachers name several areas that possibly lead to disadvantages. They also note that language barriers always play a crucial role in school processes, and are harder to compensate for from a distance. In terms of the parents, problems arose in organizational questions as well as questions of support ('If the parents can't speak much German, they might not have been able to help since elementary school', T4, 135). Interviewees mostly addressed students' difficulties in understanding learning videos or tasks, which have become important in distance learning – 'I can stop a film in class and explain, for example, "three-field systems are this and that". I can't do that through an explanatory note' (T2, 88); this field requires particular attention when trying to further enable distance education.

Emotional-social skills. Teachers fear that distance will reinforce possible instabilities, especially with particularly at-risk students. When school – normally – serves as an outlet for emotional difficulties, the lockdown can lead to unforeseen challenges ('Being locked up at home, they are now at the mercy of their emotions, not being able to get rid of possible tensions', T4, 113). Due to the distance, teachers and peers can no longer offer a balancing function, leaving social-emotional needs in everyday life inevitably unfulfilled.

In summary, the difficulty to encourage students and foster their skills from afar may lead to a negative spiral gaining momentum through the pandemic: 'And I think [. . .] they are being pushed to their limits [. . .] by being given a very, very strong presentation of what they CAN'T do [. . .]. In that sense, it's a permanent punishment that's happening at the moment' (T3, 121).

Social capital

Two major groups of social interactions need to be considered when analyzing educational inequalities through at-risk students' social capital: the students' families and educators.

Family as social capital. As the first and most influential social variable, families represent the social environment for schoolchildren. Hence, a category most prominently used by the interviewees aims at the question of parental commitment and support during school closings ('Some have help at home, others don't', T10, 98). While some teachers address various forms of support ('Parents who say: How can I be of help? What can I do?', T12, 133), the majority concludes that most of their students' parents cannot support them at home, whether it be from work-related constraints or a lack of willingness to support the students. Here, teachers' observations range from difficulties in contacting the families to severe neglect.

Furthermore, the lockdown leads to new challenges for families by placing additional demands on the students' capacities. Household chores, including looking after siblings ('At my Zoom

conference earlier, my student's little brother was sitting next to her the whole time because she just had to take care of him', T10, 100), mostly disadvantage the girls ('The girls have to help a lot at home', T6, 110). In addition to the pure 'caregiving' work that is more frequently transferred to girls and women (Coffey et al., 2020), additional disadvantageous factors for girls were observed:

> There are some who haven't left the house for weeks. While the boys are allowed to go shopping or to go out to the sports field at some point, the girls [. . .] can't get out. So, this is actually a HUGE inequality. (T4, 11)

Further fields of conflict include cases of mental illnesses in the family, physical conflicts or even domestic violence. In this category, school appears as a compensatory space where students can leave their social environment behind and create space for their own needs: 'I think for many students, time spent in school is a kind of relaxation. Because [. . .] they don't have to worry about siblings or deal with the problems of their parents' (T12, 238).

Relationships between students and teachers as social capital. The relationships between teachers and learners can represent a kind of social capital from which disadvantaged students can benefit: 'Students basically find semi-familiar relationships with us. You can compare it to a kind of surrogate family. [. . .] And I think they miss that now', T5, 72). The lockdown challenges these relationships as well as some students' learning strategies. Since many teachers say their students' learning is often based on the commitment they show ('If anything, they ONLY study for the teacher, they don't study for themselves to educate themselves', T8, 126), the distance also leads to a decline in learning when daily contact is not guaranteed. For many of the teachers interviewed for this study, social interaction is a central condition for learning success, so that the distance creates additional challenges in already problematic frameworks:

> Doing this kind of relationship-work in times of Corona is much, much more difficult, and this is actually the quintessence of the whole thing. Relationships are the basis for our work, and if we don't have them, we can forget it all. (T11, 150)

Contextualization: learning in socially deprived versus privileged settings

These impulses suggest that many of the conditions described above mostly occur in socially deprived settings and that distance learning intensifies them. To contextualize the statements above and to provide a frame of reference, four teachers at outstanding Berlin secondary schools were interviewed as well. Without meeting the methodological prerequisites for a comprehensive contrast (12 vs 4 interviews per group), the following impulses provide insight into possible contrasting approaches in order to discuss the transferability of the analysis.

Major differences exist in terms of *economic capital* ('As far as the financial side is concerned, we don't have any problems, only very, very few. Our students lead a very sheltered life', T16, 18).

However, a more complex picture arises when analyzing the statements for *cultural capital*: On the one hand, the secondary school teachers cite a high volume of cultural capital ('We have a luxury clientele, we have the top two percent children at our school [. . .] who get along very well on their own', T16, 17). According to the teachers, both parents and students view school education as essential, which is illustrated by frequent interactions, for example ('E-mailing is working very well for us [. . .]. And the tasks have actually reached everyone', T14, 50). Yet they face different, milieu-specific problems: teachers report being subjected to stress from parents ('There are a few

overzealous parents who constantly demand video conferences with 30 students', T13, 25) or having difficulty contacting students due to increased control mechanisms ('There is one student whose address I don't have, only her mother's, and she is a total control freak and somehow rules over the child. I can't really get close to the student', T13, 95).

In terms of objectified cultural capital, the assumption is that only a few households are insufficiently equipped ('Our experience is that most students have the opportunity to work with a computer', T13, 27). However, sporadic contrary statements show that this does not apply to all students, highlighting different practices in the homogeneous environment of Berlin secondary schools.

When speaking about skills, the teachers interviewed for this study presume their students to be adept ('As far as the cognitive and academic development goes, I don't see many problems', T15, 140). Both students and parents are described as motivated ('Some kids kept requesting more tasks', T15, 19; 'Most parents make sure that their kids study. I'm not worried about that', T13, 92). Here, the students' self-sufficiency seems to play as important a role as parental support ('It works better than expected, which is probably due to our extremely capable clientele. [. . .] I also suspect that it's because of parents in the background who can support the whole thing', T16, 63).

Nevertheless, there are also students who are 'already in a difficult position in terms of performance' (T13, 9) and parents who lack skills; for example, with regard to communication, making distance learning more difficult ('The next step would be to call, but then her mother might answer the phone and she doesn't understand me. And then misunderstandings arise', T13, 36). Therefore, school as a social space, defined by cooperative learning and shared experiences, was also identified as an essential missing component in the high-performance environment of outstanding institutions in Berlin:

> I believe, what makes it difficult for them and what the students miss most is the social aspect. There is no teacher up front who guides them, who is funny at times and who is always open for questions. No room for contextualizing things, for briefly explaining something. No space enriched by other students. They totally miss that. (T14, 147–149)

Yet distance learning is ascribed more potential for a well-performing school as compared to a school in socially deprived settings:

> I think, you can use it [video-communication] for pretty normal teaching, once it's up and running. [. . .] Whether it really works with thirty people in a class, is a different question, but I can imagine that it can work pretty well, once everyone has gotten used to it. (T14, 224)

The quotes from these more privileged settings contextualize the previous findings in the sense that the obstacles presented above are not considered as significant. However, they also show that certain problems affect students in all socio-economic and school settings; universal and context-specific barriers exacerbate difficulties in teaching and learning. Despite the parallels described above, it is still clear from the schoolteachers' impulses that there are major differences regarding the *social capital*: '[Our students' parents] usually have time and money for their children, that is noticeable. [. . .] Therefore it might not matter how you teach them, because they compensate for it at home anyway' (T16, 124).

Overall, the teacher's role is described as less impactful, which is consistent with Kramer and Helper's (2010) thesis on cultural fit and educational inequality, according to which children from the (academic) upper class can convert their milieu-specific skills and background knowledge into educational success. The authors argue that there is an extremely successful and almost informal

linking of familial and educational strategies (107). The exploratory and limited confirmation of this thesis leads to the question of how teachers in disadvantaged settings can prevent these educational inequalities from reproducing. In order to offer potential courses of actions for teachers, the following case study is a 'best practice example'.

Options for action – a best practice example

Among the interviewed teachers, who mostly present themselves as reflective and supportive, one teacher stood out as exemplary in dealing with the crisis. This section summarizes the practices of T12 to present perspectives for teaching and learning in socially deprived settings under exceptional circumstances.

This teacher began to reflect on different living conditions in order to map out possible strategies ('[T]he conditions under which they are living and learning at the moment are so catastrophic for most of them that I know that there is not so much that can be done', 15). These reflections resulted in an impulse to act:

> For me personally, I knew it wasn't going to work, I had to find something for my class. And then I started communicating with the private sector [. . .] and was invited to a call: 'What do you really need now?'. To cut a long story short, I managed to get a tablet for every single student of my class. (18–19)

In addition, this teacher overcame the economic hurdle through personal commitment and reliability ('We rode our bikes through Berlin for seven hours and delivered the devices', 24). A tablet of one's own literally created room for teaching and learning under critical circumstances: 'Especially the most deprived candidates [. . .] benefit SO much. Sometimes, they go to the balcony or into the bathroom to have a quiet place for a moment, because they want to be part of the class' (92–93).

In summary, T12 describes video calls as the most decisive in developing skills and supporting the students' learning processes. Here, reflecting on the possibilities laid the foundation for feasible didactic approaches during the lockdown ('A classic lesson-plan in terms of initiation, interaction [laughs], transfer and so on – no, of course that does not work', 88). Hence, everyday classroom management was adjusted to work through digital means. In addition, this teacher created content dealing with the pandemic, so that the students were cognitively activated in response to the situation:

> We normally start every school day with a so-called beginning hour [. . .] of forty minutes that is mostly about relationships and organization. It's always done by the class teachers – for example, I meditate with them first thing in the morning, then we do the mood barometers and then all the organizational stuff for the day. And now we are doing the same thing via Zoom. [. . .] And then: 'What's going on at home and what about the Corona crisis, what is new?' And [. . .] I sat down in front of them with my mask on and asked: 'Why am I wearing this?'. Just playful interaction, and it goes well. And after that we always do regular lessons. (76–84)

In order to overcome motivational hurdles, the teacher placed focus on transparency ('As always [. . .], it is important to make transparent what you expect [. . .] and what consequences might arise', 113). Furthermore, T12 gave participatory tasks linked to the students' everyday life and experiences, such as creating an instructional cooking video on the class YouTube channel or writing a letter to your future self: 'How was I doing during the Corona period?' (122). Having students participate in both content-related and methodological decisions was described as fundamental for

distance learning, strengthening the relationship between teachers and students and laying the foundation for subject-related learning. Online diagnostic tests helped students to reflect on their own capacities and individual learning strategies.

By cooperatively exploring new technological possibilities, both the teacher and the students developed digital skills, self-sufficiency and curiosity. Direct feedback and individual opportunities for exchange helped to develop emotional and social competence, while also creating commitment and support ('I kept saying [. . .] everyone is different, and everyone needs more or less time. And I think that's very important: For them to understand that they are not the nation's biggest losers – because that normally inevitably happens, right?'). This relational approach also helped to deliver 'the importance of education' (212).

However, T12 was only able to achieve this positive and constructive support to compensate for a lack of economic, cultural and social capital through increased commitment and intensified relationship work:

> You have to be super flexible and react individually and somehow get creative and see how you can motivate them and keep them going. Again: relationship, relationship, relationship. It really is THE key to everything, no matter what you want to do and try out. And for me that also includes giving them the necessary and framework [. . .] so that they somehow have a kind of normality. [. . .] You really need above-average commitment [. . .], and of course it is not enough just to put tablets or laptops in front of them. (181–186)

Of course, this outstanding commitment can and should neither be expected of teachers nor sustained over a long period of time:

> At the moment, I'm exhausted from never being allowed to stop working. Or rather not allowing myself to stop working. When talking to colleagues whom I consider competent and cool, we ask ourselves: What CAN be expected from us in the long run? (194)

Creating long-term solutions is the central question in terms of structures and frameworks for teaching and learning in extraordinary circumstances – especially when financial and personnel resources are lacking. Since current organizational and political conditions can neither promote such committed teaching activities nor establish them in the long term, educators need strategies to implement at least some aspects of these practices. In the case study, the skill to reflect on the different living and learning conditions – between the teacher and the class, but also for the individual students – seems to be one of the key factors to successful distance learning. By continually diagnosing the general conditions and acting accordingly, teachers can overcome hurdles and create individual learning opportunities. Furthermore, additional inclusion-oriented process features, such as participation and communication (Frohn et al., 2019), can help to create a learning environment fit for at-risk students. The data also suggests that generic dimensions of teaching quality – classroom management, student support and cognitive activation (Praetorius et al., 2018) – can also be implemented in distance learning through adequate and innovative didactic approaches. Above all, student support in the form of constructive feedback and appreciative interaction appears to be decisive for successful teaching and learning through digital means. In conclusion, the case study shows that providing technical equipment is no panacea, but that being technically equipped and skilled are basic requirements for didactically versed lessons in distance learning. It shows how urgently socially disadvantaged students need to be equipped so that teachers can mobilize resources for high-quality distance education in an already very

demanding situation – without having to worry about the students' access to the necessary technology.

Conclusion

The interview material supports the hypothesis claiming that the pandemic exacerbates educational disparities. According to the teachers in socially deprived settings, their students lack resources in all three forms of Bourdieu's capital. While these shortcomings are already problematic in regular times, they obstruct learning in times of distance teaching even more, worsening learning conditions and thereby adding to already existing disadvantages.

Firstly, financial resources and the living situations in terms of space and tranquility were addressed as economic capital obstacles to successful learning for at-risk students. Secondly, the (lack of) cultural capital, which accounted for most categories from the data, becomes apparent on the institutionalized, the objectified and the embodied dimension of cultural capital. While technical and non-technical equipment stood out as factors exacerbating inequalities in objectified cultural capital, there were numerous categories attributed to embodied cultural capital, such as subject-specific skills, motivation, self-sufficiency, digital and media competence, language skills and emotional-social skills, that affect students and their parents in socially deprived settings. Thirdly, the students' social capital has an impact on learning: while family as social capital often seems to lead to disadvantaging conditions, relationships between students and teachers as social capital are thought to be one of the most important variables in students' learning. Based on the material presented, it can be assumed that social networks and dynamics at school as a social space can have a significant (positive) influence on reducing social inequalities in education and thus require attention when designing options for action in crises.

Of course, this is a limited sample and is therefore only explorative – especially when trying to transfer the findings beyond Berlin and outlining options for distance learning in other European cities and countries. In addition, different countries are faced with different challenges like different degrees of broadband penetration (see OECD, 2021), different intervals in school closings and school openings or different accesses to home learning devices (the latter being one of the main premises for successful distance learning). However, the results promise to be transferrable in the sense that the teachers describing their actions as effective have abstract features in common that are not primarily linked to questions of a country's information and communications technology (ICT) standards: all in all, the majority of the teachers who participated in the survey share a high level of commitment. Their attentiveness and above-average reflective ability as well as their positive attitude towards the students lead to the assumption that relational dynamics between students and teachers play a major role in compensating educational inequalities. However, this commitment takes its toll from dedicated teachers and therefore needs to be promoted by structural changes in resources, strategies and teacher education.

The crisis, which, according to this analysis, certainly exacerbates educational disadvantages, may also initiate new impulses for balancing inequalities. For example, students have shown they can develop new forms of independence and teachers have found creative ways to enable distance learning despite the obvious obstacles. New thinking patterns emerged in terms of digital teaching and learning ('I have the feeling that one should actually always give the lessons a digital BASIS, so to speak, so that in the case of illness or pandemic there's always something to fall back on', T4, 19), which appear essential for future educational developments.

This is all the more necessary as the interview data show that the current situation must be understood less as an aggravating exception and more as a general rule: 'It sounds like:

Educational opportunities are being exacerbated at the moment. To me, it rather seems that now it becomes even more glaring where the problems are, where the sticking points are' (T2, 107). Regardless of the crisis, actions need to address 'the inequalities that are finally being seen' (T7, 165). Hence, to come back to Bourdieu's influential theses, the pandemic confirms rather than alters the role of schools as 'educational institutions, whose essential function always leads them to self-reproduce as unchanged as possible' (Bourdieu and Passeron, 1990: 32). If school's 'sole function of reproducing the lifestyle of a dominant class' (29) – that is, the population with most economic, cultural and social capital – situations of crisis, such as the pandemic, should help focusing the core problems concerning inequalities in educational systems.

The fact that providing technical equipment can have an important impact on these inequalities, as shown in the case study, can be seen as a starting point from which both teachers' and students' roles were to be re-thought and skills, such as technical skills, were to be developed. At the same time, as the material suggests, a detailed reflection on the student's living and learning conditions can help to diagnose and compensate for capital deficits; for example, through constructive support, regular feedback and appreciative communication, thwarting cycles of reproducing education inequalities.

In conclusion, the emphasis on school as a social space appears crucial for individual and cooperative learning and, therefore, fundamental for developing strategies for future crises: 'You can see how important school as an institution is right now – not just on the educational level, but especially on the social level' (T13, 124). Hence, researchers need to analyze the different functions of school to determine which settings can fulfill what functions: for example, while subject-related learning seems to be possible at a distance through digital means combined with differentiated instructions, direct and continuous interactions more likely promote cooperative forms of learning and stable peer relationships. Further discussions should focus on how we can (re-)think school and teaching based on the experiences gained during the lockdown, so that different approaches and practices can help meet the various goals of school education.

Declaration of conflicting interests

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ORCID iD

Julia Frohn 🆔 https://orcid.org/0000-0003-1060-3094

Notes

1. All German quotes were translated by the author.
2. The teacher is one of 16 teachers interviewed for this study during the lockdown. The 'Research design' section provides a detailed description of the sample and the methodological approach.
3. Schools with a high percentage of students from a disadvantaged socio-economic family background are also referred to as 'failing schools', 'low-performing schools', 'schools in decline' or 'schools in need of improvement' (see Murphy and Meyers, 2008).

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Author biography

Julia Frohn is a postdoctoral researcher at Goethe-Universität Frankfurt and Humboldt-Universität zu Berlin. She is coordinator of FDQI-HU-MINT, a project of the "Qualitätsoffensive Lehrerbildung" (funded by the Federal Ministry of Education and Research). Her research focuses on educational inequality, inclusive teaching and learning as well as inclusive teacher education.