

MRNTI: 14.25.07

G. THOMAS (orcid - 0000-0001-8666-2459)*PhD*
University of Hamburg, Germany
e-mail: g.thomas@hamburg.de

ONLINE LESSONS IN CORONA TIMES

Abstract. The article deals with online teaching during the Corona pandemic and the associated advantages and disadvantages.

Data and information from the various media as well as the responses to a survey conducted by the author among pupils, teachers and parents (regionally limited to Hamburg and Schleswig-Holstein (Germany)) were evaluated for this article.

Priotto the outbreak of the pandemic, online lessons were used very little in the schools involved. Preparations have been totally inadequate by education authorities and local decision-makers in schools, as well as by teachers, parents and pupils. This created considerable difficulties and various disadvantages for some groups of students. On the other hand, the switch from face-to-face to online teaching led to certain benefits that the surveyed groups had recommended for future forms of teaching.

Keywords: online lessons, Corona pandemic, digitalization, school lessons, online teaching, education, teachers, parents, students.

Introduction. The Corona pandemic arrived in Germany in spring 2020 - and after the initially quite panic reactions in all countries on earth, politicians in Germany also tried various measures to curb the spread of infections as much as possible and to limit the spread of the pandemic. Since it was initially assumed that children and young people in particular would be largely spared from the Corona virus, kindergartens and schools were initially excluded from the corresponding measures. Only gradually, in the summer of 2020, it was recognized that kindergartens and schools also favoured the transmission of the Corona virus, as they acted as a multiplier to the entire families of the corresponding children. The measure of closing all kindergartens and schools was only considered for a short time, as the domestic conditions in socially disadvantaged families in particular did not allow a satisfactory solution for the families concerned. For this reason, other models were also discussed very quickly, such as alternate teaching (half of the learning group is present in the classroom, which means that the appropriate distance rules can be adhered to; the other half is at home) or complete online teaching, i.e. teaching and learning using information technology (mobile phone, tablet, computer), with the children and young people staying at home and the educators and teachers at another location (at school or also in their own home).

The study presented here now covers this online teaching in schools (mainly in secondary education) after nine months, i.e. in spring 2021, from different perspectives, namely the perspective of parents, teachers and students, supplemented by some authors from publicly available media, as well as the view of the author of these lines.

In order to be able to better assess the overall situation in Germany (politically, socially, structurally), the next section first explains some framework conditions as they currently exist in Germany. This enables the reader to better classify the research results and assessments mentioned below.

Note on the language:

This article was originally written in German. For publication, the author translated it into English; The corresponding quotations were and are exclusively in German and therefore had to be translated into English for a better understanding of the English-speaking reader of this article. However, an absolutely error-free translation cannot be guaranteed. The author apologizes in advance for possible errors, inaccuracies or ambiguous formulations in English. If necessary, you can contact the author directly to clarify any questions you may have.

The original graphics and tables used here could not be translated into English. They will certainly be understandable in the context of the accompanying text.

Research methods and conditions

a. Conditions.

The Federal Republic of Germany is a state consisting of 16 federal states. Each state has a prime minister and its own minister. There is also a kind of a central government, which is responsible for many pan-German issues such as the military, postal and telecommunications or customs and border protection. However, the federal states are responsible for the schools, and each federal state has its own education / culture minister.

Already in 2018 (two years before the Corona pandemic), the German government had provided 5 billion euros for the additional equipment of schools in Germany with computers (laptops, iPads, networking and so on) as part of the so-called "Digital Pact". By 2020, however, only € 1.5 billion had been called up and used in schools. Officially, the main reason for the slow implementation of the Digital Pact was the complicated procedure for obtaining funds. The author's personal opinion, however, is that mostly the incompetence of the teachers, of the school management or the lack of suitable IT specialists at the schools was the main reason for the low demand for the available funds.

The following chart can help to better assess the pandemic situation in Germany between March 2020 and March 2021. It compares the daily new Corona infections in Germany and Kazakhstan on March 17, 2021. Even if you consider that Germany has four times as many inhabitants as Kazakhstan on only one seventh of the corresponding area, the difference in the number of infections is quite striking [1]:

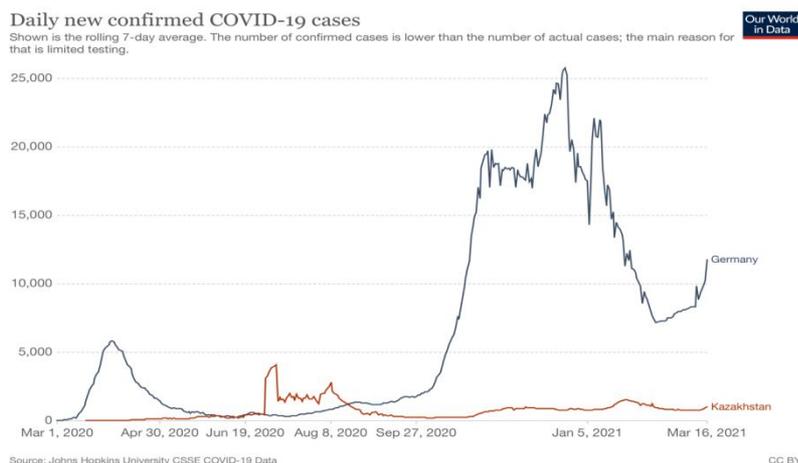


Figure 1. Daily new confirmed COVID-19 cases (March 17, 2021)

b. Research methods.

The study on this subject is based on the following elements:

1) survey

The attached questionnaire [Appendix] was sent to twenty teachers, students and parents. A total of 10 of them returned their answers in writing, five others gave their feedback during telephone conversations. The rest of the people did not comment, but there was also no feedback that they did not want to comment.

Of course, it is not a representative survey, but the opinions and observations listed can be viewed as an exemplary extract from the opinions available in German society with regard to online teaching during the Corona pandemic.

2) Information from the media

Continuous reading of the generally available publications in the German press, radio and television as well as the Internet and other media provided further insight into existing facts and subjective opinions on the subject of this article. Some of these publications are also used here and listed in the appropriate places (see bibliography).

c. Information about media.

Below, you can find some short information about the media sources used in this article:

- **Ourworldindata.org** [1] is a project of the Global Change Data Lab, a non-profit organization based in the United Kingdom (Registered Charity Number 1186433).

- **Official authority information** comes from the following sources:

- Central Federal Government [2]

- Ministry of Education, Youth and Sport in the State of Brandenburg [3]

- Ministry of Education in the State of Hessen [4]

- **"German School Portal"** [5] and [6] is an initiative of the Robert Bosch Foundation, the German School Academy and the Heidehof Foundation in cooperation with the ZEIT publishing group.

"First survey in April 2020 / follow-up survey in January 2021: It shows that schools have set out and developed further, especially in online teaching. At the same time, it also shows that there still much remains unaccounted for."

- **"fobizz"** = Digital Training Center for Teachers ([7])

"Around 1,700 teachers from Germany, Austria and Switzerland took part in our survey and answered questions on the subject of 'distance learning'. In addition to personal assessments of the current situation during the Corona crisis, they provided information about their working methods in the newly structured teaching routine and what they would like to adopt from this experience... "

- The **"Hessenschau"** is a television program of "Hessischer Rundfunk" hr.de ([8]).

- The **"Tagesspiegel"** is a Berlin daily newspaper [9].

- **"Nordbayern.de"** [10] is the online service of the "Nürnberger Nachrichten" and "Nürnberger Zeitung".

- **"kraichgau.news"** [11] is the online portal of the publisher w-m-v.de (Werbung, Marketing & Verlag GmbH & Co. KG) for the Kraichgau region in north-west Baden-Württemberg.

- The **FAZ** ([12]; "Frankfurter Allgemeine Zeitung") is one of the largest daily newspapers in Germany.

- **www-de.scoyo.com** [13] is an "online magazine for parents all about learning, school, family life and media skills".

• **Easy-lms.de** [14] is a provider for an LMS (Learning Management System).

• **Deutschlandfunk** [15] is a German broadcaster with a German and multilingual European program.

d. Personal experiences and impressions of the author.

In addition to the above mentioned sources, however, the author's personal experiences are also included in this article. As a mathematics, physics and computer science teacher and as headmaster at various schools in Germany, Spain and Argentina (in a total of 38 years), the author implemented and supported the first approaches to online teaching even before the Corona pandemic. The numerous contacts with former colleagues, which were maintained even after his retirement, as well as a constant exchange with current students and parents from his circle of friends and acquaintances, have given him additional insights into the reality as well as the advantages and disadvantages of online learning. These have also been incorporated into the drafting of this article.

Results. The results are listed and explained below according to the structure used in the survey form (see "Appendix") and supplemented by other sources and your own assessment.

e. "Tools" of online teaching (hardware and software, online platforms)

Essentially, the following tools were named as answers in the questionnaires:

- Whatsapp
- Emails
- MS teams
- ZOOM
- Iserv ("large cloud", at around 4,600 schools)
- Schul.cloud (WhatsApp alternative for schools)
- Bettermarks (for mathematics)
- todo-claro.com (for Spanish)
- BigBlueButton (for video conferences)
- itslearning (for tasks, information, submission of solutions and materials)
- seafile (for uploading and downloading tasks)
- sofatutor (videos as learning aids for all classes)

This list gives an overview of the variety of media and programs that have been used by students and teachers while teaching online. It is not possible to state the extent of use of these online platforms and tools, as the corresponding figures are missing. But it became clear that almost every school had its own concepts and that there was no uniform approach and methodology for online teaching, not even within a federal state.

The home equipment of the students with suitable computers was also very uneven. Some had good and satisfactory hardware at home, others only had their own smartphone for video conferencing. The provision of laptops or iPads by the schools was also very different, because most schools had not yet used up the funds available under the "Digital Pact".

The "fobizz" (= Digital Training Center for Teachers) offers an interesting survey of teachers in its survey of 1,700 teachers regarding the use of corresponding "tools" for digital communication with their students:

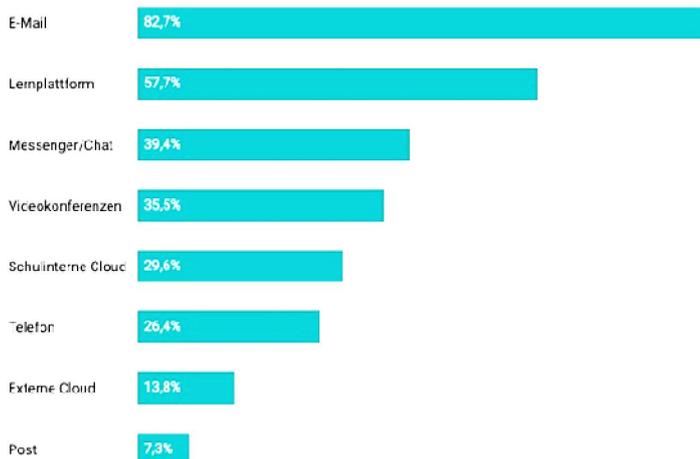
"Digital distance learning - how do teachers communicate?"

The communication and provision of the learning content takes place primarily via e-mails (over 80 percent). But learning platforms, messenger services, video conferences and various clouds are also used here....

The communication channels between teachers and students are very different. Only 35% of teachers use video conferencing for distance learning. However, almost 60% state that they interact with the students via learning platforms” [6].

Die meisten Lehrkräfte kommunizieren per E-Mail

Die Kommunikationswege zwischen Lehrkräften und Schüler*innen sind sehr unterschiedlich. Nur 35% der Lehrkräfte nutzen Videokonferenzen für den Fernunterricht. Jedoch geben fast 60% an, über Lernplattformen mit den Schüler*innen im Austausch zu sein.



Graphik: tob22 • Quelle: eigene Erhebung (tob22) • Erstellt mit Datawrapper

Figure 2. Communication media of teachers

f. Assessment of student performance.

a. Assessment of student performance

As in many other areas of school administration, there were also great differences in the individual federal states:

“As different as the schools proceed here, the criteria for how binding the tasks set in distance learning are and to what extent they may be assessed also differ in the federal states...

With the certificates at the end of the school year, each federal state decides for itself, according to Ulrich Pfaff from the KMK (Conference of Ministers of Education, note by the author) which performance it bases on the school grades...

For the annual report card, many federal states assume that the performance of the first half of the school year or the first weeks of the second half of the year will be weighted more heavily. As a precautionary measure, teachers in Lower Saxony have already been asked to set provisional grades for school reports in the event of longer school closings.”([4], German school portal)

The objectives that the individual federal states had given their teachers for the performance assessments initially sounded quite conclusive. Here is an example from the state of Brandenburg:

“Achievements that are provided in distance learning on the basis of a corresponding educational provision can be included in the final performance assessment if

- *this has been announced to the pupil in advance and*
- *Possible third-party support is taken into account in the weighting of the score achieved against all other grades.*

So, when evaluating distance learning, it must be taken into account that the teaching and development of new learning subjects take place in the face-to-face phases, and that the phases of distance learning are used for practice, deepening, repetition and, if necessary, also guided preparation for teaching content in face-to-face learning. Furthermore, it must be ensured that a timely announcement of the performance records, a disclosure of the assessment criteria and a meaningful performance feedback, which shows the previous competence development, takes place"[3].

The Ministry of Culture in Hesse made even more specific requirements:

„Class tests, exams and other examinations, with the exception of those that cannot be postponed for school graduations in 2021 and 2022, will not take place until February 14, 2021. This means that the previously scheduled written performance records that are relevant to the grades in final certificates (e.g. exams of the upper secondary school, which are included in the Abitur grade), can be written in attendance at the school in compliance with the rules of distance and hygiene. Alternatively, substitute performance is possible. The class work and examinations in the other grades are omitted, but can also be compensated by substitute work“ [5].

In the same way, the feedback from the groups involved at the schools contacted by the author does not show a uniform approach with regard to the evaluation of the student performance. All in all, however, it was clear that the students should not suffer a disadvantage from this pandemic situation anywhere. The Hamburg school authorities, for example, stopped writing class tests, but instead the performance assessment should be based on the participation of the students in the video conferences, presentations, elaborations and the like. Furthermore, if the teachers did not have sufficient documents to mark a student, the grade from the previous semester should be automatically adopted.

g. Involvement of parents.

The evaluation of the questionnaires showed that the involvement of the parents was very different in the different age groups. In the elementary school, the parents were very closely involved and sometimes had to take over the complete elaboration of the task, accompany the tasks and help the pupils with the solutions, teach them new things and monitor them. They were practically completely the substitute teachers.

In the grammar school levels (“Gymnasium”), the parents sometimes had to act as auxiliary teachers in the event of misunderstandings, but also had to help with organization, motivation and ambiguities in terms of content. In the older age groups (especially the final grades at grammar school), however, the students were mostly left to fend for themselves because their parents were often unable to help.

According to the questionnaire feedback from parents, teachers and students, however, it must be stated that the goals and ideas on data protection, which are handled very sensitively in Germany, have not always been observed in this context, and indeed often could not be observed. "Nordbayern.de", for example, pointed out this problem on February 13th, 2021 with reference to official notifications from the Nuremberg Education Authority:

"Data protection: Parents are not allowed to eavesdropping on online lessons ...

Data protection wants it this way: Parents are not allowed to be in the room during online lessons. In the event of violations, legal action may be taken where appropriate. This is a problem for many families.

...

'Teaching is a protected area, even in the classroom, 'argues Florian Wiener, information technology consultant at the Nuremberg Land school authority. 'If children, for example, read aloud or need help, an outsider should not necessarily notice.' However, there have been recent cases where parents "interfered" in the online lessons.

...
'Of course you have to differentiate between active and passive listening,' emphasizes Maria Wagner, Rector of the RöthenbacherForstersberg School. She had recently forwarded a corresponding letter from the Nuremberg Education Authority to the parents, which she personally found 'clearly formulated and very helpful'. However, she can understand that the threat of legal action leads some parents to in comprehension" [10].

An example of the special tasks that the parents had to master during online lessons is the following description by a mother from Kraichgau (Northwest Baden-Württemberg):

"When it became clear that homeschooling would continue after the holidays, we bought a second laptop. For the same model that we bought a year ago, we had to pay 200 euros more. On the weekend before the first day of school, my husband set up the computer so that our older son could use it on Monday without any problems. The entry was not that smooth. I spent the first day of school with my younger son in front of a laptop and cell phone, because we didn't know exactly what the online lesson would be like" [11].

h. Preparation of teachers for online teaching.

The objectives of the school authorities sounded appealing and comprehensible, as the example of Brandenburg shows:

"If there are prerequisites for digital communication:

•...teachers are technically competent and apply this knowledge. At the same time, they are informed about copyright and data protection law fundamentally and ready-to-use, and in particular they can apply the law to their own image and use sources on the Internet appropriately..." [3].

But what did it look like in reality?

According to the survey responses, the preparation of the teachers for the implementation of online lessons at some private schools through appropriate courses has been excellent. At state schools, according to the feedback on the questionnaires, the preparation was insufficient, both in dealing with digital media and in the use of appropriate methods and didactic concepts. In some schools (for example some elementary schools or the Waldorf schools) no online lessons were carried out at all and the materials were distributed or returned to the school's secretariat.

Some teachers had worked hard for themselves and were ready to continue their education on their own initiative. Others, on the other hand, had been steadily resisting the use of computers for their lessons even before the Corona pandemic. During the online lessons, this often resulted in too many weekly schedules and too many worksheets that the students could no longer cope with.

The above-mentioned teacher survey from "fobizz" very clearly underlines this insufficient preparation for online lessons:

"Half of the teachers feel poorly prepared for digital distance learning.

Many teachers in Germany do not feel adequately prepared for digital distance learning. This is particularly the case with elementary school teachers and special education teachers. In addition to the technical equipment to

implement digital distance learning, there is also a lack of concepts for the basic and advanced training of teachers! [6].

This is shown in the following first graphic; the second shows that the vocational and secondary school teachers still feel best prepared, but only in a range between "satisfactory" and "sufficient":

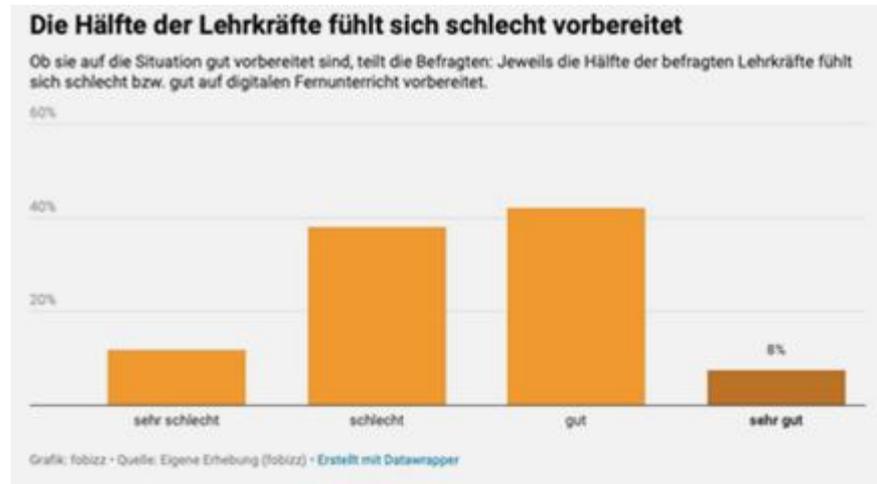


Figure 3. Preparation of teachers (self-assessment)

i. Difficulties in online teaching.

According to the questionnaire feedback, the difficulties in online teaching can essentially be summarized in the following points:

First of all, technical problems were mentioned that concerned the areas of hardware, software, network connections, overloading of connection lines or PCs, lack of a network supervisor in the schools, etc.

Another very important problem was the lack of teacher training, especially in the use of the tools, the adaption of teaching to new circumstances, poor self-organization with the IT media or a lack of coordination with other teachers.

However, the unfamiliar independence and self-responsibility for learning on the part of the students often led to considerable difficulties in learning success. The students were simply not prepared for this and were often much more distracted by other things at home than at school.

In its teacher survey, the "fobizz" confirms that the students have insufficient hardware equipment:

"Two thirds of teachers state that their students only partially have the necessary hardware (e.g. laptop or tablet), which makes it difficult to reach and teach all students equally" [6].

The same is shown by the "German School Portal" in its "Schulbarometer" from January 2021 in the following graphic. It contains not only values in the state of equipment status of the different school types but also figures on the need for improvement in their schools mentioned by teachers.

(In the table below, the green area includes the "well or very well equipped" schools, the orange area includes the "less well or poorly equipped" schools.)

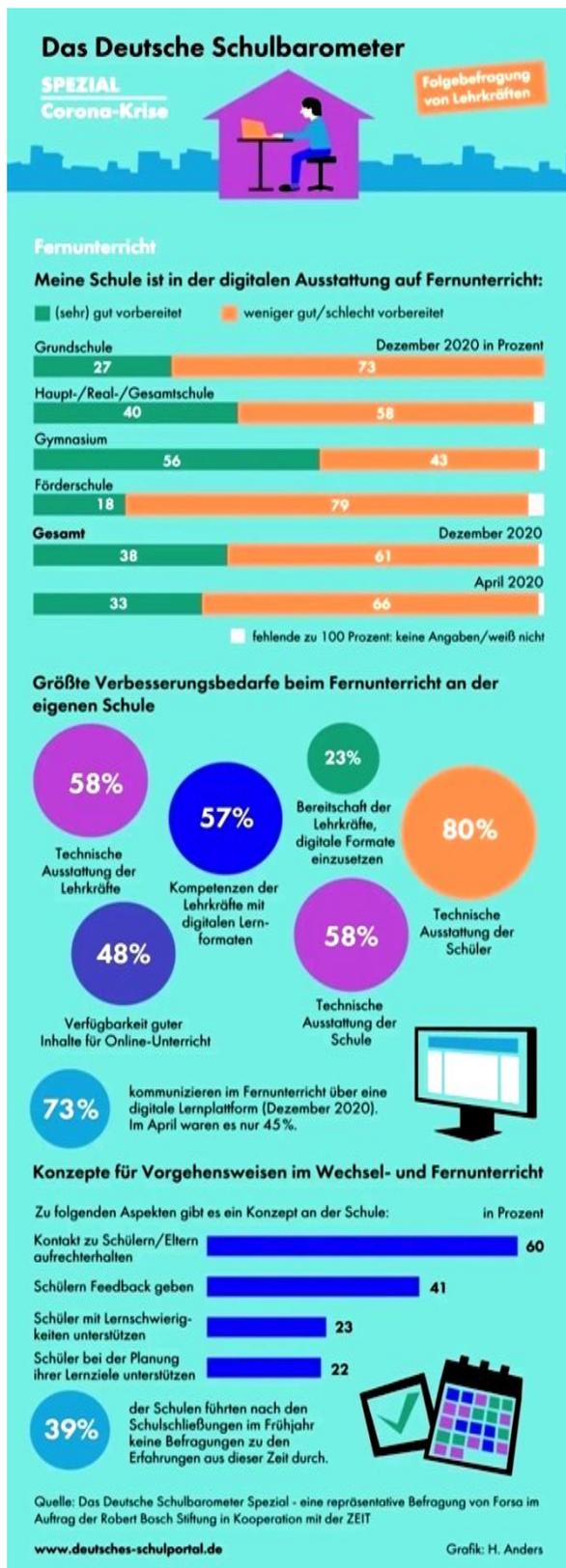


Figure 4. Digital equipment in schools (and needs)

The "Schulportal" itself writes about this:

“One of the biggest problems highlightes by the German School Barometer continues to be the digital equipment. 61 percent of the teachers surveyed felt that their school is less well or even poorly prepared for distance learning here. In April, it was only slightly more at 66 percent.

...

There is a similar gap when it comes to streaming lessons. While 60 percent of the teachers in secondary schools can do this, only 34 percent in elementary schools and 40 percent in special schools are able to do so. However, there is often a problem with the internet connection in the school building. It is only sufficiently strong in every third school (36%). And the situation is even worse when it comes to the supply of laptops or tablets for teachers and students. There are also very few advantages in the secondary schools” [7].

Another aspect of the difficulties faced by students in connection with online lessons was pointed out by the “Tagesspiegel” in a study from March 4, 2021, namely the significantly reduced daily structure for students taught online. According to this, around 50% of the 7,433 students stated in the corresponding quick survey that there was “little or very little” structure in their daily routine during online lessons (1 or 2 out of a maximum of 5)[9].

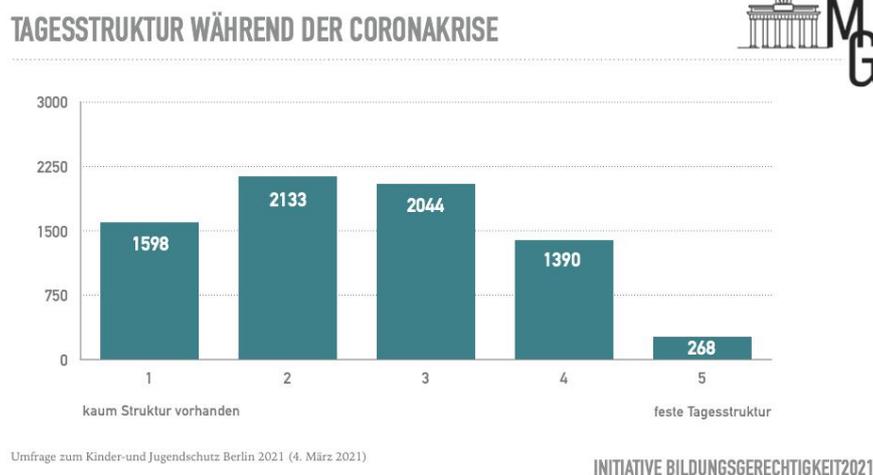


Figure 5. Daily routine for students (1=without; 5=fixed)

j. Benefitsof online teaching.

One of the benefits of online teaching, according to the survey groups, is that students who are often too shy or too reserved in ordinary lessons can improve their performance by special achievements in the home environment where it is often more quiet than in school. For some students, the opportunity to organize their own time is also a clear advantage. For other students, the need to manage their own time is also an opportunity to learn it for their future life.

The elimination of the return trip to and from school is also considered as positive.

Inevitably, many teachers also had to deal with the modern techniques and media faster than originally planned, which for many survey participants also was an advantage for the teachers themselves and for the students.

Of course, all providers of digital learning platforms, online services and other Internet-based companies see great benefits in online teaching. Here are two examples:

Scoyo, the "online magazine for parents about learning, school, family life & media competence", lists the following advantages and possibilities of online learning:

- Topicality of the content
- Multimedia and interactivity
- Possible collaboration with others
- Adaptation to the individual level of learning
- Enhancing motivation
- Flexibility - learning on the go

For the benefit of "Possible collaboration with others" the following is carried out:

"Children learn very well and enjoy learning with others in a group - this is demonstrated by various approaches to this so-called peer learning. Online-based offerings such as wikis or digital classrooms offer optimal conditions for this.

In the latter, students work on a shared platform that is usually controlled by the teacher. Wikis and digital classrooms allow many users to access a common document, information and images. The pupils exchange ideas in chats or forums. Everyone can ask questions, and together the children research the answers and insert them into the document" [13].

As a provider of an LMS (Learning Management System), "easy-lms" focuses on saving time and money, among other things, and therefore names the following advantages of online teaching:

"It saves time: Neither the learners nor the teachers have to waste time and money commuting to class. The teachers or trainers do not have to teach the same lessons for new groups over and over again. You only need to create the content once and then share it with different groups whenever necessary" [14].

g. Disadvantages of online teaching.

Many of the disadvantages of online teaching mentioned in the respondents' feedback are due to the lack of preparation in schools, among the teachers and also among the students.

The fact that parents, in addition to their own challenge to work in the home office, were or are often overwhelmed with their additional role as motivator, organizer and auxiliary teacher for their children is easy to understand and, on the parents' side, one of the major disadvantages of online teaching.

Many teachers naturally found the sudden and unprepared confrontation with the IT media to be a particular disadvantage of this type of teaching, which was completely new to them. However, the lack of contact with the students was almost invariably perceived by teachers to be extremely disadvantageous, because it could not be replaced by anything.

Most of the disadvantages, however, were and are still on the part of the students. This was particularly evident in the changed domestic situation: Apart from the necessary self-organization of the tasks to be done, it was particularly difficult for the students to cope at home without social contact with their peers, without externally regulated break times and without the possibility of receiving help from classmates or teachers, to cope with the assigned tasks at an appropriate pace and with the necessary care and, above all, to work out new lesson content by themselves.

These survey results have also been confirmed by other studies, two of which are worth mentioning here:

The "Hessenschau" cites above all the personal feelings of the students as well as the pressure to perform that they are exposed to at the time of the online lessons:

“77 percent of the students feel bad

...This is shown by the results of two surveys conducted by HessischerRundfunk: According to this, many students currently feel "stressed", "overwhelmed", "depressed" or "exhausted". 77 percent answered the question "How do you feel - in one word?" with negative terms, only 13.5 percent reported positive ones such as "good" or "happy"...

For 49 percent of the students, the pressure to perform has increased "strongly" (17 percent) or "somehow" (32 percent). Only 23 percent say that they have lost "somehow"(16) or "strongly"(7). 51 percent of the students also say that they find it "much more difficult" (19) or "rather more difficult" (32) to do their tasks. Only very few students find it "rather easier" (10 percent) or even "much easier" (3)" [8].

This area also includes the answers that the students gave to this “Hessenschau” survey regarding what they missed the most, especially when compared to the previous survey in December 2020:

“Further results of the survey show that the situation is becoming increasingly stressful. 85 percent of the students miss the contact with their friends, 66 percent miss their hobbies or sports. The lockdown seems to reinforce the wishes and needs: Compared to the first survey in December 2020, the urge for variety (meeting friends, leaving home, vacation, cultural events) is growing" [8].

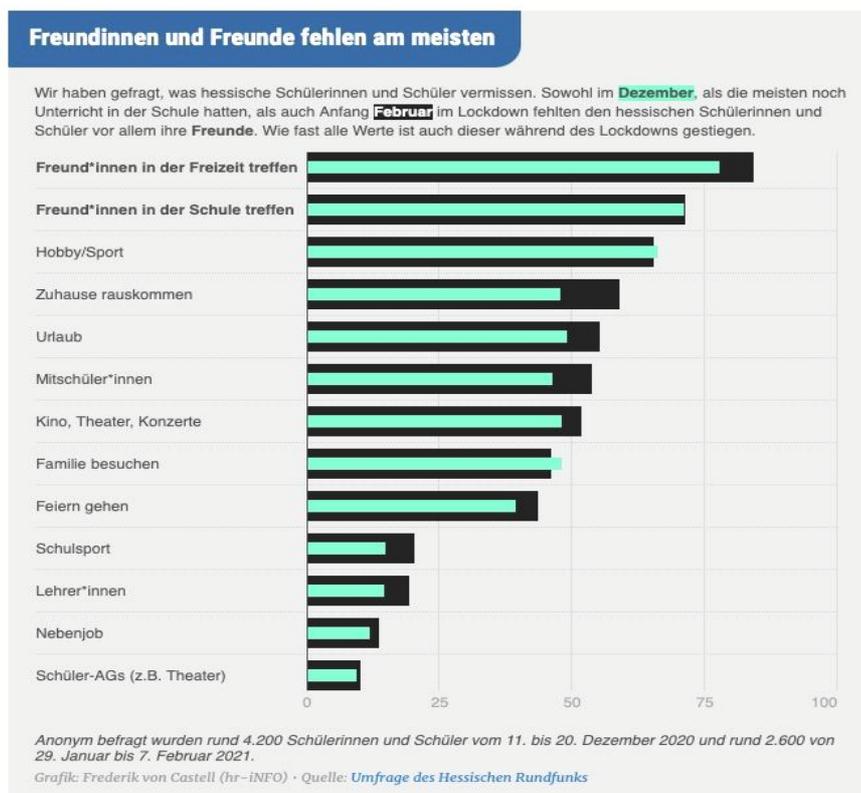


Figure 6. What students miss having online-lessons

Surveys conducted by the “Tagesspiegel” also show that the changed framework conditions in the home environment associated with online lessons (e.g. the lack of daily structure) can lead to significantly negative effects. This includes the fact that almost 60% of all students meanwhile (March 2021) indicate a daily screen time of 8 (!!!) hours or more, and that 62% have the impression that their sleep rhythm is "significantly affected" [9]:

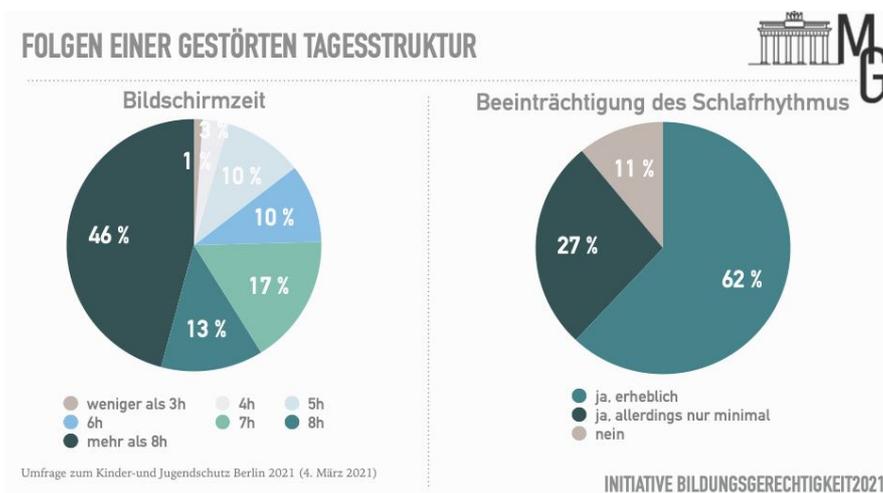


Figure 7. Consequences of problematic daily structure for students

h. Other comments from parents, teachers, students and other quotations from the media.

In the context of other comments from parents, teachers and students, all those involved in the survey complained that there was basically too little direct contact between school and home, but in particular too little feedback between teachers and students. Both groups lacked both the positive and negative feedback that can normally advance the lessons.

It was also pointed out that there is currently no situation analysis of the advantages and disadvantages of online teaching in schools by higher-level or school-managing bodies. This means that the advantages and disadvantages are hardly assessed objectively and therefore cannot lead to a quick and timely improvement in the problematic pandemic situation in schools. According to the survey results, there is not enough help, especially for parents with several children or financially in need. But this is precisely where support is needed to improve the situation for parents and children.

It was also criticized that the students were too often obliged to work out new lesson content themselves. It was acknowledged that this was a good preparation for university studies, but at the same time it was pointed out that many students of this age simply would not be able to do so.

It is regrettable that, on the one hand, the government provides considerable financial resources for the digital equipment of schools, but on the other hand - for various reasons - these funds were not called up in good time and used in the schools. As a result, many students did not have the technical support they would have needed during online lessons.

Two interesting quotations from the questionnaire answers should be added here:

- A teacher wrote: "I want to sit in front of people, not a device!"

- And one student concluded from her experience: "Online lessons can never replace face-to-face lessons!"

In addition to these comments, which already stimulate further considerations, some noteworthy additions from various media should follow:

In its survey, the "Hessenschau" had asked the participating students for a school grade for the online lessons they are currently doing. The result:

"Teaching satisfactory, at best!"

Teaching in its current form in the exceptional situation scores rather poorly in the hr survey. The students gave him the school grade "four plus" (average value 3.6).

Without giving any possible answers, we asked the students what the school was lacking for online teaching. 43 percent of the participants name the media competence of the teachers, 40 percent the internet connection, ten percent the technical equipment. And: 12 percent of the students still lack the necessary technology or tranquility for lessons at home" [8].

The "Tagesspiegel", in its survey, also had asked schoolchildren about their assessment of the impact on their quality of life ([9]). The result of almost 80% "rather negative" is very sobering:

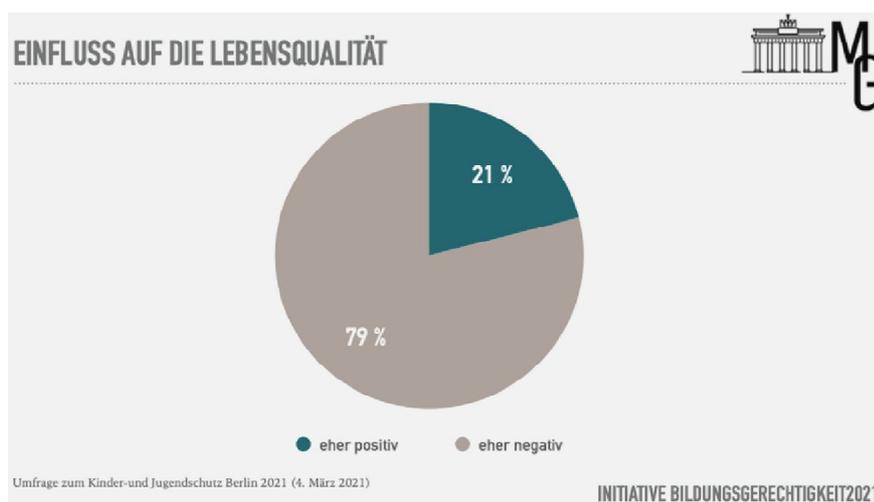


Figure 8. Influence on quality of life (self-assessment of students)

The "Frankfurter Allgemeine Zeitung" (faz.net) published a particularly impressive description of the stress on a mother during the time of online lessons on January 12, 2021:

"I work full time and have two children. For us, distance learning means: no lessons. Why has my job worked out online for ten months and the school can't hold online classes? What's so hard about explaining the stuff online instead of in the classroom? Why should I explain something to the child that I cannot explain?"

My children have at least three questions per subject, making an average of 18 questions. Some highlights are included, for example in physics: It's about laser light on the construction site - what properties does the light have? I don't know, my child. I don't know.

At 3:30 p.m. I cooked, managed History and German, luckily the children did Maths and English on their own. I didn't put on make-up, I wasn't outside - I can continue working now. At 7 p.m. my husband comes out of the office and makes

jokes. I can't laugh. Tomorrow's his turn. I promised myself that I would ONLY work.'(Anonymous mother)" [12].

Conclusion / Discussion.

From the investigations on a small as well as on a larger scale, conclusions are predominantly drawn that reveal optimistic outlooks overall - but always with clear indications to urgently required changes and reforms of system-relevant structures.

For example, the "German School Portal" sees positive developments in its school barometer for the time after the Corona pandemic:

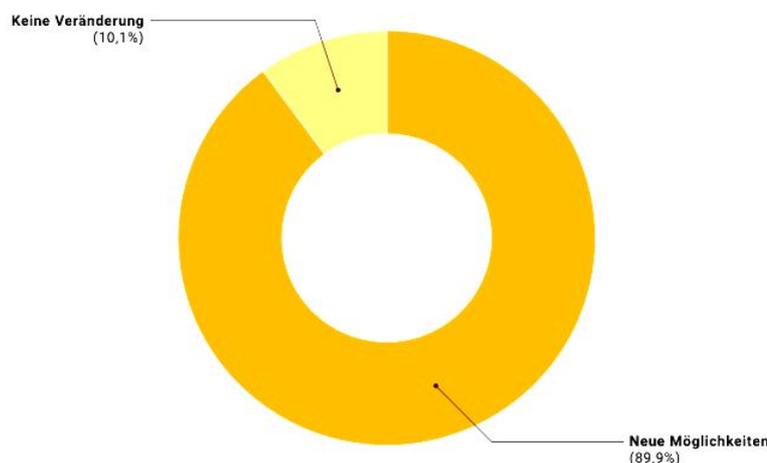
"School barometer makes it clear that many schools see the crisis as an opportunity.

Apparently, the Corona crisis has given many teachers and schools an innovation boost. 'Many teachers and schools have surpassed themselves in the past few months,' says Dagmar Wolf, Head of Education at the Robert Bosch Foundation, about the results of the school barometer. 'The numerous applications for the special edition of the German School Prize this year also show that schools have used this challenging time as an opportunity and that numerous ideas have the potential to change teaching and learning in the long term.' But she also emphasizes: 'In addition to the individual commitment of the teachers, a systematic school and teaching development is also long overdue, because many schools have not yet developed any binding concepts for distance and alternating lessons' [7].

The survey conducted by the "Digital Training Center for Teachers" fobizz shows that teachers are also generally looking forward to the future after the pandemic period:

"90% of the teachers perceive the current situation as an opportunity for digital education.

The majority of teachers see new opportunities for digital education as a result of the current situation. Only 10% believe that after the Corona crisis everything will stay the same" [6].



Grafik:fobizzQuelle:Eigene Erhebung (fobizz) [Erstellt mit Datawrapper](#)

Figure 9. Opportunities for digital education (teachers' opinion)

The "Deutschlandfunk" lists a number of suggestions for improvement with which the desired changes could be implemented and how the existing opportunities could become a reality in the future:

"What are the suggestions for improvement?"

More autonomy for schools

....More autonomy instead of blanket regulations such as the compulsory mask, could lead to local solutions for the individual primary schools...

Greater leeway in choosing digital teaching platforms

'Some platforms were rather banned from schools in the summer for data protection reasons, Verena Pausder told Deutschland-Funk in November 2020. As a result, the schools have been restricted instead of giving them more opportunities, emphasizes the founder of the association 'Digital Education for All e. V.'. Pausder therefore advocates "positive lists" that offer schools orientation with regard to their data protection obligations.

New forms of teaching: more digital teamwork

Dennis Sawatzki told Deutschlandfunk that when the school closed for the first time, pupils were given tasks that had to be done at home, a regrettable reduction to a single social form of individual work. He is an educational scientist and heads a private institute for school development and teacher training. 'From my point of view, digitization must also go hand in hand with all social forms being taken into account, because they are important for successful and sustainable learning,' emphasizes Sawatzki.

Hybrid lessons - alternating models between face-to-face and distance teaching

The chairman of the National Schoolchildren Conference, Darius Schramm, would like to see a clear roadmap for the types of teaching in the pandemic. So far that is missing. For Schramm, a change-over model is needed, as only classroom teaching is irresponsible and one is too poorly prepared for full distance teaching.

In November, the federal chairman of the Education and Science Union GEW, Marlis Tepe, advocated alternating lessons as a solution between face-to-face lessons and closure on Deutschlandfunk. So there is regular contact with the students, the model is also recommended by the Robert Koch Institute up to a 7-day incidence value of 50. Such an alternation course could alternate daily, two days or weekly:

'Then the pupils are given clear tasks which they are supposed to accomplish at home in the time, and then come back to school' [15].

It was already evident in the spring of 2021 that these suggestions, at least to some extent, met with open ears, when the last mentioned "hybrid lessons" had already been implemented in many schools and in several federal states.

My conclusion: The chances are good!

Online lessons will only be partially usable in the future. There is no doubt that it can contain useful elements if all those involved (i. e. students and teachers, but also parents and the school organization as a whole, including the corresponding technical equipment) are fully and competently prepared for it. However, under no circumstances can it be a real alternative to face-to-face teaching - at best as a supplementary form in special situations. The mental and organizational mobility of decision-makers and organizations as well as the entire school administration is required for the future.

The appeal by German Chancellor Angela Merkel, as she formulated it in a speech on March 19 of this year, also shows that corresponding support can be expected at the highest level:

"We want ... to become faster and more flexible. We want the proverbial and, by the way, proven German thoroughness to be supplemented by more German flexibility here as well" [2].

It is to be hoped that the entire society in Germany (people and organizations, administrations and institutions, politicians and other decision-makers, school administrators and teachers) will be able to draw the necessary lessons out of the experience of this pandemic as quickly and unbureaucratically as possible in order to emerge from the current pandemic in the field of education as well as to be better prepared for a similar situation in the future.

References

1. Global Change Data Lab - Coronavirus (COVID-19) Cases. – Access mode: <https://ourworldindata.org/covid-cases> data explorer 3/17/2021.
2. Press and Information Office of the Federal Government of Germany - Press conference by Chancellor Merkel after the federal-state talks on vaccination issues on March 19, 2021. - Access mode: <https://www.bundesregierung.de/bkinm-de-alt/aktuelles/pressekonferenz-von-bundeskanzlerin-merkel-nach-bund-laender-gespraech-zu-impffragen-am-19-maerz-2021-1879482>
3. Ministry of Education, Youth and Sport (MBS) - Brandenburg, Eckpunkte Distanzlernen. – Access mode: https://mbs.brandenburg.de/media_fast/6288/anlage_6_eckpunkte_distanzlernen.pdf
4. Lorz, Prof. Dr. R. Alexander. Aktuelle Information zum Schul- und Unterrichtsbetrieb. - Access mode: <https://kultusministerium.hessen.de/schulsystem/umgang-mit-corona-an-schulen/fuer-schulleitungen/schreiben-schulleitungen/aktuelle-information-zum-schul-und-unterrichtsbetrieb>
5. Kuhn, Annette. Wie werden Aufgaben im Fernunterricht bewertet? - Access mode: <https://deutsches-schulportal.de/unterricht/bildungsfoederalismus-schulschliessungen-wie-werden-die-aufgaben-im-fernunterricht-bewertet/>
6. Kuhn, Annette. Sind Schulen jetzt besser auf den Fernunterricht vorbereitet? - Access mode: <https://deutsches-schulportal.de/unterricht/lehrer-umfrage-deutsches-schulbarometer-spezial-corona-krise-folgebefragung/>
7. Grotendorst, Theresa and Dietz, Frederik (fobizz) – So sehen Lehrkräfte die Corona-Krise in der Bildung. - Access mode: <https://fobizz.com/umfrage-ergebnisse-so-sehen-lehrkraefte-die-corona-krise-in-der-bildung/>
8. von Castell, Frederik, Boberg, Petra. Schüler in der Corona-Pandemie: gestresst, überfordert, erschöpft. - Access mode: [https://www.hessenschau.de/gesellschaft/umfrage-unter-schuelern-in-der-pandemie-gestresst-ueberfordert-erschoeppt-,umfrage-homeschooling-100.html\(23.2.2021\)](https://www.hessenschau.de/gesellschaft/umfrage-unter-schuelern-in-der-pandemie-gestresst-ueberfordert-erschoeppt-,umfrage-homeschooling-100.html(23.2.2021))
9. Eisenbach, Elisabeth et al. Datenauswertung zu den Folgen der Coronakrise bei Kindern und Jugendlichen. – Access mode: <https://m.tagesspiegel.de/downloads/26989978/2/datenauswertung-zu-den-folgen-der-coronakrise-bei-kindern-und-jugendlichen-initiative-bildungsgerechtigkeit2021.pdf>
10. Buchner-Freiberger, Stefanie. Datenschutz: Eltern dürfen beim Online-Unterricht nicht mithören. – Access mode: <https://www.nordbayern.de/region/datenschutz-eltern-duerfen-beim-online-unterricht-nicht-mithoeren-1.10839438>

11. [Gerweck, Katrin](https://kraichgau.news/bretten/c-soziales-bildung/digitalunterricht-mit-quantensprung_a70625). Digitalunterricht mit Quantensprung. - Access mode: https://kraichgau.news/bretten/c-soziales-bildung/digitalunterricht-mit-quantensprung_a70625
12. Anton, Julia. Es geht nur noch ums Überleben (Leser über Homeschooling). - Access mode: <https://www.faz.net/aktuell/gesellschaft/gesundheit/coronavirus/leser-ueber-homeschooling-erfahrungsberichte-und-geschichten-17141831.html>
13. Bialecki, Daniel. Online lernen: Vorteile für Schüler und worauf Eltern achten sollten. - Access mode: <https://www-de.scoyo.com/eltern/kinder-und-medien/online-lernen-vorteile-fuer-schueler.html>
14. Anna - Vorteile und Nachteile von Online Learning. - Access mode: <https://www.easy-lms.com/de/wissenscenter/wissenscenter-lms/vorteile-und-nachteile-von-online-learning/item12529>
15. Die Herausforderungen von Distanzunterricht. - Access mode: https://www.deutschlandfunk.de/schule-im-lockdown-die-herausforderungen-von.2897.de.html?dram:article_id=490846

Material received 25.05.21.

G. THOMAS

Гамбургский университет, Германия

ПАНДЕМИЯ ЖАҒДАЙЫНДАҒЫ ҚАШЫҚТЫҚТАН ОҚИТУ

Аннотация. Мақала Корона пандемиясы кезінде онлайн режимінде оқуға және оның артықшылықтары мен кемшіліктерін қарастыруға арналған.

Мақалада әр түрлі бұқаралық ақпарат құралдарынан алынғаны мәліметтер мен ақпараттар, сондай-ақ автордың Германияның Гамбург қаласы пен Шлезвиг-Гольштейн федералды облысында оқушылар, мұғалімдер және ата-аналар арасында жүргізген сауалнама қорытындысы зерделенеді.

Пандемия басталғанға дейін мектептерде онлайн сабақтар өте аз жүргізілген. Білім беру мекемелері мен мектептердегі жергілікті директивалық органдар, сондай-ақ мұғалімдер, ата-аналар және оқушылар тарапынан дайындық мардымсыз болды. Бұл кейбір оқушылар үшін айтарлықтай қиындықтар мен түрлі қолайсыздықтар тудырды. Екінші жағынан, күндізгі оқитудан онлайн оқытуға көшуге қатысты сауалнамаға қатысқан топтар болашақ оқу түрлеріне қатысты белгілі бір өзгерістерді ұсынды.

Тірек сөздер: онлайн сабақ, корона пандемиясы, цифрландыру, мектеп сабақтары, онлайн оқыту, білім беру, мұғалімдер, ата-аналар, оқушылар.

G. THOMAS

Гамбургский университет, Германия

ДИСТАНЦИОННОЕ ОБУЧЕНИЕ В УСЛОВИЯХ ПАНДЕМИИ

Аннотация. Данная статья посвящена проблеме онлайн-обучения во время пандемии и связанным с этим преимуществам и недостаткам.

В этой статье были рассмотрены данные и информация из различных средств массовой информации, а также ответы на опрос, проведенный автором среди учащихся, учителей и родителей в региональном масштабе, Гамбурге и Шлезвиг-Гольштейна (Германия)).

До начала пандемии онлайн-уроки в соответствующих школах применялись очень мало. Подготовка была совершенно неполноценной со стороны органов образования и местных директивных органов в школах, а также со стороны учителей, родителей и учащихся. Это создавало значительные трудности и различные неудобства для некоторых групп обучающихся. С другой стороны, переход от очного обучения к онлайн-обучению привел к определенным преимуществам, которые были рекомендованы опрошенными группами для будущих форм обучения.

Ключевые слова: онлайн-уроки, пандемия короны, цифровизация, школьные уроки, онлайн-обучение, образование, учителя, родители, учащиеся.