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Remote education during COVID-19 – the analysis of Polish and German schools

Introduction

The pandemic disease significantly influenced many aspects of people's lives, ranging from economic processes to education. In March 2020 governments started implementing certain measures in order to stop spreading the COVID-19 disease by closing schools and switching into online teaching. About 150 countries have fully closed their schools and about 10 countries have partially closed them. Another 10 countries have left their schools opened (UNICEF, 2021). Education in many countries faced a very difficult challenge to educate the youth from the distance using modern computer technology. The closure of educational establishments has suddenly disrupted the school life of many students and their families which caused long-term consequences regarding social ties and mental health (Rajabi, 2020).

1.1 Changes in the way of teaching

Teachers, who have developed their teaching and training skills based on direct contact with their students inside the classroom throughout the years, had to resign from it and change it into digital technology. Until that time, they had been using it in order to enrich and diversify the lesson and not as a constant part of the educational process. The studies show that only 15% of Polish teachers had had an experience in distance teaching and 85% had not had any experience in distance teaching before the COVID-19 epidemic started (Buchner et al., 2020). Also, in Germany teachers were not prepared to conduct lessons in that way. Sudden decisions made by the government caused the increase in frustration because teachers were not able to properly prepare themselves to classes in such a short time. Such lessons required much more effort. Some schools have organized special trainings of how to use different tools in online teaching. However, many teachers had to train on their own how to use modern technology in education, in order to live up to parents' expectations and not to lower the quality of teaching. Education has been transformed into an online mode, on an untested and uncommon scale (Burgess et al., 2020). In Polish schools, there was a strong emphasis put on the realization of the core curriculum to ensure that students are prepared for exams as well as possible. However, in German schools, lessons have been conducted in a more flexible way. Only some of the core

curriculum's subjects have been followed. The topics were organized in such a way that they could be covered online.

1.2 Student's resilience

After the first stage of joy, connected with the announcement of schools' closure, children and teenagers experience many emotions and problems typical for a crisis situation (Pyżalski, 2020). Some students suffer from depression, caused by isolation, loneliness and lack of contact with friends. Many of them miss school and teachers. Younger children have trouble accepting the new situation, they are not able to understand it completely, they are confused and lost. For this reason, the educational institutions in both countries have been taking different actions in order to improve students' mental condition. In Polish schools, more emphasis was placed on supporting specialists, for example pedagogues and psychologists. Teachers organized teams to communicate with students. During homeroom hour they tried to talk with students about their well-being and in case of some worrying signals, be ready to render assistance. On the other hand, in German schools, meditation techniques and breathing exercises have been used to reduce stress levels in students. The response to such a situation is nonroutine and dependent on many factors, for example affective responsiveness, past experiences, opportunity and ability to use the social support (of family and friends). Children's and teenagers' mechanism of working through the crisis is less developed. Therefore, they belong to a group which is the most vulnerable (Pyżalski, 2020). The weaker students are at a disadvantage due to the lack of help from their parents. Many of them are overwhelmed by the amount of material they have to cope with on their own, during online teaching. They are faced with difficulties connected with self-directed work. In some cases, anxiety disorder has progressed and even social withdrawal.

1.3 Principal's leadership

A huge responsibility as well as pressure fell on principals' shoulders. They had to ensure the safety and psychological support of pupils, teachers and change the functioning of educational institutions. They acted on the basis of government regulations, which in the case of Germany were short-term and rapidly transformed, along with the rapidly changing epidemiological situation, which was a major challenge, as well as the source of many frustrations. Spontaneous decisions made by the government decision-makers forced principals to act immediately with the lack of time to prepare reliably for their implementation. In Poland, principals acted in a similar way in implementing the regulations of the Ministry of National Education. Western neighbors had more support in making decisions from teachers, as well as more rules to make work easier. Polish school leaders received support from students' parents and various NGOs. In addition, principals showed a great desire to have greater autonomy. They wanted the government to allow them to decide if they should close the school, because each institution is different and has its own specifics. German principals, on the other hand, would prefer a better balance in terms of

government regulations and their own decisions. In both countries, most schools had mutual cooperation and communication between educational institutions. At that time, many principals focused on better cooperation with the students' parents in order to optimize and improve remote education. They often contacted their parents via e-mail, telephone, surveys and questionnaires to hear them out on the issue. Parents pointed out the disadvantages they could see, but also the advantages of online activities. They have also proposed their own interesting solutions.

Materials and methods

The survey was conducted at the end of the year 2020 on a group of 26 respondents, which were principals and managers of primary and secondary schools in Poland and Germany. The participants were informed that the interview would be recorded and analyzed for scientific purposes. The qualitative measure was used in the study conducted by a phone interview with school leaders. The duration of each interview oscillated between 20-30 minutes.

The outline of the study

Each participant answered 12 open questions concerning pandemic risks, methods of preventing and coping with them, as well as the principal's system of work in the difficult pandemic period. These questions focused on three main research questions:

1. What are the risks during the COVID-19 pandemic for students from the perspective of school leaders? Including own resilience.
2. How can school leaders support children's resilience during the COVID-19 pandemic? Learning and teaching issues.
3. What (non-/official) strategies do German and Polish school leaders use in their schools? Similarities and differences. Recommendations for future challenges.

The participants' responses were recorded. After all the interviews, they were transcribed and translated into English. A list of codes was then created to match the respondents' responses. When analyzing the results, the most frequently repeated responses were assigned the appropriate code key categories.

Table 1. Categories and codes from interviews

Codes	Answers
Common problems	Technological issues, Little visibility of students, Stability of Internet connection, Microphone not working, Access to laptops, Teachers focusing on other things instead of teaching, Children forgot how to cooperate in a social group.

Codes	Answers
Most challenging part	Trouble with conducting a lesson with students in the classroom and online, Fear of showing face to camera, Lack of routine (putting on clothes, going to school) generates many behaviors in students, Problems with isolation at home, Teachers were not prepared for remote teaching.
Coping with stress and problems	Organizing various meetings for staff, Talk with each other, Meetings with specialists.
Supporting students	Helping children integrate, Meetings with specialists, Asking students about their well-being.
Decreasing the negative impact of the pandemic	Being in touch with parents and students, Meetings with teachers individually, Giving solutions to some situations, Suggesting visiting school and talking with someone or a specialist, Importance of focusing on relationships with people.
Concepts after the pandemic	I like online staff meetings very much, Online meetings are very comfortable, Use technology more often.
Complexity of new regulations	I like online staff meetings very much, Online meetings are very comfortable, Use technology more often.
Guidance or regulation from government	Local government did very well- we got what we asked for, It would be perfect to have a calendar when something starts and finishes, We really appreciate funding and teacher training.

The results that did not match the corresponding codes were categorized in one collective «other» category. The final stage of the study was a comparison of the data obtained and categorized between Polish and German schools, which allowed to determine similarities and indicate differences.

Table 2. List of similarities between schools in Poland and Germany

Similarities in both countries	
1.	Technological problems (access to computers, laptops, tablets, the Internet)
2.	Lack of adequate preparation of the teaching staff for remote classes
3.	Limited contact between teachers and students during the class

4.	Dynamically changing decisions made by the government in both countries
5.	Psychological and emotional problems among many students (depression, anxiety)
6.	Initiatives, classes, teacher talks aimed at supporting students
7.	Recognizing the advantages of digital technologies and the willingness to introduce some technological solutions after the pandemic ends
8.	Organization of lessons from the teachers' perspective more difficult and time-consuming
9.	Psychological support for students and school staff by principals
10.	Mutual cooperation between teachers and principals
11.	Digital fatigue both among students and teachers
12.	Mutual communication in the teaching staff
13.	Increased contact between teachers and students
14.	A complete change in the way teachers teach

Table 3. Summary of differences between schools in Poland and German

Differences in both countries	
Poland	Germany
Average effectiveness of remote education	High effectiveness of remote education
Striving to the realization of the core curriculum	Adjusting the teaching content to the realities of a pandemic, flexibility of actions
Support of specialists, pedagogues, psychologists	Relieving the stress level through various types of breathing techniques, mutual conversations
Expressing a desire for a greater level of autonomy	Balance between the activities of the school principal and government ordinances
Focus on mutual understanding and help	Focus on various sources of stress and problems
More support from parents and various organizations	More support from teachers

Discussion

Our research on educational leadership and psychological resilience of students in schools in Poland and Germany has shown that the pandemic has clearly had an impact on the mental health of pupils in both countries. Fear for their own and their loved ones' health, uncertainty and lack of socialization have left a mark on their psychosocial condition. The analyses conducted in Singapore in 2003 confirm that outbreaks of infectious diseases have a negative impact on the health and mental condition of the society (Sim, et al., 2010). Similar results were also obtained from the

Ebola epidemic (Bortel et al., 2016). Children and adolescents are more susceptible to the psychological effects of the COVID-19 epidemic than adults because of their immature cognitive systems and emotional regulation. They tend to show more negative psychological effects, so they need psychological support from three cooperating systems: the social system, the school system and the family system (Zhou, 2020).

A research conducted on 2064 respondents in secondary schools and high schools in Italy showed that significant psychological problems had appeared in a significant proportion of older children and teenagers as a result of imposed social isolation. There has been a development of anxiety, fear, somatic symptoms, sleep disorders, depression, feelings of anger and irritability, regret and loss, as well as post-traumatic stress (Esposito et al., 2021). Our results were almost identical. Pandemic catastrophes and the following reactions to limit the spread of the disease can create conditions that families and children consider traumatic (Sprang et al., 2013). The biggest problem for students was the lack of face-to-face contact with each other. One of the things students often pointed out was how much they longed to meet their friends and teachers (Ewing et al., 2021). In many countries, most schools have taken initiatives to support pupils during isolation by organizing special meetings for students, usually during the homeroom hours, but not only. During this time, students were able to talk to each other, talk about their new everyday life, about difficulties, and even play through all sorts of games and activities. In Estonia, some teachers took breaks during video lessons to talk about everyday topics. Almost all teachers kept in touch with students and their parents. (König et al., 2020).

As other surveys have shown, opinions on technical problems and technical equipment among students and teachers, according to other studies, were very similar. One group did not have access to computer hardware, or even if they did, they could not use it often. This was the case for 14% of teachers who did not have access to a laptop with a camera (whereas 8% of them, although they had such access, could not use it often), and as many as 29% of students, where 23% of them, although they had equipment at home, could not use it often (Ptaszek et al., 2020).

A 2020 survey in the United States also found that the most common factors limiting remote education were concerns about ensuring fair teaching for all students, hardware shortages among students, and the lack of Internet access. (Hamilton, 2020). Teachers not only in Poland and Germany, but also in most countries, were not prepared for such a sudden change in education, both in terms of mental, technological and methodical preparation. They lacked knowledge of how to support educational platforms, applications, and computer programs. Preparing online classes required more work from teachers, and also from school leaders. Teachers have taken the trouble to transfer teaching content and materials to virtual space and to acquire competences in using the necessary software (Allen et al., 2020). The COVID-19 pandemic has shown what the consequences will be if schools do not keep up with the fundamental process of ICT transformation. It will therefore be crucial to provide teachers with opportunities for professional development and training for future teachers (Daniel, 2020).

The sudden change in education has had a significant impact on the deterioration of mental condition. Stress, lack of sufficient technological knowledge, delay in the realization of the core curriculum, and network problems are some of the many problems encountered in the daily work of teachers during the pandemic.

Conclusion

The results of the study made it clear that, regardless of the country during the COVID-19 pandemic, there were many similarities in the problems related to remote education, teachers' preparation for online classes, mutual cooperation, and the deterioration of well-being of pupils in both countries due to isolation. At the same time, some differences have been revealed between schools in Poland and Germany concerning, among others, the evaluation of remote education, the realization of the content of the core curriculum, as well as the sources of support for school principals at this difficult time.

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Educational leadership and children’s resilience: German and Polish schools during COVID-19

Abstract

As a result of the pandemic, education has moved into virtual space on an unprecedented scale. Teachers were obliged to give up traditional and direct relationships in the school classroom, in favor of remote teaching using modern technologies. The purpose of this study was to determine the influence of the COVID-19 pandemic on education and to compare the problems and ways of coping with them between Polish and German schools. The study used a qualitative measure, which was realized through telephone interviews with school principals. The received responses have been transcribed and categorized. The final stage was a comparative analysis of the data obtained. The results of the study revealed that the most common problems concerned: the possession and functionality of teaching resources for remote learning (computer equipment, network connection), ensuring the needs of face-to-face relationships (lack of peer meetings and no direct contact with the teacher), mental problems caused by changes in education (depression, anxiety, feelings of stress) in teachers and students. Among the ways schools deal with these problems are leadership role of school leaders (support, staff training, mental support of students and teachers (meetings with a pedagogue, a school psychologist, conducting remote social meetings with students). In conclusion, there is a similarity among the problems related to remote education in both countries. At the same time, some differences in how to cope with them have been revealed.

Keywords: online learning, COVID-19, educational problems

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