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Opportunities, Possibilities and Limitations of the Development of a Gifted Student During a Pandemic in the Opinion of Parents

Abstract

The introduction of remote learning during the coronavirus pandemic has changed the way of working with gifted students. The article presents the results of a survey conducted among parents of gifted students aged 10–15 years. The parents filled out an electronic questionnaire containing both open- and closed-ended questions. Data were collected on 1,477 gifted children. The aim of the research is to diagnose the opportunities, possibilities, and limitations of the development of gifted students aged 10–15 (grades 4–8, secondary education) under the distance learning during the pandemic. The subject of the study is an analysis of selected elements of educating gifted students during the pandemic. The results indicate that 36.8% of students had comfortable conditions for remote learning (their own computer and room and a good Internet connection). The students' involvement in learning and independence were differentiated by their ability. The girls were significantly more involved than the boys and were statistically significantly

more independent. The students' involvement correlated positively with their independence. The main themes of the parents' statements regarding the possibilities and advantages of remote education were saving time, developing and strengthening academic competences, developing existing or acquiring new skills, maintaining children's safety and using IT tools during online learning. The students mainly developed their interests and abilities on their own, often with the support of the family, using the media or referring to online resources. No systemic support for gifted students was indicated.

Keywords: remote education, gifted students, COVID-19

Introduction

The pandemic significantly affected the identification and education of gifted students (Erdem, 2021). Some studies have indicated that the process of formal education has become more effective and beneficial from the point of view of socialization and self-development (Türksoy & Karabulut, 2020). On the other hand, school closures and isolation have resulted in greater psychological stress on children and more frequent family conflicts. Gifted learners have had to change their learning habits, leading to sleep disturbance, depression, frustration, and loss of motivation. Students have declared that remote learning was ineffective and inefficient (Aboud, 2021). Other negative feelings reported by gifted students during the pandemic include boredom, loneliness, sadness, anger, helplessness, and regret; the main shortcoming of gifted teaching was the lack of opportunity for interaction and discussion (Duraku & Hoxha, 2021). Gifted students defended themselves against these issues through the use of positive and effective coping strategies that, together with hope, correlated with positive subjective well-being (Kaya & Islekeller-Bozca, 2021). The normal students do not demonstrate higher rates of anxiety and mental disorders (Pfeiffer, 2015), but in the course of social isolation - in the absence of intellectual stimulation - fears, anxieties, or worries could increase in this social group as well.

The people who came to the aid of children's interests and abilities during the pandemic were their parents (Trzcińska-Król, 2020; Baum & Łukasiewicz-Wieleba, 2021), who had to find time and organize space for their children's activities, become a teacher as well as a companion in these activities, and mentally support and motivate them to work systematically. Reduced motivation was a factor that hindered such work with gifted students (Łukasiewicz-Wieleba & Jabłońska, 2022). Teachers, apart from noting the many possibilities of distance learning, also pointed to its limitations: no access to facilities and materials only being available in printed form (Łukasiewicz-Wieleba, 2020; Łukasiewicz-Wieleba & Jabłońska, 2022). Attempts were made to maintain individualized education of gifted students through various programs, such as the Differentiated Science Curriculum, which students and teachers deemed to be effective (Ceylan & Umdu Topsakal, 2021). A study with a tool for measuring the impact of COVID-19 on gifted students' quality of life showed that the impact was insignificant, though the results depended on the financial and intellectual resources of the family (Ercetin et al., 2021). Despite the lack of the possibility of enriching the educational program for gifted children, the potential for meeting academic and socio-emotional needs in virtual reality is high (Wolfgang & Snyderman, 2021; Romaniuk & Łukasiewicz-Wieleba, 2021). Gifted students are in the category of special needs students, for whom the impact of the pandemic turned out to be much higher than for ordinary students (Yakut, 2021). Various models of care and development strategies for such students have been proposed; if consciously implemented, they may increase the effectiveness of the educational services provided (Nasser & AlAli, 2022). The three important conclusions drawn from the experiences of recent months were found to be providing students with a choice through self-education, taking care of their social and emotional needs, and being aware that talented students are particularly vulnerable to the impact of the pandemic (Guilbault & McCormick, 2022). Teachers sought to better understand how to use distance learning, change the way how gifted students imagine the classroom, and use a variety of strategies to provide students with more choice, diversity, and an individualized pace of learning (Guilbault & McCormick, 2021). Despite the many initiatives

supporting gifted students, self-education is a challenge for them, which is difficult to cope with during a pandemic. Distance learning itself arouses such strong emotions that its impact on the functioning of a gifted student is significant (Trzcińska-Król, 2020). The opinions of gifted students about remote education varied greatly: They ranged from loving the home learning opportunities to hating every minute of it (Guilbault & Mc-Cormick, 2022). This type of learning was preferred by motivated and independent students, who saw in the virtual environment greater flexibility and accelerated learning – not having to waste time waiting for others; they could also devote additional time to personal projects, reading, musical instruments, or board or video games (Guilbault & McCormick, 2022).

Research problems

The aim of the research is to diagnose the opportunities, possibilities, and limitations of the development of gifted students¹ aged 10–15 (grades 4–8, secondary education) under the remote education of the pandemic. The study analyzes selected elements of the process of educating gifted students during the pandemic. The following research questions were formulated: What factors do parents of gifted students see as opportunities, difficulties, and limitations of the teaching process during a pandemic? Is there a relationship between the child's abilities, gender, and degree of independence and involvement during distance learning? Is there a relationship between the child's independence and commitment and selected aspects of education? How do parents of gifted children assess the work and possibilities of developing children's abilities in the course of remote education?

¹ Tadeusz Lewowicki's definition (1986) of a gifted student was adopted, in which a gifted student is characterized as having "a high level of general abilities and intelligence; a high level of special abilities and talents; high achievements or opportunities for such achievements in science or other fields of socially valuable activity; and original and creative achievements or the possibility of such achievements" (see: Łukasiewicz-Wieleba, 2018).

Context of the issue in question

It is justified to address this issue because of the need to analyze the impact of the pandemic on the remote education of gifted students and by the desire to capture and understand the changes taking place therein. The perspective of parents of gifted pupils, who have special educational needs, is rarely considered.

Research methods

The study used the diagnostic survey method. A questionnaire for the students' parents was constructed using the online form available through Google Forms. The researchers intended to obtain information from parents. Even though more accurate data would most likely have been provided by the students themselves, the researchers did not wish to add to the difficult workload associated with distance learning by addressing the students themselves. The collected data were statistically analyzed with the use of the software program IBM SPSS 27. The problematic aspect of online research was Internet access and the parents' use of indirect communication. Caregivers who did not use or avoided this form of communication may not have received the invitation to participate in the study. Other groups of caregivers who may have been underrepresented in the study were people who for various reasons were not interested in their child's education, were overburdened with other duties, or had insufficient IT and media skills.

The research was conducted in late June and early July 2021. The questionnaire was sent via e-mail to primary schools listed in the Register of Schools and Educational Institutions in Poland. Parents had the opportunity to comment on each of their children by completing the questionnaire multiple times. Participation in the study was voluntary.

The students were recognized as gifted on the basis of parental nominations. Parents who nominated their child as specially gifted were asked to indicate the areas in which the child's abilities manifest (education, 102

sports, art, and social areas) or provide any documentation of their achievements and successes or participation in activities that develop abilities and indicate the passions and interests of the child.

The sample

Parents with multiple gifted children were able to fill out the questionnaire for each of their children; therefore, the number of students/ questionnaires is used in the study instead of the number of respondents.

Parents completed questionnaires on 1,477 children aged 10–15 who show exceptional abilities or talents (grades 4–8, secondary education) (Table 1). The table does not include 22 surveys which indicated the second stage of education, but had incorrect information about the child's age. The areas in which the children had special abilities, as declared by the parents, were learning (n=570; 38.6%), sports (n=479; 32.4%), social competences (n=356; 24.1%), art (n=721; 48.8%), and other fields (n=182; 12.3%). These abilities were often reflected in the achievements of children, including in contests (n=592; 40.1%), competitions (n=304; 20.6%), tournaments (n=169; 11.4%), olympiada competitions (n=58; 3.9%), and other similar events (n=41; 2.8%). The respondents also indicated Paralympics, theater, and vocal performances, football games, school competitions, dance, and achievements confirmed by certificates. A lack of documented achievements was noted in 41.6% of the questionnaires (n=614). Despite the lack of documented achievements, the respondents wrote about their children's successes, which included their own work (because the child does not like to participate in competitions), academic achievements (grades or knowledge in a particular field), and scouting. Although these achievements were undocumented, it can be assumed that the child's potential would allow them to achieve success under favorable circumstances.

Child's age	Frequency	Percentage		
10	19	1.3		
11	365	24.7		
12	378	25.6		
13	308	20.9		
14	244	16.5		
15	141	19.5		
No data	22	1.5		
Total	1455	100.0		

Table 1. Age of the respondents' children

The caregivers were mainly mothers (92.5%; Table 2). The questionnaires referred to 741 girls (50.2%) and 736 boys (49.8%). The largest percentage of students were children living in rural areas (n=559; 37.8%), while fewer students lived in large cities (n=351; 23.8%). One in four students lived in a medium-sized city (n=342; 23.2%) and the smallest group were students from small towns (n=225; 15.2%). The caregivers assessed their own financial situations as good (M = 3.91; SD = 0.76; Min = 1; Max = 5; Me = 4; Mo = 4; Ske = -0.16; K = -0.53).

	Frequency	Percentage
Mother	1366	92.5
Father	103	7.0
Legal Guardian	8	0.5
Total	1477	100

Table 2	Res	pondents'	relation	ship	to	the	child
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The findings

The starting point for further analysis is to indicate the environmental conditions in which gifted students function. The vast majority of them (n=1,168; 79.1%) had their own room, and only a small percentage shared a room with the whole family (n=25; 1.7%). One in five children (n=284; 19.2%) had a different housing situation, such as sharing a room with one family member or not having their own room. Four fifths of the respondents (n=1,165; 78.9%) declared that their child studied in their own room. Some of the children (n=207; 14%) had their own space to work in a room shared with siblings, while a few had their own space in the family room (n=54; 3.7%) or shared a space with siblings (n=29; 2%). A few children did not have their own place to work at home (n=10; 0.7%)or had a different housing situation (n=12; 0.8%), for example, studying outside of the home or in a separate space within the parent's workplace. The study group also included children who, despite having their own study space in the home, preferred to remain with their family in the living room or had limited access to equipment because one computer was shared by all household members. One of the respondents wrote about technical problems with an Internet connection which forced all household members to work in one room.

One potential factor in a student's effective learning and work is the technical aspect: the computer equipment and the internet connection. Three fourths of the children (n=1,130; 76.5%) had their own computer, and on in seven (n=210; 14.2%) shared computer equipment with other family members. Some children (n=246; 16.7%) used mobile devices such as tablets or smartphones for remote learning. There were children (n=18; 1.2%) who did not have a computer at home that could be used for remote learning and those (n=72; 4.9%) who worked on borrowed equipment.

More than half of the children (n=826; 55.9%) used a permanent Internet connection (via cable modem or fiber optic connection) and almost half (n=633; 42.9%) connected via a mobile modem and SIM card. One in ten children (n=149; 10.1%) connected to the Internet using the signal provided by a smartphone. Some of the respondents did not have an Internet connection at home (n=6; 0.4%) or their children coped in some other way (n=10; 0.7%), by taking part in remote lessons at the parent's workplace, connecting to the Internet through a set-top box, or using a weak wireless connection.

The parents indicated various technical problems that their children had to deal with in their remote education. The largest group of people was affected by transmission problems, such as hang-ups or interruptions (n=900; 60.9%) or problems with the Internet connection (n=829; 56.1%). One in four children (n=407; 27.6%) had problems with hardware, others (n=207; 14%) had software problems, and others still (n=110; 7.4%) had problems with data loss despite using the auto-save option. A few children (n=20; 1.4%) had other technical difficulties, such as problems logging in or changing passwords, system failure, noise and distractions, insufficient IT skills (the student or the teacher), or inaccurate information from teachers. A large group of people (n=240; 16.2%) declared that their children had not encountered any problems.

The second group of difficulties was organizational problems. The most common problem (n=824; 55.8%) was with the Internet connection when all household members were using the Internet at the same time. Another problem was the need to work in one room with siblings or adults (n=195; 13.2%) and too few electronic devices (n=186; 12.6%). Less frequent was the situation in which all household members wanted to use the main computer at the same time (n=89; 6%). Parents also declared other organizational difficulties (n=112; 7.6%), including external distractions (noise, siblings, parents working remotely, etc.), a slow pace of work, fatigue, the need for adult help, and a lack of self-discipline, efficiency and concentration, IT skills, exercise, time with peers, physical supervision from the teacher, or teacher preparation. One in five parents (n=294; 19.9%) declared no organizational problems.

The results show that less than two thirds of the respondents' children (n=935; 63.3%) had comfortable conditions for remote learning: using their own computers in their own rooms with privacy. This percentage dropped to 36.8% (n=543) when the need to have a good Internet connection was taken into account.

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In order to check whether giftedness and gender differentiated the degree of involvement and independence of the children during remote learning, a two-way analysis of variance for independent samples was performed in a 2x2 factorial design (boy, girl vs. gifted, not gifted). The variances in the groups compared in terms of involvement were homogeneous (F(3; 1764) = 1.63; p = 0.180). The main effect of ability was significant, although weak ($F(1; 1764) = 15.12; p < 0.001; \eta_p^2 = 0.008$). The gifted students (M = 3.49; SD = 1.09), in the eyes of their parents, were significantly more involved in distance learning than non-gifted students (M = 3.18; SD = 1.07). The main effect of gender was significant, although weak ($F(1; 1764) = 10.66; p = 0.001; \eta_p^2 = 0.006$). The girls (M = 3.57;SD = 1.08) were significantly more involved in distance learning than the boys (M = 3.32; SD = 1.09). The effect of the interaction of gender and giftedness was not significant (F(1; 1764) = 0.013; p = 0.909). The gifted girls (M = 3.60; SD = 1.07) were more engaged than the gifted boys (M = 3.38;SD = 1.09) and this difference was statistically significant (F = 0.002; *p* = 0.965; *t* (1475) = 3.99; *p* < 0.001; Cl95% [0.11; 0.33]).

The variances in the groups compared in terms of independence were not homogeneous (F(3; 1764) = 5.26; p = 0.001). The main effect of the ability is significant, although weak ($F(1; 1764) = 44.83; p < 0.001; \eta^2_p = 0.025$). The gifted pupils (M = 3.90; SD = 1.02) were significantly more independent in the eyes of their parents than non-gifted pupils (M = 3.45; SD = 1.03). The main effect of gender was statistically significant (F(1; 1764) = 2.97;p = 0.085). The girls (M = 3.94; SD = 1.03) were slightly more independent than the boys (M = 3.72; SD = 1.04). The effect of the gender–ability interaction was not significant (F(1; 1764) = 2.43; p = 0.119). The gifted girls (M = 4.01; SD = 1.00) were more independent than the gifted boys (M = 3.79; SD = 1.03) and this difference was statistically significant (F = 8.41; p = 0.004; t(1; 472.85) = 4.20; p < 0.001; Cl95% [0.12; 0.33]).

The transition to distance learning had a significant impact on many aspects of the students' functioning. The analysis with Student's t-test for one sample showed that in the study group, the mean of comparative assessments of selected elements that are common to both remote and traditional education was statistically significantly lower than 3 (this value was adopted because it indicated that the parents of gifted students found the elements of education to be "the same in traditional and remote education" on a five-point scale). The results show that parents assessed as better the commitment, activity, regularity of work, timeliness and quality of performed tasks, independence of work, and success in learning within full-time education (Table 3).

	t*	М	SD	Mean difference	Upper limit**	Lower limit**
Traditional vs. remote engagement	-67.13	1.77	0.97	-1.24	-1.27	-1.20
Activity	-54.31	1.93	1.04	-1.07	-1.11	-1.04
Systematic work	-55.68	1.96	0.98	-1.04	-1.08	-1.01
Timely execution of tasks	-43.30	2.16	1.02	-0.84	-0.87	-0.80
Quality of tasks	-46.06	2.11	1.01	-0.89	-0.92	-0.85
Independence of doing housework	-41.12	2.25	0.96	-0.75	-0.79	-0.72
Independence in taking tests	-48.84	2.10	0.97	-0.90	-0.94	-0.87
Success in science	-37.73	2.21	1.10	-0.79	-0.83	-0.75

Table 3. Selected aspects of education during social isolation

*One-sample t-test, test value = 3; df = 2755; p <0.001 **95% confidence interval for the difference of means

The children's involvement significantly, strongly, and positively correlated with their independence ($\tau_b = 0.53$; p < 0.001). The correlations between the degree of the children's involvement with the above-mentioned aspects of education were statistically significant (p < 0.001 for all) and positive, which means that the higher the parents rated their child's involvement, the more their indications shifted towards remote education. The strength of these correlations was weak. The correlation coefficients (Kendall's *tau-b*) between the level of involvement and selected aspects of education were as follows: traditional vs. remote involvement: $\tau_b = 0.38$; activity: $\tau_b = 0.32$; regularity of work: $\tau_b = 0.31$; independence

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of doing homework: $\tau_b = 0.27$; independence of taking tests: $\tau_b = 0.28$; and success in learning: $\tau_b = 0.25$.

The correlations between the children's degree of independence and the above-mentioned aspects of education were statistically significant (p<0.001 for all) and positive, which means that the higher the parents rated the involvement of the child's degree of independence, the more their indications shifted towards remote education. The strength of these correlations was weak. The correlation coefficients (Kendall's *tau-b*) between the level of independence and selected aspects of education were as follows: traditional vs. remote involvement: $\tau_b = 0.24$; activity: $\tau_b = 0.22$; regularity of work: $\tau_b = 0.25$; tasks: $\tau_b = 0.22$; quality of tasks: $\tau_b = 0.21$; independence of doing homework: $\tau_b = 0.28$; independence of taking tests: $\tau_b = 0.29$; and success in learning: $\tau_b = 0.16$.

In order to better understand the opinions of parents regarding online learning and pupils' work in remote education, an open guestion was asked about its perceived advantages. Open coding was used to analyze the resulting data (categorizing the answers to open-ended questions). In this way, 1,139 opinions (78.7%) on distance learning were obtained. Some carers refined their thoughts and statements in a more detailed way. While one third of the opinions (n=481; 32.6%) stated that they did not see any advantages in remote education, eight respondents (0.5%) said that they could not say anything positive or negative about this form of education. Among the statements regarding positive aspects of distance education, five main categories were identified. The first one refers to saving time (n=196; 13.3%) by not traveling to and from school and shortening the duration of some lessons. Some students were able to devote this extra time to developing their hobbies, resting longer, doing work assigned by the teacher, or better organizing their day. Here are some examples of what the respondents said:

- R.989: "My child has more free time for hobbies, etc."
- R.958: "Children have more time to rest."
- R.383: "[They are] able to use breaks to do homework."
- R.765: "Better planning and execution of daily activities and tasks"

R.1052: "Lessons shorter than usual resulted in having additional time for developing interests."

The second category was developing and strengthening academic competences (n=187; 12.6%). Some parents (n=59; 4.0%) mentioned more independence for students. The respondents also wrote about the lack of distractions (school noise, judging colleagues) and the possibility of focusing more during lessons (n=40; 2.7%). The children were able to participate in lessons despite colds or chronic illnesses (n=34; 2.7%) and experienced less stress from school (n=30; 2.0%). The pace of work could be adjusted to the child's needs (n=15; 1.0%), for example, by capturing a screenshot and adding it to their lesson notes. In some students, parents noticed more self-confidence due to a certain anonymity that the remote connection provided, and thus better learning results (n=9; 0.6%). Statements from parents illustrating this category are quoted below.

- R.673: "Learning to be independent, searching for knowledge, drawing conclusions, being able to adjust the time"
- R.859: "My child is dealing with the system on his own he reports himself, openly, responds willingly, is not afraid, feels safe ..., no one teases him, makes fun of him, or insults him."
- R.1695: "No falling behind, e.g., in the case of illness. Lessons should always be like this – the teacher should have a camera all the time so that absent children can listen in on lessons."
- R.1872: "For my child, who has Asperger's syndrome, the stress of having face-to-face contact and confronting sometimes difficult situations has gone away."
- R.1881: "She could take notes more precisely because it was possible to take photos, she wasn't distracted by other students, there were no educational problems, there was no additional stress from contact with unpopular classmates, less stress in answering verbally (no one is looking at me during lesson and there are no comments from other pupils towards me, which often happened in classroom)."

R.2647: "In my opinion, distance learning contributed to my child becoming independent faster, taught regularity and scrupulousness when obeying teachers commands."

The third category was IT competences, whether developing existing ones or acquiring new ones, by both students and teachers. This topic appeared in almost one tenth of the responses (n=132; 8.9%). Using the Internet and digital tools and being able to search for information were the main skills indicated for this area:

- R.742: "Learning the use of various computer programs, quickly learning a word processor, spelling, handling and transferring materials on the computer."
- R.746: "Everyone is more technologically advanced; they can do more with a computer."
- R.821: "Adapting to work and collaborating with others through remote technology."
- R.1247: "Students learn to be more independent in their search for information (instead of relying only on what the teacher says in the lesson)."

The fourth category was related to the children's safety (n=80; 5.4%), which refers to both protecting against viruses, including SARS-CoV-2, and safety at school (no peer violence).

R.1901: "Reduced virus emission and transmission to family members." R.2659: "No aggression or harassment problems by older colleagues."

The fifth category concerned the use of IT tools during online learning, gathering all the necessary information about lessons and homework in one place (n=32; 2.2%).

R.1144: "New working methods, teachers using e-resources. Students searched for and learned about new educational programs."

- R.1449: "Access to materials from previous lessons and homework that has been returned; homework and instructions saved in emails and messages."
- R. 1945: "Possibility of replaying lesson materials and videos that were sent online."
- R.2156: "Using new technologies for certain topics, e.g., a virtual tour of a museum."

Additional, extra-curricular activities enable children not only to develop their interests and abilities, but also to compensate for deficits and maintain physical fitness. During social isolation, access to these activities was severely limited, but almost one third of the children in the study (n=530; 35.9%) continued attending all the same extracurricular activities as before the pandemic. One quarter of them (n=377; 25.5%) were forced to limit the number of classes and attend only some of them. In turn, 63 children (4.3%) attended different classes than during regular education. Almost one third of the students (n=507; 34.3%) did not participate in extracurricular activities during the pandemic.

An open-ended question was asked regarding the parents' views on how to develop students' interests during the pandemic. Open coding was used to analyze the data and the responses were categorized. According to the respondents, the way to develop children's interests at that time was for them to work on their own, in the family circle. Almost one third of the children (n=429; 29.0%) developed their interests and skills at home with the support of their parents and siblings, (e.g., by planning trips together, playing outside, and cooking) and through self-education. For artistically gifted children, the parents tried to provide the necessary materials to work at home. In turn, about 20% of the students (n=321; 21.7%) used the opportunities offered by the media (searching for the necessary information online, watching TV channels and programs, and working with the available software on a tablet/computer). Less than 20% of the respondents' children (n=282; 19.5%) took additional classes (e.g., training, remote classes, private lessons, individual meetings, and consultations with a guardian). Some children used literature (n=181; 12.3%). It should

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also be noted that parents indicated inhibition or lack of interest in almost one fifth of the children (n=283; 19.2%). The reasons given included a lack of opportunities, fatigue, constant online learning, a lack of motivation, stimulus for the development, and discouragement to work.

Summary and discussion of the results

Our analysis allows us to conclude that the main problems in remote education related to Internet connections, access to hardware and software, and the need to share equipment and space with other household members. These problems have also been indicated by many other researchers of crisis distance education (Omyła-Rudzka, 2021; Buchner et al., 2020; Romaniuk et al., 2020; Ptaszek et al., 2020; Plebańska et al., 2020).

In gifted students, we observe different developmental patterns (Silverman, 2010), involving cognitive, emotional, social, and academic experiences of gifted students that differ from those of their peers; this creates unique educational needs. They also have more of a predilection for learning with the kinesthetic and tactile senses than with the auditory senses (Yong & McIntyre, 1992), which online learning predominantly entails. Research on gifted students' perception of virtual classrooms shows that they were concerned about the lack of social contacts and reported a preference for frequent interactions with classmates and the instructor. The content of the lesson and the quality of instruction were more important than the manner and environment in which it was conducted (Potts, 2019). In the present research, the completely opposite picture emerged, wherein the curriculum and education were rated much more highly in the case of full-time education. We can see similar conclusions in a study by Yusra Aboud (2021), in which gifted students said that it was ineffective. The students who were more motivated and involved in learning during crisis education functioned much better in it. Similar results were obtained by Keri Guilbault and Kimberly McCormick (2022).

The main topics of free statements by parents regarding the possibilities and advantages of remote education were saving time, developing and strengthening academic competences, developing existing or acquiring new IT skills, security, and using IT tools for online learning. These themes also appeared in studies by Fatih Kaya and Aysegul Islekeller-Bozca (2021). Some of the respondents saw in remote education the possibility of developing their interests and passions (Bieganowska-Skin & Pankowska, 2020), the freedom from commuting to school, and time to devote to their own interests thanks to the shorter lessons.

Conclusions

As the study shows – in line with research by other researchers (Trzcińska-Król, 2020; Baum & Łukasiewicz-Wieleba, 2021) – as a result of limiting social contact and closing facilities, the burden of developing skills rested on the shoulders of parents and guardians. The systemic support that was available for gifted students before the pandemic (Łukasiewicz-Wieleba & Romaniuk, 2020) has been limited. Strengthening IT, Computer Science, and media skills came at the expense of social skills.

Remote education was a major challenge for all participants in education and we cannot treat it only in terms of wasted time. One cannot go unnoticed by the didactic and educational solutions that can be an inspiration for modern education and cannot fail to notice the students who have benefited from this form of education.

References

- Aboud, Y. (2021). Challenges to gifted education in the COVID-19 pandemic about online learning in Saudi Arabia from the perspective of gifted students and parents. *Journal of Gifted Education and Creativity*, 8(1), 11–21.
- Baum, A., & Łukasiewicz-Wieleba, J. (2021). Odziaływania rodzicielskie w rozwijaniu uzdolnień sportowych dzieci w czasie izolacji społecznej spowodowanej pandemią COVID-19. *Horyzonty Wychowania*, 20(53), 11–24. DOI: https://doi.org/10.35765/hw.1967

Bieganowska-Skóra, A., & Pankowska, D. (2020). *Moje sampoczucie w e-szkole. Raport z badań*. Lublin: Katedra Pedeutologii i Edukacji Zdrowotnej UMCS.

Buchner, A., Majchrzak, M., & Wierzbicka, M. (2020). Edukacja zdalna w czasie pandemii. Raport z badań. Edycja I. Retrieved from

https://centrumcyfrowe.pl/edukacja-zdalna-w-czasie-pandemii-1-edycja/

Ceylan, Ö., & Umdu Topsakal, Ü. (2021). Teachers' and gifted students' views regarding the implementation of the DSC in the COVID-19 distance education process. *Mimbar Sekolah Dasar*, 8(2), 114–131. DOI: https://doi.org/10.53400/mimbar-sd.v8i2.32474

Duraku, Z. H., & Hoxha, N. (2021). The impact of COVID-19, school closure, and social isolation on gifted students' wellbeing and attitudes toward remote (online) learning. In Z. H. Duraku, *Impact of the COVID-19 pandemic on education and wellbeing: Implications for practice and lessons for the future* (pp. 130–167). Prishtina: University of Prishtina "Hasan Prishtina" Faculty of Philosophy, Department of Psychology.

Erçetin, Ş. Ş., Potas, N., Açikalin, Ş. N., Koçtürk, N., & Abal, S. (2021). Effects of COVID-19 on gifted students' quality of life (QOL-GSS): Scale development and application. *Sakarya University Journal of Education*, *11*(1), 28–50. DOI: https://doi.org/10.19126/suje.843116

Erdem, C. (2021). Problems, transformations, application examples and detections for gifted students in the Polish education system in the COVID-19 process. *Journal for the Education of Gifted Young Scientists*, 9(1), 37–45. DOI: https://doi.org/10.17478/jegys.864104

Guilbault, K. M., & McCormick, K. (2021). Supporting elementary gifted learners during the COVID-19 pandemic: A survey of teaching practices. *Gifted Education International*, 38(1), 115–137. DOI: https://doi.org/10.1177/02614294211070075

- Guilbault, K. M., & McCormick, K. (2022). Three lessons learned from teaching gifted learners during the COVID-19 pandemic. EdArXiv. DOI: https://doi.org/10.35542/osf.io/spjd8
- Kaya, F., & Islekeller-Bozca, A. (2021). Experiences of gifted students during the COVID-19 pandemic in Turkey. *Gifted Education International*, *38*(1), 25–52. DOI: https://doi.org/10.1177/02614294211069759

Lewowicki, T. (1986). Kształcenie uczniów zdolnych. Warsaw: WSiP.

- Łukasiewicz-Wieleba, J. (2018). *Rozpoznawanie potencjału oraz wzmocnienia i ograniczenia rozwoju zdolności dzieci w narracjach rodziców*. Warsaw: Wydawnictwo Akademii Pedagogiki Specjalnej.
- Łukasiewicz-Wieleba, J. (2020). Wars i Sawa na kwarantannie, czyli o wsparciu uczniów zdolnych w czasie kryzysowej edukacji zdalnej. Retrieved from https://edukacja.um.warszawa.pl/documents/66399/19839747/wars-isawa-w-kryzysowej-edukacji-zdalnej.pdf/99c3ee80-562b-737a-7377-25113b786be2?t=1634497878013
- Łukasiewicz-Wieleba, J., & Jabłońska, K. (2022). Doświadczenie kryzysowej edukacji zdalnej w opiniach nauczycieli uczniów zdolnych. In M. Romaniuk & M. Jabłonowska, *Zdolności i twórczość. Koncepcje. Badania. Praktyka*. Warsaw: Wydawnictwo Akademii Pedagogiki Specjalnej.
- Łukasiewicz-Wieleba, J., & Romaniuk, M. W. (2020). System support for gifted students in Poland: Warsaw Gifted Support System and Wars I Sawa program. *Current and Future Perspectives on Teaching and Learning*, *2*, 7–13.
- Nasser, F. A., & AlAli, R. (2022). Taking care of gifted students in universities during the coronavirus pandemic (COVID-19). *Review of International Geographical Education Online*, *12*(1), 46–59.

Omyła-Rudzka, M. (2021). Edukacja zdalna – doświadczenia i oceny. (19). Retrieved March 26, 2022 from https://www.cbos.pl/SPISKOM.POL/2021/K_019_21.PDF

- Pfeiffer, S. I. (2015). Gifted students with a coexisting disability: The twice exceptional. *Estudos de Psicologia*. (*Campinas*), 32(4), 717–727. DOI: https://doi.org/10.1590/0103-166X2015000
- Plebańska, M., Sieńczewska, M., & Szyller, A. (2020). *Edukacja zdalna w czasach COVID-19. Raport z badania.* Warsaw: Wydział Pedagogiczny Uniwersytetu Warszawskiego. Retrieved from

https://kometa.edu.pl/uploads/publication/941/24a2_A_a_nauczanie_zdalne_oczami_nauczycieli_i_uczniow_RAPORT.pdf?v2.8

Potts, J. A. (2019). Profoundly gifted students' perceptions of virtual classrooms. Gifted Child Quarterly, 63(1), 58–80.

DOI: https://doi.org/10.1177/0016986218801075

Ptaszek, G., Stunża, G. D., Pyżalski, J., Dębski, M., & Bigaj, M. (2020). Edukacja zdalna: co stało się z uczniami, ich rodzicami i nauczycielami? Gdańsk: Gdańskie Wydawnictwo Psychologiczne. Retrieved from

https://zdalnenauczanie.org/wp-content/uploads/2020/10/edukacja-zdalna.pdf

- Romaniuk, M. W., & Łukasiewicz-Wieleba, J. (2021). Zdalna edukacja kryzysowa w APS w okresie pandemii COVID-19. Z perspektywy rocznych doświadczeń. Warsaw. DOI: https://doi.org/10.13140/RG.2.2.10251.62243
- Romaniuk, M., Łukasiewicz-Wieleba, J., & Kohut, S. (2020). Nauczyciele akademiccy wobec kryzysowej edukacji zdalnej. e-mentor, 5(87), 15–26. DOI: https://doi.org/10.15219/em87.1489
- Silverman, L. K. (2010). Asynchrony. In B. Kerr & B. Wells, The encyclopedia of giftedness, creativity and talent (pp. 67–70). Thousand Oaks, CA: Sage Publications.
- Trzcińska-Król, M. (2020). Students with special educational needs in distance learning during the COVID-19 pandemic: Parents' opinions. Interdisciplinary Contexts of Special Pedagogy, 29, 173–191.

DOI: https://doi.org/10.14746/ikps.2020.29.08.

- Türksoy, E., & Karabulut, R. (2020). Gifted students' perceptions of distance education in the COVID-19 epidemic. Talent, 10(2), 176–189. DOI: https://doi.org/10.46893/talent.773442
- Wolfgang, C., & Snyderman, D. (2021). An analysis of the impact of school closings on gifted services: Recommendations for meeting gifted students' needs in a post-COVID-19 world. Gifted Education International, 38(1), 53–73. DOI: https://doi.org/10.1177/02614294211054262
- Yakut, A. D. (2021). Educators' experiences in special education institutions during the COVID-19 outbreak. Journal of Research in Special Eduactional Needs, 21(4), 345-354. DOI: https://doi.org/10.1111/1471-3802.12533
- Yong, F. L., & McIntyre, J. D. (1992). A comparative study of the learning style preferences of students with learning disabilities and students who are gifted. Journal of Learning Disabilities, 25(2), 124–132.

DOI: https://doi.org/10.1177/002221949202500206