





Parental involvement in remote learning during the COVID-19 pandemic—Dominant approaches and their diverse implications

Tomasz Knopik¹  | Anna Błaszczak¹  | Renata Maksymiuk²  | Urszula Oszwa³ 

¹Institute of Psychology, Maria Curie-Skłodowska University, Lublin, Poland

²Institute of Psychology, Jagiellonian University, Kraków, Poland

³Institute of Pedagogy, Maria Curie-Skłodowska University, Lublin, Poland

Correspondence

Tomasz Knopik, Institute of Psychology, Maria Curie-Skłodowska University, Głęboka 45, 20-612 Lublin, Poland
Email: tomasz.knopik@umcs.eu

Abstract

The aim of the study on which this article reports was to identify parents' approaches to their children's remote education during the COVID-19 pandemic in April and May 2020. Additionally, this investigation sought to determine the role of parent perceptions of the barriers and benefits of remote education. The research draws on a survey of 421 parents of primary school students, in which a 66-item questionnaire (4 subscales) was used. Analysis revealed three main clusters that represent approaches adopted by parents: (1) the committed teacher approach, (2) the autonomy-supporting coach, and (3) the committed teacher and intervener. The parents in cluster 3 emphasised perceived barriers to remote learning more than parents in clusters 1 and 2. Regarding perceptions of the benefits, statistically significant differences were found in perceptions of child development facilitated by remote education (the parents in cluster 2 rated it most positively). The results can be used to support parents and schools in the provision of optimal remote learning.

1 | COVID-19 PANDEMIC RESTRICTIONS AND A NEW CONTEXT OF EDUCATION

During the COVID-19 pandemic, most countries introduced restrictions on the functioning of schools and moved the educational process to virtual networks and family homes (Song et al., 2020). In Poland, after two weeks of suspended classes, remote teaching was launched. Each institution had to rapidly develop its own implementation strategy. The methodology of conducting classes before lockdown did not take into account blended learning, and

over 90% of schools had to quickly equip themselves with tools that facilitate remote learning (Librus, 2020). The Polish education authorities (through appropriate regulations) recognised that online teaching should fully implement the content of the core curriculum, which should be verified by means of adequate didactic measurement. They did not take into account that the overloaded programme forces the continuation of transmission teaching and does not deepen the message and its assimilation; instead, it makes it superficial and focused on short-term memorization (Klus-Stańska, 2017). The primacy of implementing the core curriculum has limited teachers' freedom in implementing the *Maslow before Bloom* principle (Doucet et al., 2020).

Such a direct transfer of traditional teaching to a virtual network without modifying the curricula and changing the education philosophy (Knopik & Oszwa, 2019) is associated with specific consequences in the area of parental involvement in children's learning processes. In most cases (especially with younger children and students with special educational needs; Brandenburg et al., 2020) a significant increase in the time devoted by parents to participate in their children's education was expected (Carpenter & Dunn, 2021). The scope of parental involvement depends to a large extent on the way teachers implement remote learning.

A study conducted among 2,961 Polish teachers (Librus, 2020) shows that 31% used platforms that enable synchronous communication; 27% sent materials for self-completion by students; and 19% gave students tasks that they had to complete in their exercise books. The remaining respondents sent links to interactive materials (13%) or used instant messaging (8%). This means that only a third of teachers conducted classes in accordance with the regular weekly schedule; the rest only formulated requirements and indicated resources. A study conducted by the Polish Economic Institute shows that only 15% of Polish teachers had any experience in remote learning before the pandemic (Gajderowicz & Jakubowski, 2020). This problem was also shown by the Programme for International Student Assessment (PISA) study (PISA, 2018): 54% of students in countries associated with the Organisation for Economic Co-operation and Development (OECD) and 35% of students in Poland had access to an online learning platform at school. In OECD countries 48% of respondents participated in a program that used digital devices to teach and learn specific school subjects, whereas in Poland only 15% did.

This situation forces parents to significantly participate in both logistic activities (providing appropriate equipment, printing materials, creating an account on the platform, sending photos of homework, supervising the schedule of activities, etc.) and those directly related to the learning process (task implementation, preparing notes, finding sources, etc.). However, parents can be involved in the remote teaching of their children using a variety of strategies (Hoover-Dempsey & Sandler, 1995; Szumski & Karwowski, 2017; Walker & Hoover-Dempsey, 2008). The research presented in this article focuses on parental perceptions of remote learning, specifically regarding perceived barriers and benefits of remote learning.

2 | CHALLENGES AND OPPORTUNITIES FOR REMOTE LEARNING

Remote learning is a method of learning and teaching that takes place outside school premises and does not require the physical presence of students and teacher in the same space (Moore, 2019). Communication between teacher and students takes place through media. Students work alone or in groups (but without direct contact with other students), guided by instructions and materials prepared by the teacher (Association to Advance Collegiate Schools of Business, 2007). Remote learning is developing dynamically thanks to the expansion and availability of modern technologies (Diehl, 2019).

E-learning seems to be easier and more accessible than traditional learning due to its flexibility (Bell et al., 2017). However, there are some barriers (Valentine, 2002). On the one hand, it requires access to the necessary technologies; on the other hand, there is a need to develop specific curricula and materials adapted to this form of education (Zawacki-Richter & Anderson, 2013). The motivation and digital competences of teachers and students are also of key importance (Zawacki-Richter & Anderson, 2013).

The suddenness and compulsion to use this form of education during the COVID-19 pandemic made it a great challenge for teachers, students and their parents. The lack of previously developed and tested guidelines and good practices for conducting e-lessons caused communication and methodological chaos, while clear rules, plans, programmes, or instructions are the basis for effective implementation of remote learning (Association to Advance Collegiate Schools of Business, 2007). According to a report by the Digital Center Foundation (CC, 2020), in some countries even 85% of professionally active teachers had never conducted any online classes before the pandemic, and according to Valentine (2002) this lack of experience is one of the key barriers to remote learning. Resources that were developed ad hoc did not take into account the individual needs of students (e.g., their sensory-motor deficits, learning difficulties, learning styles), which reduced the effectiveness of remote learning (Brindley, 2013) and forced greater involvement from parents or guardians.

Lack of experience in online teaching is related to the limited digital competences of teachers. Biedrzycki and colleagues (Biedrzycki et al., 2014) indicate that despite the widespread use of computers and the internet, teachers much more often use these technologies for purposes not related to work at school. However, the actual use of computers for teaching purposes varies considerably between countries: 90% of teachers in Australia and 76% of teachers in Russia and Korea use a computer at least once a week, but only 41% of teachers in Poland or Croatia do so (Biedrzycki et al., 2014). International data from a 2018 study on the digital competences of students and teachers show that, on average, about 48% of teachers use a computer every day during lessons (Fraillon et al., 2020), and there are still clear differences among the countries from which the respondents come (e.g., only 25% of the surveyed teachers from Chile or 35% from Italy compared to 72% of Danish educators). According to Fraillon and colleagues (2020), this is related to systemic solutions regarding the use of modern technologies in education that are the result of school or government guidelines and teachers' lack of formal education in information technology competences.

A report by Jasiewicz and colleagues (2013) indicates that Polish teachers highly appreciate their competences in the field of preparing multimedia presentations; however, the use of software for conducting remote lessons is seen as difficult. International studies also confirm that—regardless of nationality—teachers who use modern technologies in the classroom apply them more often to relatively simple tasks (presenting or searching for information, or revising educational material, etc.) than for more complex tasks related to the process of acquiring knowledge and skills, such as e-portfolios or simulation, modelling, or concept-mapping software (Fraillon et al., 2013). This tendency is also evident in current research (Fraillon et al., 2020). Only 5% of Polish teachers described their preparation for remote education as very good, and about 40% felt moderately prepared for giving e-lessons (Gajderowicz & Jakubowski, 2020).

The situation of students is similar to that of teachers. Almost all students participating in the International Computer and Information Literacy Study (Fraillon et al., 2013, 2020) declared experience in using computers, having access to equipment, and a belief in their strong competences in this area. Nevertheless, the respondents declared that they use their computers at home much more often than at school: about 80% of them do so every day to communicate with others, listen to music and watch movies, search online resources or play games. Only 20% of the surveyed students declared that they use their computers for school-related tasks every day (Fraillon et al., 2020). According to the PISA (2018) study, for the theme on young people's digital competences, the respondents declared that they use their computers for school-related tasks, mainly for searching for information and creating documents (Fraillon et al., 2020). On average, only about 25% of students declared that they used a computer for school assignments, such as writing essays (33%) or preparing presentations (19%). Similar results were obtained in a study of Polish students (Biedrzycki et al., 2014). The collected data mainly suggest the recreational and extracurricular use of modern technologies by students and their insufficient experience in using digital equipment as a learning tool. The criterion of the dominance of the recreational use of new technologies is becoming more and more pronounced in research on the dimensions of digital exclusion (see Dolan, 2016). These data should be related to the general preparation of the whole society to use new technologies. In the 2020

Digital Economy and Society Index (DESI, 2020), Poland ranked 23rd out of 28 member states. In addition, more than half of the Polish population did not have basic digital skills, and 15% did not use the internet at all.

Students' and teachers' poor digital competences seem to be an important barrier to remote education (Valentine, 2002). Another challenge is students' motivation (Simons et al., 2020). It is assumed that remote learning is deliberately chosen by students in order to acquire specific knowledge or skills, thus indicating their intrinsic motivation (Dron, 2019). The possibility to choose the content, method and time of learning is by definition conducive to internal motivation (cf. Deci & Ryan, 2008). However, the key stage is the student's opportunity to make independent decisions (Woodley & Ormond, 2013), which is absent in imposed forms of remote learning. This form of learning, which does not result from the conscious and deliberate choice of the student, may cause problems with engagement in online lessons. Lack of contact with peers, real interactions, cooperation or competition also has a negative impact on students' motivation to learn remotely during a pandemic lockdown; this was observed already during the early stage of the COVID-19 pandemic. Knopik and Oszwa (in press) research involving primary-school students showed that 90% of the activity undertaken by the respondents during remote education was individual. This could be a consequence of students' individual preference to avoid superficial interactions (cf. Fung, 2004). This is unfortunate as group work contributes with positive cognitive effects and can prevent social deprivation, which is a risk factor during quarantine and social distancing requirements (cf. Corkin et al., 2018).

3 | PARENTAL INVOLVEMENT IN EDUCATION

In the broadest sense, parental involvement in children's education can be understood as active measures to support them in the learning process, taking into account their cognitive, emotional, social and personality development (Szumski & Karwowski, 2017). Teachers expect parents to help them create a positive collaborative learning environment that has no hard school-home boundaries. Such a family-school *partnership* may involve (a) parents discussing school matters with their child, (b) direct help with homework, (c) supervising the child's progress, (d) communicating with school staff, (e) participating in school decisions and (f) getting involved in activities (LaRocque et al., 2011).

The first three forms of parental involvement (a–c) are based on interactions between parent and child and are referred to as *home-based parental involvement*. The others (d–f) require interaction between parents and school staff and are called *school-based parental involvement*. This article focuses on home-based parental involvement in online education.

Based on meta-analyses, Epstein (2001) identified the structure of parental involvement, which includes six factors: (1) parenting, (2) communicating, (3) volunteering, (4) learning at home, (5) decision-making and (6) collaborating with the community. These types of involvement do not exist in a *pure* form in practice: individual parent involvement usually includes activities that are characteristic of more than one dimension (Epstein et al., 2002). Given the specifics of forced remote learning during the COVID-19 pandemic, we identify as key dimensions of parental involvement: *communication* and *home learning*. Certainly, activities included in the *parenting factor* that are related to providing students with emotional and motivational support by encouraging and accompanying them in remote learning are also important for the overall well-being of the child.

Hoover-Dempsey and Sandler (1995) categorise the activities that make up parental involvement slightly differently. These researchers distinguish actions aimed at *immediate* and *long-term* (delayed) effects. In the first category, parents explain how to solve a task and correct mistakes, point to sources of information, and they sometimes perform tasks for their children. The second type of support involves discussing instructions together and identifying the problem, comparing new information with previous knowledge, and critical reflection on knowledge. This approach gives the child a lot of autonomy in developing knowledge. It is based on the methodical creation of scaffolding for new cognitive schemas (Filipiak, 2012). Although both parenting strategies may

contribute to an increase in the effects of education, only the latter (a) leads to the development of abstract thinking skills and the acquisition of competences that are transferable to a wider range of problems and areas of knowledge (Szumski & Karwowski, 2017) and (b) refers to meta-components responsible for universal strategies of knowledge acquisition (Sternberg & Grigorenko, 2000).

Studies have shown that parental involvement in learning has a positive impact on their children's achievements (Castro et al., 2015), although the size of the effect depends primarily on the quality of this involvement (Moroni et al., 2015). The style with which parents engage in supporting their children's education is also important. Pomerantz et al. (2007) indicated that autonomy support, process focus, positive affect, and positive beliefs about children's potential are positively correlated with student's educational success.

High (deep) parental involvement has been associated with cognitive success but also with the development of social competences (Sheridan et al., 2012) and positive (compliant) behaviour (Domina, 2005). Research conducted by Moroni et al. (2015) indicates that the frequency of parental involvement in helping with homework negatively correlates with educational achievement, while the perceived quality of the support provided has a positive impact on learning outcomes. The conducted analyses indicated that if parental homework involvement is developmentally inappropriate, confusing for the child, inconsistent with school expectations or controlling (e.g., by replacing), it negatively correlates with the child's developmental progress and school achievements.

However, as Borup et al. (2013) claim, the phenomenon of parental involvement in online learning is not the same as engaging in traditional education and requires redefining the scope of responsibilities and tasks that a parent should undertake. Unfortunately, in the fields of pedagogy, psychology and digital technologies, there are still no comprehensive studies of this phenomenon (Waters & Leong, 2014) and the research so far has mainly focused on two situations:

- a. *home schooling* in which online teaching is optional—a form of student work under parental control;
- b. *blended learning* in which online learning usually serves a flexible supplement to standard education (Watson et al., 2014).

In both trends it has been shown that parents face new challenges in relation to full-time education. These challenges concern not only greater control of their children but also motivating them to work, supporting their self-organisation, and responsibility for their progress and achievement (Liu et al., 2010).

However, remote learning during the COVID-19 pandemic has been a forced activity that requires spontaneous and often random action, and which has a global character evoking various reactions from national education systems. In the face of the risk of successive waves of the disease, which might lead to continued social distancing and limitations in the operation of schools, it is justified to study in detail the strategies of parental involvement in remote education and to define the role of parental approaches and perceptions of difficulties and potential benefits of online education.

4 | MATERIALS AND METHOD

4.1 | Research questions

In connection with the observed increase in parental involvement in education during the lockdown period and the need for an extensive exploration of this phenomenon, the following research questions were formulated:

1. What are the predominant approaches to supporting remote learning used by parents of primary school students? What is the specificity of these approaches?

TABLE 1 Analysis of the structure of the questionnaire and its subscales

Module	Subscales	Number of items	Cronbach's alpha
Socioeconomic situation	Parental employment (requirements, availability, autonomy)	4	0.68
	Assistance (logistic assistance, e.g., sending work files, printing materials, controlling the course of activities, installing equipment, etc.)	5	0.80
Parental ways to support children in remote learning	Motivating support (substantive help and emotional support, e.g., translating difficult topics, motivating to learn, rewarding, etc.)	5	0.82
	Intervention (help in completing the tasks for the child) – 1 item (“I do some of the assignments for the child”)	1	0.76 (factor load)
Perceived barriers to implementing remote learning	Inadequate requirements (child overload due to too many tasks, content too difficult to learn autonomously, child's fatigue)	10	0.94
	Parent's adaptive stress (difficulties in adapting to the new life situation and combining the roles of parent, teacher and employee)	8	0.85
	Methodical and communication chaos (lack of clear guidelines, requirements and rules from the school)	6	0.89
	Lack of child's motivation for remote education (child's lack of willingness to learn, reluctance and boredom)	5	0.84
	Limited availability of remote learning (problems related to lack of access to the appropriate equipment needed for remote learning, internet access and availability, teaching materials)	3	0.69
	Limited social relations in the learning process (no contact with teachers and colleagues)	2	0.79
	Child development (acquiring new skills and increasing independence)	5	0.82
	Child comfort (avoiding disliked peers, no heavy backpack, freedom of action)	3	0.54
	Educational attractions (access to various sources of information and attractive educational content)	2	0.51
	Perceived benefits of remote learning		

Source: Authors.

2. Are there, and what are, differences in the perception of barriers to remote learning between parents representing different approaches to supporting their children?
3. Are there, and what are, differences in the perception of the potential benefits of remote learning between parents representing different approaches to supporting their children?

The research was carried out from 26 April to 6 May 2020 in Poland. Remote teaching was introduced in schools on 16 March 2020, more than a month prior to the start of the study. After the initial period of surprise and ad hoc activities, the schools started testing some solutions and introduced those that would be continued until the end of the school year (26 June).

4.2 | Participants

In total 421 parents (393 women, 28 men) of primary school students from all stages of education participated in the study: 147 parents of grade 1–3 students (35%); 175 parents of grade 4–6 students (42%); 99 parents of grade 7–8 students (23%). Respondents were recruited through social media groups of schoolteachers and parents. Participation in the study was voluntary, and the respondents did not receive any remuneration for their participation.

4.3 | Measures and procedure

The study was conducted remotely. The respondents completed an online 66-item original questionnaire that consisted of four parts corresponding to key areas of remote learning.

1. *socioeconomic conditions* (including questions about parental employment and the amount and type of computer equipment needed for remote learning)
2. *parents' ways of supporting their child or children in implementing remote learning*
3. *barriers* perceived in remote education and related stress
4. *benefits* of remote learning perceived by the parents

The participants responded to the questionnaire statements on a Likert scale, where 0 represented strong disagreement and 5 strong agreement. After each of the four parts, open-ended questions were added to allow the participants to share additional observations and comments. Answers to the open-ended questions were not obligatory and were given by only some participants—depending on the topic, responses were given by a range of 85 to 129 participants. At the end of the questionnaire, the respondents also had the opportunity to add general reflections on remote learning and its implementation; 244 respondents (53%) used this option.

A separate analysis was performed for each part of the questionnaire; this made it possible to define the structure of each module and to distinguish the subscales—for results of the analysis undertaken on the subscales see Table 1.

5 | RESULTS

The analysis of results was carried out in three stages. The first stage was to distinguish the parents' dominant approaches to their involvement in remote education in the studied sample; the second stage was to compare the perceived barriers; the third stage was to compare the benefits of remote learning in groups of parents using

distinguished approaches to involvement in remote education. At each of these stages, the collected qualitative data was also analysed. It came from the parental answers to the open-ended question related to different aspects of the participants' involvement in their children's remote education and constituted an additional source of insight into the observed mechanisms of educational involvement.

5.1 | Parent-dominant approaches to involvement in remote education

Two-step cluster analysis for all three ways of supporting children's remote education (*assistance*, *motivated support*, and *intervention*) revealed three distinguishable clusters indicating parents' dominant approaches to involvement in their children's remote education (see Figure 1 for polar plots). Clusters differ according to the configuration of parental engagement in different ways of supporting children's remote education. Groups did not differ significantly in age, gender, number of children, or other demographic variables.

For all ways of supporting children's remote education, the effect of the cluster was significant: *assistance*— $F(2,418) = 303.29$; $p < .001$; *motivated support*— $F(2,418) = 309.55$; $p < .001$; *intervention*— $F(2,418) = 455.12$; $p < .001$ (see Table 2). In the case of *assistance* and *motivated support*, cluster 2 was least engaged in comparison to other clusters, while *intervention* was much stronger in cluster 3 than other groups (all $p < .001$).

5.1.1 | The committed teacher

The first cluster of 219 people includes parents who were very involved in the remote education of their children, both substantively—by explaining difficult or new issues and by encouraging the child to study—and logistically—by assisting in mailing worksheets, managing the deadlines for school tasks or assistance in technical matters. Parents with this approach helped and motivated their children to study but did not do assignments for them. They spent about three hours and 23 min a day on average ($M = 3.35$; $SD = 1.71$) supporting the remote education of their children.

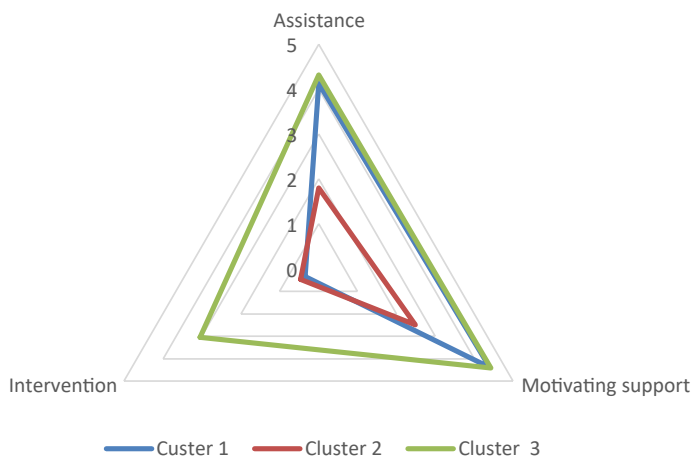


FIGURE 1 Comparison of three distinct clusters of scores indicating parental engagement through intervention, assistance and motivated support. *Source:* Authors [Colour figure can be viewed at wileyonlinelibrary.com]

TABLE 2 Parental involvement in remote education, comparison of clusters

	Cluster			Difference significance between the clusters		Post hoc
	1	2	3	F	p	
The factors distinguished in the study regarding parental approaches to involvement in children's remote learning						
	N = 219 (52%)	N = 106 (25%)	N = 96 (23%)			<i>p</i> < .001
Assistance	4.12	1.8	4.32	303.29	<i>p</i> < .001	2 < 1, 3
Motivating support	4.4	2.48	4.42	309.55	<i>p</i> < .001	2 < 1, 3
Intervention	0.35	0.46	3.04	455.12	<i>p</i> < .001	3 > 1, 2

Source: Authors.

5.1.2 | The autonomy-supporting coach

The second cluster of 106 people refers to parents who were relatively less involved in the remote education of their children than the rest of the respondents. Parents using this strategy spent the least time supporting remote education (almost two hours a day; $M = 1.99$ and $SD = 1.89$). These parents did not carry out school tasks for their children but emphasised the importance of independence in the learning process. Interestingly, they more often support their children emotionally and motivate them to complete school tasks than assist with sending worksheets or keep an eye on the calendar, thus supporting the child's autonomy.

5.1.3 | The committed teacher-intervener

The third cluster of 96 people includes parents who—similarly to the respondents from cluster 1—explained new and difficult content, assisted and motivated the child to carry out school tasks; however, they additionally declared that they performed tasks and assignments for their children. This group of respondents spent about four hours and 20 min a day on average ($M = 4.29$ and $SD = 2.34$) on their children's remote education.

Some of the parents additionally provided general reflections on remote learning and its implementation. They were encouraged to articulate comments at the end of the questionnaire. Qualitative analysis showed that parent statements from clusters 1 and 3 were similar in their nature. The parents expressed remarks such as the following. *There are no remote lessons. I do everything for the teachers. We do 4–5 times more homework than before. The only plus point is that the teacher writes letters to the child* (online survey comment, parent to grade 2 remote learning student, 2020, Poland). *E-learning at primary school level is a mockery. The only thing teachers do is sending unclear commands via online grade book (...). With new topics, young people are completely left to their own devices with YouTube videos* (online survey comment, parent to grade 7 remote learning student, 2020, Poland).

The above comments refer to parents having to take over the duties of teachers. This represents the two strategies of (1) committed teachers (first cluster) and (2) committed teacher-interveners (third cluster). Parents perceived that remote lessons did not take place or were too few and were not adjusted to student abilities. This brings some additional insight into potential reasons for strategy choices among parents.

Qualitative analysis of comments from parents who adopted the *autonomy-supporting coach* approach (second cluster) suggests that they supported their children in a different way, as demonstrated by the following excerpts. *I talk, praise independence and suggest inspirational sources, for example, in the case of presentations or art* (online survey comment, parent to grade 6 remote learning student, 2020, Poland). *I only get involved when my help is necessary. But every day we talk about what happened in the school online, what has been assigned, what the lessons were, etc.* (online survey comment, parent to grade 8 remote learning student, 2020, Poland).

These parental comments indicated that they spent more time talking, trying to inspire the child, accompanying the child in the day-to-day and providing help *when* needed instead of performing school tasks for the child. The lacking intervention by such parents did not represent neglect. Parents in the second cluster engaged in a different form of support that left more space for independent student learning.

5.1.4 | Parental approaches to remote learning and the level of children's education

While searching for the determinants of the three distinguished parental approaches to involvement in children's remote education, the proportions of the clusters in the groups of parents of students at different educational levels were compared. The results obtained are presented in Table 3.

Cluster 1, which indicates high parental involvement in teaching was represented significantly more often by parents of children in grades 1–3 (50.2%) compared to parents of children in higher grades (4–6:37.0%; $Z = 2.28$

TABLE 3 Proportions of parental approaches to involvement in remote education, by education level of the student

Parental approach to remote education	Level of education		
	Grades 1–3 (%)	Grades 4–6 (%)	Grades 7–8 (%)
The committed teacher (cluster 1)	50.2	37.0	12.8
The autonomy-supporting coach (cluster 2)	9.4	45.3	45.3
The committed teacher-intervener (cluster 3)	28.1	47.9	24.0

Source: Authors.

$p = .02$). In turn, parents of students from grades 7–8 presented this approach the least frequently (12.8%; $Z = 7.92$ $p < .001$ and $Z = 5.71$ $p < .001$).

Cluster 2 had the lowest attendance in the group of parents of students in grades 1–3 (9.4%) compared to parents of children in grades 4–6 and 7–8 (45.3% in both cases; $Z = 4.77$ $p < .001$), where the proportions were similar.

Cluster 3 most often concerned the parents of students from grades 4–6 (47.9%) compared to the parents of students in grades 1–3 (28.1%; $Z = 2.97$ $p < .001$) and 7–8 (24.0%; $Z = 2.74$ $p = .005$).

5.2 | Parental perceptions of remote education

At first, comparisons were made using the Kruskal–Wallis test, to determine differences in perception of the barriers to remote education among parents with different approaches to involvement in remote learning. We found that respondents who intervened in remote learning rated barriers to remote education the highest, in comparison to the other two groups. Parents who supported student autonomy perceived the same barriers as much weaker than the other two groups of parents. Next, post hoc analysis were made (with the use of U Mann–Whitney) test to determine significance of the difference between particular groups of parents. The data are presented in Table 4.

The outcomes from the second set of analyses showed that parents using the *committed teacher-intervener* approach perceived inadequate requirements, unstructured communication and methods, and that their child was not motivated to do remote learning as significantly more serious barriers to remote education than non-intervening parents who represented the *committed teacher* approach. Moreover, the intervening parents, compared to those who were equally committed but did not perform school tasks for their children, also experienced a significantly higher level of stress in connection with their children's remote education. Parents representing the *committed teacher-intervener* approach also perceived the barriers discussed above as significantly more serious than parents presenting the *autonomy-supporting coach* approach. Additionally, the latter assessed problems related to accessing remote education as significantly better than the *committed teacher-intervener* parents did.

An interesting differentiation of the perceived barriers was provided by the comparison of parents applying the *committed teacher* and *autonomy-supporting coach* approach. Parents representing the latter approach experienced significantly lower levels of stress and perceived their children as more motivated compared to parents who were largely committed but did not perform school tasks for their child.

There were no differences in the perception of barriers to remote education related to reduced social relationships due to school closure. All respondents, regardless of their dominant approaches to involvement in their children's remote learning, perceive this issue as a significant problem. In the case of all the examined groups of parents, the average perception of this barrier turned out to be significantly higher than the average score of the subscale.

TABLE 4 Perceived barriers to remote education, depending on parental approach to learning involvement

Parental approach to remote learning	Perceived barriers to remote education					
	Inadequate requirements	Parent's adaptive stress	Unstructured communication and methods	Lack of child's motivation to do remote education	Limited availability of remote learning	Limited social relationships in the learning process
Committed teacher (cluster 1)	$M_{\text{rank}} = 193.07$	$M_{\text{rank}} = 215.00$	$M_{\text{rank}} = 198.79$	$M_{\text{rank}} = 203.09$	$M_{\text{rank}} = 213.34$	$M_{\text{rank}} = 210.71$
Autonomy-Supporting coach (cluster 2)	$M_{\text{rank}} = 175.87$	$M_{\text{rank}} = 157.88$	$M_{\text{rank}} = 186.99$	$M_{\text{rank}} = 176.17$	$M_{\text{rank}} = 184.14$	$M_{\text{rank}} = 201.63$
Committed teacher-intervener (cluster 3)	$M_{\text{rank}} = 290.69$	$M_{\text{rank}} = 260.54$	$M_{\text{rank}} = 265.38$	$M_{\text{rank}} = 267.50$	$M_{\text{rank}} = 235.32$	$M_{\text{rank}} = 222.01$
Kruskal-Wallis H	54.82**	36.39**	25.56**	30.37**	9.28*	1.57
Post hoc	3 > 1**, 2**	3 > 1*, 2**; 1 > 2*	3 > 1**, 2**	3 > 1**, 2**; 1 > 2*	3 > 2*	3 > 2*

** $p < .001$; * $p < .01$.

Source: Authors.

5.3 | Parent perceptions of the benefits of remote education

Our analyses showed significant differences in the perception of the benefits of remote education by parent involvement type. Particularly marked differences were noted in terms of the beneficial effects of remote education on student development. Data are presented in Table 5.

Parents who presented the *autonomy-supporting coach* approach rated child development resulting from education during the pandemic significantly higher than parents who present the *committed teacher* approach or the *committed teacher-intervener* approach. Parents who presented the *committed teacher-intervener* perspective were least satisfied with child development during remote education: in their opinion, children developed significantly less in this period than in the opinion of parents who present the *committed teacher* approach.

Parents who adopted the *autonomy-supporting coach* approach perceived the value of benefits of avoiding problems related to traditional school (like no heavy backpack or freedom of action) as significantly lower than the *committed teacher* and the *committed teacher-intervener*. No differences were found between the parents from the clusters identified in the study in terms of other perceived benefits, such as more *didactically attractive form of classes*.

The qualitative analysis of the parental responses to the open-ended questions about remote learning and its implementation aligned with the quantitative results of the study. The majority of parents (82% of respondents to open-ended questions) agreed that a great benefit of remote education was the lack of disadvantages and inconveniences of full-time schooling, such as the need to get up early and go to school, stress, work under time pressure, peers distracting during lessons, or teasing and harassment.

The parents representing the *autonomy-supporting coach* approach saw extra benefits that parents from the other two groups mentioned much less frequently. These concerned the child's development and independence, and frequently addressed the child's development of time management skills.

6 | DISCUSSION AND CONCLUSIONS

The aim of the study was to identify and describe parental approaches to remote learning as well as to determine if and how these approaches are related to perceptions of the disadvantages and benefits of online education. We distinguish three parental approaches in our analysis of an online survey with 421 parents in Poland.

The largest cluster of parents were described as *committed teachers*. They were significantly involved in assisting—e.g., explaining difficult or new topics and motivating their children to learn—as well as in logistics—e.g., technical assistance related to equipment and checking the calendar of school tasks.

TABLE 5 Comparison of the perceived benefits of remote education, by parental approach type

Parents' approach to their involvement in remote education	Perceived benefits of remote education		
	Child development	Child comfort	Didactic attractions
Committed teacher (cluster 1)	$M_{\text{rank}} = 213.60$	$M_{\text{rank}} = 218.85$	$M_{\text{rank}} = 211.92$
Autonomy-supporting coach (cluster 2)	$M_{\text{rank}} = 245.16$	$M_{\text{rank}} = 185.75$	$M_{\text{rank}} = 211.27$
Committed teacher-intervener (cluster 3)	$M_{\text{rank}} = 167.36$	$M_{\text{rank}} = 220.97$	$M_{\text{rank}} = 208.59$
Kruskal-Wallis H	20.85**	6.17*	0.05
Post hoc	$2 > 1, 3^{**}$	$2 > 1, 3^*$	

** $p < .001$; * $p < .05$.

Source: Authors.

The next largest group consisted of parents representing the *committed teacher-intervener* approach. They differed from the *committed teacher* in that they devoted more time to the remote education of their children, and they performed some of the school tasks for their children.

The smallest group consisted of parents who represented the *autonomy-supporting coach* approach. Compared to the previous groups, they were less involved in remote education. This group of parents also helped their children substantively (though to a lesser extent), but were more likely to emphasise independence in the learning process. Moreover, they were less likely to help the child formally and logistically, but more often provided emotional support. It seems that they motivated children to carry out school tasks by providing inspiration without taking control or responsibility for the child's learning process.

Parental approaches to involvement in children's remote education were also associated with perceptions of its advantages and disadvantages. The *committed teacher-interveners*, who devoted more than twice as much time to assisting their children in remote learning than those who followed the *autonomy-supporting coach* approach, were mainly focused on problems. Their generally negative assessments of remote learning were strongly associated with emphasis on the barriers (the negative effect). The greatest of these were school-related requirements that were perceived by respondents as inadequate and related to child overload due to too many tasks, excessively difficult content that had to be learned autonomously, or fatigue. According to Pomerantz et al. (2007) and Szumski and Karwowski (2017), the scope and strength of parental involvement is related to, among other factors, beliefs about a child's potential. It seems that parents who represent this approach (cluster 3) noticed the gap between the child's competences and the expectations formulated by teachers (their survey comments were dominated by language related to *school expectations and requirements*). This related to high stress levels caused by remote learning (feeling that resources were lacking when confronted with challenges) and very intense commitment; in extreme situations this might have taken the form of carrying out school assignments for the child.

Such an interpretation would also be confirmed by a rather surprising result indicating that the *committed teacher-intervener* approach was very often represented by parents of students in grades 4–6. It is possible that in this age (9–11 years), children are not as independent, organised and motivated as students in grades 7–8. The parents of older children were not entitled to social care during the suspension of schools, which means that support for learning took place after their working hours or while performing their job duties remotely (which in Poland concerned on average 20%–35% of employees¹ according to the Polish Association of Enterprise Development (Polska Agencja Rozwoju Przedsiębiorczości, 2021). It was associated with a high level of stress. These extraordinary circumstances may have triggered the intervention mechanism in parental engagement in remote education.

It seems that teacher expectations that children in grades 4–6 would be able to cope with new content and a large amount of assigned work on their own did not align with student abilities. In addition, at this stage of education, the various subjects have been taught by different teachers, each of whom conducted classes differently and had different requirements; this was one of the barriers that were highlighted by parents with the *committed teacher-intervener* approach. Moreover, each teacher gave separate homework (without consulting with other teachers), which in total gave a large number of tasks to be performed. All this together may have reduced the chances of students working independently and increased the parents' involvement in substantive and logistical assistance, including performing school tasks for the child. Unfortunately, in the long-term perspective, such a strategy can exacerbate the withdrawal and passivity of the child in favour of the parent taking responsibility for realisation of school obligations and demands (cf. Moroni et al., 2015). This dynamic turns out to be valid in both the traditional and remote learning models, but there is a higher risk in online education due to the teacher's limited ability to encourage or monitor the child's independence.

Differences by parental approach to remote learning observed in the study clearly drew on a factor that could be described as *supporting the autonomy and independence of the student*. This seems consistent with the meaning of the *autonomy support* versus *control dimension* that was identified by Pomerantz et al. (2007) as being crucial to the quality of parental involvement and its positive consequences. Supporting students' autonomy favours the development of achievement (Moroni et al., 2015). Furthermore, in accordance with the types of parental

involvement that were distinguished by Hoover-Dempsey and Sandler (1995), the procedure for building transferable resources is closer to the activities undertaken by parents in the *autonomy-supporting* cluster. The parents in the remaining clusters, in which short-term actions prevail, aimed to perform specific tasks for their children without reference to the long-term development perspective. This is associated with a lower tendency to encourage students to undertake independent efforts (motivational support) and develop their ability to face challenges. According to the collected results, these parents are more likely to undertake immediate intervention, such as completing a task for the child. Their attitude was highly related to a perception of children's low motivation as a significant barrier to remote education.

It can be inferred that parents representing particular types of approaches differ according to their visions of education itself and its role in child development. This was revealed by the significant differences in perceptions of the benefits of remote learning. The *autonomy-supporting* approach sees remote education as an opportunity for child development, while parents in the other types of approaches tended to focus on difficulties. The perception that remote education requires much greater independence than classroom teaching is a catalyst for child development—compared to the dominant perception of remote learning as more of an inhibitor—indicates a completely different perspective for recognising student resources and success criteria (coping with school vs. coping with life; temporary vs. long-term perspective; see Sternberg, 2005).

The activities of parents who represent the *committed teacher* approach and the *committed teacher-intervener* attitude seem to be more focused on control as a strategy of ensuring the correctness and regularity of education activities. There is a clear analogy here with the specific behaviour of teachers who also create a more or less controlled learning environment, which affects the effectiveness of the learning process (Moroni et al., 2015). It seems that one of the reasons why autonomy instead of control can benefit children is that it provides motivational resources that foster learning self-engagement. A number of studies show that the more autonomous and less controlling parents are, the better their children perceive their cognitive and academic competences (Sternberg & Grigorenko, 2000). These children are more internally motivated (d'Ailly, 2003) and they show increased persistence after having faced challenges, difficulties and failures (Moroni et al., 2015).

7 | IMPLICATIONS

Results from this study show that parental approaches to remote education are related to differences in the perception of challenges to learning. More is not always better in the sense that greater involvement does not translate into a more positive perception of remote learning and an automatic increase in its effectiveness (Pomerantz et al., 2007). Our analyses demonstrate that the intensity of parental activities is more related to the difficulties perceived by parents in remote learning than to deliberate activities focused on children's development. Drawing on our analysis of perceived barriers we identify the following potential actions that would help to improve remote learning both on the side of the school system and on the part of parents and their children:

- a. directing school activities towards more efficient communication with students and parents
- b. implementing social activities such as cooperative learning by using tools that require deeper interactions than short chats
- c. developing a corporate framework for schools and teachers for conducting remote education with clearly established strategies and rules to reduce methodological chaos (a single platform, standardised communication methods, coordinated number of homework assignments)
- d. care for the transparency and clarity of instructions formulated by teachers so that students themselves can undertake tasks without the need for instructional support from concerned parents
- e. personalisation of the online learning process (using the same material in unadjusted ways for all children forces parents of students with special needs to intervene)

- f. familiarising parents with the long-term effects (instead of focusing on immediate results) of their involvement in the remote education process, to help parents understand that e.g., analysing instructions together with the student and creating a chance for children to discover principles by themselves is a more constructive strategy than explaining quickly what exactly students are supposed to do in a given task
- g. teachers and parents should support students emotionally and motivationally during remote education, e.g., by using gamification, justification of the purpose of a given activity and involving students in decision-making processes

8 | LIMITATIONS

The study on which this article reports addressed a specific and early stage of remote learning during the COVID-19 pandemic in Poland and results have therefore certainly been conditioned by the situational context. On the one hand, we did not collect data at the very beginning of remote education; however, schools and teachers themselves took intensive measures to improve e-learning, which may have resulted in slightly different observations at the end of May and early June 2020. Additionally, obtaining data from volunteers responding to an invitation on social media reduced the representativeness of behaviours documented in this study on parent perceptions of remote learning. Consequently, the study results do not include digitally excluded families who have been completely absent from online schooling (about 15%–20% of the population in Poland, cf. Cellary, 2020). For a more comprehensive understanding of differences between parent perceptions in the three clusters identified, it would be important to identify their concepts of education and upbringing and the role they assign to education and school in general.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Tomasz Knopik  <https://orcid.org/0000-0001-5253-7545>

Anna Błaszczak  <https://orcid.org/0000-0003-0597-5117>

Renata Maksymiuk  <https://orcid.org/0000-0003-2531-173X>

Urszula Osza  <https://orcid.org/0000-0002-0300-909X>

ENDNOTE

- ¹ Differences were caused by the interpretation of the status of *employee* under Polish law (full-time, civil law contracts) and the labor sector (state-private).

REFERENCES

- Association to Advance Collegiate Schools of Business. (2007). *Quality issues in distance learning*.
- Bell, S., Douce, C., Caeiro, S., Teixeira, A., Martín-Aranda, R., & Otto, D. (2017). Sustainability and distance learning: A diverse European experience? *Open Learning: The Journal of Open, Distance and e-Learning*, 32(2), 95–102. <https://doi.org/10.1080/02680513.2017.1319638>
- Biedrzycki, K., Jasiewicz, J., Kaczan, R., Piechociński, T., Rycielska, L., Rycielski, P., Sijko, K., & Sysło, M. (2014). *Kompetencje komputerowe i informacyjne młodzieży w Polsce. Raport z międzynarodowego badania kompetencji komputerowych i informacyjnych. ICILS 2013*. Instytut Badań Edukacyjnych.
- Borup, J., Graham, C. R., & Davies, R. S. (2013). The nature of parental interactions in an online charter school. *American Journal of Distance Education*, 27(1), 40–55. <https://doi.org/10.1080/08923647.2013.754271>

- Brandenburg, J., Holman, L., Apkon, S., Houtrowd, A., Robert, R., & Scholas, M. (2020). School reopening during COVID-19 pandemic: Considering students with disabilities. *Journal of Pediatric Rehabilitation Medicine*, 13(3), 425–431. <https://doi.org/10.3233/PRM-20074>
- Brindley, J. (2013). Learner support in online distance education: Essential and evolving. In O. Zawacki-Richter & T. Anderson (Eds.), *Online distance education: Towards a research agenda* (pp. 287–310). Athabasca University Press.
- Carpenter, D., & Dunn, J. (2021). We're all teachers now: Remote learning during COVID-19. *Journal of School Choice*, 14(4), 567–594. <https://doi.org/10.1080/15582159.2020.1822727>
- Castro, M., Expósito-Casas, E., López-Martín, E., Lizasoain, L., Navarro-Asencio, E., & Gaviria, J. (2015). Parental involvement on student academic achievement: A meta-analysis. *Educational Research Review*, 14, 33–46. <https://doi.org/10.1016/j.edurev.2015.01.002>
- CC. (2020). *Badanie zdalnej edukacji podczas pandemii COVID-19*. Centrum Cyfrowe [Digital Center]. Report. Retrieved July 17, 2021 from <https://centrumcyfrowe.pl/edukacja-zdalna/#Raport>
- Cellary, W. (2020, July 18). *Wykluczenie cyfrowe w czasie pandemii*. Online article. Retrieved July 17, 2021 from <https://wyborcza.pl/magazyn/7,124059,26138363,cyfrowe-wykluczenie-w-pandemii.html>
- Corkin, D., Ekmekci, A., & Parr, R. (2018). The effects of the school-work environment on mathematics teachers' motivation for teaching: A self-determination theoretical perspective. *Australian Journal of Teacher Education*, 43(6), 50–66. <https://doi.org/10.14221/ajte.2018v43n6.4>
- d'Ailly, H. (2003). Children's autonomy and perceived control in learning: A model of motivation and achievement in Taiwan. *Journal of Educational Psychology*, 95(1), 84–96. <https://doi.org/10.1037/0022-0663.95.1.84>
- Deci, E., & Ryan, R. (2008). Self-determination theory: A macrotheory of human motivation, development and health. *Canadian Psychology*, 49(3), 182–185. <https://doi.org/10.1037/a0012801>
- DESI. (2020). *Digital economy and society index*. Report. Retrieved July 17, 2021 from <https://digital-strategy.ec.europa.eu/en/policies/desi>
- Diehl, W. (2019). Historical and theoretical foundations: An overview. In M. Moore & W. Diehl (Eds.), *Handbook of distance education* (4th ed., pp. 1–3). Routledge.
- Dolan, J. (2016). Splicing the divide: A review of research on the evolving digital divide among K–12 students. *Journal of Research on Technology in Education*, 48(1), 16–37. <https://doi.org/10.1080/15391523.2015.1103147>
- Domina, T. (2005). Leveling the home advantage: assessing the effectiveness of parental involvement in elementary school. *Sociology of Education*, 78(3), 233–249. <https://doi.org/10.1177/003804070507800303>
- Doucet, A., Netolicky, D., Timmers, K., & Tuscano, J. (2020, March 29). *Thinking about pedagogy in an unfolding pandemic: An independent report on approaches to distance learning during COVID-19 school closures. Version 2.0*. Report. Retrieved March 20, 2021 from <https://learningportal.iiep.unesco.org/en/library/thinking-about-pedagogy-in-an-unfolding-pandemic-an-independent-report-on-approaches-to>
- Dron, J. (2019). Independent learning. In M. Moore & W. Diehl (Eds.), *Handbook of distance education* (4th ed., pp. 47–66). Routledge.
- Epstein, J. (2001). *School, family, and community partnerships: Preparing educators and improving schools*. Westview.
- Epstein, J., Sanders, M., Simon, B., Salinas, K., Jansorn, N., & Van Voorhis, F. (2002). *School, family, and community partnerships: Your handbook for action*. Corwin.
- Filipiak, E. (2012). *Rozwijanie zdolności uczenia się. Z Brunerem i Wygotskim w tle*. GWP.
- Fraillon, J., Ainley, J., Schulz, W., Friedman, T., & Gebhardt, E. (2013). *Preparing for life in a digital age. The IEA international computer and information literacy study*. International report. Springer Open.
- Fraillon, J., Ainley, J., Schulz, W., Friedman, T., & Duckworth, D. (Eds.). (2020). *Preparing for life in a digital world. IEA International computer and information literacy study 2018. International report*. Springer Open. https://doi.org/10.1007/978-3-030-38781-5_6
- Fung, Y. (2004). Collaborative online learning: Interaction patterns and limiting factors. *Open Learning: The Journal of Open, Distance and e-Learning*, 19(2), 135–149. <https://doi.org/10.1080/0268051042000224743>
- Gajderowicz, T., & Jakubowski, M. (2020). *Cyfrowe wyzwania stojące przed polską edukacją*. Polski Instytut Ekonomiczny.
- Hoover-Dempsey, K., & Sandler, H. (1995). Parental involvement in children's education: Why does it make a difference? *Teachers College Record*, 97(2), 310–331.
- Jasiewicz, J., Batorski, D., Kisilowska, M., Mierzecka-Szczepeńska, A., & Luterek, M. (2013). *Nowe media w polskiej szkole: Kompetencje cyfrowe nauczycieli i wykorzystanie nowych mediów w szkolnictwie podstawowym, gimnazjalnym i ponadgimnazjalnym—diagnoza*. Online article. Retrieved January 10, 2021 from http://www.regionalneobserwatoriumkultury.pl/tl_files/olek/Nowe%20media%20w%20polskiej%20szkole%20-%20wyniki%20bada.pdf
- Klus-Stańska, D. (2017, April 9). *Uwagi do podstawy programowej kształcenia ogólnego dla szkoły podstawowej*. Online article. Retrieved January 23, 2021 from <http://edukacjananowo.pl/wp-content/uploads/2017/02/UWAGI-DO-PODSTAWY-PROGRAMOWEJ-KSZTA%C5%81CENIA-OG%C3%93LNEGO-DLA-SZKO%C5%81Y-PODSTAWOWEJ.pdf>

- Knopik, T., & Oszwa, U. (2019). Self-determination and development of emotional-social competences and the level of school achievements in 10–11-year-old Polish students. *Education 3-13*, 48(8), 972–987. <https://doi.org/10.1080/03004279.2019.1686048>
- LaRocque, M., Kleiman, I., & Darling, S. (2011). Parental involvement: The missing link in school achievement. *Preventing School Failure: Alternative Education for Children and Youth*, 55(3), 115–122. <https://doi.org/10.1080/10459880903472876>
- Librus. (2020, July, 6). *Nauczanie zdalne oczami nauczycieli i uczniów*. Online article. Retrieved January 17, 2021 from <https://portal.librus.pl/rodzina/artykuly/raport-nauczanie-zdalne-oczami-nauczycieli-i-uczniow>
- Liu, F., Black, E., Algina, J., Cavanaugh, C., & Dawson, K. (2010). The validation of one parental involvement measurement in virtual schooling. *Journal of Interactive Online Learning*, 9(2), 105–132.
- Moore, M. (2019). The theory of transactional distance. In M. Moore & W. Diehl (Eds.), *Handbook of distance education* (4th ed., pp. 32–47). Routledge.
- Moroni, S., Dumont, H., Trautwein, U., Niggli, A., & Baeriswyl, F. (2015). The need to distinguish between quantity and quality in research on parental involvement: The example of parental help with homework. *The Journal of Educational Research*, 108(5), 417–431. <https://doi.org/10.1080/00220671.2014.901283>
- PISA. (2018). *Programme for International Student Assessment 2018 results*. Online report. Retrieved January 17, 2021 from <https://www.oecd.org/pisa/publications/pisa-2018-results.htm>
- Polska Agencja Rozwoju Przedsiębiorczości. (2021). *Przyszłość pracy w sektorze finansowym*. Report.
- Pomerantz, E., Moorman, E., & Litwack, S. (2007). The how, whom, and why of parents' involvement in children's schooling: More is not necessarily better. *Review of Educational Research*, 77, 373–410.
- Sheridan, M., Sarsour, K., Jutte, D., D'Esposito, M., & Boyce, W. (2012). The impact of social disparity on prefrontal function in childhood. *PLoS ONE*, 7(4), e35744. <https://doi.org/10.1371/journal.pone.0035744>
- Simons, J., Leverett, S., & Beaumont, K. (2020). Success of distance learning graduates and the role of intrinsic motivation. *Open Learning: The Journal of Open, Distance and e-Learning*, 35(3), 277–293. <https://doi.org/10.1080/02680513.2019.1696183>
- Song, S., Wang, C., Espelage, D., Fenning, P., & Jimerson, S. (2020). COVID-19 and school psychology: Adaptations and new directions for the field. *School Psychology Review*, 49(4), 431–437. <https://doi.org/10.1080/2372966X.2020.1852852>
- Sternberg, R. (2005). WICS: A model of positive educational leadership comprising wisdom, intelligence, and creativity synthesized. *Educational Psychology Review*, 17(3), 191–262. <https://doi.org/10.1007/s10648-005-5617-2>
- Sternberg, R., & Grigorenko, E. (2000). *Teaching for successful intelligence*. SkyLight Training and Publishing Inc.
- Szumski, G., & Karwowski, M. (2017). Parents' engagement in the education of lower secondary school students with and without special educational needs—Which strategies bring expected results? *Edukacja*, 2(141), 63–77. <https://doi.org/10.24131/3724.170204>
- Valentine, D. (2002). Distance learning: Promises, problems, and possibilities. *Online Journal of Distance Learning Administration*, 5. Retrieved April 24, 2021 from <https://www.learntechlib.org/p/94887/>
- Walker, J., & Hoover-Dempsey, K. (2008). Parent involvement. In T. Goog (Ed.), *21st century education: A reference handbook* (pp. 382–392). Sage Publications.
- Waters, L., & Leong, P. (2014). Who is teaching? New roles for teachers and parents in cyber charter schools. *Journal of Technology and Teacher Education*, 22(1), 33–56.
- Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2014). *Keeping pace with K-12 online and blended learning: An annual review of policy and practice*. Evergreen Education Group. Retrieved July 17, 2021 from <https://files.eric.ed.gov/fulltext/ED558147.pdf>
- Woodley, A., & Ormond, S. (2013). Student dropout: The elephant in the room. In O. Zawacki-Richter & T. Anderson (Eds.), *Online distance education: Towards a research agenda* (pp. 1–35). Athabasca University Press.
- Zawacki-Richter, O., & Anderson, T. (2013). Research areas in online distance education. In O. Zawacki-Richter & T. Anderson (Eds.), *Online distance education: Towards a research agenda* (pp. 1–35). Athabasca University Press.

How to cite this article: Knopik, T., Błaszczak, A., Maksymiuk, R., & Oszwa, U. (2021). Parental involvement in remote learning during the COVID-19 pandemic—Dominant approaches and their diverse implications. *European Journal of Education*, 56, 623–640. <https://doi.org/10.1111/ejed.12474>