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Alleviating the Challenges with Remote Learning during a Pandemic

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Abstract: The COVID-19 pandemic has caused many challenges that resulted from the suspension of face-to-face classes. Some of these challenges involved the problems associated with remote learning. One problem with this approach to learning is that it can be didactic. Remote learning can contribute to loneliness as well, and the lack of access to reliable technological resources that many students from low-income families experience can contribute to learning setbacks. Although the pandemic has created challenges related to providing remote learning opportunities and keeping students emotionally and physically healthy, some schools and colleges have used various methods to alleviate these concerns. This study focuses on the challenges associated with remote learning when it is implemented during the suspension of face-to-face classes. It also explores the practices that can be used to alleviate the obstacles that may cause students to experience setbacks.

Keywords: remote learning; online education; pandemic

1. Introduction

In March of 2020, the COVID-19 pandemic led many nations to initiate nationwide school closures [1]. K-12 students were not the only pupils who would need to be taught online. College students were required to make the transition to remote learning as well [2]. The pandemic has created opportunities for educators to use online learning to prevent students from falling behind academically, but it has created challenges as well. Although many students have benefited from remote learning during the pandemic, those from low-income families have experienced more obstacles that impede academic progress. Students from poverty-stricken homes, however, are not the only ones at risk of falling behind during this difficult time. Online learning is often less beneficial than face-to-face instruction for many students because it is implemented poorly [3,4].

One problem with online learning is that it can be didactic [1]. Remote learning can contribute to loneliness as well [1], and the lack of access to reliable technological resources that many students from low-income families experience contributes to learning setbacks [3]. While such challenges prevent many students from making academic gains, various strategies can be implemented to alleviate these obstacles. This study focuses on the challenges associated with remote learning when it is implemented during the suspension of face-to-face classes. It explores the practices that can be used to alleviate the obstacles that may cause students to experience setbacks. A sample of literature published by reputable organizations, newspapers, and researchers was analyzed. This literature revealed that although many students have experienced similar challenges with remote learning, certain strategies can be implemented to reduce the obstacles associated with this approach to learning.

2. Research Method and Research Questions

This study consists of a qualitative document analysis designed to describe the problems associated with remote learning and the methods that may alleviate these obstacles. Gross [5] mentioned that different types of documents can be used for a document analysis.

For example, webpages, newspaper articles, book chapters, reports, and journal articles can be analyzed for such a study [5,6]. Although qualitative studies are often designed to explore latent meaning in the data [7], these types of studies can also be conducted using a descriptive approach [8].

For descriptive studies, rather than focus on interpreting latent meaning, researchers look for explicit meaning in the data and use data extracts as illustrative examples [8]. Different methods can be implemented when providing the extracts [9]. Researchers can choose to include short extracts, long extracts, or a combination of the two. They can also include many extracts or just a few [9]. In addition to supporting the interpretation of the data, the extracts provide evidence for the readers, helping them to evaluate the accuracy of the findings. The extracts can also enhance readability and strengthen the findings [9].

2.1. Research Questions

This study focused on answering two research questions:

1. What major challenges have instructors faced when using remote learning during the pandemic?
2. What kinds of strategies would likely alleviate these challenges?

2.2. Retrieval and Selection of Documents

Various databases were used to access the documents for this study. Some of the documents were accessed by using Google Scholar and the ERIC database. Others were retrieved through the databases available at the University of Southern Mississippi. The online database system at the University of Southern Mississippi permits users to search for content using over 40 databases. Finally, some content was retrieved from the internet using a search engine, such as Google or Yahoo.

Purposeful sampling was used to select an initial set of documents to analyze. Purposeful sampling is used frequently for qualitative inquiry because this type of research focuses on smaller samples chosen for studying a phenomenon in depth [6]. This form of sampling is based on the idea that a researcher needs to select a sample allowing the most that can be learned. Theoretical sampling was used to collect more documents to develop a stronger understanding of the topics identified from the initial set of documents. Theoretical sampling starts as purposeful sampling but differs in that it continues after researchers identify an initial sample. In other words, the sampling method is an evolving process that allows researchers to adjust the sample based on the analysis of the data [7].

2.3. Inclusionary and Exclusionary Criteria

The documents considered for analysis consisted of those with the potential for yielding knowledge about how remote learning implemented during the pandemic can enhance or hinder learning. To determine whether a document would be included, it was checked for authenticity. Flick [10] mentioned that authenticity is an important factor to use for assessing the quality of a document. Authenticity involves how genuine a document is [10]. To ensure that the documents selected for this study were authentic, only those that were produced by reputable organizations, journals, and authors were included. The primary method for excluding documents involved reaching the point of redundancy. This point occurs when new documents cease to offer new insights. When researchers conduct a document analysis, they frequently exclude documents that contain redundant information [5].

2.4. Data Triangulation

One of the ways to strengthen the findings of this study involved including various types of documents to analyze. Using a variety of data sources is a form of triangulation [5]. For this study, this form of triangulation was implemented by including content from newspaper articles, peer-reviewed journal articles, webpages, and other types of documents produced by respected authors, universities, and organizations.

3. Findings and Discussion

After the documents were selected, they were coded to develop themes. Six themes were identified after the coding process was completed. Themes 1-3 were identified when analyzing the data to answer the first research question. These themes related to the challenges associated with remote instruction. Themes 4-6 were identified when analyzing the data to answer the second research question. These themes focused on possible ways of alleviating the challenges associated with remote instruction.

One of the challenges with remote learning involves dull instruction. The difficulties with using active-learning strategies when online instruction is implemented can cause challenges as well [11]. Another concern relates to the psychological outcomes that result from the lack of social interaction students frequently experience [12]. Remote learning can also be challenging to use with underprivileged students because they are more likely to live in homes without computers and internet connections [3], and their parents tend to have fewer opportunities to help them with schoolwork.

To alleviate the challenges associated with remote instruction, certain strategies can be implemented. These methods include using active learning, creating opportunities for students to interact with their instructors and peers, and finding different methods for students to learn when they are without computers or reliable internet connections.

3.1. Theme 1: Dull Instruction

One of the risks with using remote learning involves the dullness that can result from requiring students to sit passively and listen to videos and presentations [1]. Such an approach to instruction is especially detrimental to the students furthest behind. Howard Gardner, a professor at the Harvard Graduate School of Education, explained that without actively participating when being taught, students often forget what they have learned after a year or two [13]. Research on learning indicates that students learn more when instructors implement active-learning strategies [14].

Active learning occurs when students participate in activities such as conducting an experiment, analyzing the data, and making a prediction to see if what was predicted will come out accurately. Another example involves doing history by interviewing people followed by writing a paper to document the findings. These types of activities lead to learning that lasts longer because they encourage students to be more actively engaged than lectures that require them to sit passively as instructors provide information. Active learning leads students to ask questions, to participate in hands-on activities, and to transform ideas in their minds as needed [13]. One strategy that instructors can use to promote active learning involves assigning students to work with and learn from each other. Teachers use this strategy frequently during face-to-face instruction. Although this approach to teaching can be implemented online by using breakout rooms, sometimes students just look at each other instead of interacting productively when placed in these rooms [11].

Another problem that can lead to poor learning experiences occurs when students turn off their cameras during videoconferencing sessions. Castelli and Sarvary [15] reported that this problem was a challenge for some instructors teaching remotely in higher education during the pandemic. They mentioned that they "established a policy that video camera use during class was optional, but encouraged" [15] (p. 3565). However, they noticed that some students "reported lower than desired camera use that diminished the educational experience" [15] (p. 3565). Instructors sometimes make video camera use optional for students to respect their feelings [15], but when they implement such a policy, they may not be able to communicate as well with them because some students may turn off their cameras. Face-to-face interaction is often a superior method because it allows teachers to get information through non-verbal cues, such as puzzled looks on students' faces [4]. Students also benefit when they can see their peers. Seeing their peers by using the camera option helps students build trust and rapport with each other [16]. One of the reasons students may turn off their cameras relates to being concerned that others will see aspects of their

physical location in the background. Another reason has to do with having a poor internet connection. Students may also be concerned about their appearance [15]. For instance, they may not want to be viewed if their hair is messy or if they are wearing pajamas. Although concerns about appearance generally involve all pupils, one survey indicated that students from underrepresented groups were more likely to turn off their cameras. This survey found that underrepresented minorities were about two times more likely to be concerned that others would see aspects of their physical location in the background. Students from working class families may not want their wealthier peers to view what is inside their homes [15].

Even when students have their cameras turned on, instructors can have difficulties seeing how their pupils are reacting to lessons [17]. This problem can happen because they may need to scroll before being able to view their students. Tan and Chen [17] explained that one challenge with teaching online in a higher education context involves providing instruction while scrolling at the same time to find out how students are coping.

Sitting passively in front of a computer for a prolonged period can cause health problems as well. Excessive screen time can lead to eyestrain, dry eye, headache, and blurred vision. Sitting too long in a fixed posture in front of an electronic device can also contribute to obesity and cause musculoskeletal problems [18].

3.2. Theme 2: Harmful Effects of Isolation

Although being passive during online learning is problematic, the effects of isolation can be more dangerous. Learning at home without interacting with peers contributes to psychological problems. Common disorders caused by a lack of interactions with others include anxiety, panic, and depressive symptoms [19]. Compared to 2019, the number of emergency room trips related to potential suicides by children aged 12 to 17 increased by 22.3 percent in the summer of 2020 [20]. Some of the factors that may have contributed to this rise include a lack of connectedness to schools, teachers, and peers [20].

The results of a survey conducted in May of 2020 indicated that 61 percent of teens mentioned that the pandemic had increased their feelings of loneliness. The survey also revealed that 43 percent said they had experienced depression and that 7 in 10 had experienced mental health concerns [21]. Social isolation leads to other types of disorders as well. Some research indicates that it can accelerate cognitive decline, impair executive function, and contribute to poor cardiovascular function [22]. In response to the effects of loneliness, students may make more attempts to interact with teachers. However, if teachers are implementing online learning without adequate opportunities for students to interact with each other and their instructors, this form of instruction can exacerbate the feelings of isolation that typically occur when face-to-face classes are suspended.

The effects of feeling isolated that occur when students are instructed remotely can harm them later in life. Qualter et al. [23] mentioned that loneliness affects children's emotional state and that "it is associated with poor social, behavioral, and health outcomes in adult, adolescent, and child samples" (p. 1283). They concluded from their study that the extent to which children experienced loneliness between ages 7–17 years predicted depression, poorer self-reported general health, and more consumption of alcohol at age 17. They also mentioned that the appropriate interventions for children more likely to experience loneliness may lower the level at which they experience negative outcomes in later years.

3.3. Theme 3: Obstacles Caused by Poverty

In addition to the increase in loneliness that online instruction may promote, children from poverty-stricken homes need to deal with issues involving poor connectivity or no connectivity at all. The stark differences between the experiences privileged and underprivileged students usually have with online learning were documented by the *Los Angeles Times* shortly after face-to-face instruction was suspended in the United States. A story published by this newspaper showed how the experiences of two children differed

greatly regarding the online instruction they received. The first child was attending a school district where 90 percent of the children came from low-income families. Since she did not have a computer, she tried to connect to her online class with her cell phone. After a week, she stopped trying to connect because she kept getting disconnected. She eventually got a computer but discovered that the work was difficult to understand. This led her to tell her mother how frustrated and worried she felt about the possibility of staying behind. The second child was enrolled in a school where only 12 percent of students came from low-income families. This child received a computer from his district and had strong internet access at home. His mother felt that he would be fine academically, although he preferred to be back in school [24].

The stories of these two children and their parents reflect the different experiences many students from low-income homes have with remote learning when compared with their wealthier peers. At the start of the pandemic, a survey conducted by the Pew Research Center revealed that many parents from low-income households felt that their children would likely face obstacles with online learning [25]. When compared with parents from wealthier households, a higher percentage of parents from low-income households felt that their children would have to complete schoolwork using a cellphone and require the use of public Wi-Fi to complete it. A higher percentage of these parents also believed that their children would not be able to complete their schoolwork because of not having a computer at home. A little over 40 percent of parents with lower incomes mentioned that their children would likely have to use a cellphone to complete schoolwork, and 40 percent indicated that their children would need public Wi-Fi to complete it. About one third mentioned that their children would not be able to participate in online learning because of not having a computer at home [25].

In contrast, only 10 percent of parents from upper income families indicated that their children would likely have to use a cellphone to complete schoolwork, and 6 percent said their children would need public Wi-Fi to complete it. Only 4 percent mentioned that their children would not be able to complete schoolwork because of not having computer access at home [25]. Statistics on computer and internet access in America reflect the concerns many parents from low-income households have about the obstacles related to lack of access to technology. A 2018 survey indicated that about 25% of teens from households with an annual family income below $30,000 had no access to a computer at home but that only 4% of those from households earning more than $75,000 lacked access [26]. A 2020 report mentioned that over one in six people living in poverty had no internet access [27].

Parents from low-income households are not the only people concerned about the digital divide. Vogels et al. [25] mentioned that "some policymakers have raised concerns about how less digitally connected students will fare in this new learning environment" (p. 5). The unequal access to technology has even caused some schools to stop their online programs. Shortly after the spread of the coronavirus, Philadelphia's school district prohibited teachers from offering online instruction because it could not guarantee that students would have equal access to technology [3]. In other cases, schools with high percentages of students without access to technology experienced longer delays than other schools did. The *Los Angeles Times* surveyed over 40 school districts in Southern California and included low- and high-poverty schools. The survey revealed that the districts with higher percentages of students from low-income families experienced longer delays when starting online learning. In contrast, those with wealthier students started their online programs much sooner, partly because their students already had the technological resources they needed [24].

This trend shows how the implementation of online learning during a crisis like the pandemic contributes to an increase in the academic achievement gap between students of color and other students. The survey conducted by the *Los Angeles Times* revealed that the schools with the lowest percentages of students qualifying for free and reduced-price lunch had large populations of White and Asian students. However, those with the highest percentage of students from low-income families had large populations of Latino students

and high percentages of Black students [24]. The problem involving the lack of access to technology that students of color in the United States experience involves the money their families need to buy computers and to get internet at home. Children of color are more likely than White children to live in low-income households [28]. Thus, their families often cannot pay for the technologies wealthier children have. Data from the National Center for Education Statistics [29] indicate that these students are more likely to have less access to the technological resources that other students have. Figure 1 shows that in 2019, U.S. students who were Black, Hispanic, Pacific Islander, and American Indian/Alaska Native were more likely to have access to the internet only through a smartphone.
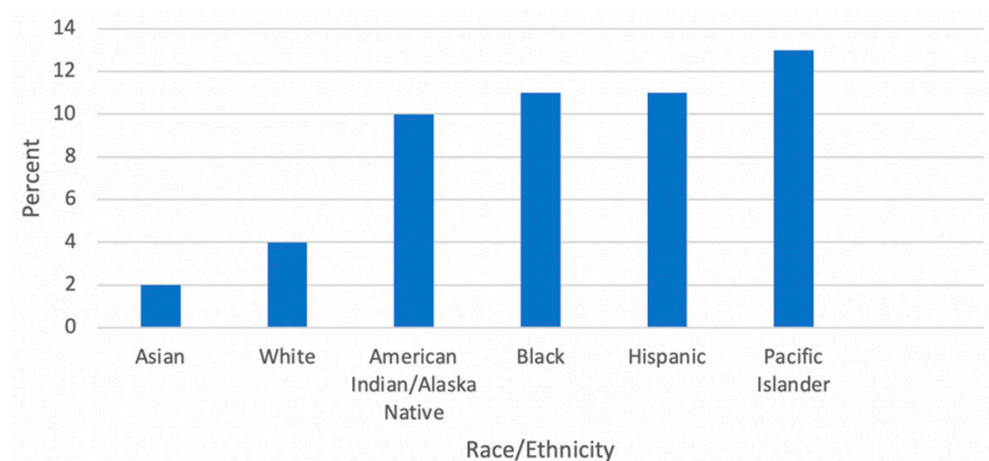
Figure 1. Percentage of children 3- to 18-years old who had internet access only through a smartphone by race/ethnicity: 2019. Source: National Center for Education Statistics, U.S. Department of Education (2021).

Online learning can be more challenging for students from low-income families also because school closures encourage autonomous work. Although this way of studying is compatible with how upper/middle-class students are socialized, it is incompatible with working-class contexts. Whereas upper/middle-class contexts encourage people to be independent so that they can pursue their own goals, working-class contexts tend to lead individuals to perceive themselves as interdependent. This difference creates more chances for students from wealthier households to succeed when online learning is implemented because remote learning requires high self-regulation skills. These skills help students to set goals, choose efficient learning strategies, and stay motivated [30].

Another reason online learning is frequently harmful to children living in poor households relates to the limited opportunities their parents have to help them. Many approaches to remote instruction are designed based on the belief that parents will play a part in supporting students with schoolwork. However, during the pandemic, low-income parents were found to be less likely to be able to work from home than high-income parents [31]. Low-income parents may also lack the technological proficiency to support their children with remote learning [32].

The lack of access to high-speed internet prevents many students from low-income families from benefiting from online learning as well. Even when schools provide computers, students from low-income households often fall behind because their parents cannot afford broadband service. A special education teacher who works mostly with students from low-income families mentioned that about a third of his students were having internet connection problems every day [33]. Although many schools have distributed Wi-Fi hotspots, these sources provide weaker connections that can prevent students from experiencing rigorous online sessions. A survey conducted by Educators for Excellence and USC's Rossier School of Education revealed that over half of Los Angeles teachers felt that a lack of high-speed internet prevented students from learning [33].

Another problem related to the hot spots that schools frequently offer involves the environment students need to be in to get connected. Many districts have provided hot spots using internet-equipped school buses [34]. Although this may be an innovative way for students to gain internet access, they will likely not be able to do their best work sitting in a car with others near a school bus. A student from Alabama expressed her frustrations with this alternative, mentioning that the noise from all the other students listening to their lessons at the same time made it difficult for her to complete work [35].

Other problems affecting underprivileged U.S. students involve the lack of resources that high-poverty districts endure. These districts usually receive less funding than those serving students from wealthier backgrounds, making it more difficult for them to provide the same educational resources that other districts offer [36]. During the summer of 2020, wealthier districts were able to offer more training to help teachers be better prepared to provide remote learning. For instance, the Elk Grove Unified School District in California was able to provide 190 voluntary training sessions, but the Washington Union School District, also in California, could offer only a few days of training before schools started [34].

The training on providing remote learning that teachers receive prior to teaching online can make an important difference. Some of this training has improved the quality of instruction that children have received. To adjust their teaching to remote learning, many teachers need to be trained on using Zoom and other online platforms. This helps them to provide effective instruction and to use their time in more efficient ways, but teachers who implement outdated teaching methods using an online format are less successful at helping students make academic gains [37].

3.4. Theme 4: Importance of Using Active Learning Strategies

Active learning consists of an instructional method that promotes student engagement. By creating more chances for students to discuss, investigate, and create, teachers and professors can increase the level of engagement students typically experience during lectures. Although lectures are not worthless, student learning improves when active strategies are combined with mini lectures [38]. Active-learning methods lead students to produce thoughts and get feedback. These methods encourage these outcomes by creating opportunities for students to participate in interactive activities instead of passively receiving information as they do when they are required to complete reading assignments or listen to lectures [39].

One way to encourage students to be more active during online sessions is by allowing them to use anonymous polls and multiple-choice responses [17]. Tan and Chen [17] mentioned that the use of multiple modes that allow students to provide real-time feedback "encouraged students to express their misconceptions and misunderstanding, without fear of being perceived as asking a trivial question or disrupting the flow of the lesson" (p. 412). They found that this approach helped college students communicate when taking an online college course [17].

Another method to encourage active learning involves implementing indirect instructional strategies. This type of instruction draws on constructivist learning principles. Constructivism is based on the idea that students construct their own knowledge and that no one else can do this for them. Ellis [40] mentioned that when indirect instructional strategies are used, students usually take on "a more active, participatory role while the teacher shifts from the role of director or leader to that of facilitator" (p. 160). When teachers use indirect instructional strategies, they expect students to discover, inquire, plan, and evaluate ideas, and students play the role of people responsible for their own learning in moral, social, and intellectual ways [40].

One of the ways teachers can implement indirect instructional strategies is by differentiating assignments. Since students differ in how they learn, effective teachers often personalize instruction according to the intelligences that lead students to learn at an optimal level. This form of instruction focuses on teaching according to different student talents and learning styles. Howard Gardner has helped teachers throughout the world to imple-

ment this type of instruction by identifying eight intelligences: the logical/mathematical, verbal/linguistic, musical, visual/spatial, bodily/kinesthetic, interpersonal, intrapersonal, and naturalist intelligences [41].

Since different students typically vary in the intelligences they are strong in, using a variety of intelligences when planning how to teach students is crucial. When completing a task, students typically rely on their strongest intelligence. However, if teachers fail to allow learners to solve problems using the learners' preferred intelligences, they can frustrate students. Such a narrow approach to teaching prevents pupils from learning actively by contributing to disengagement. In contrast, when teachers differentiate instruction effectively, they provide scaffolding and allow learners to use their preferred intelligences to solve problems. For example, a child with weak verbal skills will likely perform less well than one with strong verbal skills if a teacher uses an instruction style that focuses primarily on learning through words and language. However, if this child has strong visual skills and if the teacher uses a learning approach with plenty of pictures, images, and photos, the child will have a much better chance of making academic gains. When students become frustrated because their teachers fail to use students' preferred intelligences, students' brains do not release the chemicals needed for learning [41]. These chemicals include dopamine, noradrenalin, and serotonin [42].

In addition to using the intelligences Howard Gardner identified, teachers can differentiate instruction by using a multisensory approach. This approach emphasizes learning through two or more senses [43]. Many educators include audio and visual components when teaching, but teaching using a multisensory approach can also include the senses of smell, touch, and taste. For example, a teacher might ask students to make alphabet letters out of clay to improve their literacy skills. Such an approach to teaching is beneficial because students typically rely on some senses more than others. Because reading involves turning written words into sounds, a multisensory approach to teaching can be especially valuable when developing children's literacy skills [43].

Equally important to differentiating instruction is allowing learners to pursue their interests. Teaching according to students' interests is a powerful approach because it allows students to pick topics that match what they like to do. This approach is more likely to promote student engagement than an approach requiring students to work on topics that do not interest them. To teach according to students' interests, teachers first need to find out what students like to do. Then, they can allow students choices based on the variety of their interests [44].

3.5. Theme 5: Need for Increasing Interaction

Although implementing the methods that promote active learning helps students improve academically, preventing the loneliness and isolation that remote learning during a pandemic can trigger may be more important. Various strategies can be used to fulfill this goal. Carolyn Curtis, a school social worker in Maine, has helped students who struggle with emotional challenges. She described various methods that educators can use to keep students healthy when remote learning is implemented. Some of these strategies include hosting virtual lunch groups, online games, and extracurricular offerings. She also suggested connecting to a school in a different region to form pen pals [21].

One teaching approach that encourages students to interact during face-to-face instruction is cooperative learning. In addition to promoting interaction among students, cooperative learning increases students' motivation to learn, improves their attitudes toward teachers, and enhances their self-esteem [40]. When implemented well, cooperative learning can also prevent students from experiencing loneliness. Fortunately, some online platforms that schools commonly use allow students to be placed in groups to work together. Including collaborative activities during virtual class sessions improves instruction in the same way this group work enhances instruction when teaching in person [45]. Some educators use the Zoom platform to place their students in breakout rooms at various points of their lesson to work on various types of collaborative activities. However, as previously

noted, placing students in breakout rooms is challenging because students sometimes end up looking at each other without interacting. Teachers can avoid this outcome by providing them with clear instructions on what they need to accomplish. Instructors can also join each group to encourage interaction [11].

Another concern related to interaction occurs when students turn off their cameras during online sessions. This problem can be alleviated by using various strategies. One of these strategies is to remind students that they can use a virtual background if they want to avoid showing what is behind them [46]. Teachers can also share stories about what they themselves did when they felt like wanting to avoid being on camera. Another strategy is to offer students the option of submitting a prerecorded video. This approach is beneficial because it permits teachers to assess a student through a video without having the student appear in front of the whole class. Such a strategy allows learners to build confidence with being on camera. Finally, teachers can conduct a survey designed to provide data on the barriers preventing students from turning on their cameras. Teachers can then ask students how these barriers can be removed [46]. Instructors should also get feedback about students' preferred methods of being taught online [15]. By doing so, decisions can be made according to what is most beneficial for students. Students should not be required to turn on their cameras. Since the pandemic has increased student anxiety and depression levels, teachers should avoid anything that may add to the trauma students are already experiencing. Castelli and Sarvary [15] mentioned that "a mandate for camera use may add to that trauma" (p. 3566). Instead of requiring students to turn on their cameras, teachers should encourage them to do so and explain why having their cameras turned on is beneficial [15].

In addition to videoconferencing software, teachers can use Nearpod and chatrooms to make lessons more interactive. Nearpod is a tool that makes it easier to include interactive activities and allows teachers to use formative assessments that include polls and open-ended questions. It permits students to participate in fun ways in real time. One of the advantages of using Nearpod is that it provides data about how well students are learning [45]. Tan and Chen [17] recommended taking advantage of chatrooms to increase interaction. They mentioned that these rooms are beneficial for shy students because they can use the "private chat" function. They also indicated that when students see that questions are answered in the chatroom, they will be encouraged to participate [17].

If students behave in ways indicating they may be experiencing depression or feelings of hopelessness, instructors need to report these behaviors to the appropriate professional. However, in addition to the interactive activities previously mentioned, teachers can implement other strategies that may alleviate the feelings of depression and hopelessness students may experience during difficult times. For example, they can include brain breaks so that students can listen to calming music, join a dance party, do some stretching, or participate in deep breathing exercises for a few minutes. Focusing on having students create high-quality work that is shorter in length is useful as well. Another method consists of posting a funny video or song on the virtual classroom page [21].

When students are overwhelmed with anxiety, they usually find it difficult to process and remember information. For these students, teachers need to provide more support. Some of the ways they can respond to these pupils include providing frequent individual praise and communicating with them more often using emails. Teachers can also use emojis during Zoom sessions and work one-to-one with students using breakout rooms. Asking students if they need assistance is recommended as well. Assignments for these students should be broken down into small steps, and instructors need to provide them with feedback on each step. They also need to allow students to redo assignments to help them incorporate the feedback [21].

3.6. Theme 6: Urgency for Providing Equity for Underprivileged Students

Although dealing with the effects of loneliness is critical, for students without online access, educators need to find alternative ways for these pupils to benefit from remote learning. In some countries, less than half the population has access to the internet [47]. In Los Angeles, schools partnered with PBS stations so that students could watch educational programs on television [48]. One reason this way of providing remote instruction was implemented is that a high percentage of students who attend the Los Angeles Unified School District have no internet access at home [49].

Television is not the only way to provide remote learning opportunities for students who may lack internet access. When schools first started to close, some distributed take-home packets. These packets usually include paper-based content, but other types of materials can be distributed as well. In Vietnam, some of the items preschool students received contained beads, glue sticks, and Play-Doh. Teachers mentioned that this content appeared to be engaging after receiving photos and videos of children playing and working with these materials [48].

Some educators in a rural U.S. district with a high percentage of students without internet access created paper learning packets for all their students shortly after schools closed in their region. Over 1000 packets were created. The plan to deal with instructing students was for teachers to check with students on a weekly basis and for families to pick up the packets after teachers assembled them. The superintendent of the district mentioned that the materials inside the packets covered all classes, including art, math, and science. One parent indicated that the packets were making a difference and that her daughter like them [50].

Using television and packets to provide educational content for students without reliable internet access at home is a worthy practice. However, many Americans find the idea of providing less funding to schools in poor regions to be an unacceptable practice. As previously noted, U.S. schools in wealthy areas can provide more hours of professional development designed for teachers to provide better online instruction. In addition to not being able to provide enough teacher training, the insufficient funding that many schools in poorer districts receive likely prevents them from distributing computers to the students who need them most. Statistics regarding the distribution of computers during the pandemic indicated that about 48 percent of the districts with the highest percentages of students from low-income families planned to distribute computers. However, about 52 percent of the districts with wealthier students planned to do this [51]. Such statistics should cause American policymakers to act because wealthier students are more likely to have computers at home. These kinds of educational inequalities can be alleviated if reforms requiring schools to be funded equitably occur.

4. Conclusions

The COVID-19 pandemic has caused educators across the world to fear the learning losses students may experience and the psychological toll that the suspension of face-to-face classes can have on learners. Many students have experienced learning setbacks because their families cannot afford computers or high-speed internet. Many schools cannot respond as well as others because they are funded inadequately. However, some schools and colleges have provided effective online learning by minimizing the drawbacks associated with this type of instruction. Teachers who provide remote learning well during a crisis like the pandemic know how to implement active learning effectively and to minimize the emotional problems students may experience. Many teachers and schools have responded well with children from low-income homes by providing packets containing educational materials and using television so that students can watch educational programs. However, reforms need to be made in areas where students from low-income families receive inadequate educational resources. Although the suspension of face-to-face classes may happen again, the knowledge gained on dealing well with students during the current crisis should help educators to alleviate the problems that frequently occur when remote learning is implemented.

References

1. Winthrop, R. *Top 10 Risks and Opportunities for Education in the Face of COVID-19*; The Brookings Institution: Washington, DC, USA, 2020. Available online: https://www.brookings.edu/blog/education-plus-development/2020/04/10/top-10-risks-and-opportunities-for-education-in-the-face-of-covid-19/ (accessed on 12 November 2021).
2. Hess, A.J. As College Students Head Back to Class, Some Say Benefits of Online Learning Should Not Be Forgotten. 2021. Available online: https://www.cnbc.com/2021/07/29/college-students-say-benefits-of-online-learning-shouldnt-be-abandoned.html (accessed on 26 January 2022).
3. Morgan, H. Best practices for implementing remote learning during a pandemic. *Clear. House* **2020**, *93*, 134–140. [CrossRef]
4. Morgan, H. Online instruction and virtual schools for middle and high school students: Twenty-first-century fads or progressive teaching methods for today's pupils? *Clear. House* **2015**, *88*, 72–76. [CrossRef]
5. Gross, J. Document Analysis. In *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*; Frey, B.B., Ed.; Sage: Thousand Oaks, CA, USA, 2018; pp. 545–548.
6. Patton, M.Q. *Qualitative Research and Evaluation Methods*; Sage: Thousand Oaks, CA, USA, 2015.
7. Merriam, S.B.; Tisdell, E.J. *Qualitative Research: A Guide to Design and Implementation*, 4th ed.; Jossey Bass: San Francisco, CA, USA, 2016.
8. Braun, V.; Clarke, V. *Successful Qualitative Research: A Practical Guide for Beginners*; Sage: Thousand Oaks, CA, USA, 2013.
9. Eldh, A.C.; Liselott, A.; Bertero, C. Quotations in qualitative studies: Reflections on constituents, custom, and purpose. *Int. J. Qual. Methods* **2020**, *19*, 1–6. [CrossRef]
10. Flick, U. *An Introduction to Qualitative Research*; Sage: Thousand Oaks, CA, USA, 2018.
11. Siliezar, J. Finding Hands-On Approaches to Remote Learning. 2021. Available online: https://news.harvard.edu/gazette/story/2021/10/study-finds-students-learn-better-through-physical-participation/ (accessed on 23 December 2021).
12. Kentucky Counseling Center. Mental Health Effects of Online Learning. 2021. Available online: https://kentuckycounselingcenter.com/mental-health-effects-of-online-learning/ (accessed on 26 December 2021).
13. Edutopia. Big Thinkers: Howard Gardner on Multiple Intelligences. 2009. Available online: https://www.edutopia.org/multiple-intelligences-howard-gardner-video (accessed on 10 November 2021).
14. Reuell, P. Lessons in Learning. 2019. Available online: https://news.harvard.edu/gazette/story/2019/09/study-shows-that-students-learn-more-when-taking-part-in-classrooms-that-employ-active-learning-strategies/ (accessed on 26 December 2021).
15. Castelli, F.R.; Sarvary, M.A. Why students do not turn on their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. *Ecol. Evol.* **2021**, *11*, 3565–3576. [CrossRef] [PubMed]
16. Terada, Y. The Camera-On/Camera-Off Dilemma. 2021. Available online: https://www.edutopia.org/article/camera-oncamera-dilemma (accessed on 23 December 2021).
17. Tan, D.Y.; Chen, J.M. Bringing physical physics classroom online-Challenges of online teaching in the new normal. *Phys. Teach.* **2021**, *59*, 410–413. [CrossRef]
18. World Health Organization. Public Health Implications of Excessive Use of the Internet, Computers, Smartphones and Similar Electronic Devices: Meeting Report. 2014. Available online: https://www.drugsandalcohol.ie/32590/2/WHO_Excessive_Use_of_the_Internet%2C_Computers%2C_Smartphones_and_Similar_Electronic_Devices.pdf (accessed on 15 November 2021).
19. Pietrabissa, G.; Simpson, S.G. Psychological Consequences of Social Isolation During COVID-19 Outbreak. 2020. Available online: https://www.frontiersin.org/articles/10.3389/fpsyg.2020.02201/full (accessed on 10 November 2021).
20. Li, D.K. Youth Suicide Attempts Soared during Pandemic, CDC Report Says. 2021. Available online: https://www.nbcnews.com/news/us-news/youth-suicide-attempts-soared-during-pandemic-cdc-report-says-n1270463 (accessed on 22 November 2021).
21. Curtis, C. Isolated Students May Struggle to Stay Mentally Healthy. 2020. Available online: https://www.edutopia.org/article/isolated-students-may-struggle-stay-mentally-healthy (accessed on 17 November 2021).
22. Hawkley, L.C.; Capitanio, J.P. Perceived social isolation, evolutionary fitness and health outcomes: A lifespan approach. *Phil. Trans. R. Soc. B* **2015**, *370*, 1–12. [CrossRef] [PubMed]
23. Qualter, P.; Brown, S.L.; Rotenberg, K.J.; Vanhalst, J.; Harris, R.A.; Goossens, L.; Bangee, M.; Munn, P. Trajectories of loneliness during childhood and adolescence: Predictors and health outcomes. *J. Adolesc.* **2015**, *36*, 1283–1293. [CrossRef] [PubMed]
24. Esquivel, P.; Blume, H.; Poston, B.; Barajas, J. A Generation Left Behind? Online Learning Cheats Poor Students, Times Survey Finds. 2020. Available online: https://www.latimes.com/california/story/2020-08-13/online-learning-fails-low-income-students-covid-19-left-behind-project (accessed on 17 November 2021).
25. Vogels, E.A.; Perrin, A.; Rainie, L.; Anderson, M. *53% of Americans Say the Internet Has Been Essential during the COVID-19 OutBreak*; Pew Research Center: Washington, DC, USA, 2020.

26. Anderson, M.; Perrin, A. Nearly One-in-Five Teens Can't Always Finish their Homework Because of the Digital Divide. 2018. Available online: https://www.pewresearch.org/fact-tank/2018/10/26/nearly-one-in-five-teens-cant-always-finish-their-homework-because-of-the-digital-divide/ (accessed on 22 December 2021).

27. Swenson, K.; Ghertner, R. People in Low-Income Households Have Less Access to Internet Services. 2020. Available online: https://aspe.hhs.gov/sites/default/files/private/pdf/263601/Internet_Access_Among_Low_Income.pdf (accessed on 26 December 2021).

28. Morgan, H. What every educator needs to know about America's homeless students. *Clear. House* **2018**, *91*, 215–221. [CrossRef]

29. National Center for Education Statistics. *Children's Internet Access at Home*; U.S. Department of Education: Washington, DC, USA, 2021. Available online: https://nces.ed.gov/programs/coe/indicator/cch (accessed on 23 December 2021).

30. Goudeau, S.; Sanrey, C.; Stanczak, A.; Manstead, A.; Darnon, C. Why lockdown and distance learning during the COVID-19 pandemic are likely to increase the social class achievement gap. *Nat. Hum. Behav.* **2015**, *5*, 1273–1281. [CrossRef] [PubMed]

31. Karpman, M.; Gonzalez, D.; Kenney, G.M. *Parents Are Struggling to Provide for Their Families during the Pandemic*; Urban Institute: Washington, DC, USA, 2020.

32. Brenneman, R. *Survey: Low-Income Families Strained by Distance Learning*; USC Rossier School of Education: Los Angeles, CA, USA, 2020.

33. Richards, E.; Aspegren, E.; Mansfield, E. A Year into the Pandemic, Thousands of Students Still Can't Get Reliable WiFi for School. The Digital Divide Remains Worse Than Ever. 2021. Available online: https://www.usatoday.com/story/news/education/2021/02/04/covid-online-school-broadband-internet-laptops/3930744001/ (accessed on 22 November 2021).

34. Ferren, M. *Remote Learning and School Reopenings: What Worked and What Didn't*; Center for American Progress: Washington, DC, USA, 2021.

35. Nusbaum, L. Students Cram into Cars to Use Bus Hotspot for Virtual Learning. 2020. Available online: https://www.wsfa.com/2020/09/02/students-cram-into-cars-use-bus-hotspot-virtual-learning/ (accessed on 20 November 2021).

36. Morgan, H. *The World's Highest-Scoring Students: How Their Nations Led Them to Excellence*; Peter Lang Publishing: New York, NY, USA, 2018.

37. Lambert, D.; Rosales, B.M. *California School Districts Struggled to Prepare Teachers for Distance Learning This Fall*; EdSource: Oakland, CA, USA, 2020.

38. Zakrajsek, T. Active/Engaged Learning during a Pandemic: Yes, It Can Be Done. 2021. Available online: https://www.scholarlyteacher.com/post/active-engaged-learning-during-a-pandemic-yes-it-can-be-done (accessed on 22 November 2021).

39. Aupperlee, A. New Research Shows Learning Is More Effective When Active. 2021. Available online: https://www.cmu.edu/news/stories/archives/2021/october/active-learning.html (accessed on 23 November 2021).

40. Ellis, A.K. *Teaching and Learning Elementary Social Studies*; Pearson: New York, NY, USA, 2010.

41. Morgan, H. Maximizing student success with differentiated learning. *Clear. House* **2014**, *87*, 34–38. [CrossRef]

42. Morgan, H. The gap in gifted education: Can universal screening narrow it? *Education* **2020**, *140*, 207–214.

43. Waterford.org. Why Multisensory Learning Is an Effective Strategy for Teaching Students How to Read. 2019. Available online: https://www.waterford.org/education/why-multisensory-learning-is-an-effective-strategy-for-teaching-students-how-to-read/ (accessed on 22 December 2021).

44. McCarthy, J. Learner Interest Matters: Strategies for Empowering Student Choice. 2014. Available online: https://www.edutopia.org/blog/differentiated-instruction-learner-interest-matters-john-mccarthy (accessed on 25 November 2021).

45. Valenzuela, J. 2 Simple Ways to Improve Online Instruction. 2020. Available online: https://www.edutopia.org/article/2-simple-ways-improve-online-instruction (accessed on 20 November 2021).

46. Loya, L.B. Strategies to Encourage Students to Turn Their Cameras On. 2021. Available online: https://www.edutopia.org/article/strategies-encourage-students-turn-their-cameras (accessed on 27 December 2021).

47. UNICEF. Keeping All Children Learning during the Pandemic. 2021. Available online: https://www.unicef.org/rosa/stories/keeping-all-children-learning-during-pandemic (accessed on 18 November 2021).

48. Noonoo, S. Here's What Schools Can Do for the Millions of Students without Internet Access. 2020. Available online: https://www.edsurge.com/news/2020-03-20-here-s-what-schools-can-do-for-the-millions-of-students-without-internet-access (accessed on 24 November 2021).

49. Schneider, M. How PBS SoCal/KCET and LAUSD Launched an Entire At-Home Learning Service in Just a Week. 2020. Available online: https://variety.com/2020/tv/news/pbs-socal-kcet-lausd-at-home-learning-1203537389/ (accessed on 15 November 2021).

50. Peterson, E. Learning Packets Deliver Education for Clintonville Students during COVID-19 Pandemic. 2020. Available online: https://fox11online.com/news/coronavirus/learning-packets-deliver-education-for-clintonville-students-during-covid-19-pandemic (accessed on 18 November 2021).

51. Lake, R.; Makori, A. The Digital Divide among Students during COVID-19: Who Has Access? Who Doesn't? 2020. Available online: https://www.crpe.org/thelens/digital-divide-among-students-during-covid-19-who-has-access-who-doesnt (accessed on 20 November 2021).