



**DIGITAL LEARNING ENGAGEMENT OF PRIMARY LEVEL STUDENTS:  
PERSPECTIVES AND ROLES OF PARENTS AND TEACHERS**

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**Abstract**

During the COVID-19 pandemic, primary education shifted to a digital platform in Bangladesh due to the school closures from March 2020 to February 2022, resulting in a lack of technological resources and preparation from the viewpoint of parents and teachers. Therefore, this study explores the perceptions and roles of parents and teachers regarding digital learning engagement for primary-level students during the pandemic. To gain insights into the perceptions and roles of parents and teachers, qualitative data were collected from 32 parents (through four focus group discussions) and 10 teachers (via interviews) immediately after school reopening. The participants were selected based on their involvement with digital learning during the pandemic using a deviant purposive sampling technique with geographical proportions. Didactic thematic analysis was then employed for data analysis. The study found that while some parents and teachers lacked preparation and facilities for digital learning, they still showed motivation and a positive mindset towards it, particularly in urban areas. However, in contrast, those in rural areas faced challenges and had no choice but to embrace the trend of digital learning. Besides, urban teachers found digital learning helpful and suggested continuing it after the pandemic, while parents believed it was only suitable for tertiary-level students and had negative consequences for younger children. Furthermore, urban parents provided reinforcements to engage students, whereas rural parents struggled and depended solely on schools. Additionally, teachers engaged students through storytelling, gamification, redesigning content, using pictures, interactive questions, orienting students on digital platforms, and reaching out to absent students. Finally, the findings of this research will guide the government and policymakers in updating the education system and implementing digital learning at the primary level.

**Keywords:** Technology, Digital learning, Perception and role, Engagement in learning, Primary education

**Introduction**

Over the past few decades, researchers, educators, and policymakers have extensively investigated the integration of emerging technologies for remote learning among young children (Aubrey & Dahl, 2014; Plowman et al., 2012). Debates have arisen concerning the appropriateness of introducing digital learning to elementary school children, with some researchers expressing apprehensions about its potential impact on their social and emotional well-being and overall development (Elkind, 2007; Zalaznick, 2019). In contrast, other studies have highlighted the potential benefits of digital learning in enhancing children's understanding of abstract concepts and promoting engagement in group learning, reasoning, and problem-solving activities (Stephen & Plowman, 2002; Yelland, 2006). Amidst these discussions, apprehensions have been expressed regarding the consistency and effectiveness of digital learning (Chen et al., 2010; O'Doherty et al., 2018), as well as challenges in establishing a digital learning environment that fosters social presence and commitment. These challenges entail issues such as social isolation, video addiction, loss of interactivity, and delayed or inadequate feedback (Jiang & Monk, 2015; Khurana, 2016; Radesky et al., 2016). In response to these circumstances, researchers have suggested that parents and teachers play a mediating role in regulating digital learning activities, such as setting norms for technology usage and monitoring children's media consumption (Nouwen & Zaman, 2018). Despite these ongoing discussions and possible concerns, millions of

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young learners have embraced digital learning over the past ten years, underscoring its value as a crucial element of contemporary education (Franklin et al., 2015; Zalaznick, 2019). Since the emergence of COVID-19 in December 2019, the global education system has faced an unprecedented crisis, prompting many countries, including Bangladesh, to shift to digital learning (UNESCO, 2020). This sudden shift has presented significant challenges for students, teachers, and parents, particularly those at the primary level (Setoningsih, 2021; Sharjeel et al., 2022). As such, this study aims to investigate how parents and teachers perceive digital learning and their roles in facilitating students' engagement with it.

### **Statement of the Problem**

In response to the COVID-19 outbreak in Bangladesh, the government implemented school closures from mid-March 2020 (Al-Amin et al., 2021a). As a result, more than 38 million students and over a million teachers were out of work (World Bank, 2021). Digital learning methods were adopted by both parents and teachers to minimize learning gaps. However, adopting these methods was not without challenges. Specifically, primary-level students' parents and teachers faced difficulties due to additional stressors, such as economic and physical concerns, social isolation, and the management and outcomes of home-schooling (Fontanesi et al., 2020).

Moreover, the extended lockdown deprived children of any form of social contact or engagement, leading to increased uncertainty and anxiety (Ramchandani et al., 2020). Parents had to take on the role of a teacher in the digital learning system (Simons & Moffett, 2022), which presented new opportunities as well as unanticipated obstacles. According to a recent study by Alam and Hoon (2021), teachers encountered challenges in maintaining their children's attention on schoolwork, establishing a daily routine, adapting instructional methods, and managing work from home. Given these multi-faceted challenges, it is essential to narrow the focus and understand the perceptions and role of parents and teachers specifically in technology-based teaching-learning in the context of Bangladesh. Additionally, the number of research studies on digital learning at the primary level in Bangladesh is limited, as most studies have primarily focused on secondary and tertiary education. Therefore, this research aims to explore how parents and teachers perceived and engaged primary-level students in digital learning, addressing the gaps in the existing literature and providing evidence-based strategies for effective digital learning in crisis situations.

### **Literature Review**

The rapid advancement of digital technology has significantly impacted educational practices worldwide, prompting researchers, educators, and policymakers to explore its integration into various learning environments. During the COVID-19 pandemic, the adoption of digital learning methods has become a crucial strategy to ensure educational continuity, especially among young children in primary education (Aubrey & Dahl, 2014; Plowman et al., 2012). This aligns with the Technology Acceptance Model (TAM), examining parents' and teachers' tech acceptance. TAM includes cognitive, affective, and behavioral components as external variables (Zhu et al., 2018). Cognitive variables encompass factual knowledge about technology, affective variables involve personal opinions and feelings, while behavioral variables relate to experiences and capabilities (Ilieva & Farah, 2013; Zhu et al., 2018). In the context of parents and teachers, the adoption of digital learning platforms involves cognitive, affective, and behavioral dimensions. Perceived educational benefits shape perceptions (Wang & Wang, 2009; Boticki et al., 2015), while negative potential influences opinions about distractions and health implications (Soykan, 2015; Harjule et al., 2021). Prior experience impacts the role and engagement of the users in digital learning (Schumacher & Morahan-Martin, 2001; Wu & Song, 2021). Therefore, the perception and role of parents and teachers are interlinked while a new teaching-learning strategy is explored. This section provides an overview of literature focusing on parents' and teachers' perceptions and roles in engaging primary-level students in digital learning during the pandemic in Bangladesh.

The perceptions of parents and teachers regarding the digital learning engagement of the students have been a subject of significant interest among researchers. Mourlam et al. (2020) and Orben and Przybylski (2019) have expressed concerns about the potential negative impact of digital learning on the social and emotional well-being of elementary school children. These researchers argue that excessive screen time and reduced face-to-face interactions might hinder young learners' overall development. Similarly, Kaimara et al. (2022) found that parents worry about

the risk of video addiction and the loss of valuable social interactions that are essential for children's holistic development.

Conversely, other studies have underlined the positive aspects of digital learning and its potential to enhance children's learning experiences. Amzalag (2021) found that parents and teachers perceived digital learning as an effective tool to facilitate children's engagement in group learning, reasoning, and problem-solving activities. Digital learning platforms have recognized for their capability to provide interactive and engaging content, promoting active participation and knowledge acquisition among primary-level students (Gameil & Al-Abdullatif, 2023).

Amidst the challenges posed by the sudden shift to digital learning, parents and teachers have taken essential roles in facilitating students' engagement and learning experiences. As digital learning is regulated from home, therefore, parents must understand responsibilities of co-teachers for supporting their children's educational journey (Simons & Moffett, 2022). Research by Alam and Hoon (2021) reveals that parents have played an essential role in providing necessary reinforcements and motivation to engage students in the digital learning process. They have been actively involved in establishing a conducive learning environment at home, encouraging regular study routines, and providing emotional support to alleviate any anxiety or stress related to the virtual learning experience (Agaton & Cueto, 2021).

In the context of teachers, the pandemic has prompted a shift in pedagogical practices, requiring educators to adapt their instructional methods to suit the online environment (Sepulveda-Escobar, & Morrison, 2020). They have employed various techniques such as experience sharing, game-based learning, participatory inquiry, and redesigning content to sustain students' interest and participation in the digital classroom (Jagust et al., 2018). Additionally, teachers have played a critical role in providing timely feedback and support to address individual learning needs, ensuring that each student receives personalized attention and guidance (Rapanta et al., 2020). In terms of roles in digital learning, researchers have mentioned various types of roles such as pedagogical role, planning role, managerial role and technical role for parents and teachers to play during digital learning (Alvarez et al., 2009; Deshler et al., 2014; Naylor & Nyanjom, 2021; Rosalina et al., 2020).

## **Materials and Method**

This study employed a qualitative research approach to explore the experiences of teachers and parents in engaging their students in digital learning. Qualitative research is a methodological approach that seeks to investigate individuals' understanding, perspectives, and concepts of their social reality in natural settings. This is accomplished by using people's accounts of their experiences as data through a flexible, evolving, yet structured research process (Hancock et al., 2001).

Given the exploratory nature of this study, a qualitative research design was deemed most appropriate for collecting detailed data. The study population comprised primary school teachers and parents in Bangladesh. A deviant purposive sampling technique was utilized to select 10 primary school teachers who conducted online classes, with the aim of gathering data on their roles and perceptions. Similarly, 32 parents with children currently enrolled in primary school were selected using the same sampling technique to answer research questions pertaining to their experiences. By employing a qualitative research approach and utilizing purposive sampling, this study sought to gain rich and in-depth insights into the experiences of primary school teachers and parents in Bangladesh.

## **Results**

### **Perception of parents and teachers**

#### ***Perception about familiarity and experience of digital learning***

The findings indicate that parents who lacked familiarity with digital learning prior to the pandemic were less likely to engage in it. However, those who had previous experience with educational videos on the internet or social media were more motivated to embrace digital learning during the pandemic. It appears that many parents only became aware of digital learning recently and did not express significant interest in it prior to the pandemic. Some parents even held misconceptions that digital learning was only intended for university-level students and not suitable for primary-level students. These findings suggest a need for targeted efforts to promote digital learning among parents in rural areas and to dispel misconceptions about its applicability to different age groups. In this regard, one of their responses is given below:

*"I have read some chapters of secondary level ICT book and I have learned about online learning, digital learning, digital contents, etc. but I thought it is not feasible in our country and also only for university graduates." (P-U:02)*

According to the teacher's interviews, they reported being knowledgeable about digital learning through government training, free learning platforms like Muktopath, various apps, social media, and YouTube. However, most of them only became acquainted with digital platforms after the pandemic had started. The teachers expressed their belief that while the pandemic had forced the adoption of digital learning, it had also highlighted the importance of incorporating technology into education. One of the teachers said,

*"I had previous training on digital learning before the pandemic situation. One of my relatives was connected to A2I (Access to information) and very earlier in the pandemic, he let me into one of their trainings on digital learning." (T-U:01)*

All of the surveyed teachers received 10 days of ICT (Information and communication technologies) training from the Upazila Education office before the initiation of teaching through digital platforms during the pandemic. Through this training program, they gained experience in creating and operating digital content.

### ***Perception about scopes, challenges, and other consequences of digital learning***

Some of the parents especially from urban areas found digital learning helpful. But their concern was mostly about assessment and the amount of concentration children give to the digital mode. One of the parents stated her opinion in this way,

*"I have warmly embraced digital learning as an alternative method for children's learning because everything is closed due to COVID-19, including the schools, and there is no way to go to school physically." (P-R:4)*

Moreover, the parents said, this mode of learning is time-saving. This also opens the doorway of technological skills and the scope of interaction for introvert students.

While a majority of the surveyed parents expressed concerns that the devices used in digital learning were inappropriate for young children, a few also cited negative consequences associated with their children's device usage. Some respondents believed that excessive screen time was causing physical, emotional, and behavioral problems for their children. These issues included eye strain, as well as physiological discomforts such as body stiffness and neck pain resulting from poor posture during online classes. Such concerns raise important questions regarding the suitability of digital learning for young children and highlight the need for effective strategies to mitigate the negative impacts of excessive device usage.

### ***Perception about the importance of digital learning and orienting students to digital platforms***

In the question of formal orientation to digital learning, parents responded positively that respective schools have arranged an orientation for the primary students. The rest of them said that teachers used social media to conduct classes. Therefore, there was no formal orientation for their children. Most of the teachers stated that they had tried to be connected with students through social media and feasible platforms during online classes. One of the school teachers responded in this way,

*"During this period of the pandemic, I continued the academic activities of the students of my school through digital platforms. I had no experience but the situation demanded for diving in this new era of technology." (T-R:03)*

The participant teachers expressed their belief that the incorporation of digital platforms in education would enable them to effectively track students' progress by providing access to records of their activities. Furthermore, teachers observed that students are highly interested in innovative learning strategies that offer a departure from traditional methods. They viewed digital learning as an exciting opportunity for 21st-century students to engage in joyful and effective learning experiences. Such insights highlight the potential benefits of digital learning in enhancing student engagement and performance and suggest a need for greater integration of technology in education. One of the teachers explained,

*"In brief, digital learning may improve the scope of learning opportunities, free up teachers' time, allow them to better adapt their instruction to meet the needs of their students, help track students' progress, and offer credibility into the learning process for all parties involved, among many other benefits." (T-U:04)*

However, the teachers responded with a concern that primary-level students will require familiarization with the processes, tools, and expectations and all will benefit from an introduction to their new academic community which seemed almost unimaginable for the primary-level students.

### ***Perception about students' engagement through digital platform-based learning***

Some of the teachers agreed that there were a few students who would always raise their hands to take part in activities and others who were reluctant to do so, but the latter group was smaller. It could be challenging to engage children in conversations who were reluctant to offer their voices. One of the teachers said,

*"I used to call everyone to respond and tried to communicate with their family so that they encourage their students to join the digital mode of learning. Moreover, I used to motivate them by saying various positive words (excellent, very good, etc.) to make them motivated"* (T-R:05)

Teachers also perceived that digital platforms such as Zoom or Google Meet provide an effective way to divide students into smaller groups and facilitate academic engagement while reducing the likelihood of gossiping. Additionally, digital learning offers several advantages, such as the ability to share screens and presentations, as well as download materials, which can enhance student interactivity and engagement. However, teachers in rural areas also noted that engaging students in digital platforms can pose challenges, including network irregularities, a lack of smartphones, and difficulties affording mobile data due to poverty. These issues can seriously impede both students' and teachers' engagement in the digital learning process. Such insights underscore the need for targeted efforts to address digital access and equity issues, particularly in rural areas, in order to promote more effective and inclusive digital learning environments.

### ***Perception about post-pandemic digital learning***

When parents were asked about the potential for continuing digital learning after the pandemic, the majority of urban parents expressed support for its continuation. Specifically, ten parents stated that they would like to see digital learning persist beyond the pandemic. Among the teachers, the majority (07) expressed willingness to continue with digital learning after the pandemic, with several conditions. These conditions included providing supportive training for both students and teachers, ensuring access to necessary devices, and maintaining stable internet connectivity. Additionally, two teachers suggested that digital learning could be limited to one or two days a week to reduce their workload, as the school did not have sufficient staffing. These findings suggest that while there is support for digital learning among both parents and teachers, there are important considerations regarding resource allocation and training that must be addressed in order to promote sustainable and effective digital learning environments. One of the teachers responded in this way,

*"Yes, I am willing to continue digital learning in the post-pandemic phase for reducing class load. I expect the necessary instruments from the institute regarding this matter. In the aftermath of the emergency, there are possibilities for digital learning. There are many issues in the textbook which would have a more profound impact through digital platforms."* (T-U:04)

On the other hand, two of the rural teachers said "no" to the proposal of post-pandemic online classes and one of them said that if it is well managed that we can go for it.

## **Role of parents and teachers**

### ***Pedagogical and planning role***

Before the government implemented televised classes, many parents expressed unawareness of the benefits of regular digital learning. However, over time, a small number of urban parents began discussing the situation with their children and encouraging them to engage in a regular learning process. Specifically, three parents reported that they had started following the schedule of Shangshad TV. These findings suggest that the availability and accessibility of educational resources, such as televised classes, may play an important role in promoting engagement in digital learning among parents and students. One of the parents from the urban region stated in this way,

*"The COVID-19 situation was so overwhelming that situation which distorted my child far away from his regular life. Forcing him constantly could have a negative impact on her mental and physical health. So, I waited for a few days to let my child understand the situation and then tried to discuss with him the overall pandemic status and possible way of getting out of this state."* (P-U:09)

According to the findings of this study, many parents, particularly those residing in urban areas, consider YouTube to be an important medium of learning for their children. However, some parents reported that they did not simply rely on random videos, but instead chose videos that were related to textbook lessons and topics. Despite

this interest in digital learning, the majority of parents in this study still waited for their children's schools to initiate digital learning through devices. Some parents even contacted teachers to inquire about the next steps and were sometimes advised to engage in home-schooling on their own. These findings highlight the importance of effective communication between schools and parents to ensure the successful implementation of digital learning in education.

Teachers referred to the pedagogical role as presenting, developing content, linking with students, checking learners' prior knowledge, and encouraging students to engage. Therefore, the teacher had this challenging part to play their pedagogical role. One of the teachers said,

*"It was very challenging to make content and lesson plans for the students through digital platforms. But we were guided by our head teacher and we were able to use our knowledge to make it useful through digital medium." (T-R:01)*

During the pandemic, teachers have been forced to adapt their teaching methods to the new digital platform. This has required them to revise their content knowledge and adjust their teaching styles to fit the flexibility of the digital medium. As a result, they have had to condense the length of their lessons, focusing only on the most important sections. Some teachers have found that using examples with pictures has been effective in helping students understand the material. This approach is less challenging for students when delivered through a digital medium. Given the unprecedented circumstances of the pandemic and the challenges posed by digital learning, teachers have attempted to avoid creating additional stress for their students by avoiding difficult questions and instead asking more interactive and open-ended questions.

Teachers said that they always tried to make the class attractive by using multiple ways of teaching, taking the help of gamification, providing regular feedback, sharing interesting stories, and offering gameplays to the students so that they can engage enthusiastically by being motivated in this newly introduced system. A teacher added that they gave students as much time as they need to be ready for the lessons to understand as there is flexibility in teaching students online with minimum time boundary. They also planned their lesson considering more time and flexibility. One of the teachers said,

*"I had the chance to observe the students' connectivity to learning through homework, later which was done through worksheet exchange. I have mediated lesson plans based on specific subjects to act on digital learning." (T-U:03)*

For these, they have developed themselves for using technology learning from various apps, different courses from free learning platforms, and many ICT-related courses from YouTube and they have helped the students to learn about operating the devices by informing them about the digital security act. To continue education through digital platforms, the teachers organized online classes and continued teaching through google meet regularly and they left no stone unturned to make the students regular and attentive in digital learning. One of the teachers from the urban area said,

*"Through digital learning or in the field of communication, we have presented the art techniques of digital learning platform to the students in compliance with the digital safety laws and hygiene rules of the students." (T-U:03)*

### **Managerial and technical role**

Parents said that initially, it was very difficult to engage the students in this new mode. Some of the parents said that they offered reinforcement in the beginning phase of digital learning. In the question of adapting a child to the digital learning system, one of the parents said in this way,

*"Child can be shaped in any form in no time. They are habituated to the physical classroom however they can be guided very easily to the digital platform as well. It may probably take a few weeks but can be done very conveniently." (P-U:15)*

However, in rural areas, pedagogical and managerial roles were played very inappropriately by the parents. They stated that they relied totally on the decision of the schools. They had a lack of knowledge and facilities for engaging their students in digital learning.

According to the study, the majority of parents from urban areas reported that their children are interested in using digital devices for learning. As a result, these parents found it easier to play the necessary technical roles in facilitating their children's digital learning experiences. However, parents from rural areas encountered challenges in preparing their children for digital learning. Many did not have access to smartphones and lacked knowledge of how to use online or digital learning platforms. Only five out of sixteen rural parents reported being able to support their

children's digital learning, largely due to the presence of older siblings who were college students and could assist with technical support.

The teachers said they should possess technological expertise, along with proficiency in content and pedagogical activities, and exert efforts to transform static approaches into more student-centric and dynamic ones. This ensures that learners can maintain communication with classmates, comprehend instructions, access learning materials, and participate in online classes from around the world. During interviews, all of the teachers mentioned their first role is the technological role as the learning process is based on digital technologies. Even, one of the teachers mentioned that,

*“Students feel uncomfortable due to the lack of technological knowledge. However, if the teachers are skilled with technology then it will be easier for the students to continue digital learning. My technical tasks include pointing students to resources for technical support, answering technical questions, diagnosing and explaining problems, and giving students enough time to encounter new approaches.” (T-U: 05)*

In this study, a few teachers said that though they went through a short training as well they have come up with ICT literacy during their pre-service training but they were not able to execute their technological role in the very beginning of the switching to digital mode. One of the teachers from a rural area expressed her concern in this way,

*“I have knowledge about using digital technologies, websites, and software for conducting online classes but I have perceived that I was unable to ensure my technological role in terms of ensuring students learning. Because I delivered lessons in google meet which was guided by the authority of the school but I didn't get enough response from the students' end which was very disappointing” (T-R:03)*

The teachers also said that they tried to give a brief about the way of joining and responding in the digital learning mode so that students can easily participate. They also used to call the students personally whenever they felt that any student failed to join the class properly.

One of the teachers said,

*“We have provided google meet links via mobile SMS to the students and tried to confirm that each and everyone has joined the class. We have also made them understand how to use the link for joining the class. But it was a matter of sorrow that there were never more than 50% students present in the digital classes” (T-R: 05)*

However, this scenario was not very common for the village teachers as they were not able to contact the students personally due to not receiving phone calls in their contact numbers. One of the head teachers said that she used to tell the parents to communicate with other parents so that they can help one another in facing the shortage of mobile devices, problems with internet connection, and other issues.

In the case of the teachers' managerial role, they replied that they used to manage time properly, control the classroom situation, and provide appropriate assignments and home-works. Few of them said they have strengthened learners' necessary internal motivation through open discussions and group discussions whenever they could. One of the teachers said in this way,

*“I knew my managerial role as a teacher. I used to maintain the activities which I usually do in my physical classes. For instance, I maintain time table, offer exams, assignments, and homework, and provide clear instructions as a teacher. Because I feel that managing class is one of the important tasks to be done for the teachers to ensure the learning process.” (T-R: 01)*

Moreover, to connect the students to the digital learning platform, the respondents always contact the students via mobile phone to provide them with the google meet link and provided necessary instructions on connecting through google meet. However, it was a matter of sorrow that the number of regular attendances was less than 50% and the teacher received very few responses from the students during live classes, which hindered their ability to fulfill their managerial role.

## **Discussion**

This research demanded knowing the perception and role of parents and teachers in engaging students with digital learning platforms. The findings show that most of the parents and teachers didn't have familiarity with the digital learning platform before the pandemic situation. But once the demand for the current situation was raised, they started to know about the new strategy. There are various perceptions about digital learning as they called it mobile

learning or learning strategy regarding only higher education. Rapanta et. al. (2020) also mentioned the case in a similar way. However, teachers and parents were also concerned about the orientation of the digital platforms to the primary level students which was also supported by Reimers et al. (2020), though researchers have said it is only true for those students who have never experienced digital learning (Teras et al., 2020). Some parents were concerned about students' proper learning via digital mode. Not only that the demographic factors are also a matter of concern for the parents and teachers. It is found that the parents of the urban area are more interested in digital learning as they had the feasibility to join the classes regularly. However, the parents as well as the teachers showed an unsteady position in terms of engaging students in digital learning. They were also concerned about the health and mental issues of students due to learning through the digital mode, and this concern aligns with findings in other studies (Lischer et al., 2021).

In terms of the teacher's role, it was found that most of the teachers were very attempted professionals during the pandemic situation. They changed their mindset according to the necessities of the students and the COVID-19 situation (Ozamiz-Etxebarria et al., 2021). Teachers also prepared their content and lesson plans differently for the digital learning process (Kim, 2020). The present study revealed that parents exhibited a positive attitude towards their children during the pandemic and adopted a less pressurizing approach towards their education. In contrast, both parents and teachers residing in rural areas expressed reluctance towards continuing with digital platforms in the post-pandemic era, while their counterparts from urban areas embraced this mode of learning. This disparity in mindset may be attributed to the lack of internet facilities, inadequate knowledge of information and communication technology (ICT), absence of devices, and traditional beliefs (Al-Amin et al., 2021b; Bell, 2022; Ozdamli & Karagozlu, 2022).

### **Conclusion**

This research aimed to explore teachers' and parents' perspectives regarding students' engagement in digital learning. From the above discussion, key findings demonstrate that both parents and teachers perceived some positiveness in terms of digital platform-based classes. Thus, closing the chapter on digital learning for primary education would be premature, as it has already guided our education system toward improvements that are more student-friendly. Moreover, aligning with the findings of other studies, the combination of digital learning and traditional methods can open a portal to the blended learning approach. Consequently, feasible strategies can be explored to address the needs of both urban and rural stakeholders, ensuring a technology-based learning system that benefits all. As a result of this research, we suggest introducing digital learning gradually, starting with a minimum margin based on recent experience. For example, schools could shift to digital mode once a week to initiate the transition. Furthermore, the findings of this research hold significant implications as it sheds light on the perceptions and roles of parents and teachers in a novel situation. It can also be served as a guiding resource for policymakers to enhance the development of digital learning in primary education.

### **Recommendations**

Proper orientation and training should be given to all the parents, teachers, and students whenever a technology-enhanced learning system is introduced. More classes should be designed for adopting multimedia. This digital learning should not be stopped rather this opportunity can be taken as a gateway to enter a technology-enhanced world. The government should reduce the price of the internet and focus on the stability of the internet in rural areas. Finally, mitigating obstacles to improving digital learning for elementary students can be a topic for further research.

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### Conflict of Interest

The authors declare no conflict of interest.

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