



تأثير التعلم عبر الإنترنت على التواصل بين المعلمين وطلاب المدارس الابتدائية خلال جائحة كورونا في المملكة العربية السعودية من وجهة نظر أولياء الأمور

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الملخص

في شهر مارس من عام 2020 تم إغلاق جميع المدارس والجامعات مع انتشار جائحة كورونا حول العالم، وبدأت وزارة التعليم في المملكة العربية السعودية تنفيذ خطة التعليم عن بعد من خلال تقديم منصة تعليمية إلكترونية تسمى "منصة مدرستي" والتي توفر لجميع طلاب المراحل أكثر من 120 ساعة من المحتوى التعليمي يومياً لتلبية متطلبات الطلاب في جميع أنحاء البلاد. هدف هذا البحث إلى دراسة تأثير التعليم عن بعد على الاتصال بين المعلم والطالب في المرحلة الابتدائية ومدى تأثير التعلم عبر الإنترنت على إنتاجية الطالب من وجهة نظر أولياء الأمور. كما هدف إلى معرفة معوقات الاتصال ويقدم اقتراحات وتوصيات لتحسين الاتصال الفعال بين المعلم والطالب أثناء عملية التعليم عن بعد. شارك في الدراسة إحدى عشر ولي أمر لأطفال في المدارس الابتدائية الحكومية وأشارت النتائج إلى أنه على الرغم من رضا أولياء الأمور بشكل عام على تجربة أبناءهم التعليمية عبر منصة مدرستي خلال فترة جائحة كورونا، إلا أنهم يفضلون التعليم المباشر بدلاً من التعلم عن بعد، كما سلطوا الضوء على عدد من المشكلات التي واجهها أبناءهم عند استخدام المنصة وقد شملت هذه المشكلات عدم القدرة على فهم المواد بشكل جيد، عدم وجود تقييم كافي من المعلمين، قلة مشاركة الطلاب خلال الفصول الافتراضية، وعدم قدرة الطلاب على رؤية المعلمين مما أدى غالباً إلى تشتت انتباه الطلاب عن الدروس. لذا فقد أظهر البحث الحالي أن التواصل بين المعلمين والطلاب يتأثر سلباً بالتعلم عن بعد.

الكلمات المفتاحية: الاتصال، التعليم، التعليم عن بعد، جائحة كورونا، منصة مدرستي.

The Perceived Impact of Online Learning on Communication Between Teachers and Elementary School Students in Saudi Arabia During the COVID-19 Pandemic

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ABSTRACT

The educational process is highly dependent on socio-cultural context. With a move to online teaching during the COVID-19 pandemic, the forms and methods of learning were majorly impacted. The traditional face-to-face learning method had to be transformed to the virtual space, changing the communication system between students and teachers. In Saudi Arabia, schools and universities closed on March 9th, 2020, due to the COVID-19 pandemic. The country's Ministry of Education established an online home learning platform, called "Madrasati", which gives Saudi students access to over 120 hours of educational content daily. The impact of the move to online learning on communication between students and teachers in Saudi Arabia was explored, with a view to developing recommendations for improving online learning environments. Focus group discussions with eleven participants were used to establish parents' perspectives on how distance learning, *via* Madrasati, affected teachers-student communication. Findings suggest that the transition to the online learning environment posed several challenges for the students. Online learning was perceived to have made communication between students and teachers more difficult, hindering the learning process and affecting learning outcomes. The online environment was also perceived to have a negative effect on children's productivity, as it became difficult for them to stay focused and motivated outside of the physical classroom environment. Future online learning platforms should include greater audio-visual content to help engage students and facilitate communication.

Keywords: Communication, Productivity, Distance Learning, Education, COVID-19, Madrasati platform.

Introduction

Since 2020, the COVID-19 pandemic has forced educational institutions across the globe to close their doors to the majority of students. With school closures, learning rapidly moved from traditional classroom-based and face-to-face teaching to online platforms, requiring quick adaptations for teachers and students alike. The online platforms facilitated communication, providing a 21st century approach to “distance education”, defined as teaching activities that take place in a location away from the typical learning environment (Moore and Kearsley, 2012). According to the social-constructivist learning theory, learning is a complex, interactive social process between teachers and students. A teacher creates a social environment where a student can construct and gain relevant knowledge. It is a social and cultural process that occurs through communication (“Social-Constructivism Learning Theory”, 2012). Therefore, successful communication between teachers and students can play an important role in increasing student productivity and achieving academic goals.

While the rapid transition to online education created new social and learning opportunities of 21st century skills, such as flexibility, adaptability and the development of technical skills, as well as affordability, it also presented numerous challenges. Online learning can result in low quality teaching, with the online space negatively affecting teachers’ approach to education and a lack of responsibility impacting the overall quality of learning. Furthermore, computers and internet are not accessible to every student, or students might not possess relevant technical skills, which might help deepen educational inequality. Finally, during online learning students do not have the ability to directly interact with teachers and may find it difficult to establish communication with them, this may lead to misunderstanding and damage learning processes and outcomes (Dhull & Arora, 2019). It is therefore important for teachers and instructors to create a sense of community in online classrooms, to enhance students’ learning experiences (Alawamleh, Al-Twait, & Al-Saht, 2020).

1.1. Communication in Education

In an educational setting, for the learning process to be effective, communication must be mutually understood by the teacher and their students (Habeeb, 2014). To achieve academic success, therefore, students must be able to communicate effectively with their teachers and classmates (Brindley, Walti, & Blaschke, 2009; Chen, Bennett, & Maton, 2008; Driscoll, Jicha, Hunt, Tichavsky, & Thompson, 2012). Keyton (2011) defines communication as the transmission of information and knowledge from one person to other people. The process can involve verbal, non-verbal, and be digital forms of human interaction (Velentzas and Borni, 2014). Cheney (2011) stresses that communication only occurs if the exchange of

information results in a shared understanding. As such, interpersonal skills, such as talking, watching, listening, interviewing, analyzing, interpreting, and evaluating, play a significant role in the communication process. Furthermore, misunderstandings need to be resolved and the recipient able to accurately interpret information and decide if or how to act on it. These interpersonal skills are significant in learning, developing healthy relationships, creating a sense of community, and being successful at work (Velentzas and Borni, 2014) and in education (Habeeb, 2014).

Communication is essential to the creation of successful online learning environments and for enhancing students' motivation to learn (including those of Chen, Bennett, & Maton, 2008; Martin & Parker, 2014; Zhang & Kenney, 2010). For successful online learning systems, it is crucial to develop the tools necessary for students to work together, discuss projects, and communicate with their teachers. Communication can take place synchronously, in real time, like conventional face-to-face classroom settings, or asynchronously, with a delay between communication and response, in online learning. Platforms such as Blackboard Collaborate, ooVoo, and Google Hangouts facilitate synchronous communication, whereas asynchronous communication occurs with emails and discussion boards. Both types of communication enable students to share information with teachers and peers (Abramenka, 2015). And as mentioned before, sharing information and constantly communicating with their teachers and classmates can help students perform better in the classroom and achieve their academic goals.

Research by Jurik et al. (2014) highlights the importance of effective communication between teachers and students. That study found that verbal teacher-student interactions, as well as students' individual traits, played significant roles in students' learning and motivation, and in their improvement. Jurik et al. (2014) explored cognitive learning and intrinsic motivation to learn, and how (if at all) these are influenced by teacher questioning and feedback. Teachers' questions and feedback have a significant impact on students' cognitive learning and intrinsic motivation to learn, and thus that teachers must develop the skills to ask effective questions and provide meaningful feedback (Jurik et al., 2014).

Belcheir and Cucek (2001) found a relationship between different student behaviors and the method used to deliver online classes: Online learners were found to be more likely to ask for clarification when they did not understand, to apply their theoretical learning to real-world situations and to discuss matters their tutor both when they had a complaint and when they wished to express their approval/appreciation. In short, online learners were highly and quantifiably engaged. These findings indicate that communication was effective to students in this study. The same study found that students engaging in online education had greater access to communication than those receiving education in other ways (REF). Additionally, students highlighted course delivery methods, and any lack of interaction with peers and teachers, to be the most significant obstacles to their academic achievement.

However, student isolation is reported to present a challenge for online learning (Freedman, Tello, & Lewis, 2003; İsman, Dabaj, Altinay, & Altinay, 2003; Sharma & Maleyeff, 2003).

1.2. Online Learning

The virtual nature of online learning has inherent problems and presents barrier to learning that students need to overcome (Berge, 1998, Berge & Mrozowski, 1999, Pajo & Wallace, 2001, Barrett, 2002, Meyen & Yang, 2003, İşman & Dabaj, 2004). İsman et al. (2003) found a lack of interaction and insufficient motivation or enthusiasm to learn are the most significant factors causing students to drop out of online courses. Similarly, Lawless and O'Dwyer (2000) identified social and technical barriers to online learning that negatively impact the motivation of some students and which online education providers should take into account. Similarly, Simonson et al. (2003) pointed out that most barriers of the online learning are associated with the psychological and sociological characteristics of the student. The lack of traditional interventions to boost motivation and overcome barriers, such as face-to-face support and quick responses to student behaviors, presents a challenge.

The effectiveness of online learning can also be impacted by uncertainty surrounding an educational or professional goal, the stress of juggling multiple roles, issues with time management, different learning styles, and fear of failure. Simonson et al. (2003) also pinpointed several obstacles, such as environmental noise or technical difficulties, encountered during online learning and highlighted the importance of teachers being open to accepting new teaching paradigms.

The drawbacks of online learning have been explored by Assareh and Bidokht (2011), who also put forward several solutions. Assareh and Bidokht (2011) described four categories of barrier: (1) learner-related, (2) teacher-related, (3) curriculum-related, and (4) institution-related. Assareh and Bidokht (2011) recommended that teachers, parents, students, and local authorities should work together with curriculum developers and technology experts to overcome these barriers.

A review of meta-analysis indicated that students were more satisfied when they received face-to-face education than when using online education, which likely impacted motivation (West, 2011). Student motivation levels can influence their ability to cope with the social and technical components of educational courses (Whipp & Chiarelli, 2004) and, according to Hannafin et al. (2007), online education is not inherently very motivating. Rather, the technological issues (such as a lack of familiarity with the technology), intrapersonal issues (personal relevance of the learning tasks and opinions regarding the effects of computers on learning), and interpersonal issues (the need to work together over long distances) can be tangibly demotivating (Bures, Amundsen, & Abrami, cited in West, 2011; Schrum et al., cited in West, 2011). Nonetheless, increased motivation to learn via online platforms can

occur when appropriate features are incorporated, such as multimedia, context-based videos (Hee Jun & Johnson, cited in West, 2011), and innovative course design (Hsinyi, Chin-Chung, & Ying-Tien, cited in West, 2011). Understanding of this aspect can be useful to improve online learning.

In Saudi Arabia, the Ministry of Education set up a new online education platform called “Madrasati” – “my school” in Arabic. The platform is free to use and enables teachers to conduct virtual classes utilizing a variety of content, such as educational videos, textbooks, worksheets, and presentations, to suit learners of all levels and abilities. The platform also allows students, teachers, parents, and other education stakeholders to communicate with each other. Madrasati facilitates the creation of virtual classrooms, in which teachers and students throughout the country can work synchronously every day. The remote school day commences at 9:00 a.m. and runs until 3:00 p.m. Additionally, the platform offers a virtual school office every morning, which can be used by those whose circumstances support it. It also allows parents to help their children with their elementary-level distance education. However, the Madrasati platform offers audio, instead of audio-visual, classes, which may hinder online learning. This innovative and advanced system is one of several schemes developed by the Saudi Arabian government during the pandemic to improve distance learning throughout the country.

Understanding if and how the move to online learning during the COVID-19 pandemic impacted communication and student productivity is important, not only for determining the learning barriers of the current cohort of students, but also establishing effective future learning methods. In this technological era, advancements and accessibility have increased the availability on online learning and the increasing frequency of disruptive events, such as the pandemic, will likely necessitate its use. Therefore, the optimization of online communication between teachers and students is vital and will help ensure effective learning and productivity. The key aim of this study was to establish parents’ perspectives on the effects of Madrasati, the online learning platform, on teacher-student communication and student participation at an elementary school, and how communication could be enhanced. The study contributes to the knowledge on communication in online educational environments, and how the effectiveness of online educational platforms for schoolchildren might be enhanced during the COVID-19 pandemic and similar situations that require online learning.

2. Methodology

Semi-structured focus group discussions were conducted online to ensure social distancing during the ongoing COVID-19 pandemic. The participant sample of eleven parents was selected using stratified purposeful sampling, ensuring that the participants represented different elementary schools and grades. All participants in

the focus group were parents of children attending public elementary schools in Jeddah, Madinah, and Tabuk. Participants were contacted using the snowball sampling technique, and all participants were notified of their confidentiality. Parents were invited to participate *via* WhatsApp, a messaging service that supports group chats and through which users can share messages and voice clips, as well as make video calls and send files and images. The discussion was held during the evening. Each parent was required to provide informed consent and asked to complete a short questionnaire regarding their demographic details (age, gender, job, etc.), as well as information about their child or children, such as their age(s) and school grade(s) (Table 1).

The questions and resources used during the focus group discussion were taken from previous studies in the literature review and modified. The items were separated into four categories based on the work of Assareh and Bidokht (2011), which investigated the drawbacks of online learning. Several questions were prepared in advance to prompt discussion, and specific follow-up questions were asked to obtain rich information; these are included in the interview guide shown in Table 2. Additionally, several questions were used to clarify responses and investigate new themes. In total, the focus group event lasted for two hours, 17 minutes, and 32 seconds.

Table 1: Demographic data for the participants and their children

Age	Gender	Employment	City	Age(s) of child(ren)	Gender(s) of child(ren)	Elementary school level	School type
42	male	engineer	Jeddah	7; 8; 10	2 male, 1 female	Second, third, & fifth grades	public & private
34	male	banker	Jeddah	7; 8	females	first & second grades	public
44	female	assistant professor	Madinah	9	female	third grade	public
39	female	housewife	Madinah	7	male	second grade	public
48	male	deputy director at a government training institution	Tabuk	9; 11	females	third & fifth grades	public

37	female	housewife	Tabuk	11	male	fifth grade	public
42	male	employee in private company	Jeddah	12	male	sixth grade	public
38	female	housewife	Madinah	11	female	fifth grade	public
49	female	housewife	Madinah	11	female	fifth grade	public
39	female	housewife	Jeddah	7	male	first grade	public
40	male	employee in public sector	Jeddah	9	male	third grade	public

Table 2: Interview guide for the focus group discussion

Domain	Open-ended questions	Follow-up questions
Student-related perspectives	How satisfied are you with your child's experience with online learning via the Madrasati platform?	Why?
	How have the online classes impacted your child's motivation to participate in class? What are the reasons for this?	How can your child's motivation to participate in online learning be increased?
	What are the challenges encountered by your children when communicating with teachers and peers via the Madrasati platform?	What would be the ideal solution to this problem?
	Do you believe that online learning has had a negative impact on your child's communication skills?	Why?
Teacher-related perspectives	Do you believe that teachers communicate effectively with their students during online classes?	Please clarify your response.
	How do you think communication between teachers and students can be improved during online learning?	What should teachers do to address this?

Curriculum-related perspectives	Do you think that online learning and communication has impacted your child's understanding of course materials? If yes, how can this be addressed?	
School-related perspectives	What has the school done to facilitate communication between teachers and students during online classes?	

3. Results

3.1. Communication

Overall, parents believed that teachers' communication with students during distance learning was effective, with one parent reporting that it had been more effective than they had initially expected it to be. However, parents also highlighted several challenges encountered by students when communicating with teachers and classmates *via* the Madrasati platform. For example, respondents reported that their children experienced great difficulty in understanding some of the course materials. One parent explained how their child found math particularly difficult to learn online.

One challenge was that some teachers could not control their classes online, making it very difficult for the students to communicate effectively. Additionally, parents reported technical challenges, such as slow internet connections. Many of the parents stated that their children became easily distracted from online classes because they did not feel that they were being observed by their teachers, losing focus and engaging in other activities, such as playing video games. The lack of physical interaction made it hard for students to maintain interest and communicate with the teacher during online classes. Parents commented that effective communication skills are developed through real-life (in person) interactions, and not online meetings, and thus that online education had a negative impact on students' communication skills.

Parents also discussed how schools have supported and facilitated communication during the online learning process. Several stated that their child's or children's schools did nothing in this regard. However, some parents described how schools turned to various social networking sites, including Zoom, WhatsApp, and Telegram, to ensure that teachers remained connected with students. Social network apps helped parents and teachers to communicate with each other, to discuss the performance of the children.

3.2. Motivation and productivity

Overall, parents reported being satisfied with the online learning experience. However, one parent indicated that they were not satisfied because “the outcomes of distance learning lack quality and it negatively impacts students’ eagerness to learn.” The parents revealed that their children’s desire to participate did not increase through distance learning, because it was a new experience and students needed time to get used to learning *via* the Madrasati platform. One parent reported that, although online learning did not increase their child’s motivation to participate in classes, it made them use electronic devices (tablets or laptops) for purposes other than entertainment, which was new to them. Another parent defined the online learning process as a completely new experience for students, especially elementary-level students. They also pointed out that it is impossible to receive feedback *via* the Madrasati platform, and that this is crucial for elementary-level students.

A further factor impacting students’ motivation to participate in classes *via* the Madrasati platform, according to the parents, is the difficulty in understanding materials online. Most materials on the platform are taught through audio, files but the parents reported their children would prefer to see audio-visual materials. One parent said that “elementary students find it hard to understand what the teacher is explaining through Madrasati, because they only teach through audio. This has a significant impact on teaching styles and makes it difficult for students to complete the follow-up activities.”

3.3. Improving Communication between Students and Teachers

To improve participation and communication between students and teachers using the online learning system, parents stated that an encouraging atmosphere must be created. The parents put forward several suggestions for improving the communication between students and teachers, such as giving them opportunities to explain aspects of the lesson to each other and selecting a student to answer a question, rather than addressing a question to all students, which caused students to answer at the same time, disrupting the connection. To address this issue, one parent suggested that “the Quran teacher should implement a rule in their online class, that a student will be expelled immediately from the class if they speak without permission. This would make it easier for the other students to keep up with the teaching and explanations.” This approach was, in fact, implemented by one teacher. A further recommendation made by the parents was that the Madrasati platform should be upgraded to allow teachers to teach and interact *via* video with audio, allowing students to see as well as hear the teacher, rather than the current system of using audio alone. One parent pointed out that, throughout the COVID-19 pandemic, children have been forced to learn from home and thus online classes must be made

visual as well as auditory, so that students can see their teachers and follow the lesson explanations. Parents described the audio-only lessons as inadequate and highlighted the importance of making Madrasati classes visible.

To address the issue of online communication adversely affecting the quality of learning, the parents proposed several courses of action. One parent expressed a view that the family is the main pillar in education, and especially in distance learning, and that ideally, parents should be constantly encouraging their children to take their online learning seriously. Another parent suggested that teachers should provide extra classes during the week, for those students finding it hard to grasp the online course materials.

4. Discussion

This study provides crucial information regarding communication between elementary school students and teachers during online learning in Saudi Arabia, which has necessarily replaced much in-person teaching during the COVID-19 pandemic. Although parents initially indicated that they were satisfied with their children's online learning experiences *via* Madrasati, they also made it clear that they would prefer their children to be learning in a physical classroom. Participants identified several issues with the Madrasati platform, including the fact that it does not allow teachers to provide feedback on students' work. Moreover, the parents reported that their children found it hard to understand the online materials, and that online education had adversely affected the children's motivation to participate in class because the lessons were not audio-visual, but audio only. The parents explained that children would prefer to have the teacher in front of them, as they find it hard to keep up with teacher explanations online. This is in line with the findings of Brown and Liedholm (2002), who discovered that students learning online attained poorer test results than those learning in conventional classroom settings.

Most of the parents believed that communication between teachers and students was negatively affected by online learning, and most agreed that online learning made it more difficult for students to interact with teachers. Parents stated that online learning impacted children's communication with teachers because the online atmosphere of the Madrasati platform was not conducive to class participation. Consistently, parents confirmed that students' participation in class did not increase during online learning and suggested that their understanding of materials had worsened. This finding is in line with the results of Boling et al. (2012), who found participants expressed the view that online courses make learning an unpleasantly isolated process, undertaken by individuals alone, and limited interactions with others. In the current study, the parents explained that their children feel disconnected from their teachers, peers, and course content.

To enhance communication between teachers and students using Madrasati, parents stressed that important elements of the education process, such as teachers' control over student participation, could and should be improved. Permitting only one student to talk at a time, and immediately expelling from the class students who cause noise disturbances by keeping their microphone on, or talking over other students, was one proposition. This strict approach, however, appears to contradict the suggestion that teachers need to create an encouraging online space to facilitate communication. Parents also suggested that classes held on the platform should be made visual to enhance communication between teachers and students, as students would be able to see the teacher. Parents believed that this was a significant challenge because students found it particularly hard to learn some subjects *via* audio resources alone.

The parents also highlighted that families should also try to fill the learning gaps they had noticed and help their children to grasp the course materials. Respondents stated also that social networking applications, including Telegram, WhatsApp, and Zoom, could play vital roles in ensuring that teachers and students remain connected during online learning. Moreover, school administrators could also use these platforms to provide parents with information about their children's progress and performance in the online school.

4.1. Research Limitations

While this study provides insights into parent perceptions of online learning using the Madrasati platform in Saudi Arabia, the sample size was small, limiting the applicability of the results to other parents, schools and platforms. Similarly, all of the participating had children attending public schools, so the experiences of students in other types of school or educational establishment is unknown. The findings are representative of parents' opinions, that may be biased, and were not based on quantitative data on communication or achievement and exclude the perspectives of other stakeholders, such as teachers, students and administrators.

Future researcher into communication during online learning would be more robust with the inclusion of more participants across a more diverse range of stakeholders and schools. Findings could also be validated by comparing them with quantitative student attainment data to obtain a comprehensive picture of the potential impact of online learning (*via* the Madrasati platform) on the communication and productivity of elementary students. This would also help scholars identify new ways to improve online communication between teachers and students.

4.2. Conclusion

The research presented here aimed to investigate parents' perspective on how online learning *via* the Madrasati platform may influence the communication between

students and teachers and student productivity at the elementary level. It also aimed to identify new ways to enhance the effectiveness of online communication between teachers and students. Findings suggest that parents prefer children to receive education in a conventional, physical classroom setting, rather than online, as it was perceived to negatively affect children's communication, motivation and productivity. The lack of audio-visual interactions, feedback and understanding of course materials was perceived as problematic and to cause a reduction in students' desire to participate and a high level of distraction. The findings of the present research revealed that communication between teachers and students at the elementary level is negatively impacted by online learning. Recommendations to overcome these challenges include (1) make online classes more engaging to increase students' motivation and willingness to participate; (2) define rules of communication during online classes; (3) upgrade the online platform to include video lessons; (4) engage parents in the learning process.

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