Saudi Arabia’s Digital and Distance Education

Experiences from the COVID-19 Pandemic and Opportunities for Educational Improvement

Overview

Under the supervision and coordination of the Center for Research on Educational Policy and the General Administration of E-Learning and Distance Education

The study was undertaken by the World Bank with support from a team from the Ministry of Education
**Objectives and Scope**

The objectives of the study were to review Saudi Arabia’s digital and distance education experiences in response to the COVID-19 pandemic, to evaluate its impact, and to identify opportunities to harness the most effective new practices to “build back better” from the crisis.

The scope of the study extended from kindergarten to grade 12 (K–12) with a focus on elementary, intermediate, and secondary education. In-depth data gathering took place in grades 3, 6, 9, and 12.

**Research Questions**

The study aimed to answer three key research questions:

- How well did Saudi Arabia provide for, and achieve, continued education of K–12 students during the COVID-19 pandemic?
- What were the strengths of Saudi Arabia’s response to the COVID-19 pandemic in K–12 education?
- What are the opportunities for educational improvement following the digital and distance education experience?

**Themes of the Study**

- Enabling digital and distance education
- New and adapted tools and materials for education continuity
- Teaching and learning practices during the pandemic
- Students’ engagement and well-being
- Implications for next steps
Methodology

Surveys

A nationally representative sample of schools was selected using a two-stage, systematic, cluster sampling strategy. Surveys were given to school principals, teachers, students, parents, and supervisors within those schools. Separate samples for elementary, intermediate, and secondary schools were selected, 604 schools in total.

<table>
<thead>
<tr>
<th>Surveys: Intended Sample Size and Response Rates</th>
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<tbody>
<tr>
<td>Principals</td>
</tr>
<tr>
<td>Intended sample</td>
</tr>
<tr>
<td>Responses received*</td>
</tr>
<tr>
<td>Response rate (%)</td>
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</table>

* Compared to other similar surveys, the achieved response rates are similar or higher.

7 Focus groups

- Conducted with teachers, supervisors, principals, parents, and students
- In total: 7 focus groups with 51 participants
- Informed the design of the surveys
- Provided insights and quotes from stakeholders’ own voices

Virtual classroom observations

- A sample of 63 virtual classes were observed by supervisors trained to use a custom-designed observation tool
- The data provided direct insights into actual teaching practices
- Follow-up in-depth interviews with the teachers provided further insights

Interviews

- Representatives of key departments and institutions were interviewed
- Enabled a rich understanding of various aspects of the preparation and delivery of digital and distance education
Key Findings

Overall

- Saudi Arabia’s journey toward a virtual school model, rolled out at scale from the start of the 2020–21 school year, has been remarkable. Innovation has taken place at all levels, particularly among teachers. There is now a greater awareness of how education technologies can support and enhance teachers’ work and students’ learning experiences.

- There are now new methods and styles of communication and better awareness of what is happening in classrooms across the country. The resultant innovations and disruption to business-as-usual in Saudi Arabia’s schools will affect change in children’s learning experiences well beyond the pandemic.

“The pandemic provided an opportunity for everyone to educate themselves. They are developing themselves in the technology of education; teachers are researching and learning more than before. We had 50 to 70% [previous] knowledge in technology, while now we have a higher technical knowledge rate, up to 90%.”

Female supervisor
Despite extraordinary circumstances, education continuity was mostly realized

- **89%** of teachers were able to teach all or almost all the expected lessons
- In addition, teachers gained skills in digital education, according to principals, which helped them deliver continued education
- Training was helpful: **78%** of teachers found the professional development useful and **71%** found advice from professional learning communities useful

*Note: The virtual classroom observations also found evidence of many good practices but also some variability in teachers’ performance*
Good communication and engagement helped in the success of the rollout

- **90%** of parents had used Madrasati to follow-up on their child’s homework, educational activities, and exams
- **76%** of parents had contacted their child’s teacher through Madrasati
- **74%** of parents had attended their child’s virtual classes
- Closer relationships were noted between teachers and students
- Better opportunities for parents to engage in their children’s learning were also seen as a benefit
Access and attendance were strong with a few challenges

- **98%** of students were able to access Madrasati—an impressive rate given the scale and speed of the rollout—and others were able to access in-person school visits.
- **89%** of principals found teacher absence to be lower than in previous years.
- But **59%** of teachers found poor internet connections to be a main problem for classes.
- And **67%** of teachers found it difficult to engage students throughout the lesson.
- Some students did not have their own devices, particularly in elementary school.

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**I have my own device:**

<table>
<thead>
<tr>
<th></th>
<th>Elementary</th>
<th>Intermediate</th>
<th>Secondary</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>No</td>
<td>74%</td>
<td>90%</td>
<td>92%</td>
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</tbody>
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**Poor internet connection can make it hard to study**

<table>
<thead>
<tr>
<th></th>
<th>Secondary</th>
<th>Intermediate</th>
<th>Elementary</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
<td>43%</td>
<td>44%</td>
<td>38%</td>
</tr>
<tr>
<td>A little</td>
<td>13%</td>
<td>17%</td>
<td>50%</td>
</tr>
<tr>
<td>Not at all</td>
<td>44%</td>
<td>44%</td>
<td>12%</td>
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“There is a difficulty in learning at home because of the lack of devices for large families like ours. Most of the time we had to take out my brother in the first class to send my sister’s assignments.”

**Female student**
There was high satisfaction with digital resources and tools

- **98%** of teachers said they would find Madrasati useful after the pandemic
- **88%** of teachers said they would find the recorded lessons useful after the pandemic
- **94%** of parents found the digital tools to be useful for their child’s distance education
- There was high demand for more digital content and improvements in the quality of the digital content

Parents

Teachers

Principals

I would like to see:

<table>
<thead>
<tr>
<th></th>
<th>More digital content</th>
<th>Improvements in digital content quality</th>
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</thead>
<tbody>
<tr>
<td>Parents</td>
<td>81</td>
<td>87</td>
</tr>
<tr>
<td>Teachers</td>
<td>88</td>
<td>94</td>
</tr>
<tr>
<td>Principals</td>
<td>97</td>
<td>98</td>
</tr>
</tbody>
</table>

“"The Madrasati platform contains various tools needed to give feedback. I ask students to do a specific application and then I correct the work and provide them with feedback and Madrasati provides us with [means of] communication.”

**Intermediate teacher**

“Distance education provides me with easy access to content, if the student has a specific question or wants to watch a specific clip, I can go online and find a video in one minute via YouTube...”

**Male teacher**
Most educators perceived digital and distance education as effective

- **68%** of teachers and **61%** of principals thought that students’ academic achievement was higher than in previous years*
- But around half of students felt that they would have learned more if they could have returned to in-person schooling

*Note: Without a comparable standardized test, it was not possible to measure actual changes in learning pre- and post-pandemic.

“I distance learning has provided many advantages to the teacher, the student and the family, and it has consolidated the concepts of development and digital transformation, and the culture of family cooperation and involvement in the educational process”

**Supervisor**
Digital and distance education were perceived to help build certain skills

- Teachers perceived that students gained skills in digital literacy, independent learning, digital etiquette, and time management, in particular
- However, 76% of teachers found there was a lack of opportunity for students to learn social skills
- Some concerns were revealed over students’ feelings of isolation, boredom, laziness, lack of physical activity, eye strain, and lack of social interaction with peers (in focus groups and interviews)

I think distance education has helped students develop skills “a lot” in:

- 81% in Digital literacy
- 78% in Independent learning
- 77% in Digital etiquette
- 75% in Time management
- 69% in Creativity
- 64% in Problem solving
- 59% in Collaboration and teamwork
- 57% in Critical thinking

“[Distance education has helped in] breaking the barrier of fear of participation and error”

Male student
While there was overall satisfaction with digital and distance education, there was also an eagerness to return to in-person schooling.
In summary, key strengths include:

1. Rapid provision of distance education at scale for education continuity
2. Prioritized student-teacher connections
3. Availability of a wide range of tools and resources
4. Regular monitoring of user data and feedback loops to improve tools and services
5. Low-tech alternatives for students without internet access
6. Provision of special distance education
7. High satisfaction with professional training and support
8. Good use of teacher communities of practice and coaching
9. Frequent and clear communication with stakeholders
10. Enhanced parental engagement

“The helpful tools and applications available on the Madrasati platform are helping teachers to succeed in meeting many students’ learning styles and needs.”

Teacher

“I did not have a laboratory but now I use applications and everyone uses devices”

Female teacher
The study identified the following strategies arising from the digital and distance education to achieve lasting improvements in children’s learning experiences and outcomes.

1. More explicitly target policies and resources on disadvantaged and struggling students

2. Plan for long-term purposeful blended learning models that best suit existing practices and conditions, such as the “Flipped Classroom” and “Flex and Enriched Virtual”, as outlined in the “Blended Learning Design Workshop” associated with the study

3. In the short-term, ensure that a plan for providing devices and connectivity to all students who do not have them is feasible and enacted as a matter of urgency. For the long-term, set policies for teacher and student access to devices and connectivity.

4. Target professional learning to reduce variability in teacher performance

5. Support and require teachers to recognize and meet the socioemotional needs of their students

6. Ensure continuity in national assessments to provide crucial information on overall levels of student learning

7. Improve data and monitoring of student attendance and engagement with distance education and in-person schooling
Looking forward

Beyond the digital and distance education initiatives

- **Redesign of curricula and teacher assessment** is currently underway. It will be important to shift from predetermined lesson delivery to aligning instruction to students’ current learning levels, skills, and goals. This concept of skill building needs to permeate throughout the education system and be well understood by all involved.

- **Expected time for curricular reforms** should be realistic and set accordingly. International examples suggest that around 5 to 10 years are necessary.

- There is a rare opportunity now to build on the strengths created by the distance education due to the pandemic, the most important of which is likely to have been the **successful communication processes and parental engagement strategies**. The opening up of the classroom to parents through virtual classes, and the increase in communication between schools and families, bodes well for long-term benefits, particularly if this is sustained as students and teachers return to in-person schooling.

“Education systems, more than ever, require effective teachers that facilitate and support learning instead of delivering content; that use a combination of in-person and digital methods to deliver lessons; that foster creative thinking, communication, and collaboration; and that instill a love of learning, how to persevere, and have self-control.”

*Jaime Saavedra, Global Director of Education, World Bank*