Teacher Professional Development in the Arab States during the COVID 19 Pandemic

by

Malak Zaalouk

A PILOT STUDY OF FIVE COUNTRIES IN THE ARAB REGION COMMISSIONED BY UNESCO OFFICE IN BEIRUT
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Teacher Professional Development in the Arab States
during the COVID 19 Pandemic: A pilot study of five countries in the Region commissioned by UNESCO Office in Beirut, Regional Bureau of Education for the Arab States

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Section 1: Introduction

This study is an attempt to catch a closer glimpse of the situation in some Arab countries during the pandemic that ravaged the world at large. In response to the COVID-19 pandemic, more than 1.6 billion primary and secondary aged children and their families in 188 countries were affected as their schools closed down. National governments the world over struggled to keep those children learning through a variety of remote/online and blended/hybrid strategies (OECD, 2020).

The results have not always been brilliant and the loss was visible as the World Bank estimated a setback in a child’s education of no less than 6 months (World Bank Group, 2020). In the Arab region, the situation is reported to be worse. The UNESCO Chief of Education at the UNESCO Office in Beirut clarified in a recent email conversation with Al Fanar Media that the negative impact of Covid-19 on education has been stronger in the Arab region than in other parts of the world, with greater losses in children’s education, greater risks of drop out and more challenging conditions for teachers, parents and the community at large (Kadi, Samar, 2021).

The opinion disclosed by the UNESCO official is in line with a recent World Bank report released in June 2021 which diagnoses that more than half the children in the countries of the Middle East and North Africa (MENA) experience learning poverty. The phenomenon is largely explained by children’s inability to read and understand an age-appropriate text by age 10. Given that situation, it is expected that the outbreak of the pandemic will further aggravate the situation as children from a young age are not autonomous learners, being quite reliant on teachers and adults for their learning, and hence incapable of self-learning and performing independent activities towards accessing learning opportunities. The backdrop against which the pandemic struck the various countries in the region has however been quite diverse. Although the transition from in-person to remote/online teaching was reactive rather than proactive in most
situations as the pandemic hit everyone by surprise, some countries were obviously better prepared than others.

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The current study addresses the situation of teachers in some Arab countries during the COVID-19 crisis. Given the importance of teachers as leaders and agents of change, the purpose of the study is to capture the challenges teachers have faced, as well as their innovative responses and the ways they can be supported through effective and forward-looking teacher professional development.

It is an empirical study that was based on qualitative methods of research largely relying on interviews and focus group discussions with teachers and educators in five countries. The five countries represent various sub-regions, such as the Maghreb, the Nile valley, the Mashreq and the Gulf area. The five countries selected were Egypt, Jordan, The Kingdom of Saudi Arabia, Morocco, and Tunisia. A total of 50 professionals were approached constituting of teachers from primary, preparatory and secondary schools, inspectors, mentors, responsible officials from the Ministry of Education in charge of Continuous Professional Development as well as members from training institutions and Faculties of Education.

The sample was created through a snowballing technique, which allowed some key informants in the different countries to select roughly 7-12 individuals fitting a set of predetermined criteria to participate in a focus group discussion online through Zoom. On average two focus group discussions were conducted for each country in addition to interviews with five key informants, one from each of the countries selected.

The focus group discussions and interviews were done through Zoom and for ethical purposes the Institutional Review Board (IRB) at the American University in Cairo clearance was obtained. The interviews and discussions were recorded after obtaining oral consent. The interviews and discussions were conducted by the principal researcher and one other assistant to ensure objectivity. The recordings were carefully transcribed. They were read several times for thematic analyses. The questions asked during the discussions were largely centered on the challenges encountered, the methods of confronting these through effective teacher professional development strategies and the generation of promising practices, if any, as well as the recommendations to the policy-makers for future interventions and scaling up.

The study explored the challenges confronted by the teachers on both the personal and systemic levels. It sought to identify their frustrations, fears, as well as ways they attempted to overcome the difficulties. The study highlighted some of the promising practices developed during this pandemic. It also sought to give teachers a voice in terms of spelling out the recommendations they deemed necessary to allow them fulfill their duties and move forward. The study is an
attempt to build an ideal situation for teachers with regard to their professional development opportunities during a crisis situation and beyond, during normal times. It is largely based on teachers’ and educators’ voices from the region with an eye to putting in place the necessary structures, strategies and policies to reach that end.

The study laid out the context of each of the countries to better understand the reactions of education practitioners and stakeholders during the pandemic. It analyzed the relationship between the relatively diverse contexts and the responses to the situation. It presented the resources that were available as well as looked more closely at teachers and how ready they were.

The study touched also upon the existing possibilities of self-learning both for teachers and students while also understanding the existence of alternative professional development and institutionalized learning opportunities.

The study furthermore analyzed who the stakeholders involved were and the extent of which partnerships was fostered with community members, households, and families. Important other elements in the analyses were the methods and effectiveness of communication during the crises. In addition, it scrutinized the whole issue of autonomy starting with teacher autonomy, moving to school autonomy as well as district autonomy and finally ending with teacher educators’ and trainers’ autonomy. This was done in relation to the centralization of most education systems. The study touched upon other critical aspects such as motivation and identity to explore how these may have affected the behaviors of teachers during the crises. Meanwhile, the absence or presence of collaborative learning opportunities was also explored to understand the extent of which teachers may have been supported or not. Peer Communities of Learners (PCLs) were a case in point that existed in some settings and yielded very promising results while in other settings occurred quite informally and were not supported by the systems at large. Other forms of support were also explored such as school-based support and institutional support of various types.

Finally, based on the recommendations obtained during the interviews and discussions as well as the various gaps identified requiring creative solutions, the study ended with future strategies that would better support the work of teachers and their effectiveness in the learning process whether their own or that of their students.

In addition to relying on firsthand information from participating respondents, the study also consulted recent secondary sources to verify and corroborate the responses obtained particularly those pertinent to the context of each of the countries.

The study is divided in four parts. The first part examines the context against which the pandemic spread in each of the countries selected. The second part highlights the challenges that
faced the various stakeholders as they strived to learn, interact with students and fulfill their duties based on professional development opportunities. The third part unravels some of the promising practices by teachers and providers of teacher professional development and celebrates some encouraging examples of professional development. Finally, the fourth part expands on some of the recommendations that emerged during the various field virtual conversations and beyond.

Section 2: The Context(s)

As earlier mentioned, the playing field was not leveled when the pandemic kicked in. Inequities were prevalent both in terms of the countries studied as well as within each of the regions in those countries.

2.1 In the Kingdom of Saudi Arabia (KSA) suspension of schooling both private and public occurred by March 9, 2020. Since 2007 the Kingdom introduced some significant reforms when it effectuated a complete overhaul of the entire school system and shifted towards decentralization (Alabdulaziz, 2019). The Kingdom had also been fairly advanced in digitizing its learning and introducing distance learning particularly in the border areas of the country. During the pandemic, more than 7 million students continued learning; and curriculum was developed with a very high level of technology while focused programs prepared by the National Center for Professional Educational Development (NCEPD) targeted teachers.

Moreover, the country was one of the few exceptions establishing an emergency framework, which included a robust technical infrastructure, interdependence between the training sector and education, synergy between data and government measures and finally support obtained from the private sector and philanthropy.

Furthermore, satellite educational channels were used to broadcast on television while teachers and supervisors were trained to work with the filming and recording crews. The TV programs allowed more than 6 million pupils to continue their learning. A platform was quickly established to link up teachers, educators, parents and students while more than 3600 remote meetings were held in one year among educators. They even had a virtual kindergarten for young children. They were supported by the use of an advanced cloud service (The Saudi MOE, 2020). Immediately after the closing of schools, the Ministry of Education (MOE) delivered online education in all government and private educational institutions ((Alshaikh, Maasher, Bayazed, Saleem, Badri, & Fakieh, 2021). The MOE fully supervised the educational process by employing online education platforms for supporting virtual classrooms and enriching digital materials, such as Madrasati Learning Management System (LMS) Platform. Students, parents,
and educators joined the platform, and online synchronous classes were held using Microsoft Teams.

The availability of information and communication technologies (ICT) beforehand encouraged the engagement of stakeholders with ICT technologies and teachers participated in PD. It was thus possible to pursue instruction and learning when face-to-face interactions were no longer possible (Mann, Schwabe, Fraser, Fülöp, & Ansah, 2020; O’Kefee, Dellinger, Scragg, Amelina, &Mathes, 2020). Catering for the hard to reach was possible given all the lessons for all levels were made available on the Ain channel to run on Arabsat and YouTube (Alshaikh et al., 2021; Daraghmeh, Mead, & Copeland, 2021). To ensure quality online learning, a total of 318,243 completed a study survey that was administered to understand the state of online K-12 education in KSA.

The results indicated that following COVID-19 crisis much improvement was depicted by administrators, staff, teachers, and students in the responses to both survey and interviews administered. Educators were generally not opposed to the expansion of remote/online learning and the majority of students and parents recommended that their school strategically expand remote/online learning in the future (O’Kefee et al., 2020).

The interviews and focus group discussions were in agreement totally with the literature. The respondents asserted that Saudi Arabia had tested an online portal even before the pandemic and the MOE had already anticipated them going online and performing distance learning. Thus, when the pandemic occurred the various stakeholders felt at ease handling the new technology. Low-income groups had access to television. Even families’ role in teaching their children vastly increased. The various participants asserted that the children’s potential to utilize technology was unlocked as the country had for long adopted active learning strategies. Prior to the pandemic, the Saudis had established the School of the Future Initiative which relied totally on distance learning. During the crisis, the Madrasati portal was established in record time.

2.2 Jordan represents another case where the transition to online took place in March 2020. A country wide survey showed that 82% accessed their learning through digital communications and platforms (Edvise ME Team, 2020). The Jordanian Education System exhibited a political will for change even much before the pandemic, with the monarchy and parliament advocating for a knowledge-based economy by creating a world-class education system (Benson, 2020). It is estimated that Jordan has achieved over 95% enrolment for its school-age children, as compared with only 47% in 1960. Unlike in many other countries, in Jordan, there is a very small gender disparity in primary school attendance rates between urban and rural areas (Al-Hassan, 2019).

All schools were forced to close with no prior preparation on 15 March 2020 (Batshon & Shahzadeh, 2020). In an effort to resume education remotely, the MOE launched the ‘Darsak Education Platform’ on March 22, 2020, in partnership with the Ministry of Digital Economy.
and Entrepreneurship, and different providers, such as EDRAAK, Abwab, and Jo Academy (Al Salman, Alkathiri & Bawaneh, 2021).

Even though this platform did not provide interactive facilities, it however provided students from all school stages with video recordings of core subjects. It was made freely accessible without the need for internet, from six in the morning until four in the afternoon.

‘Noorspace’, the MOE’s formerly developed e-learning management system, was later set to enable interaction between teachers and students. Through this platform, teachers sent assignments, developed electronic tests, and built virtual classes allowing for direct communication. Shortly after "assessment for learning" tests were conducted for all students starting from the fourth grade, and “Tawjihi” experimental exams were launched for students in the different streams (Al Salman et al., 2021; Batshon & Shahzadeh, 2020). To bring students and teachers together in an online space, some teachers communicated with students using zoom while others resorted to Microsoft Teams, (Al Salman, Alkathiri & Bawaneh, 2021).

In parallel, the MoE launched three national TV channels to broadcast and maximize accessibility to the educational content, one of which is specifically designated for 12th Grade Tawjihi students (Batshon & Shahzadeh, 2020).

To support Professional Development a platform for teachers was launched that included six massive open online courses (MOOCs) from EDRAAK on distance learning tools, education technology, blended learning, the flipped classroom, teaching with confidence, and reflective teaching. In addition, the MOE also re-launched the Digital Curriculum Library to allow all users to digitally review curricula for all grades (Batshon & Shahzadeh, 2020).

The respondents and participants from Jordan all agreed that the Jordanian MOE had responded with great speed to create a platform for public schools called ‘Darsak’ which allowed for electronic exams, interaction with students and parents. The private schools had their own platform.

Teachers were clearly favorably inclined to the use of technology. They were endowed with a good professional development institution that provided them with online training for two years since 2019. The teachers were referring to Queen Rania’s Teacher Academy (QRTA). Jordan also provided teachers with an opportunity to twin with other schools in Europe through the Madrsati project that had started much before the pandemic. One teacher very proudly stated, “I was ready before the pandemic as I had already started to integrate education and technology.”

2.3 In Egypt, the Ministry of Education and Technical Education (MOETE) began its endeavors to introduce technology in education since 1990. This was the era when it was focused on quality education reform to address the poor quality of learning (Ibrahim, 2010; Pouzevara et al., 2014). The system had for long been exam driven and had mostly relied on rote.
memorization and other outdated teaching and learning strategies (Loveluck, 2012; OECD, 2015; Zaalouk, 2013).

In late 2017, the Ministry of Education and Technical Education (MoETE) announced a full-scale transformation of the education system to be completed by 2030. It was largely funded by the World Bank and spanned a number of aspects including Early Childhood Development, Life skills based curriculum and renovated monitoring and evaluation systems. The reform was known as 2.0 (Saavedra, 2019; WB, 2018). The national reform marked a move to skills-based learning and an expansion of digital learning (UNICEF, 2021).

Prior to the reform, a national digital library called the Egyptian Knowledge Bank (EKB) was established in 2014, and numerous international publishers joined with the intention of including the national curriculum as well. The EKB was used in 2020 to host all content for primary and secondary classes during COVID-19-related school closures (UNICEF, 2021).

As in all countries in the world, schools were shut down in March of 2020 and all educational stakeholders were expected to shift to remote/online modalities. Although the emergent shift to remote learning added pressure on Egypt’s education system, it provided at the same time an opportunity to reflect on the transformation to digital resources that occurred with the launch of the education reform project.

Most schools were equipped with smart boards and an estimated 2,500 public secondary schools had fiber optic cables installed. In addition, the Government has purchased 100 smart classrooms to serve children in hard-to-reach and high-density areas. It has provided close to three million tablets to secondary school teachers and students and has rolled out digital examinations in Grades 10 to 12.

Teachers and other stakeholders were offered a variety of sources to fall back on once the closing of schools was a reality. Teachers could draw on multiple resources when balancing in-person and remote/online learning, including:

- the online Egyptian Knowledge Bank,
- the online Study platform, aimed at primary students in Grade 4 and above,
- the online learning management system aimed at secondary students,
- online lessons, Hesas Masr (Our school), available for a fee,
- recordings of Madrasetna (Our School) lessons, available on for free on YouTube and on two television channels, and
- the Edmodo platform, which provides a communication platform among teachers, students, and parents, as well as Zaker for students to access their syllabus on line.
In addition, an e-books platform and an online teacher academy that will eventually replace in-person teacher trainings for the country’s 1.3 million teachers are currently under construction. The e-books will use an e-pub format, making them accessible for learners with disabilities (UNICEF, 2021). The Professional Academy for Teachers (PAT) also offered some online professional development as well as exams for promoting teachers (Hegazy, 2020).

2.4 Tunisia had spent relatively large amounts on education since 2015 reaching 6.6% of GDP (UNICEF, 2020). Tunisia’s government endorsed a policy 2002-2007 which emphasized the importance of ICT in the education system. It equipped schools, introduced ICT as a subject, and provided teacher training. Tunisia was one of the first countries to contribute to the new technological changes in the field of distance education and e-learning through the launching of the Tunisian Virtual Schools (TVS) as part of the “School of Tomorrow” initiative in an experimental phase on January 28, 2002.

The initiative targeted both the learner and the educator in basic and secondary education. It provided an opportunity for resource sharing and collaboration (Nuffic, 2018). The Teachers and supervisors interviewed asserted that Tunisia had web-based platforms before the Pandemic and the attendance rate for professional development was around 80%. Tarbeya was one such platform and it was linked to television with online lessons. It was very popular before the pandemic but declined to a great extent during. The education platforms, such as Madrasati, are hosted by the National Center for Educational Technology (NCET). Parents, students and teachers all have access, however teachers prefer Zoom and Microsoft Teams.

Some studies are of the opinion that the COVID-19 pandemic had a hugely negative impact on education that will last for a while due to the economic problems the country is undergoing. Such studies suggest that there are large shortages in capital investments in education. Such studies also claim that a very large percentage of the Tunisians are not satisfied with the educational system and that it is being exacerbated by the COVID situation with very limited online instruction and the cancellation of third term internal evaluations (Boulila, 2021).

UNICEF’s Country office report for 2020 is of the same opinion and stipulates that following the general closure in March 2020, schools reopened in September of the same year with a capacity of 50%. The closing down of schools with very little access of students to online distance learning is likely to increase dropouts and negatively affect learning outcomes (UNICEF, 2020).

2.5 The Educational system in Morocco underwent some serious reform strategies. The King announced the period 1999-2009 as the "Education Decade." During this time the government's reform initiative focused on five main themes to facilitate the role of knowledge in economic development: education, governance, private sector development, e-commerce, and access. Education is classified as the first sector in the country. Morocco also developed a strategic
vision 2015-2030 which was approved as law in 2018. The strategy aimed at improving the quality of education, achieving social justice and responding to the job market needs. The younger generations in Morocco are mostly “digital natives” (Nour & Ech-Chourfy, 2020).

In Morocco, like the rest of the countries, schools were interrupted and remote/online learning established and required from all stakeholders in education. The country experienced an unprecedented change from in class/in-person to online. The Ministry of Education launched a series of remote/online education initiatives, opening universities online platforms and engaging some Television channels broadcast courses for the rural areas where the network capacity is lower.

The platform “Tilmid Tice” for primary, secondary and high school learners was set up. For the harder to reach areas television channels were mobilized to replace the face-to-face classes, Tamazight, Athaqafia and Al Ayoun channel broadcasting classes were established for primary and secondary school students (Zineb Draissi, Qi Zhan Yong, 2020).

Initially, the Minister of Education declared the use e-learning as an alternative, but he later announced "a blank year" for all school levels except for baccalaureate candidates, where the rest of the lessons will be completed during the following school year (Hibbi, Abdoun, & El Khatir, 2021).

During the pandemic, it is reported that some 600,000 Moroccan students used the “Tilmid Tice” platform on a daily basis. The national educational portal broadcast produced educational content and courses. Over 3000 courses that covered many subjects such as science, math, languages, and physics were placed on a public website which enabled some students to continue learning (Nour & Ech-Chourfy, 2020). The Ministry of Education additionally availed learners with TEAMS at a later stage. The total number of students affected by the shutdown was in the order of 7 million students for the primary and secondary cycles (Nachit & Belhcen, 2020).

From all the above information obtained on the context and how the various systems mitigated and attempted to confront the huge challenge of COVID-19 pandemic, it is clear that all provided a mix of technological solutions both traditional and innovative to find solutions in the new context. Moreover, like all the countries in the world, all systems were faced with challenges. The challenges are quite common to all education systems in the region. They are however also correlated with the level of preparedness, the speed of interventions, and stakeholder’s acceptance of technology in each situation.
Section 3: Challenges

Based on the interviews and focus group discussions a range of both individual and institutional challenges were identified. Most challenges had to do with insufficient resources and the exacerbation of already existing inequities and gaps in the systems. Often the schools were poorly equipped, overcrowded and unable to meet the needs of a fast-changing digitized environment. Even in those situations when schools were well-equipped, other issues of internet speed surfaced. The most common challenge faced by all was internet weakness or absence whether in the government institutions or in households.

The next very significant challenge was digital illiteracy, which was fairly wide spread amongst teachers, pupils and families. Many of the educational stakeholders had no background in ICT and had not had the time to acquire it during the pandemic. Even in the most advanced systems, teachers were not comfortable designing digital content with ease. Especially at the beginning of the crisis, teachers did not master even the ability to create links and or using the new platforms.

A very significant challenge was represented by the ineffective information sharing and adequate timely communication. Many teachers complained that they had not been made aware of the existing resources and facilities. Moreover, teachers had to grapple with the fast-flowing directives on a daily basis for the system adjustments that often occurred on ad hoc basis and with very little data systems to support rapid communication.

Many of the teachers complained about excessive centralization and bureaucracy, which obstructed rapid and innovative solutions. Even when teachers had innovative ideas, they wanted to practice they felt restrained by the guidance and supervision received, which did not encourage thinking out of the box.

Inspectors and supervisors may not have available at their convenience digital platforms that can tailor training at the district level. A one-size fits all approach may not be the most effective way of doing professional development - in fact, it defeats the purpose as it is not therefore based on needs and demand.

A most important challenge was extended working time and general fatigue. Because teachers and parents were not “digital natives” they spent many hours trying to figure out how to stay connected to their students and advance learning. Moreover, very often teachers were now required to connect with parents and keep them informed - a task they had not performed in the past and were not well prepared for this new complex and time-consuming role.

Equipment was very often shared among many family members, including phones, which strained the ease of connectivity and hence required more time to achieve learning with adequate responses. In some countries, if the head of household owned the only phone available, the
student would have to wait for the return of the adult home before they responded to messages from teachers.

Of great concern particularly in the North African countries were the loss of privacy and the risk of losing personal data from their devices. Most teachers, pupils and parents had used their personal phones and other devices to continue the interaction and learning process. This appeared to alarm many and to create a real challenge. A serious challenge was conducting online exams and evaluation. Almost all respondents from all countries raised this point. They all felt they were unable to assess the learning authentically. They believed online evaluations could not be trusted and were mostly inaccurate.

Loosing face-to-face interaction with students was very demotivating for teachers. This challenge was highlighted in all countries and all teachers felt that nothing could replace the learning that occurred face to face and the social function of schooling.

Loosing face-to-face interaction with teachers was also very demotivating for students. Even more demotivating was losing the opportunity to practice extracurricular activities with the closing down of schools.

Many homes were not sufficiently well equipped with space and or equipment to host home learning. This was true of every country and the regions within no matter how rich the entire country was.

Another very significant challenge was the feeling of psychological vulnerability and this was reported for all stakeholders, parents, teachers and students alike. Many reported being depressed and or observing their colleagues going through severe depressions. Psychosocial support for educators was not being offered except on very rare occasions.

Students and parents were also suffering from anxiety and depression and also needed psychosocial support. This was compounding for teachers when having to deal with both their household issues including their own children and their students all at once.

Students had not been trained to be self-learners with much autonomy in most situations. Hence the load was transferred to the family and the parents. In many instances, children were reported to regress immensely and loose prior learning.

Several of the teachers and educators mentioned that the primary stage had its own particular problems. Children were far too young to indulge in technology or self-learning. This was a stage when students needed much scaffolding and in-person adult support.

A high level of resistance to the use of technology was a very big challenge in all the countries. This was shared by teachers and often students themselves.
Some of the countries had not renewed their curriculum for more than 20 years and hence dealing with outdated and overcrowded curriculum was another challenge mentioned by teachers and educators. These were not amenable to digital design and/or to adjusting curricula to interactive teaching and learning strategies in the context of integrating (new) technologies.

When schools reopened in the second phase of the pandemic, teachers were expected to teach the same curriculum they would have taught during normal times. **No provisions were made for accelerated learning and/or curriculum adjustment.**

**Professional development, mentorship and guidance were very hard to implement.** Teachers felt abandoned and lonely. They expressed this by saying we felt lost as no one was there to guide us. Meanwhile there were no legal obligations to participate in professional development even if made available.

When some massive online training was offered many of the teachers judged those **trainings to be ineffective and not sustainable.** At times the various ministries and aligned institutions offered training to very large numbers of teachers for short periods and often without hands on practice thus rendering the training quite ineffective. In most situations, the impact of such trainings was not measured.

**Many also complained about the weak use of foreign languages.** This particular point was extremely relevant to the ability of teachers to develop professionally through self-learning and make use of the wealth of opportunities for learning through technological means. Those who spoke foreign languages are the ones who managed to be exposed and link up with international learning experiences on line and at a distance.

Upon returning to face-to-face teaching some systems were faced with very large teacher deficits which then impacted on the amount and length of classes to be taught. **Burn out became a very common syndrome and dropping out of the profession.**

**Most educational systems were exam driven.** Hence there was no real motivation to learn on the part of students particularly when most exams were cancelled.

**Most complained about the weak assessment systems in place.** There was very little training or practice for assessment for learning, hence it was very hard to place students at the appropriate level upon return to school.

An even more acute challenge was the fact that the **systems were not based on active learning** but on rote memorization which made it very hard for technology to replace schooling. There seemed to be no room for creativity and innovation.
Some of the technology offered by the official responsible ministries and institutions were far too heavy and complex. Teachers preferred using the tools they were familiar with such as WhatsApp and Facebook as opposed to Teams, which they found far too complicated.

The challenges depicted by the participants in the study were supported by the literature reviewed for the countries under study. In some situations, the literature was based on systematic surveys as in the case of Jordan (Edvise ME, 2020) which had a group of private sector female researchers conduct a large survey around Online Learning in Jordan 2020. Although not a formal study, it nonetheless was well coordinated with the Ministry of Education in Jordan who featured the survey on its website.

In Morocco, UNICEF and two National Institutions for Professional Development and Research conducted a large survey to depict the views of teachers, students and those responsible for professional development (UNICEF, 2021). The results supported the challenges depicted by the participants in the focus group discussions.

In Saudi Arabia both the Ministry of Education (2020) and an Online Learning Consortium (2020) also conducted large surveys to assess the situation during the pandemic and came up with a summary of the challenges identical to the ones mentioned by the participants in the current study.

In Egypt, a team of young researchers (Badran, Eid, Abozaied, & Nagy, 2021) conducted an extensive online survey which interrogated teachers on their level of preparedness before and during the pandemic and again the results were identical to the above. The same is true of studies that were issued in Tunisia by UNICEF (2020) and various authors who again depicted the same trends (Chebbi, 2020).

Despite all the complex challenges confronted, teachers, supervisors, educators and communities in all these countries performed heroic acts to ensure continuity in learning. In the following section, we will highlight some of the good practices that surfaced during the pandemic and that need to be sustained.

**Section 4: Promising Teacher Professional Development Practices**

Continuous Professional Development in this study is distinct from teacher preparedness (i.e. initial teacher education and training or pre-service training) which is an area that may deserve a study of its own. Both are indeed very interrelated. In the case of this study, it is largely concerned with teachers who are already in service although in some instances we will indeed be touching on practices for student teachers during the pandemic. We will also be making some
suggestions in the end as to how teacher preparation can better prepare teachers to become lifelong learners.

Teacher Professional Development (TPD) is largely explained as the learning of teachers with the purpose of improving their practice and professional performance. TPD takes various forms, some occurring at the institutional level where teachers work, others outside – and they also include teacher self-learning. It normally entails teachers attending workshops, conferences, and lectures as well as collaborating with other teachers to learn cooperatively in the context of networking and communities of practice. It entails individual reflection and initiative, as well as collective efforts. It may be done through self-learning, as well as coaching and mentorship. In more structured instances and particularly with digitization it can be done through Massive Open Online Courses (MOOCs), webinars or simple online workshops and conversations as well as sharing practices through various social media and other online applications.

All participants in the study had offered some examples of how they attempted to cope with teaching and learning during the pandemic. It was indeed heartwarming to depict the level of commitment by teachers, supervisors and teacher trainers. Despite what many people may believe about teachers as professionals, it is clear from this study that they had a very well-defined identity which crystalized namely in the commitment to serve, care and ensure the learning of their students. It is very impressive the amount of personal time and effort that was invested in reaching out to children and their families. Despite limited resources, teachers were willing to use their own personal financial resources to meet the challenge. In some situations, they even handed out internet connectivity to their students to ensure they were able to receive instructions. The pandemic underlined the remarkable potential of teachers to volunteer in times of crises and go beyond the call of duty.

In an attempt to review some of the teacher professional development practices that emerged during those very difficult times, the following accounts of teachers and their supervisors/trainers will be divided into four categories:

4.1. TPD through Self-Learning
4.2. TPD initiated by medium and large-scale institutional support
4.3. TPD through Collaborative efforts
4.4. TPD through innovations

4.1. TPD through Self-Learning:

Given that many of the systems were caught by surprise and that the various stakeholders had not had the time to master technology and ICTs to a large extent, a great deal of self-learning and
improvisation occurred. Many of the teachers married and mixed old technologies with more recent ones. Many of the teachers taught themselves how to use their social media applications for teaching. Several used their smart phones, WhatsApp, Messenger and Face Book to communicate with their pupils, send summaries of lessons, photos of explanations, exercises and instructions to allow for some learning at a distance.

It was interesting to note that there seemed to be a positive correlation between those that mastered a foreign language, English in particular, and their ability to self-learn effectively. This of course made a great deal of sense as the majority of the online resources were indeed in English before the various organizations in the region managed to catch up in Arabic. A teacher of English in Morocco who was perfectly fluent in the language explains how she had been exposed to international projects where she had acquired the tools for online communication which then permitted her to continue instruction with her students with great ease. She recounts how she managed to motivate her students by engaging them in games, such as online chess, small competitions, music and story writing as part of her teaching. She also kept up with various training webinars where she kept up to date with the latest in gamification and student engagement strategies.

Several Egyptian teachers had also practiced the same trend of producing video recordings of model lessons to share with colleagues on social media. Currently, the Professional Academy of Teachers (PAT) created a portal for teachers where they can upload their videos for other teachers to view and interact with. Teachers can also upload their recordings on other platforms.

A Jordanian teacher explained how she had managed to use several games including Kahoot to engage students. Through her own efforts of self-learning, she had managed to continue some of the school activities that students particularly liked. She had created a large group on line representing the whole school and maintained the school broadcasting activity allowing children to take turns in presenting before the whole school whether these were plays or research findings.

A Tunisian English teacher who was perfectly fluent in the language recounted how she had attended online workshops, accessed some MOOC activities and self-learned the use of Google classroom as well as Microsoft teams. She explained that she had been part of European projects of E Tuning and through these projects she gained the knowledge of how to access MOOCs and hence self-learn. Other teachers who had been exposed to American Field Service (AFS) projects made the same remarks. These teachers were able to practice flipped classrooms since they could engage their students on line, meet them, send attachments/assignments and even test them on line. A couple of Tunisian teachers also recounted how they had managed through the help of the mastery of the above technologies to engage other teachers to teach integrated topics including using whole language techniques.
4.2. TPD initiated by medium and large-scale institutional support

A remarkable example of institutional large-scale support for professional development had clearly occurred in Saudi Arabia overtime. From the responses of the participants, it was clear that strong synergy had been created between pedagogy and technology. For the past twenty years, the Saudi system had introduced child centered and activity-based learning. Thus, the respondents in the study, whether teachers or supervises, clearly stated that once they were clear on the pedagogy of activity-based learning they could transfer those skills to on line learning. The Saudi respondents also appeared to master the ins and outs of technological possibilities. They stated that “technology offered amazing new opportunities for students which allowed them to travel virtually and explore the world”. Teachers and in particular science teachers claimed that they had elicited high order thinking in their classrooms as well as analytical skills during their online and blended teaching. They used all possible resources to that end. They used images, videos, boards and many other devices all in order to engage students. One science teacher stated “if you are able to engage students in a face-to-face situation, chances are you will be able to do that online. It is about the pedagogy and not the technology”. An English language teacher following in the same line did project based learning on line. He organized students to collaborate in groups and design projects that they would collectively present. Supervisors attested to the fact that teachers were digitally fluent and very capable of utilizing smart boards and were able to produce and utilize videos with great talent. What seemed quite remarkable in the Saudi case was the synergy between technology and pedagogy with the latter taking the lead according to the respondents.

Another successful large-scale undertaking was the one offered by the Queen Rania Teacher Academy (QRTA) in Jordan. All the participants in the study expressed their gratitude and admiration to the online training that had been systematically offered by QRTA. It was noted that trainees were in fact more interactive on line then in face-to-face situations. Not only were they getting diverse and profound preparation for online teaching but were also being initiated to an Arabic MOOC called Edraak where they could continue to self-learn. Teachers were trained on creativity critical thinking and innovation and the use of virtual classrooms allowing them to increase connectivity and even engage with parents. Meanwhile programs for the decentralization of education were initiated and QRTA also trained at the district level and created very strong data basis for effective communication.

Development occurs at the school level where each school has its own council made up of members of the local communities along with school teachers, principals and directors. They also cluster the schools and create competitions between them. The councils created a platform to train Jordanian teachers which was launched in June 2021. Through that mechanism they
managed to train 75,000 teachers on science, math, Arabic and English. They also train on mental health. They even have a program for training the trainer in the Al Aqsa Initiative.

QRTA had also provided many initiatives to educators such as an online Teacher Education Professional Diploma (TEPD), online Advanced Instruction Leadership Professional Diploma (AILPD), Launched four MOOCs (Massive Open Online Courses) on Behaviour Management, Innovation in Education, Managing Virtual Classrooms and Differentiation. They also developed and delivered Innovation in Education programs in the following areas (AI, STEM, Design Thinking), delivered a number of live webinars in areas of interest to educators, developed and delivered a psychosocial support module under the title ‘Psychosocial adaptation skills in crises and emergencies” and finally they developed a new SIS and LMS platform. Almost all those approached in the focus group sessions and interviews stated they had been supported by QRTA.

Still in Jordan was another interesting institutionally supported initiative this time with regard to teacher preparation (i.e. pre-service education and training). A university led online professional development program for student teachers was developed during the pandemic. At the University level they had managed to conduct their practicum on line with student teachers. They even used applications from the UK called Avatar where student teachers trained in virtual classrooms with virtual students. This was done through a portal that was very quickly established through the university websites. The participants in these programs also had the possibility of reflection and discussion on line with peer observations and feedback.

Another good practice had occurred in Tunisia this time on medium scale support on the district level. One supervisor declared that ”home based” i.e., using his own resources for district based professional development were by far more effective than large scale national ones as they catered to the specific needs of the district. Even those initiated by the Regional Education Authority were not as successful as those that were designed by district supervisors and conducted through platforms that were easily accessible to the teachers. These appeared to be very successful and teachers felt very comfortable to participate, interact and voice their opinions through lively discussions. The atmosphere was friendly which further enhanced the learning. In larger more formal settings that had been initiated by the Ministry of Education in 2020/2021 through Terbia, a formal government online portal, thousands of teachers had been trained but like many similar situations the impact was not visible nor was impact studies conducted to follow up.

4.3. TPD through Collaborative efforts

In Morocco, an interesting collaborative effort developed on the ground in the very hard to reach areas. These were the areas were inequities truly existed and where connectivity was nonexistent. Both teachers and supervisors had felt a particular social responsibility to those
children who could not even be reached by smart phones or any other form of internet connection. The Moroccan team created their own collaborative networks of learning and joined forces with their local communities. The teachers created written summaries of the syllabus sometimes in their own handwriting that they of course had to improve. When possible and computers were available, they printed the material. They then met with the parents and local communities to transmit those lessons and the latter then took charge through the parent’s associations to photo copy the summaries. The volunteer community members then took it upon themselves to distribute the summaries to the various households in the neighborhoods so students would not be left out. In the process they had raised the awareness of parents of what was required and created a learning partnership with them for the benefit of the children. Although seemingly quite simple this is a model of great value that could be replicated in different formats. It is also important by the way teachers and supervisors acquired and developed skills to work cooperatively and engage community stakeholders.

In Egypt, just as the government reform initiative 2.0 was being announced in 2017, a very significant project was launched on School University Partnerships for Peer Communities of Learners (SUP4PCL) (Zaalouk et al., 2020). The initiative aimed to introduce several new practices and concepts for the professional development of teachers. It created a strong partnership between Faculties of Education and neighboring schools that would then turn into Professional Development Schools (PDs).

In this partnership, mentors and coaches were groomed to perform Continuous Professional Development (CPD) in schools. Mentors and coaches developed at both the University and school levels. Peer Communities of learners (PCLs) were created in schools, in universities and across both institutions. The impact of the initiative was studied rigorously by the end of a three-year implementation and beyond. The results were impressive. The beneficiaries of this initiative had developed remarkably in their pedagogical knowledge and practices, had become digitally fluent, had conducted action research in their schools, had created teaching and learning materials and most important of all had sustained the practice of collaborative learning and professional development.

Even more impressive had been the rooting of school-based learning and the motivation of teachers to become leaders, researchers and resource persons. The initiative had resulted in the continuation of the practice of partnerships between schools and universities. Ultimately, the partnerships became institutionalized as the original project developed into a national movement with a signed Memorandum of Understanding MOU between the Ministry of Education and the Ministry of Higher Education.

Across Egypt, Faculties of Education are required to work with neighbouring professional development schools on CPD and research. During the pandemic as an offshoot of this national
movement the district of New Cairo partnered with the Middle East Institute for Higher Education (MEIHE). CPD around the integration of lesson plans and life skills, action research and the strengthening of PCLs in schools was promoted through synchronous zoom-based workshop. As a result, 12 teachers have become resource mentors and coaches in the district and are charged with supporting the learning in 24 schools across the district. Some amazing examples of collaborative and peer learning have emerged. Each teacher mentor is charged with ten other teachers where they do hands on lesson planning, teaching and technology training. The leader of the team is a graduate from the SUP4PCL project who emerged in another district and now is charged with this new district. During the pandemic, they have shared amongst themselves some excellent models of teaching, have visited each other’s schools and are even designing a teacher guide on how to integrate life skills in the teaching of the existing curriculum.

In Tunisia, another initiative also drew on the practice of PCLs with supervisors and teachers collaborating on how to support beginning teachers on the district level. Their emphasis was on the creation of lesson plans, the designing of activities and exercises for students to ensure learning and formulating tasks for the transfer of skills. Teachers were learning collaboratively in groups during the shutdown and showed a great deal of engagement.

4.4. TPD through innovations

Under this particular section, three good practices stand out and are of unusual value. In Tunisia, a supervisor for primary school teachers in one of the regions conducted an online study through Google form which was published with the purpose of understanding teachers’ needs, perceptions and innovations in order to tailor the appropriate professional development.

The study came up with a number of interesting findings. It was found that the teachers who had been teaching for more than 20 years and hence were of the older generation had shown keenness to engage with technology. This was largely due to their stronger sense of responsibility and commitment to the children. It reflected a more mature identity. This was quite different to the usual expectation of the younger teachers manifesting less resistance to learn with technology. The study allowed the researcher to sharpen his targets and strategies in TPD. Moreover, the study also allowed the supervisor to understand which of the applications and means of distance communication were preferred by the teachers. In addition, the study also unraveled what innovations had been practiced by the teachers with the simplest of technologies in order to build on them (Chebbi, 2020). The fact that a supervisor/trainer used new techniques of online research to improve on TPD was a significant good practice that needs to be widely spread amongst those responsible for professional development.
Another innovation concerned Moroccan teachers who explained how they had learned to create model classes in what they called video “capsules” which they then shared at first informally with their colleagues on social media and YouTube voluntarily. Many of those “capsules” tackled life skills-based learning. Later when the trend expanded, these capsules were supported by foundations such as The National Association for Moroccan Teachers. These were later captured by the formal Ministry of Education and projected on television and uploaded on Teams when the government put it in place.

In Egypt, springing from the initial school-university partnership initiative a strong partnership had evolved between the MEIHE and the New Cairo educational district as mentioned earlier. Like a number of districts in Egypt it is suffering from a severe shortage in teachers. This is a particularly problematic situation as the return to school has now occurred and more teachers are needed with the shifts and social distancing.

The mentor teachers charged with leading professional development through collaborative learning and Peer Communities of Learners used their newly acquired skills in action research and problem-solving to figure out a way to solve the shortages in teachers through technology and partnerships.

Partnerships were made with nearby private schools that had resources they could spare, hence the mentors decided to create a studio in one of the schools where a math teacher could teach online and through a synchronous arrangement practice multiple teaching from the studio to four other classrooms. The students would be following through a screen followed by the implementation of well-designed activities.

The activities could be supervised by a non-specialized teacher. He/she would simply monitor the children and keep order while they practiced the necessary tasks to reinforce the learning they were receiving from the connected screens in their class. Thus, one specialized teacher in math, a discipline suffering from acute shortages, would be running four classes simultaneously while his peer team members would oversee the enactment of related activities. The teachers now promoted to resource persons, had also practiced integrated lesson planning and the inclusion of life skills and values. Having collectively planned and learned together, the PCL could work collaboratively with a clear understanding of the lesson plan with objectives.

Section 5: Conclusion and Recommendations

Many of the Teacher Professional Development (TPD) initiatives are promising but need to be supported by strong policies to allow them to flourish and be mainstreamed. Moreover, the
ecosystem of TPD needs to include governance systems that make room for teacher autonomy; school-based reform and innovative strategies.

The participants in the current study made many contributions in terms of future vision and advice to policy makers. Their recommendations can be divided into two parts: the first touching on the various systems of education at large in the countries concerned; and the second focusing on professional development specifically.

Although the study is focused on teacher professional development, some of the recommendations required looking into the systems of teacher preparation (i.e. pre-service teacher education and training).

### 5.1. System-wide recommendations

1. Participants in the study believed that the educational systems in the five countries selected needed to enhance **decentralization**. They expressed concerns about their systems being affected by bureaucracy and top-down management. Centralized governance they believed curtailed their capacity to innovate. Teachers in particular complained that their hands were tied and that often when they had innovative solutions to the challenges they confronted they were not authorized to put them into practice until they were cleared by the central authorities.

2. An area that required a great deal of improvement was **assessment**. It was observed teachers were not sufficiently prepared in university or during their training to handle assessment. It was however very much needed, particularly when children returned to school in the second phase of the pandemic after the closure of schools. It was very important that teachers be equipped to measure the learning loss in order to design catching up strategies. This was especially needed now that online testing had been initiated which teachers and supervisors alike did not trust. They all suggested that other forms of assessment be put in place for accuracy and that in general their systems should not be exam driven. They believed that authentic assessment should replace the exam and test biases and that such tools as regular portfolios as well as E Portfolios be used.

3. In regard to the **relationship with parents and communities**, most participants believed the relationship to be crucial as had been made eminent during the pandemic. This relationship needed strengthening institutionally by reinstating school boards that invited parental and community participation. Most studies on emergency preparedness will emphasize the importance of the relationship with communities during times of crises (UNESCO Regional Center for Quality Education RCQ, 2020).
4. Teachers and supervisors noted that schools needed to develop into attractive institutions that promoted the **joy of learning**. Schools had lost their aura for children and the community and needed to work on regaining their centrality through cultural enrichment and creating a caring family atmosphere. All the participants believed there was no substitute to schools and to face-to-face learning.

5. Several participants recommended that the **curriculum** in their countries be renewed. They also believed that teachers needed to be involved in the reform of more relevant updated syllabi that would be attractive to the students.

6. **Self-learning** strategies and pedagogies needed to be strengthened particularly for the young learners. This approach needed strengthening in both university teacher preparation, teaching strategies, pedagogical approaches and continuous professional development.

7. All participants emphatically recommended that **teacher’s voices** be heard at the school level and more importantly at the national policy level.

8. All participants believed that **partnerships** with schools were immensely important. They particularly singled out communities, civil society, university and the private sector. For the private sector it was believed that they should be more forthcoming in equipping schools and communities with equipment for remote/online and blended/hybrid learning.

9. Finally, all the participants called for **emergency planning** at all levels in the system. They all expressed their desire never to be taken by surprise again.

### 5.2. Teacher Professional Development Recommendations

10. Everyone was in agreement that all stakeholders needed a great deal of development in the use of **technology**. This was true of teachers, students, supervisors, parents and community members. Again, best practices in education in emergency will stress the importance of technology in times of crises (UNESCO Regional Center for Quality Education RCQ, 2020).

11. **Mentorship** and **Coaching** were areas that required development. Several of the participants suggested that teachers could be the best resource persons for their peers.

12. The majority of the respondents spoke about the importance of **parent education** but also teacher education on how to support parents. Creating solid partnerships between educators and parents was deemed highly valuable.
13. **Raising the awareness of communities** on how to contribute to the learning of their children was also an area that was recommended for further development.

14. All agreed that **collaborative learning** and the creation of Peer Communities of learners was one of the best and cost-effective professional development strategies. It however needed to be supported by policies and logistics. Teachers needed dedicated space in schools to meet and also allocated time that was regular for teachers to systematically learn and observe each other in action. Moreover, they also needed dedicated platforms to support their collaboration.

15. The various training workshops conducted needed to **model active learning**, clearly be practice based and hands on.

16. The various **pedagogic boards in schools** needed to be revived so that effective coordination can be assured in the spirit of whole-school approaches.

17. Training on **classroom management** was very much needed according to the participants especially in situations of overcrowded classrooms.

18. Teachers needed much training on **student-centered pedagogies and on how (new) technologies can facilitate taking into account the different learner contexts and needs.**

19. Supervisors in particular believed that a **legal framework** needed to be in place to ensure that teacher professional development is mandatory and also a part of teacher’s right. It might even feature in teachers’ contracts and conditions of appointment.
A very final recommendation proposed that is being suggested by the author of this study is one that looks at the next steps following from this preliminary pilot study. The good practices outlined clearly need to be detailed in greater depth. To ensure that Continuous Professional Development CPD is successful, it is imperative that the design emanate from the beneficiaries themselves, namely the teachers and educators in schools. Hence, it is suggested that in a second phase teachers and educators are trained through resource persons to conduct action research in the various school and district contexts in several Arab States in order to better define the needed professional development strategies, test them and select the ones that work. Teachers who become reflective practitioners are the best leaders for the design and implementation of meaningful and successful professional development strategies. They in fact can design manuals fitting their own and similar contexts in addition to the necessary tools that support that kind of development including reflection tools. These practices have been tried globally but also in the Arab region in a small way whereby teachers and supervisors practiced action research to enhance professional development. It is time to build on these small pilots and build back better.


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