The Digital School and World Food Programme: Transforming lives in Egypt

Contents

1. Introduction

The Digital School aims to achieve scalable and sustainable impact through coordinated and targeted partnerships with international NGOs, funding organizations, subject matter experts and global players. Through these partnerships, it is creating sustainabilities, cost efficiencies and charting new milestones for the future of global education for those who need it the most.

Building on the knowledge, experience and innovation of our strategic delivery partners, who have demonstrated and proven effectiveness, we have created a vision and approach that contributes to widening learning opportunities.

The partnership of The Digital School (TDS) with the World Food Programme (WFP) in Egypt is an example of how a targeted and strategically aligned initiative can create measurable impacts and demonstrably improve the lives of marginalised learners.

The WFP and TDS partnership began in 2021, and quickly scaled from a handful of community schools in Egypt to creating real impacts for 1,814 beneficiaries in 187 schools. The partnership initiative has resulted in modernized and innovative educational methodologies building on the strengths of WFP in providing infrastructure, on-the-ground support and local expertise; and utilizing The Digital School's digital learning ecosystem, capacity building and innovative educational methodologies.

The partnership has provided an integrated package of interventions that invests in human capital and improves the life prospects of the target communities through quality community education.

2. Setting the stage: the partners

Egypt Vision 2030
Egypt is embarking on an ambitious plan to transform the country through accelerated integrated development schemes. The government's commitment to ensure that every Egyptian has access to opportunities and a decent life is anchored the 2014 Constitution. To deliver on its commitment, the government developed the Sustainable Development Strategy (SDS): Egypt Vision 2030, which is strongly aligned with the globally agreed Sustainable Development Goals (SDGs), and with the Africa Agenda 2063. Through this vision, the Government of Egypt has laid out its vision to create a society that can learn, think, and innovate.

The Ministry of Education and Technical Education (MoETE) is leading the agenda of educational reforms focusing on the core competencies aspired to empower students and prepare them for market demands.
The World Food Programme
The World Food Programme (WFP) is the largest humanitarian organization addressing the challenges of global hunger and nutrition. Assisting people in around 120 countries each year, WFP supports countries in ensuring no one is left behind by building resilience for food

security and nutrition and addressing the growing challenges posed by climate change and rising inequality.

In Egypt, WFP has a longstanding partnership with the Government of Egypt and its strong field presence. WFP has been working with the Government of Egypt since 1968 on poverty reduction, emergency support, food security, and nutrition and has been a strategic partner to the Government in its efforts to achieve the SDGs.

Both MoETE and WFP Egypt have agreed to work together through a strategic partnership and coordinate their efforts to support the implementation of the ministry's strategy, especially in marginalized and vulnerable areas across Egypt. One of the agreed areas of collaboration between the MoETE and WFP is to support community education, through supporting the community schools, that would achieve a positive impact on social protection, gender inclusion, food security and nutrition, resilience, and rehabilitation.

The Digital School

The Digital School aims to create the means to reach marginalised and underserved learners, wherever they are, and regardless of context, to provide quality learning opportunities and deliver the knowledge, skills and competencies for them to be able to thrive in 21st century society and steer them towards a brighter future.

Established by Mohammad bin Rashid's Global Initiatives, the Digital School is a global, integrated online and hybrid school targeting those in marginalised and hard-to-reach communities: students who may not have had equitable access to educational opportunities, and communities facing educational, socio-economic and political challenges.

The Digital School believes that a combination of cutting-edge technology, innovative pedagogy and capacity development will play a central role in supporting and facilitating teachers, students, and the learning process more broadly. It has a vision for a world where educators have the confidence, competencies and motivation to engage students in learning, where digital technologies empower them to deliver, and where students develop the life skills they will need to prosper, including socio-emotional, and digital skills. These educational opportunities will be quality-assured, safe and affordable to everyone and accessible to all.

The Digital School has developed an innovative approach to teaching and learning. Its pedagogical model aims to develop students' agency and self-directed learning skills by blending a range of well-established, research-based, student-centred learning practices, into a clearly defined learning cycle. Its infrastructure, built around the Digital School's core delivery platform, is structured to fully support this model and facilitate our students' self-directed learning.

3. Tracing the evolution of the partnership

Community schools were first established by the Egyptian Ministry of Education and the United Nations in 1992 to provide access to education in sparsely populated, rural and remote areas. These schools provide a unique chance for education to children of marginalised communities, especially girls who otherwise would not have access to learning. They offer

multi-grade classes admitting students of different ages at the primary education level, with special focus on girls.

WFP has contributed with substantial investments in several areas of this complicated process, which prepared the stage for The Digital School to provide its digital learning eco-system.

Building the partnership model

The partnership between The Digital School and the World Food Programme has provided the unique opportunity to bring together the strengths of each to meet the specific requirements of community schools in Egypt. It builds on WFP's strengths in providing the infrastructure to meet the challenges of global hunger and nutrition, and The Digital School's innovation in digital teaching and learning for marginalised learners.

This combination is a powerful proposition. The Digital School and the World Food Programme built a unique value chain comprising the following key layers:

Learning & teaching	Curriculum	CPD	Content	Pedagogy
Digital eco-system	Brightspace LMS		Microsoft 365	Knowledge Bank
Operations & implementation	School rehabilitation		Support and maintenance	
Infrastructure	Internet connectivity		Networking	Devices
Impact monitoring	Monitoring	Evaluation	Research	Learning

The partnership began with the pilot of The Digital School initiative in 20 community schools, with 28 teachers and 159 students in Luxor city. WFP facilitated a successful application of The Digital School model through:
• Strategic planning and change management
• Digitalization ecosystem composed of tablets, smart interactive boards, routers, and internet connectivity in all schools delivered in collaboration with national telecoms provider Vodafone.
• Hardware Maintenance.
• On-ground support and field management.
Through that pilot, the initiative innovated the learning and teaching at the community schools using the following enablers:
• Learning spaces - Rehabilitation of schools through renovation and furnishing against TDS specifications;
• Food assistance tied to attendance rate as an incentive to engage;
• Digital eco-system providing connectivity, infrastructure and devices;
• Management by local implementation teams;
• Support and maintenance.

4. Current status

Since the inception of the Egypt programme in 2021, the Digital School has established a successful delivery partnership with the World Food Programme.

The Egypt programme has so far impacted 1,814 students across its K12 and enrichment programmes.

WFP provides local implementation services and support across 187 schools in four cities (Luxor, Qena, Suhag, Asyut). From these schools, 196 educators have been enrolled into The Digital School Digital Educator Program, developed in collaboration with Arizona State University, and provisioned on the Digital school LMS platform.Through the Digital School initiative, our students have been granted access to use MS Office365 and a wide range of Digital Content, accessed via the Digital School LMS. This includes 418 lessons in the core subjects of Arabic, science and maths across Grades 5 ,4 and 6. Learning content has been developed in association with the Egypt Ministry of Education, and according to national requirements. The Ministry of Education also granted access to the Egyptian Knowledge Bank – the national digital content library, which TDS is curating through the Brightspace LMS.

The partnership has also facilitated access to key technologies, in the form of 187 smart screens and 196 teachers' tablets provided to schools by WFP. An agreement with national telecoms provider Vodafone has facilitated connectivity in all 187 schools.

Implementation planning
Implementation planning manages the enrolment of students and educators, as well as overseeing content delivery. Implementation is led by 4 local support team members under the supervision of The Digital School. The team reports progress on a weekly basis. The Support Team has been trained by The Digital School to provide on-ground support to educators and students in technical and pedagogical areas. This is provided via school visits and online meetings.
Learning spaces have been equipped to be used by educators and students based on Digital School quality guidelines, and 102 devices have been provided to these learning spaces.
Main impacts
- 1814 beneficiaries of K12 core curriculum programmes
- 187 schools provisioned for learning
- 196 educators have been enrolled and trained in DS pedagogy
- 102 student devices distributed to 20 schools
- 20 learning spaces equipped with teacher device, students devices, internet and smart boards

5. Success story: Fatima

Fatima is a female student in the fourth grade of primary at Al-Saaida School - a one-classroom school. She has a hearing disability and came to school with no prior learning. TDS played a crucial part in addressing her learning challenges by providing a student device, engaging activities within the content, educational videos on the Learning Management System (LMS) and Knowledge Bank (EKB) and facilitating the use of a smart board in the classroom.

These resources helped Fatima to overcome the obstacles posed by her hearing disability,

leading to a remarkable transformation. Not only did her academic performance improve significantly, but she also became a confident and influential student within her class, fostering a spirit of competition and success among her peers.

The collaborative efforts of TDS, along with the provided digital tools, played a pivotal role in enhancing Fatima's engagement with both her teachers and classmates, ultimately making her one of the top-performing students in her school.

She has been observed to be challenging her disability and proving herself, with increased performance.

6. Success story: Muhammad

Muhammad is in Sixth grade of Nag Sandal School, a school with one class. He is an intelligent and active student, but he was irregular in his studies because he helped his father at work. He does not have access to a computer at home.

Through the implementation of its hybrid learning programmes, The Digital School ensured focused and differentiated study time with him, one-to-one, and he demonstrated increased regularity in his approach to study.

Using devices provided by the TDS programme, he became proficient in working on screen, helping the teacher to open the Digital School platform for the required daily lesson, and helping his colleagues use Digital School resources. He has also taken the responsibility of supervision of the devices and connectivity.

7. Key challenges

Capacity building
One of the most fundamental challenges faced by the partnership is developing teaching capacity: to learn effectively, students need confident and skilled teachers. Yet this challenge is also an opportunity: because of their direct experiences, educators have the potential to be part of the solutions we need.

We understand that success in achieving global impacts for our learners depends on developing a community of educational practitioners, who have the confidence, skills and knowledge to effectively facilitate students' self-directed online digital education, through remote and hybrid delivery models, and who can share best practices and discuss applications with their peers at a worldwide level, through the technology provided by The Digital School.

Building the capacity and capabilities of educators on the ground is essential to the success, sustainability and scalability of any support project, and The Digital School, with WFP, has embedded this as a fundamental design principle within the educational model in Egypt.

f ⊙ ⓢ 𝕏 in @digital_sch

To address the challenge, The Digital School designed a simple but comprehensive system of professional development, to develop educators' skills and confidence in digital teaching and learning, enabling them to access, navigate and optimally use digital devices and online tools In collaboration with Arizona State University, the professional development system is aligned with the National Standards for Quality Online Learning. Currently prioritising Digital School educators directly, this professional development will be expanded and extended to reach educators worldwide through the recently launched Digital Educator Global Academy.

Devices and infrastructure
The Digital School addresses infrastructure challenges from the earliest point in the implementation process, through engagement with government and country partners, and assessing and addressing infrastructure, connectivity and device availability, including feasibility assessments and agreed responsibilities. The approach covers both the initial provision and the ongoing maintenance of the infrastructure.

In Egypt, the partnership between TDS and WFP Egypt is designed to respond to the community needs of the most underprivileged and remote communities targeting Luxor, Qena, Beni Suef, and Fayoum. A key element is the leveraging of WFP's digital ecosystem of smart interactive screens, tablets, and routers.

In addition to this, one key innovation to address the challenge of digital exclusion is the Donate Your Own Device (DYOD) campaign, a joint initiative from Mohammed Bin Rashid Al Maktoum Global Initiatives and The Digital School, with a target of 10,000 devices. Partnering with Emirates Red Crescent, Reloop and Ecyclex, the campaign has been highly successful in generating donations from individuals and organisations, with more than 15,000 devices collected so far, which will be assessed, and feasible devices refurbished and made available to our students.

Food, nutrition, and effective learning
In 2020, WFP launched its WFP School Feeding Strategy 2030-2020 which outlines the new approach to ensure all school-aged children receive good quality meals and integrated packages of nutrition and health services.

The implementation of the school feeding program has helped to foster educational development, health, and nutrition amongst the school-aged population. By targeting specific challenges, such as stunted growth amongst school-age children, which was estimated at 30 percent in the Southern Africa region, is a major boost to the efforts to achieve the SDGs across the world, particularly the acceleration of the achievement of the UN Sustainable Development Goal (SDG4), aimed at ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.

In this regard, WFP southern Africa is promoting the achievements of these goals through programs designed to promote healthy nutrition. Entry point already exists at the elementary level as in the SADC region (including the Republic of Congo) an estimated 20.7 million primary school children receive school meals through government programs to enhance their nutritional food intakes and improve their learning capabilities. WFP supports this initiative

by providing school meals to around 1.7 million school children and other non-food inputs in the region.

This compliment other initiatives in education and adds to the collective efforts towards building more resilient education systems. The improved health outcomes for learners and ultimately, better employability of learners after school through improvements in early childhood to adult education are also part of the longer-term goals of ICT in education, as education remains central to the achievement of the AU agenda 063-2, and the UN SDG4, whose goals extend beyond education to address core development concerns such as health, employment, lifelong education and addressing climate change.

Furthermore, literacy rates are well below desired levels. This is impediment to economic growth, increased poverty, poor health, unemployment, and poor quality of life. The right to education is a fundamental right for every child. The right to agile, affordable, meaningful, and safe internet has become an equality imperative, and fundamental in achieving the right to primary education, as such, the appetite for learning has never been more urgent before than today.

Sustainability – the UN 2030 vision
The Digital School believes that educated children are the key to a sustainable and equitable future, and supports preparing a generation that recognises and understands the global challenges that face us.

Through its multi-national programmes, TDS is committed to supporting strategic global sustainability initiatives. Central to its vision is the United Nations 2030 Agenda, and in particular, the targets of Sustainable Development Goals 12 ,10 ,9 ,4 and 17, as well as the thematic action tracks announced at UNGA TES 2022 to accelerate progress towards SDG4 – in particular Digital Learning and Transformation and Teachers and The Teaching Profession tracks.

The aim of SGD4 is to ensure that everyone has access to quality education and opportunities for lifelong learning, regardless of their gender, age, socioeconomic background, or location. While SDG9 is concerned with building a resilient infrastructure, promoting sustainable industrialisation and fostering innovation.

SDG10 aims to reduce inequality within and among countries. And lastly, SDG17 focuses on strengthening the means of implementation and revitalising the global partnership for sustainable development.

The TDS/WFP partnership aims to provide an integrated package of interventions that invests in human capital and improves the living conditions of the target communities through quality community education. Through this vision, the partnership will contribute to achieving Vision 2030 and to the progress towards SDG 4 Quality Education, SDG 12 Responsible Consumption and Production, SDG 10 Reduced inequalities, and SDG 17 Partnerships for the Goals.

---

[1] United Nations. "Transforming Education Summit | Action Tracks." www.un.org.

TDS has also been able to demonstrate how technology can play an important role as part of larger systemic efforts to transform education, making it more inclusive, equitable, effective, relevant, and sustainable. The TDS initiative in this regard is guided by three clear principles:
1. Focus on marginalised learners
2. Free, high-quality digital education content
3. Pedagogical innovation and change
These principles are central to the achievement of TDS's vision for providing our future citizens with the life opportunities they deserve.

8. Innovating pedagogy – self-directed learning

A core principle of TDS's design is developing local capacity to ensure sustainable impact. TDS has therefore adopted a unique approach to teaching and learning, with a model focused on encouraging its learners to take responsibility for their own learning journey, supported by trained educators.

This self-directed approach encourages learners to develop the skills and capabilities to prepare and plan; investigate and apply; then connect and evaluate their learning, in the context of personal, local, and global situations.

Helping learners to acquire these skills addresses not only their short-term learning needs, but also has a longer-term impact, as they develop resilience, self-sufficiency, and problem-solving capacity - lifelong skills and attitudes that are important to all other aspects of their lives.

With a combination of essential learning content and self-directed learning, TDS is able to equip and prepare the learners both for their immediate circumstances and for future life challenges and the opportunities that await them.

It is recognised that TDS's self-directed learning approach may be a very different approach to learning for some cohorts and communities, and its efforts to tailor for each context might compromise its foundational educational rationale. To protect against such risk, TDS is creating an implementation strategy for each target country that sets out the initial plan and outlines the intended pace of 'incremental implementation' of the TDS Educational Model.

Learning and Teaching: TDS Pedagogical Framework
The Digital School's educational model aims to develop learners' agency and self-directed learning skills. It blends a range of well-established, research-based, student-centred learning practices, simplified into six steps:
1- Prepare: Engages learners in getting ready for learning by making a personal connection to the topic
2- Plan: Engages learners in deciding on the steps for learning
3- Investigate: Engages learners in exploring content in a structured way to collect and record information

4- Apply: Engages learners in thinking about and organising the information, practicing skills, and deepening their understanding

5- Connect: Engages learners in making connections to personal, local and global situations, and in sharing their learning

6- Evaluate and Reflect: Engages learners in reviewing what was learned, the process, and their next steps.

The six steps of the pedagogy model are embedded in the content preparation process and the Learning Management System (LMS) is structured to fully support learners' self-directed learning. To get the teams in target countries familiar with TDS's approach to learning, an incremental implementation method has been applied. The method is aligned with educators' developing skills and confidence as they progress through the professional development sequence.

Digital Curriculum and Content

The Digital School curriculum focuses on core learning and key subjects in localised national content, including accelerated learning programmes for basic literacy and numeracy. To prepare localised national content, TDS is working with the Egyptian Ministry of Education, taking the national curriculum as a base and preparing units of learning (lesson plans) on the Digital School LMS. To aid consistency and quality assurance, a Digital School Lesson Building Toolkit has been developed. The toolkit provides a guide to the preparation and review of the units of learning / lesson plans to be delivered through The Digital School's LMS to the learners.

The initial priority agreed is STEM (science, technology, engineering, and mathematics), concentrating on mathematics and science subjects with technology embedded through the digital learning experience.

The Digital School curriculum strategy comprises multiple learning pathways, delivering:

1. Units of learning and lesson plans aligned to a specific country's national curriculum, localised to its culture, and using locally approved content and resources

2. Units of learning custom-made to provide specific TDS content that is generically appropriate for all locations

3. Enrichment content, available through TDS's Learning Library, designed to support and enhance core learning using engaging, immersive and gamified approaches.

Strategically, TDS emphasises institutionalising the content preparation process and building local capacity. During 2022, TDS has transitioned from third-party content preparation, using external content aggregators and volunteers, to first-party content preparation, where units of learning and lessons are prepared by local educators who will actually use them, supported by TDS's core team and external subject matter experts, and embedded in the certificated professional development course sequence.

To complement the STEM content focus, TDS nurtures learners' development of digital literacy skills, including awareness of cyber safety.

Enrichment pathways

To complement the delivery of K12 content, the Digital School also provides enriched learning through its enrichment programmes.

9. Impact: measuring success

The Theory of Change
The Digital School Theory of Change provides a guiding framework for tracking the long-term effectiveness of our programmes. It is a tool to help The Digital School to articulate and strength-test its vision and strategy, and forms one component within the broader MERL strategy.

The purpose of having a Theory of Change is to provide a holistic framework showing how each element of work within The Digital School is connected, and how it can lead to positive change. It provides a summary of how The Digital School contributes within the big picture of global education, and it also serves as a reference point against which the team can regularly reflect on and sense-check the work that is being done.

The Theory of Change focuses on the big problem, then the specific challenges which The Digital School is tackling. It then articulates the activities that are being undertaken to address the challenges, followed by the outputs of the activities, the outcomes of the outputs, and ultimately the big impact that The Digital School will have.

Measuring impact
In developing meaningful impact data for Digital School beneficiaries, the Digital School is placing emphasis on students' progress: where did they start and where are they after TDS intervention? This is a key question when assessing TDS impact. We have implemented two main methods of gathering data on students' progress:

- Indirect baseline data: educators evaluate students' levels in relation to age-level expectations – this is done via a survey at the start of the year, and periodically thereafter (termly, annually).
- Direct baseline data: students take a content-focused assessment before they start a new unit of learning, and then take it again after finishing the unit – this is embedded in the digital content and completed by students on the LMS.
- In Egypt, an initial pilot survey has yielded the following outcomes:
- %69 of teachers reported that with TDS >%50 of students show improvement in self-directed learning
- %77 of teachers reported that with TDS >%50 of students show improvement of digital skills
- %63 of teachers reported that with TDS >%50 of students show progress in science %67 of teachers reported that with TDS >%50 of students show progress in mathematics
- %71 of teachers reported that with TDS >%50 of students show progress in language
- Other outcomes include:

- Advancing community education and gender equality in accessing digital education by expanding the TDS initiative into 350 community schools.
- Closing the digital divide in education, by connecting students in rural villages to digital content.

10. Paving the way for future successes

The partnership between The Digital School and The World Food Programme in Egypt has demonstrated that measurable impacts can be achieved, and lives changed, by bringing together the experience, know-how and resources of two globally recognised leaders in their respective fields. The success of the model will pave the way to expand learning opportunities and create further impacts through digital education, not just in Egypt, but across other regions of the world, and especially Africa, wherever there is need.

The Digital School Theory of Change, and its corresponding focus on monitoring, evaluation, research and learning, means that valuable lessons will be learned, and the value of current activities can be taken forward into future programmes and initiatives.

In summary **Dr Waleed al Ali**, Director General of The Digital School, says:
"This partnership has seen us make a strong start to a journey that will see us achieve our target of delivering measurable learning impacts for over 1 million of the world's most marginalised and underserved learners by 2026.

"The Digital School and World Food Programme have developed an innovative approach to meeting the needs of marginalised learners through a multi-layered and fully-featured solution. Our pedagogical model aims to develop students' agency and self-directed learning skills by blending a range of well-established, research-based, student-centred learning practices, into a clearly defined learning cycle. Our technology, built around the Digital School's core delivery platform and WFP's infrastructure, is designed to fully support this model and facilitate our students' self-directed learning.This is just the start of our journey: I look forward in the coming years to scaling our presence into new areas of identified need, growing our base of students and educators, developing and expanding our worldwide partnerships".