

TEMPLATE FOR THE GOOD PRACTICE

What is a good practice?

A good practice is not only a practice that is good, but a practice that has been proven to work well and produce good results, and is therefore recommended as a model. It is a successful experience, which has been tested and validated, in the broad sense, which has been repeated and deserves to be shared so that a greater number of people can adopt it.

Please follow the instructions included to fill in the template. You can replace the guiding questions for each element with your description.

Mandatory fields are defined by *

Element	Description
Title*	<i>Excellence Model for Supporting Digital Transformation, Developing Teachers' Digital Skills, and Fostering Crisis Management Skills in the Workplace</i>
Name of the VET Provider	<i>Heliopolis Educational Administration – Technology Development Department</i>
Thematic domain	What is the thematic domain covered by this good practice? More than one domain can be indicated • Innovation • <u>Digital</u> • Green • Inclusion • Entrepreneurial • <u>Career guidance</u> • Lifelong learning • Creating partnerships/skills ecosystems
Introduction*	<i>Since assuming responsibility for the Technology Development Department in 2021, I have been committed to implementing best practices within the Heliopolis Educational Administration aimed at supporting digital transformation and contributing to the continuous improvement of the educational process.</i> <i>This initiative seeks to promote the effective use of technology in education, enhance teachers' digital skills, and assist schools in utilizing digital tools and</i>

educational platforms. It also encompasses capacity building in workplace crisis management to raise staff awareness and readiness to handle crises and unexpected situations.

The initiative covers 52 schools affiliated with the Heliopolis Educational Administration, spanning both general and technical education with tailored skill-development approaches suited to each educational stage and type.

As part of this initiative, I personally design and deliver training courses and practical workshops for teachers. My role also involves providing technical and technological support; managing teacher accounts, educational platforms, and relevant databases; and facilitating the secure upload of assessments, such as General Secondary Education exams, to servers.

Stakeholders and Partners

Several key challenges have been identified in the process of digital transformation in schools, including differences in teachers' and school staff's digital skills, the need for continuous professional development, the effective use and management of digital devices and educational platforms, the need to maintain reliable digital accounts and databases, and the ability of schools to respond effectively to technical problems, crises, and unexpected situations.

Another important challenge is ensuring that digital transformation is not limited to teachers, but also involves students, administrative staff, technical staff, and school leadership. Effective digital transformation requires all those who use or manage technology within the school environment to have the appropriate skills and awareness.

Beneficiaries and target groups

The practice serves a broad group of beneficiaries, including:

Students, who benefit from improved access to digital learning tools, educational platforms, electronic assessments, programming and digital skills development opportunities.

Teachers, who receive training and practical support to improve their digital competencies and their ability to integrate technology into teaching and learning.

Administrative and technical staff, who work with digital devices, systems, accounts, databases, and platforms and therefore require the skills necessary to operate effectively within a digitally transformed school environment.

School leadership, which benefits from improved technological awareness, digital management practices, data use, and preparedness for dealing with technological challenges and workplace crises.

The practice currently covers 52 schools affiliated with Heliopolis Educational Administration, including both general and technical education, with approaches adapted to the educational stage and the specific needs of each type of school.

Main users of the good practice

The main users and potential users of the practice include:

School leadership and management teams.

The Professional Development Unit.

The Training and Quality Unit.

Technological Development Units and staff.

Schools seeking to strengthen their digital transformation and adopt effective technology-based working and learning practices.

Teachers, administrative staff, technical staff, and students who use digital systems and educational platforms.

Institutions and partners involved in the wider digital transformation ecosystem

The practice operates within the wider framework of Egypt's national efforts to develop digital education and strengthen technology-related skills. Key institutional stakeholders include the Ministry of Education and Technical Education, particularly its Technological Development structures and officials responsible for implementing and supporting digital transformation at the directorate and educational administration levels.

The wider ecosystem also includes cooperation with international and national partners. The Ministry of Education has developed educational cooperation with Japan, including collaboration in programming and artificial intelligence education and the use of the Japanese-supported Kiro/Koiron platform. The Ministry has also cooperated with other countries and international partners in areas related to digital transformation, technical education, teacher development, and curriculum development.

Other examples within the national education and digital-skills ecosystem include WE Schools for Applied Technology, developed through cooperation between the Ministry of Education and the Ministry of Communications and Information Technology, and the Egypt Digital Cubs Initiative, which provides school students with opportunities to develop digital and technological skills.

The Ministry also works with technology and education companies such as Microsoft and Pearson in areas including digital learning, educational platforms, student assessment, teacher professional development, and the use of technology to support personalised learning.

At the international level, the Ministry's wider education-development partnerships include organisations such as UNICEF, UNESCO, the World Bank, the European Union, GIZ, JICA, the International Labour Organization, and USAID, among others. These partnerships contribute to different areas of education reform, teacher development, quality assurance, inclusion, digital transformation, and technical and vocational education.

Certificates, accreditation and progression opportunities

An important outcome of the wider digital transformation ecosystem is that students and other beneficiaries can access recognised learning, training, and

skills-development opportunities. Depending on the programme, these may include certificates of completion, specialised competency certificates, international or industry-recognised certifications, and qualifications linked to technical and vocational education pathways.

For example, graduates of Applied Technology schools may receive an Applied Technology School certificate in addition to a specialised competency certificate, while other national and international programmes provide students and teachers with opportunities to gain additional digital and professional skills.

These opportunities strengthen the connection between school education, professional development, digital competencies, and the skills required for further education and the labour market.

Impact*

The practice has contributed to strengthening the digital transformation process across the 52 schools affiliated with Heliopolis Educational Administration, covering both general and technical education.

Its main impact includes:

- **Improved digital competencies:** Teachers, administrative staff, technical staff, and school leadership have developed greater awareness and practical skills in using digital devices, educational platforms, digital accounts, databases, and other technology-based systems.
 - **More effective use of technology in education:** The practice has supported schools in making better use of digital learning tools, electronic assessment, educational platforms, programming and other digital resources, contributing to a more technology-supported learning environment for students.
 - **Greater student engagement with digital skills:** Students have benefited from increased opportunities to use digital tools and educational platforms and to develop skills related to programming, technology, and digital learning.
 - **Strengthened school management:** School leadership has become more aware of the importance of digital management, data use, technology planning, and preparedness for technical problems and unexpected situations.
 - **Improved technical and administrative support:** The practice has strengthened the ability of staff responsible for technological development and school systems to support users, manage digital accounts and databases, and respond to technical challenges.
 - **Greater continuity and resilience:** By improving staff awareness and preparedness, the practice contributes to reducing disruption caused by
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technical problems and supporting the continuity of educational and administrative processes during unexpected situations.

- **Stronger professional development culture:** *The practice has highlighted the importance of continuous professional development and encouraged staff to update their digital competencies in line with the changing requirements of the digital school environment.*
- **Better alignment with national and international priorities:** *The practice supports Egypt's broader direction towards digital transformation in education and contributes to developing the digital and technological skills required for further education, employment, and participation in the digital economy.*

Overall, the practice has helped create a more digitally aware and better-prepared school environment in which technology is not viewed only as a tool for teaching, but as an integrated part of learning, school management, professional development, communication, and institutional development.

Innovation and Success Factors *

The good practice contributes to innovation by adopting a holistic and school-based approach to digital transformation. Instead of focusing only on the use of technology in teaching, it addresses the wider digital ecosystem of the school, including students, teachers, administrative and technical staff, and school leadership.

The practice promotes innovation through:

Integrating digital competencies into teaching, learning, administration, communication, and school management.

Supporting the practical use of digital devices, educational platforms, electronic assessment, digital accounts, and databases.

Encouraging continuous professional development based on the changing technological needs of schools.

Developing the capacity of schools to respond to technical problems, crises, and unexpected situations through better digital preparedness.

Connecting technological development with quality improvement, professional development, data use, and effective school management.

Adapting the approach to the specific needs of different educational stages and both general and technical education schools.

Encouraging cooperation between school leadership, technological development staff, professional development and quality units, teachers, administrative staff, technical staff, and students.

The innovative aspect of the practice therefore lies not in introducing a single new technology, but in creating an integrated and sustainable approach in which technology becomes part of the overall development of the school.

Success factors and conditions for replication

For the good practice to be successfully replicated in schools or educational administrations with a similar context, the following conditions are important:

Institutional conditions

Clear institutional support for digital transformation from the education authority and school leadership.

Defined roles and responsibilities for technological development, professional development, training, quality assurance, and school management.

A dedicated team or unit responsible for providing technical and professional support.

Continuous monitoring and follow-up to identify schools' needs and measure progress.

Cooperation and communication between different departments and stakeholders.

Economic and technological conditions

Availability of basic digital infrastructure, including reliable internet connectivity, computers and other digital devices.

Adequate resources for maintenance, technical support, software, platforms, and replacement of damaged or outdated equipment.

Access to continuous training and professional development opportunities.

Efficient use of available resources, particularly in schools with limited budgets.

Social and professional conditions

Acceptance of digital transformation among teachers, school staff, students, and school leadership.

Opportunities for all groups using technology in the school environment to develop the necessary digital competencies.

A culture that encourages learning, cooperation, knowledge sharing, and continuous improvement.

Consideration of differences between schools in terms of digital skills, available resources, educational stage, and local needs.

Environmental and operational conditions

A safe and supportive school environment that enables the effective use of digital technologies.

Reliable access to electricity, internet connectivity, and appropriate spaces for using and maintaining digital equipment.

Clear procedures for dealing with technical problems, equipment failure, cybersecurity risks, and unexpected situations.

Flexibility to adapt the practice to different school sizes, educational stages, and local contexts.

Successful replication does not require identical resources or technologies in every school. The core principles of the practice can be adapted to the local context while maintaining its main focus on developing people, strengthening digital systems, supporting school leadership, and ensuring the effective and sustainable use of technology.

Constraints*

Implementing this best practice faced several challenges related to disparities in school capabilities, digital skills, and infrastructure, as well as the continuous evolution of technology.

1. Disparities in staff digital skills

Levels of digital proficiency and prior experience with technology vary among teachers, administrative and technical staff, and school leadership.

Addressing the challenge:

Training and technical support programs were designed to meet the actual needs of staff; practical guidance, continuous follow-up, peer support, and on-the-job assistance were utilized to help staff gradually improve their digital skills.

2. Limited or unequal availability of digital infrastructure

Some schools may experience disparities regarding the availability, quality, and reliability of devices, as well as internet services and other technological resources.

Addressing the challenge:

Available resources are utilized according to school priorities, while technical issues are reported and their resolution is tracked with the relevant authorities. Schools are also encouraged to make effective use of existing resources rather than relying entirely on new equipment.

3. Constant changes in technology and digital platforms

Digital tools, educational platforms, systems, and technical requirements are constantly changing, making it difficult for staff to rely solely on previously acquired knowledge and skills.

Addressing the challenge:

Continuous professional development and practical support are encouraged to ensure staff receive necessary updates and guidance whenever new systems, platforms, or technologies are introduced.

4. Technical Issues and Equipment Malfunctions

Technical issues, hardware malfunctions, account problems, and system outages can disrupt educational and administrative activities.

Addressing the Challenge:

The technology development team provides technical support, identifies issues, assists users, and coordinates with relevant technical specialists when further intervention is required. Schools are also encouraged to maintain records of technical issues and the measures taken to resolve them.

5. Digital Account and Data Management

The increasing use of digital systems necessitates the careful management of user accounts, databases, and digital information.

Addressing the Challenge:

Greater emphasis is placed on account management, data accuracy, record updating, and supporting the staff responsible for digital systems and databases.

6. Resistance to New Work Methods or Difficulty Adapting

Some staff members may initially find it difficult to change established work practices or adopt new digital tools. Addressing the Challenge:

The approach focuses on phased implementation, practical demonstrations, direct support, and highlighting the benefits of digital tools in daily educational and administrative work.

7. Limited Time for Professional Development

Teachers and school staff already shoulder heavy teaching and administrative workloads, which can limit the time available for training and developing digital skills.

Addressing the Challenge:

Professional development is linked—whenever possible—to actual work requirements, providing support and practical guidance within the school environment rather than relying solely on formal training sessions.

8. Varying Needs Across Educational Stages and School Types

Technological requirements and priorities differ depending on the type of school (general or technical) and the educational stage.

Addressing this challenge:

Practices are tailored to the specific context of each school, taking into account its educational stage, available resources, staff competencies, and technological needs.

Despite these challenges, the practice has been sustained through continuous monitoring, collaboration among various school units, practical technical support, professional development, and adaptation to the evolving needs of the schools.

Lessons learned *

The experience of implementing the good practice has provided several important lessons that can support the successful development of digital transformation in schools:

Digital transformation is a process, not a one-time project. It requires continuous development, follow-up, adaptation, and improvement as technologies, educational needs, and users' competencies change.

People are at the centre of digital transformation. Providing devices and digital platforms alone is not sufficient. Sustainable transformation depends on developing the digital competencies of teachers, students, administrative and technical staff, and school leadership.

The needs of different users must be considered. A single approach cannot address all schools or all groups equally. Training and support should reflect differences in educational stage, school type, digital skills, available resources, and specific technological needs.

Practical support is as important as formal training. Staff often need direct guidance and support while using digital systems in their daily work. On-the-job assistance and problem-solving can help turn training into practical skills.

School leadership plays a key role. Successful digital transformation requires leadership that understands the importance of technology, supports staff development, encourages effective use of digital systems, and follows up on implementation.

Cooperation between different school units increases effectiveness. Coordination between school leadership, technological development staff, professional development and quality units, teachers, administrative staff, and technical staff helps address digital challenges from different perspectives.

Existing resources can be used more effectively. Digital transformation does not always depend on acquiring new technologies. Better organisation, management, maintenance, and use of existing devices, systems, platforms, and staff competencies can also produce meaningful improvements.

Preparedness for technical problems is essential. Schools should not focus only on normal operation. They also need procedures and staff capabilities to respond to technical failures, system interruptions, and unexpected situations.

Continuous monitoring helps sustain the practice. Regular follow-up makes it possible to identify gaps, respond to emerging needs, and adjust support before technological challenges become major barriers.

Digital transformation should remain inclusive. Students, teachers, administrative staff, technical staff, and school leadership all have a role in the digital school environment. Successful transformation requires that no major user group is left outside the process.

The overall lesson from the experience is that sustainable digital transformation is achieved through a combination of people, skills, leadership, infrastructure, technical support, cooperation, and continuous improvement, rather than through technology alone.

Replicability and/or up-scaling

This good practice holds significant potential for replication and scaling, as it relies on a flexible approach to digital transformation that can be adapted to various types of schools, educational stages, and institutional contexts.

The practice can be expanded incrementally—as demonstrated by the current 52 schools within a single educational administration—to encompass other educational administrations and directorates, potentially reaching a broader national or international scope.

Potential Levels of Scaling

1. Local and Administrative Level

Initially, the practice can be expanded to include schools in other educational administrations, allowing them to leverage the existing expertise, tools, procedures, training methods, and technical support mechanisms developed through this initiative.

2. Regional Level

This approach can be adapted and transferred to multiple educational administrations and other governorates. A network comprising experienced schools and specialized staff in technological development could facilitate knowledge exchange, peer learning, and the sharing of practical solutions among schools.

3. National Level

At the national level, this practice can contribute to establishing a broader framework for school digital transformation by providing a practical model adaptable to diverse educational contexts. Implementation could be supported through standardized guidelines, competency frameworks, training resources, monitoring and follow-up tools, and mechanisms for sharing good practices.

4. International Level

The core methodology can also be adapted to suit educational systems in other countries facing similar challenges regarding digital competency development and the integration of technology into school administration and learning processes. Replicating the experience internationally requires adapting the practice to align with the specific country's education system, digital infrastructure, policies, language, culture, and available resources.

Requirements for Successful Replication and Scaling

To ensure the practice is effectively replicated rather than merely copied, the following conditions should be considered:

Adaptation rather than direct copying: Core principles must remain constant, while implementation mechanisms are adapted to suit the local educational, technological, and socio-economic context.

Clear implementation framework: A structured framework should be established, outlining key objectives, target groups, responsibilities, activities, support mechanisms, and expected outcomes.

Strong institutional ownership: The implementation process requires formal support from education authorities and school leadership, with clearly defined responsibilities for the relevant units and staff.

Adequate digital infrastructure: Schools require minimum levels of connectivity, hardware, digital systems, technical support, and maintenance capabilities; the required level may vary depending on the context. Capacity building: Staff responsible for implementation need appropriate digital, pedagogical, technical, and administrative competencies. Training should be continuous and aligned with the actual needs of the schools.

Local support structures: Each new context requires a mechanism for providing technical assistance, professional development, monitoring, and problem-solving, rather than relying solely on centralized support.

Monitoring and evaluation: The scaling-up process should include measurable indicators to track implementation, identify gaps, document results, and support continuous improvement. Knowledge sharing and peer learning: Schools that have successfully implemented the practice can serve as reference or mentor schools, supporting others during the scaling-up process.

Sustainable resources: Scaling up requires realistic planning regarding equipment, connectivity, maintenance, training, technical support, and human resources. The model should also ensure the efficient use of available resources whenever possible.

Engaging all users: The scaling-up process must continue to involve students, teachers, administrative and technical staff, and school leadership, rather than focusing solely on teachers or technology specialists.

A scalable model

A practical model for scaling up can follow four stages:

Piloting → Documentation → Adaptation → Scaling up

First, the practice is tested and documented in a select group of schools. The experience and lessons learned are then used to develop practical guidelines and tools. These tools are adapted to suit the needs of new schools or the specific educational context, followed by a phase of gradual scaling up accompanied by continuous monitoring and improvement.

This approach allows the practice to grow while preserving its core elements: human-centric digital transformation, continuous professional development, effective technology management, technical support, school leadership engagement, and continuous monitoring and improvement.

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The contact person can provide further information about the good practice, its implementation in the 52 affiliated schools, the activities carried out, the lessons learned, and the possibilities for replication and upscaling.

URL of the practice	<i>https://www.linkedin.com/in/huda-taryal-2009401ba/</i>
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Related resources that have been developed	<i>To implement and document this best practice, a range of supporting resources and digital documentation materials were developed and utilized, including:</i>
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Training materials and practical guidelines used during professional development and awareness-raising activities focused on digital transformation, technological advancement, crisis management, and the effective use of digital systems in schools.

Training presentations and supporting materials used to explain digital tools, technological procedures, and appropriate mechanisms for addressing technical challenges and unforeseen situations.

Visual documentation of selected training activities and professional development sessions conducted with school staff, in collaboration with an international organization, and shared via LinkedIn.

Online documentation materials can be viewed via the contact person's LinkedIn account:

LinkedIn: <https://www.linkedin.com/in/huda-taryal-2009401ba/>

Additional training materials, photos, presentations, and supporting documents can be provided by the contact person upon request, subject to institutional requirements and relevant data protection regulations.

These resources facilitate documentation, the transfer of best practices, and the replicability of this practice in other schools and educational contexts.
