

Elevating Education for the Children of Egypt





Introduction

"Books...toys...games...school is fun! I love my friends, too!" Safiya thought as she passed a wooden block to Ahmed. The building was almost complete. Would the structure hold? Ahmed stretched his arm high up, placed the curved piece on top, and smiled. It was done!

New Steps

The IIE Scholarships and Training for Egyptian Professionals (STEP) program introduced a new Early Grade Learning Assistance program to advance long-term economic and social development goals for USAID and Egypt. This one would focus on the littlest of learners. Whereas the Higher Education Initiative's scholarships were designed for talented *young women* to grow their abilities *in the United States* and then return to Egypt, this new element sought to spur gains among Egypt's *girls, and children in general,* by providing training and technical assistance to *teachers and administrators in Egypt.* This program was designed as an implementation of the Ministry of Education and Technical Education's new Education Version 2.0.

Such assistance would join a stream of reform initiatives that had flowed through the land in recent years. Most recent were the Girls' Improved Learning Outcomes (GILO) and Technology for Improved Learning Outcomes (TILO) projects that ran from 2008 through 2013. Those projects started in Upper Egypt and eventually enriched school environments across the country. They focused on grades 1 through 3 and emphasized basic reading comprehension. This new IIE STEP program would focus on the early grades, too, but it would encompass reading, writing, and mathematics, and it would establish a foundation for subsequent grade levels. IIE STEP would also encourage dialog between education trainers and Ministry of Education and Technical Education (MOETE) officials during group sessions. In the larger picture, these activities would undergird the pillar of Education & Training that is integral to the national government's sweeping Vision 2030 (sdsegypt2030.com/social-dimension/education-training-pillar).

For this program, IIE became USAID's implementing partner and Keys to Effective Learning ("Keys") became a subcontractor. These core members of the IIE STEP team collaborated with multiple Egyptian entities, including the MOETE, the Education Support Fund (ESF), the Professional Academy of Teachers (PAT), Arabic and Math Subject Counselors, the Center for Curriculum and Instructional Materials Development (CCIMD), and the National Center for Examinations and Educational Evaluation (NCEEE). Together, these stakeholders identified program objectives, roles, and responsibilities; established quality standards for basic education; and defined measures of progress. The team led the rollout of the program with oversight from USAID/Egypt's Education technical office.



Historical Foundation

This program continued the progress that had accompanied previous education reforms. USAID/Egypt and the MOETE had introduced upgrades to Early Grade Learning (EGL) in 2010 and 2011 through a reading skills pilot project in four northern governorates. GILO and the MOETE then implemented a second assessment of reading skills among 3,000 children in project-supported and control schools. They discovered that the newly designed instructional materials and classroom exercises had yielded significant gains in reading skills such as letter sound knowledge and word reading. Concurrently, TILO integrated technology into classroom teaching with a focus on critical thinking, problem solving, classroom management and teaching methodology for primary schools. Buoyed by their success in Upper Egypt, these projects evolved to support both the national rollout of the MOETE's EGL Program and the decentralization of the MOETE into governorate-level planning teams. By 2013, training and instructional materials in Early Grade Reading had reached 83,000 teachers across grades 1-3. Another reform effort focused on remedial reading and writing activities for struggling fourth and fifth grade readers in ten governorates along the Nile River and near the Mediterranean coast. The remedial reading program used phonics-based activities, teacher training, and classroom materials to elevate students in grades 4-5 to grade-level literacy.

Impetus for IIE STEP



eacher engages students in classroom activity

Those activities strengthened pedagogy and enriched student learning, but the MOETE and USAID officials realized there was still much opportunity for improvement and expansion. Many teachers in Egypt had completed only rudimentary training on teaching techniques. They adhered to outdated methods that emphasized repetition, did not stimulate critical thinking, and did not adjust for individual students' needs. Most teachers also lacked fundamental knowledge in technical areas that would be of growing importance as national priorities shifted towards science, technology, engineering, and math (STEM).



Short Term Technical Assistance

In 2014, IIE STEP introduced
Short-Term Technical
Assistance to address such
shortcomings. This assistance
focused on primary learning
and remedial reading skills, and
leveraged modest support from
USAID. The Cairo-based IIE
STEP team hosted training
workshops for EGL
practitioners from all 27
governorates of Egypt.



Attendees enjoy conversation during training session

Each session typically engaged over 100 teachers and administrators who were involved in kindergarten through grade 3, plus additional senior representatives from the MOETE. Sessions covered these topics:

- How to mentor teachers and lead school-level initiatives
- How to plan the implementation of new teaching methods and materials for Early Grade Reading and Mathematics
- How to monitor and evaluate the quality of training, teaching, and learning within a governorate
- How to provide constructive feedback to training staff

IIE STEP also distributed the workshop content to Early Grade Reading and Mathematics schools across Egypt. The core team made the training materials available digitally in the form of 17,000 compact discs. In addition, the MOETE placed the content on its web site so teachers and administrators could access such guidance online.

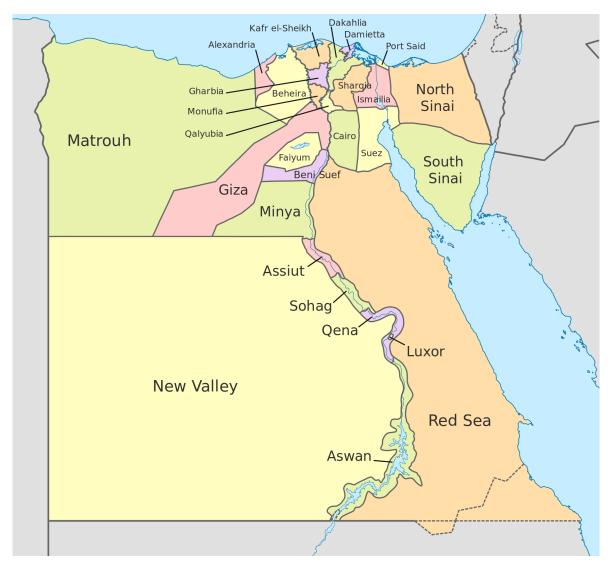
IIE STEP and its subcontractor, Keys, also conducted 471 observations of teacher training sessions nationwide. These observations gave trainers a clearer understanding of how to impart concepts to teachers in their respective geographic areas.

This Short-Term Technical Assistance was important not only for the sake of children's education, but also for the pursuit of long-term organizational sustainability. The Egyptian attendees would have to understand and embrace the training content fully enough to impart it to their colleagues on school campuses in each governorate.



Governorates in Egypt

Governorates are politically and geographically defined areas that are somewhat akin to provinces or states in other countries. The Technical Assistance program engaged educators throughout Egypt.



This vector image includes elements from Egypt, administrative divisions — Nmbrs - colored.svg (by TUBS). commons.wikimedia.org/wiki/File:Egypt,_administrative_divisions_-_Labels_-_colored.svg



Large-Scale Early Grade Learning Technical Assistance

Following these Short-Term Technical Assistance sessions, the MOETE saw the need for further investment in EGL education. National early grade reading and math assessments in 2015 showed that grade 2 and 3 students had not fully mastered foundational skills. For example, the children struggled to identify letter sounds or to use subtraction properly on math problems.

Subsequent technical assistance and capacity building projects would serve to improve students' core skills. In early 2016, IIE STEP conducted a large EGL training project for teachers that spanned the majority of the year. IIE STEP then launched a broader and deeper wave of EGL Technical Assistance in 2017. Acting in response to a new request from USAID, the core team of IIE and Keys delved further into Early Grade Learning. Over the next 18 months, STEP brought new strategies into the teaching of math, reading, and Arabic language skills, in alignment with MOETE's version 2.0 Education Initiative. Problem solving, high level questioning, conversational exercises, and group activities became more integral to each lesson plan. Training and assessment were again the primary mechanisms to instill and monitor these pedagogical methods.

Early Learning Priorities

STEP set a baseline and then studied data to identify opportunities for improvement. The IIE STEP team started its 2017 activities by conducting a gap analysis prior to the start of each activity. These short assessments examined the current state of Early Grade Reading and Early Grade Math, resulting in a fuller understanding of the strengths and weaknesses of the existing system. They also enabled the team to target assistance to areas of need. The analysis encompassed a review of these items:

- Existing textbooks in grades 1 through 3
- Teaching manuals
- Teacher development system
- Coaching and mentoring system
- Continuous performance monitoring system

The team believed deficiencies in these areas played a role in the low levels of learning in reading and math among the children of Egypt. (According to the 2015 *Trends in International Mathematics and Science Study* and the 2016 *Progress in International Reading Literacy Study*, more than half of the students in Egypt did not meet the low benchmarks in international learning assessments for reading, mathematics, and science. Egypt ranked at the bottom of the participating countries: #49 out of 50 countries for grade 4 students in reading, #34 out of 39 for grade 8 in mathematics, and #38 out of 39 for grade



8 in science.) Under the leadership of Norma Evans for math and Helen Boyle for reading, the team identified the gaps and then developed twelve teaching strategies and fourteen fluency strategies to address those gaps. The team also convened stakeholders from the MOETE to map a plan for the introduction of modernized teaching approaches in math and Arabic. The IIE STEP team produced an EGL Implementation Strategy in late 2017 and early 2018 that would guide forthcoming interventions and assist the MOETE in finalizing the Year One work plan. Educators and advisors from IIE/STEP, USAID, the Central Department for Basic Education, and the Professional Academy for Teachers provided feedback for the final version. The EGL Implementation Strategy aligned with the MOETE's Education Strategic Plan through 2030.

Over the course of the year, the team produced a succession of guides for classrooms in grades 2 and 3, plus Remedial Reading program materials for grades 4 through 9. (A separate contractor addressed grade 1.) Teachers, supervisors, and principals all received versions that were tailored for their positions. For each kind of educator, there was a math guide, an Arabic Language guide, and an EGL guide. The Remedial Reading guide focused on language fluency and reading comprehension. Each guide included a sequenced set of scripted lessons and lists of knowledge-building goals for the children. The IIE STEP Team also ensured the math, Arabic, and EGL materials would be accessible and friendly for students with learning disabilities or other special needs.



Boy recognizes written characters

Training and Technical Support

STEP used a cascading model to encourage adoption and understanding of these materials. The team created a complimentary Trainer Manual for each of these academic subjects and hosted a series of train-the-trainer session to impart the subject matter to trainers. A training session typically ran for five to six days and engaged 84 trainers who collectively represented all 27 governorates.

These activities sounded promising, but how would the IIE STEP team and education officials know whether the lessons were taking root and making a difference among teachers and schoolchildren? The team created a set of Student Mastery Monitoring



classroom observation tools for designated school monitors to use in Early Grade Reading and Early Grade Math classes. They also instituted a Monitoring & Evaluation System for the recording and analysis of findings that pertained to reading, math, and remedial learning. Observers used these items to comment on activities in the classrooms, and the STEP team then became aware of progress plus areas that required more – or different – interventions.



Attendees listen carefully during training session

At the end of a training session, an attendee would pack up a set of Training Resource Kits to bring back to his or her home community. That trainer would then share newfound wisdom with local educators.

To further aid in the new teaching approaches, IIE STEP sent interactive digital resources to the schools and prepared the MOETE trainers so they could guide local teachers and administrators through this content. These materials were designed for grades 1 through 3. A flurry of 20,000 DVDs spread across the country and into Early Grade Learning classrooms from the Nile River Delta to the Aswan Dam, and from the Red Sea to the Libyan border. These items were mapped against the MOETE's new 2.0 curriculum for EGL. In many rural schools, equipment was sparse and Internet connectivity was almost nonexistent, so the digital content was designed to be easy to use on CD players, on desktops, and offline. Even at a basic level, the content was interactive. Teachers could access a digital "flip book" that helped them teach the alphabet by using sounds and letters, additional instructional tools for word segmentation and the learning of sounds, materials from Egypt's Knowledge Bank for Math, and interactive educational games.

The training program was not finished, however, as the IIE STEP team was also concerned about the tiniest of the children. How might project-based learning engage children's visual, auditory, verbal, kinesthetic, and tactical learning styles and senses at the earliest school ages? To answer this question, team members prepared manuals for trainers to impart to teachers and supervisors at the kindergarten-1 and kindergarten-2 (KG1 and KG2) levels. Stacks of 1,800 trainer manuals, 2,300 training kits, and nearly 73,000



participant manuals reached the colorful classrooms and bulging briefcases of teachers and supervisors across Egypt.

This round of technical assistance also benefited students beyond grade 3 who required remedial assistance. IIE STEP built the capacity of 60 trainers from the MOETE to deliver guidance and materials on remedial reading to educators across all governorates. This component would raise remedial students up to grade-level competence.



Educators encourage literacy as part of Egypt's Curriculum 2.0 school reforms

To further ingrain the new EGL strategies, IIE STEP also prepared materials for administrators. Principals and teacher supervisors received guidebooks that helped them recognize and encourage high-quality teaching practices within the classrooms, provide constructive criticism to teachers, and manage school resources effectively. This guidance was especially helpful in the wake of recent decentralization efforts that had transferred several decision-making responsibilities from the national level to the school, district, or governorate level. Administrators learned how to play more instrumental roles in the management and implementation of new education strategies.

To wrap up this round of training and technical assistance, IIE STEP hosted a full-day debriefing meeting with trainers, classroom monitors, Ministry officials, and other instrumental stakeholders in fall of 2018. This event enabled attendees to share their observations about project successes, lessons, and recommendations for the future.



Scale of Impact

These figures provide a glimpse into the scale of this nationwide program. The program reached educators in all 27 governorates of Egypt:¹

• For Short Term Technical Assistance:

- o Training sessions on mentoring, leadership, monitoring, and evaluation
- o Training session observations in local schools by IIE STEP and Keys

For EGL Classroom Teaching:

- o Training for 6 days for 84 MOETE trainers
- o Trainer Manual for 84 MOETE trainers
- o Classroom Teaching Guide
- o School Principals Guide

• For Math Grades 2-3:

- o Training for 5 days for 84 MOETE trainers
- o Trainer Manual for 84 MOETE trainers
- o Training Resource Kits to support EGL Math: 3,200 copies
- o Teacher Guide
- o Supervisor Guide



Team prepares boxes of materials for delivery to schools

¹ Numbers are rounded for ease of reading.



• For Arabic Language in Grades 1-3:

- o Training for 5 days for 84 MOETE trainers
- o Trainer Material for 84 MOETE trainers (grade 1 Arabic)
- o Trainer Manual for 84 MOETE trainers (grades 2-3 Arabic)
- o Training Resource Kits: 3,200 copies
- o Teacher Guide
- o Supervisor Guide

• For Kindergarten:

- o Training for 5 days on Curriculum 2.0 for 840 MoE Master Trainers
- o Training for 4 days on Curriculum 2.0, by these MOETE Master Trainers, for 29,000 kindergarten teachers
- o Training for 5 days on coaching, mentoring, and Curriculum 2.0 for 900 kindergarten supervisors
- o Trainer Manuals: 1,800 copies
- o Training Resource Kits: 2,300 copies
- o Teacher Guides: 72,800 copies
- o Follow-up visits to 760 kindergarten classrooms in 19 governorates
- Debriefing for 1 day to identify project successes, lessons learned, and recommendations for the future, engaging 70 participants (EGL Coordinators, Keys Expert Trainers/ Monitors, CCIMD, MOETE Kindergarten Department, and Education Support Fund representatives)



• Further Assistance:

- o Gap Analyses for Early Grade Reading and Early Grade Math
- o Early Grade Learning Year 1 Workplan and Implementation Strategy
- Classroom Observation Tools to assess teaching practices
- Master Monitoring Tools to assess student learning
- Monitoring & Evaluation system with framework, indicators, and monitoring tools
- Monitoring & Evaluation Guide for MOETE monitors to evaluate EGL and Remedial Program milestones
- o DVDs with digital resources on EGL: 20,000 copies for grades 1-3
- Remedial Reading Teaching & Learning Materials for 60 MOETE trainers



Truck is loaded with educational materials for distribution to schools nationwide

This extensive effort earned accolades from education officials. The Head of the EGL Committee, Hassan Fares, reflects, "I was surprised during the implementation of kindergarten 1 & 2 training that I did not receive any calls of issues or complaints from the field. On the contrary, the response was a testament to the excellent planning, coordination, and high quality training provided by the IIE / Keys implementation team." (*Translated from Arabic*). Careful attention to logistics and ongoing collaboration with officials helped ensure the smooth rollout of the curriculum and training materials.



The River Ahead

These currents of change are winding their way towards a more fertile learning landscape. On a promising note, the STEP program has encouraged a fundamental shift in the MOETE's methods of student assessment. IIE STEP EGL Advisor Hala El Serafy explains, "There will not be a high-stakes make-or-break test every few years. Education was too test-driven and memorization-driven. That was a major problem, as shown in the results of international assessments. In response, this [STEP] program helps children think critically, develop skills, and enjoy learning. The pedagogical approach is project-based and skills-based. The children often work in teams." Approaches to students' development will become more holistic, drawing upon concepts such as Harvard professor Howard Gardner's Theory of Multiple Intelligences.

International education observers are noticing the change. As an example, in 2018, the World Bank produced a preliminary *Education and Aspirations* report with observations that "the program introduced by USAID and the Ministry of Education and Technical Education in Egypt showed promise and is being scaled up...second-grade students who received six months of intervention improved their performance by an entire grade level [and the] president of Egypt...has been advocating and supported major reforms [to overhaul] the education system, shifting from the traditional rote learning...to a modern system that focuses on learning and skills." The baseline studies and reporting systems from reform efforts such as GILO and STEP will enable domestic and foreign researchers to observe and study trends in learning outcomes from the start of these initiatives to well into the future.

Downstream, the current of change will hasten and widen. Expansion of kindergarten education is likely for the achievement of further gains in EGL (At present, KG1 and KG2 exist in only 30% of public primary schools nationwide.). In addition, STEM education will become infused in more grade levels. The national government intends to bring STEM model schools to all governorates by year 2020. To accompany such progress, STEM teacher development may extend to postgraduate certification courses plus formal teacher training partnerships between universities' faculties of education, science, and engineering. Further definition and dissemination of education quality standards and resource investments may elevate the performance of students in foundational skills and more advanced subjects.

For girls and boys like Safiya and Ahmed, the river of opportunities is clearer and wider than ever before. These children may enjoy smooth learning journeys well into the future.



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- Hala El Serafy Early Grade Learning Advisor for IIE STEP

United States:

- David Simpson Director, IIE STEP
- Lindsay Hillenberg Senior Program Manager, IIE STEP

To learn more about IIE STEP, please contact these program leaders:

- David Simpson at dsimpson@iie.org
- Dina Kafafi at <u>dkafafi@iie.org</u>.