

EDUCATION 2.0

CHRONICLES OF TECHNOLOGICAL
AND CULTURAL CHANGE IN EGYPT

EDITED BY
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13. Redesigning the Curriculum for the Twenty-First Century: Interview with Nawal Shalaby

*Linda Herrera*¹

Abstract

The Education 2.0 reform represented the largest leap in curriculum development since the establishment of the Center for Curriculum and Instructional Materials Development Center (CCIMD) in 1989. Its director Dr. Nawal Shalaby, led efforts with her team to draft new curriculum frameworks and oversee the production of the new books. They worked with representatives from private textbooks companies and UNICEF, among other experts. She talks about the history of curriculum development in Egypt, the necessity for more teacher training and preparation at the faculties of education, and the need for effective monitoring to know if and how the objectives of Education 2.0 are being realized on the ground.

Keywords

citizenship education, curriculum development, curriculum framework, life skills, private sector, textbook production, UNICEF

1 This interview was conducted by Linda Herrera in Arabic at the CCIMD office in Cairo on 18 February 2020. Thanks to Nairy AbdElShafy for filming the interview and to members of the Education 2.0 Research and Documentation Project for translating and transcribing it. To see five video excerpts from this interview, see the EDU 2.0 YouTube Channel, <https://www.youtube.com/@education2-Egypt/videos>

1. The Origins of Education 2.0

LH When was the first time you heard that the Ministry of Education wanted to develop a new education system called 'Education 2.0'?

NS² The first time I heard about it was from Dr. Tarek, after he was appointed Minister of Education in February of 2017. He was talking about his dream of revising education in Egypt and moving our system out of what he calls 'Education 1.0', and into 'Education 2.0'. At the time, I was the head of the Curriculum Development Research Division at the National Center for Educational Research and Development (NCERD) and not yet the Director of CCIMD (Center for Curriculum and Instructional Materials Development). Our group met Dr. Tarek in a meeting where he explained the idea in more detail.

LH What was your initial reaction?

NS I felt it was a beautiful but difficult dream because our circumstances are very challenging. Take the physical environment in schools; we have large classroom sizes and a shortage of teachers. We would also have to train all the teachers. Even now, after making big strides on the ground, all those difficulties weaken the results we want to achieve. I thought that we didn't have adequate tools to make the transition to Education 2.0 in the way we wanted.

LH Prior to the start of the 2.0 reform, what kinds of curriculum work were you engaged in at NCERD?

NS As I said, I had recently become the head of the Curriculum Development Research Division at NCERD. All our research was about developing the old 1.0 system, not making a transition to a new system. In 2017, we were deep in discussions about twenty-first century skills. We did a series of research studies which included some modeling around how twenty-first-century skills could be included in

2 Dr. Nawal Shalaby received her PhD in Science Education from Alexandria University and was a full professor at the National Center for Educational Research and Development (NCERD) prior to serving at the Director of the Center for Curriculum and Instructional Materials Development (CCIMD). For more details see her LinkedIn profile at <https://www.linkedin.com/in/dr-nawal-shalaby-6bb036a6/>

the curricula. We came up with a proposal with policy suggestions, but it was not implemented. These were just research findings. We designed some teacher training modules on these skills, but we were not working towards this big transition. I also worked previously on developing curricula and writing books here with the Center, but it was all about 1.0, not this big shift we are seeing now.

LH What are the main differences between EDU 1.0 and EDU 2.0 from the point of view of the curriculum?

NS In terms of curriculum, we had been trying to incorporate twenty-first century skills and values, but these were not a major part of the 1.0 curriculum. They would become central to the 2.0 curriculum. The old textbooks had sections on skills in a marginal way, in boxes outside of the main text. We used to talk a lot about developing critical thinking skills, but this was not a main or organic part of the curriculum. It was organic to the 2.0 curriculum. In 1.0 we trained the teachers on scientific content, rather than on the teaching methodology and skills' development. We did not tell them how to nurture students' skills and achieve results in class. As you can see, there is a big difference between 1.0 and 2.0 when it comes to the curriculum.

LH Can you give examples of the types of twenty-first century skills being integrated in the new curriculum?

NS We are teaching them how to express themselves, how to write about themselves, how to describe themselves. For example, we have an activity for the student to write their own CV. Students in primary learn how to sit for an interview and write a CV, the book has a template for this. This will help them later when they apply for jobs. They will not have to take a separate professional development course later on. We give students the basics to be able to achieve their professional dreams. Our goal is to build the character of someone capable of living in the twenty-first century, capable of facing twenty-first-century problems that we don't even know about yet. They will live in an age that is not ours, so we are trying to equip them with skills for the future. Countries throughout the Arab states and all around the world are working on these issues. They are working on building a personality, on nurturing skills and values. We are working heavily on building the Egyptian character (see Fig. 13.1).



Fig. 13.1 A lesson from the Grade 1 Arabic textbook about a girl who dreams of being an explorer. Ministry of Education and Technical Education, 2021, pp. 145 and 151.

2. Developing New Curriculum Frameworks

LH I understand that in the beginning, Dr. Tarek told his advisory team to come up with ideas starting from a blank page, without worrying yet about on-the-ground realities. What were some things you wanted to see implemented in the education system?

NS Yes, that is true. It was 2017, and the dream was to prepare and equip the learner for 2030. We thought about what we wanted the graduate of 2030 to look like. And yes, we—the Minister, his advisors, and members of my team—actually started from a blank page. We sat on that table (points to a long table in her office) and looked together at a number of studies, research, and frameworks from different countries. We were especially interested in those with high rankings in education like Singapore, Malaysia, Europe, and the US. We started to see what those countries wanted their kids to be like and compared that with what we wanted ours to be like. We took both global and national factors into consideration. We identified a group of traits we wanted for our students to possess. We agreed that they should be thinkers, creative, innovative, and continuous learners, able to be competitive internationally, while believing in values, our heritage, and our country. We wanted them to have a strong work ethic and to understand entrepreneurial skills and concepts. These goals led us to a long and extensive process.

LH How did you go from identifying features you wanted for the graduates of 2030, to developing concrete curriculum frameworks?

NS We started by asking if we could reach those twenty-first century characteristics through a traditional curriculum. Of course, we came to the conclusion that it was impossible. So, we started researching other curriculum models that integrate these skills. While we were doing this search, something just came to us. It seemed like a coincidence, but it was not really because when you seek, this can happen. At this time, UNICEF was preparing to launch a global initiative for Life Skills and Citizenship Education (LSCE). UNICEF invited the Ministry and CCIMD to discuss it with them before their launch conference in Amman, Jordan. We went and addressed a few questions as Egypt. We mentioned that we were very interested in twenty-first century skills, but

we had the challenge of how to integrate them into the curricula so that they would become a reality in the classroom. We lacked experience in this area. And it is not wrong to admit when you lack experience. When we returned from the launch conference, we sat together to discuss how we could adopt UNICEF's 12 Life Skills Framework. We decided to add two very important skills for our context in Egypt: 'productivity' and 'accountability'. So, we modified the UNICEF framework and decided on fourteen instead of twelve Life Skills. That was the first thing. The second thing was that we needed these Life Skills to build the student's character and value system. For that, we Egyptians had to come together to put down the values that our society needs now and in the future. (see Chapter 7 and Chapter 10 in this volume).

Third, we decided to put together a general framework that includes our approach to educational thought and philosophy from KG to Grade 12. This framework addresses the major challenges and issues our learners would likely face locally and globally until 2030. We mapped all the different issues and grouped them into five main categories: Health and Population; the Environment; Globalization; Non-Discrimination; and Citizenship. This became the framework of 'issues' to be incorporated in the curricula from KG to the end of high school in Grade 12.

We wanted to be very intentional about the curriculum. We at CCIMD had struggled over the years with ad-hoc additions to the curriculum. Even after finalizing a curricula, different ministries and civil society groups would ask us to add things to it. For example, they wanted us to fit in a lesson about overpopulation, reproductive health, women's rights, smoking, child's rights, et cetera. When these new topics were added to the textbooks, they would lose cohesion. So, from the beginning, we included all the key themes and topics to avoid this problem.

LH Why did you decide to adopt a multidisciplinary approach for KG-Grade 3?

NS We decided early on that the multidisciplinary approach, or the thematic approach, is the most suitable for the early years. We agreed on four main themes: Who am I?; The world around me; How does the world work?; and Communication. In the multidisciplinary books there are basic concepts from science, math, social studies, vocational or career skills, and the arts. This was the first time that the arts and

professional skills were incorporated into the curriculum. We developed a set of learning outcomes which guided us. We did not want to teach about skills in a superficial way, but in a way that would teach values and really address the issues.

We found that even though the multidisciplinary curriculum includes language and mathematics, we needed to open 'windows' for language and mathematical foundational skills. We made an 'Arabic Window' and a 'Mathematics Window'. These are specialized areas with specific time in the classroom. Even though they are separate, they are completely related to the multidisciplinary curriculum. For instance, in the 'Arabic Window' we teach the child letters and words. In the 'Mathematics Window' we teach counting, addition, and subtraction. When the child enters the multidisciplinary class to practice these skills, they have activities like buying and selling. So here, the student uses both numbers and words. The themes of the multidisciplinary curriculum are even present in religious studies and physical education.

LH Can you give examples of how you applied the multidisciplinary approach to the subject of religion, whether Christianity or Islam?

NS For example, the Christian Religion book is parallel to the Islamic Religion book. If we put them next to each other, we will find that they follow the same themes, starting with 'Who am I?'. We will also find the same activities. The only difference is that one book pertains to Islam and the other to Christianity. Those books are founded on a common and agreed upon set of values. We told the publisher who created the books that in the section 'Who am I?' we want to nurture values of cleanliness, order, and respecting others. For example, in the religion book for Islam we asked for all the Hadiths (saying of the Prophet Mohamed), Quranic verses, and practices of the Prophet that nurture those values. The same goes for Christianity. It is the first time that the books for Islam and Christianity were created from one company, Nahdet Misr. They have two teams working side by side in parallel, agreeing with each other about what to include from the Quran and what to include from the Bible (see Chapter 15 in this volume). We also use project-based and play-based activities so that pupils can learn more about who they are, what is special about them,

their relationship with the people and the world around them. This really was the first time for this to happen through Grade 3.

3. Building Professional Capacity at the Curriculum Center

LH This curriculum reform was based on a different methodology and pedagogic approach. Your staff at CCIMD had expertise in the old system, Education 1.0. How did they gain the proficiency to lead the work on the new 2.0 approach?

NS We had a challenge in terms of the curriculum work. Back when we started, we were only thirty people. Now, we are around fifty. The work being done needed 120 people. We have a team of what I will call 'curricula practitioners'. They have twenty to twenty-five years of experience. But we did not have the experience of knowing how all these curricular changes could become a reality in the classroom. To be honest, we suffered a lot in the beginning and had a lot of problems. We started by telling the colleagues that we would be working on this big transition, that we were no longer interested in rote learning and memorization. Some individuals were afraid and were clinging to the past. They were attached to the old conservative ideas, especially learning through memorization. But we constantly tried to support and help them. There has been a big change in the past three years.

For example, we had huge fights when we were discussing the multidisciplinary approach. Our subject experts in mathematics, Arabic, and science wanted to assert themselves and stick to individual subjects in the curriculum. We had scenes of fighting and crying. Every team wanted to get the lion's share of the book and activities. We took a lot of time to explain that our goal was to produce one learner with appropriate doses of each subject, and that these were connected to the learning outcomes. To achieve the outcomes, we had to build on criteria and indicators. We combined some things and got rid of others. The team started to understand that the issue was about cooperation, not competition. The second thing was fear. They were very afraid.

LH What were members of your team afraid of?

NS They were afraid that the experiment would fail, that CCIMD would be the victim of a failed experiment and that it would be sacrificed. Previous ministers had shut down the Center. One of my colleagues said: 'Why would you put us facing the cannon? Why us?' They also said things to the effect that Dr. Tarek's ideas seemed like a fantasy. They asked why we should be the ones to implement them. They asked if other Arab countries had done this before. They asked why we had to build something new? Why could we not just improve the current system? One person who used to say all these things, adamantly defends the new system today. They started changing their attitudes after getting heavily involved in the actual work. Today, when anyone in the Center talks about the 2.0 curricula, it is as if they are talking about their children that they created. I am honestly very happy about the change that happened.

LH Did your staff undergo any kind of professional development trainings? How did they learn about working on a different approach to the curriculum?

NS We studied and searched a lot for how to do this. And again, we resorted to UNICEF which had similar experiences in other countries. We, on behalf of the Ministry of Education, asked UNICEF to help to build the capacities of CCIMD in this field. Over three months, we conducted several workshops with the CCIMD staff about how to incorporate skills, values, and other issues into the Egyptian curricula, starting from KG. We wanted to make sure that these issues entered the classroom through the teacher.

LH How did you run these workshops with UNICEF?

NS I will tell you about something I did to get them to be really involved in the work. We had a workshop here to build capacity in the new curriculum. It was one of the first workshops. Even the Minister Tarek Shawki was skeptical about whether we could be ready for the start of the school year in 2018. We had under a year to finish our work. I invited the Minister to attend the workshop without telling the team. He not only came, but he stayed, and this brought a lot of positive energy. I told them, 'You are now working on a new educational system. Dr.

Tarek wants the books on the desks in schools by September 2018'. I said, whoever agrees to work towards this goal should raise their hand. I was met with massive clapping in the hall. Even the Minister said that this workshop had tons of positive energy. I found them all clapping and promising that the kids will find the books for the new educational system in September. This is one of the things that makes me really proud. We passed great days during this period, even with all the suffering we had to go through. We got home very late. We barely saw our children. It was hard.

4. Working under Pressure

LH You had to work under enormous time pressure to finish the curriculum frameworks and books for KG1, KG2, and Grade 1 in time for the start of school year in September (2018). How did you handle this?

NS Yes, and Dr. Tarek knew very well that we needed, and still need, a staff of 120. We were working three shifts. We worked in the morning, we worked midday, and sometimes we would go home at midnight or 1:00 in the morning. And some days in Ramadan we would have suhoor (the pre-dawn meal) here in the office. There was no other way we could do it. We believed in this and took responsibility for the work. We had to do everything right.

LH Did you find a difference between how, for example, older or younger colleagues in your team worked under this pressure?

NS No, there were no differences of this sort. But sometimes in the work there were problems with women to be honest. I am not sure if this is relevant or not, but their husbands caused us problems (laughs). For example, one time we were at a workshop and our colleague, a female chemist, was doing an important presentation. She was in the middle of explaining something when her phone rang. It was her husband, complaining that she was late. She excused herself and said 'Dr. Nawal, if I do not go home now my husband will divorce me!' So, I told her 'No, get divorced. Divorce is good' (laughs).

LH Is she still married?

NS Yes, thank God (laughs). Many times, we would have to call the fathers of unmarried female colleagues and tell them, 'Please do not worry, they are with us'. We would drive them to their homes after work at night because sometimes we would finish at 1:00 a.m. Honestly, we faced many of those problems.

LH How did the long hours and pressures of the work personally affect you? I know your family is in Alexandria and you stay in Cairo during the work week.

NS Yes, I am from Alexandria, but God takes care of these things. My daughter is older now and can manage her life, and I am happy and proud of this. She is very excited about the new curricula, really. Sometimes when I get tired, I tell her I can stop and someone else can continue in my place. She says, 'Never! Do not ever leave this experience until it is firmly in place. Do not leave your work until you feel that you have built a good and sustainable structure'. Of course, this has taken a toll on me. I do not see my daughter and mother as much as I used to, just once every fifteen days. And yes, work affected my life a bit, but my life does not affect my work, thank God.

LH Were you able to finish the new books in time for the start of the school year in 2018?

NS We began in August 2017 and in September 2018 we finished the curriculum framework with educational outcomes for all subjects. The Ministry was training teachers (with Teacher's First). The Ministry used different companies to create the educational materials for KG and Grade 1. In fact, we received great feedback from those local, Arab, and multinational companies. They confirmed that our frameworks were on par with international standards. Thank God I have a great team, great in intellect and effort. They all have an honorable history (see Fig. 13.2).



Fig. 13.2 A UNICEF function to celebrate the achievements of the Ministry of Education and Technical Education and the Center of Curriculum and Instructional Materials Development (CCIMD) in support of Education 2.0. From left: UNICEF Representative in Egypt Bruno Maes, Minister of Education Tarek Shawki, Director of CCIMD Nawal Shalaby, 12 May 2019. Wikimedia Commons, CC BY-SA 3.0, https://commons.wikimedia.org/wiki/File:UNICEF-TarekShawki-Nawal_Shhalaby.tif#/media/File:UNICEF-TarekShawki-Nawal_Shhalaby.tif

5. History of the Curriculum Center

LH What is the history of the Center? How long has it been overseeing curricula and textbook development in Egypt?

NS We can talk about curricula in Egypt before the Center in 1989, and after. Before 1989, we would get a group of people who would sit and create a schoolbook, without goals, without learning outcomes, without anything. After 1989, the curriculum in Egypt was based on scientific methods. This started with the arrival of a new director named Kawthar Kojak who propelled this center forward. I really loved this woman. This was the first time that there was a specialized center in Egypt for curricula. I came to the curriculum center after I finished my Ph.D. I was employed at the NCERD, so I worked here on secondment. This is where

I learned how to deal with curricula in a professional way. From early on, Dr. Kojak was concerned with building our professional capacities. I am one of the people whose capacities she built in this center.

She would bring us foreign experts. Back then, there was a project from USAID for developing primary curricula and I worked on that project. There were really good people here, big names, names that we had only read in books. I still remember there was David Butts, Professor of Curricula and Teaching Methods of Science (1973, 1974). He used to come and sit with me specifically and discuss astronomy concepts so that I could see how to integrate them into the curriculum. It was really great.

In 1990, Dr. Kawthar got the director of Macmillan to stay here for six months to teach only one person how to be a textbook editor. And that person was me. Yes, they picked me. But we would hold workshops about how to edit textbooks with the whole team who would listen, comment on, and discuss the process. We would roleplay. I would be a creator working on a specific topic, and he would be an editor. I still remember when we worked on the topic of pollution. This was one of the best periods in my professional career. After that, I became an editor of textbooks. I remember a beautiful sentence Dr. Kawthar used to say about me, 'This girl', she would always call me girl, 'This girl's pen is like gold'.

God bless her soul, a beautiful lady. I was really sad when she passed away around two years ago. We all knew she was nearing the end of her life. I told her, 'Dr. Kawthar, you know that I love you.' She said, 'Yes, I know you love me'. In truth, this woman not only had an impact on me, but on everyone in the Center. Honestly, if you talk to the people here who were present during her time, they will all say they were affected by Dr. Kawthar. She was strong academically and managerially. Before her, the curriculum was done in a random way. But afterwards, it became a methodology, a scientific method. We experienced the second leap with Education 2.0 in 2017. I think those are two important milestones in the history of curricula in Egypt. Honestly, I am never tired of talking about work.

6. Working with Private Sector Partners

LH *The Ministry brought in private publishing companies to work with the CCIMD to produce the new 2.0 books. How did you manage the relationship and workflow between your team and the private companies?*

NS Managing our work with the companies was not easy. This was the first time that our books were created in this way, by working with different partners like Discovery Education, Nahdet Misr, and York Press. In the old system, we would decide on and write up the educational outcomes. Then, there would be a tender. Three or four companies would present a model book to the Ministry, and it would be evaluated by an independent team. The textbook with the highest marks would win. They would bring it to us, and we would make general comments, but it was already printed so we could not make changes. Now we work differently.

LH What is the process now?

NS What happens is we give our educational outcomes to the company. Discovery is the company that created the multidisciplinary book 'Discover', Nahdet Misr created the Arabic and Religion books, and York Press did the English books 'Connect' and 'Connect Plus'. We did the mathematics book here and we worked on the Teacher's Guides.

The process is that the publisher creates a sample of the book and sends it to us. We revise it based on the framework and the Egyptian context, especially if the company is not Egyptian. Besides the scientific accuracy of the books, we check the Egyptian language and Egyptian culture. This revising was something totally new for us, and we would revise as a team. We would come here in the main room, put the book on the data show, and read it together. For example, we revised the Arabic textbook with a team of different subject specialists. We had someone from Arabic, science, mathematics, psychology, all the specialties. They would read the text together, discuss it, and reach a decision about what needs to change, or what needs to be added. This was the first step. We created a smaller team to check the revisions. This might go for two or more rounds until we were satisfied.

In the beginning, some of the companies resisted revising the books and would not make the changes we requested. We had to insist. We had the strong support of Dr. Tarek, so working with companies went well because we established rules, and they would respect those rules and most of them would accept our requests for changes. In the end, when the final product would come out, we would all be proud of it.

LH How are the 2.0 books different from the older 1.0 books, whether in terms of content or form?

NS They are different not only in appearance, but in quality. This is the first time the books get children to express themselves like this. The student is supposed to talk about himself or herself. The books also emphasize self-evaluation. For example, a lesson would ask the student to evaluate, 'Do I have good handwriting, correct dictation, appropriate words?' We incorporate this idea of self-evaluation in many lessons. Another example is the 'Discover' book that has an Arabic Window and a Math Window. In the book for the Arabic language, we did not work with teaching the letters of the alphabet in sequence but according to the common words used by the child in her life. My colleagues here in the Arabic section are responsible for this idea.

7. Explaining Education 2.0 to Parents and Teachers

LH Education 2.0 is significantly different from the system of 1.0. How have you communicated this difference to parents?

NS We started by explaining that we have a new system with a new group of books for KG to Grade 3 (as of 2020). Mothers, especially young mothers, were worried about their kids not memorizing. They were used to their kids memorizing ABCs and numbers and writing down new information a hundred times. I can understand their concern because this is how we learned. I always tell them that this was good for a different time in the past, but now, the whole world is working on skills. We cannot still tell our kids to memorize the concepts and write them down when they do not have skills.

LH How did parents react to the new emphasis on activity and play-based learning?

NS We received some opposition from parents. But we always tried to reassure them that even though their kids are playing, they are also acquiring skills. They are learning communication and cooperation skills to respect others around them.

LH What about the teachers? How do you explain the new approach to them?

NS We emphasize that what is being taught in kindergartens would be repeated again in Grade 1 because the KG stage is not compulsory. It is as if those five years (KG1, KG1, Grade 1, Grade 2, Grade 3) have become one stage. In fact, the book that represents the most important part of the reform is the multidisciplinary book, known as the 'package book.' The book is a package because it combines a number of subjects from KG till the end of Grade 3 and integrates activities in a great way (see Fig. 13.3). You have concepts from math, science, social studies, vocational studies, and art. The book contains only activities and blank pages where the child can express himself/herself, sometimes by writing, other times through drawing, or conversation. The learner's book does not contain information about basic skills, but these are in the Teacher's Guide.



Fig. 13.3 Ministry of Education and Technical Education, 2018/2019, multidisciplinary books, 'Discover' for Grade 1.

LH Is the Teacher's Guide something new?

NS We have had teacher's guides before, but this is the first time in Egypt to print the guide for all teachers. In fact, this was very expensive, but the Ministry took care of it because they believed it was important. The guide is color coded and explains what to do from the moment you say, 'good morning' until you are done for the day. It also indicates how much time to

spend on an activity, which is 45 or 90 minutes. We also give teachers space to innovate and try out new ideas. In the guide, the headlines in red are the most frequent. The Teacher's Guide is made masterfully, and perhaps we will not have to revise it for many years to come.

LH How are teachers being trained in this new system?

NS One of the challenges in applying the new curriculum is the teacher. Of course, we all know that even with the biggest efforts on our side, ultimately there is a teacher on the ground who will apply this. And if teachers do not believe in what they are doing and are not sufficiently trained, we will not reach our goals. When we created the curriculum framework, we had an addendum called, 'Teacher Training Framework' that shows how to relay this concept to teachers.

In 2018 before the start of the year with the new curricula, all teachers had an intensive training for three days. They learned about the skills, the values, the issues, and the teaching strategies. We trained teachers from KG 1 to Grade 3 together so that they would get used to the new system. All teachers got training for this five-year stage. Before they received the Teacher's Guide, they would ask a lot of questions about what to do with the books. I would tell them to consult a hardcopy of the guide or a digital copy on the Egyptian Knowledge Bank (EKB). Many teachers said that the guide made a huge difference.

During the first term there was also a one-day training. We followed a system called 'cascade' which starts with trainers training the teachers, who then go on to train other teachers in the governorates. This also happened in the second term and again in 2019. Is this enough to achieve what we need? Definitely not. We are dealing with the legacy of decades of practice based on memorization, recitation, and lecturing which is completely different from what we are doing today. We really need time to reach our goals.

LH What is the role of faculties of education in Education 2.0?

NS This is a very important point. We need to cooperate with faculties of education, and we have only recently begun to work on this. Until now, the plans are still on paper. We are currently talking to the dean of Ain Shams University and are making short- and long-term plans. I care more about the long-term plan in which we would supply the universities

with documents about Education 2.0 so that they would integrate them into their curricula for teacher preparation. They will start with third- and fourth-year students, and then students from all four years. Actually, this is the dream, that the 2.0 curricula and frameworks would be part of teacher preparation. So, even though we have the short intense trainings, this will not achieve 100% of the expected results. Faculties of education should provide us with teachers. Teachers are supposed to be ready as soon as they graduate. When faculties of education supply us with teachers aware of the new educational system and the new curricula, this will be a big achievement and save the Ministry a lot. This will ease up the trainings because it is not the Ministry's job to train teachers.³

8. Building Evidence and Planning for The Future

LH What kind of evidence do you need from the ground to understand if the new system is working, or how to improve it?

NS We really want to know if students are developing their skills. We would want to know the percentage of classes that are really teaching our curricula the way we intended it to be taught. Do teachers actually leave students in class to do individual, pair, and group activities to improve their skills? Do they let them express themselves in the ways we instruct them in the Teacher's Guide? What happens when it comes to practice? The second thing is, assuming the classroom practices are changing, are they achieving results? Because if they are not, then we need to revise our frameworks and revise the books. If the teacher is teaching well and the students' skills are not improving, then we need to revise our methods.

3 In April 2022, in consultation with the government of Egypt, USAID launched the Teacher Excellence Initiative (TEI) with the Education Development Center, Inc. serving as the Implementing Partner. According to the USAID website, 'This activity improves the quality and relevance of teacher preparation in Egyptian public universities so that current and future primary school teachers have the skills to increase student learning and advance the Education 2.0 reform. The Initiative worked to establish undergraduate and graduate degree programs for primary-grade teachers at fifteen Egyptian public universities' (<https://web.archive.org/web/20250116142420/https://www.usaid.gov/egypt/basic-education>). The project was closed in February 2025 as the result of the broad cuts to USAID by the Trump administration.

We also want to know about the teacher. Is she happy with what is happening, or does she consider it a burden? What does she think about the teaching methods and the overall change? Are teachers using the new evaluation system? Those are some of the things we want to know.

LH Some people are concerned that if the Minister changes, the Education 2.0 system might be replaced with something different. How can you mitigate against this?

NS Of course, it is likely that everyone working on 2.0 will leave and be replaced. But will this change the system and make someone start something new? In theory, no. Why not? Because the educational reform happening is not the vision of the CCIMD or the Minister alone. This is the direction of the state. And by the way, we had other visions, but they were not implemented because the state was not supporting them. We have an approved general curriculum framework for KG-Grade 12 and the state supports this direction of Education 2.0 politically and financially, so I think it has to continue. But there are risks, of course. What if a future minister does not want to continue this? What if he is not following this line of thought? Of course, the risks are there, but there are factors for sustainability. We are talking about political will, about written documents and commitments. So, whoever comes next will find everything ready and merely apply it.⁴

I want to say that I am so proud that I am a part of this, really. Sometimes I tell Dr. Tarek, and I want to say this in a public event, that the Minister always thanks us in all the events he attends. He always says that the CCIMD is doing this and that, but we do not get a chance to say the truth and to thank him. Because the CCIMD has been wanting to make leaps in the curricula for years, but we have not found the support to achieve those visions. In truth, this ministry and this period is very prosperous. It has given us a chance to achieve things we wanted to achieve for a long time. So, we should be thanking him.

⁴ During a change of cabinet in 2022, Tarek Shawki was replaced as minister of education. The books had been completed to Grade 6 only with the Grade 7 book in process. The new minister Dr. Reda Hegazy continued the Education 2.0 General Framework, but with modifications.

9. Education 2.0 Resources

- Center for Curriculum and Instructional Materials Development (CCIMD). 2018. 'General Curriculum Framework for General and Technical Education, Arab Republic of Egypt' (Arabic), *Education 2.0 Research and Documentation Project*, <https://drive.google.com/file/d/1WCPwmqi1byu2dniIZ7NlaEUHC4A4hjG9/view>
- Center for Curriculum and Instructional Materials Development (CCIMD). 2018. 'Curriculum Framework Kindergarten: Life Skills and Citizenship Education, 2018-2019' (English), *Education 2.0 Research and Documentation Project*, https://drive.google.com/file/d/1kMWLZ-BDtIJoLX0IAia_aO7SGyQhNoWI/view
- Center for Curriculum and Instructional Materials Development (CCIMD). 2018. 'Curriculum Framework for First Primary: Life Skills and Citizenship Education, 2018-2019' (English), *Education 2.0 Research and Documentation Project*, https://drive.google.com/file/d/1X57_pIsyFKvD3ETMYCBgXqQgX1n8pIE8/view
- Center for Curriculum and Instructional Materials Development (CCIMD). 2019. 'Curriculum Framework for Second Primary: Life Skills and Citizenship Education, 2019-2020' (English), *Education 2.0 Research and Documentation Project*, <https://drive.google.com/file/d/1zZ9x5NJ7hlXVDdIrk2DmhNCF296MEWXP/view>
- Center for Curriculum and Instructional Materials Development (CCIMD). 2020. 'Curriculum Framework for Third Primary: Life Skills and Citizenship Education, 2020-2021' (English), *Education 2.0 Research and Documentation Project*, <https://drive.google.com/file/d/1kTepP-tFU6MvNmhoiOwlXqvqgap6h7TU/view>
- Ministry of Education and Technical Education. 2018-2024. 'KG1 and KG2 Books and Teacher's Guides', *Edu 2.0*, <https://edu2-egypt.com/kg1-2>
- Ministry of Education and Technical Education. 2018-2023. 'Grade 1 Books and Teacher's Guides', *Edu 2.0*, <https://edu2-egypt.com/books-grade1>
- Ministry of Education and Technical Education. 2019-2023. 'Grade 2 Books and Teacher's Guides', *Edu 2.0*, <https://edu2-egypt.com/grade-2>
- Ministry of Education and Technical Education. 2020-2024. 'Grade 3 Books and Teacher's Guides', *Edu 2.0*, <https://edu2-egypt.com/grade-3>

10. Bibliography

Butts, David. 1973. *Teaching Science in the Elementary School* (New York: Free Press).

Butts, David. 1974. *The Teaching of Science: A Self-Directed Planning Guide* (New York: Harper and Row).

11. Companion Videos

Video 13.1 Dr. Nawal Shalaby: 'The Beginning of the Education 2.0 Reform in Egypt', Interview by Linda Herrera, Education 2.0 Research and Documentation Project, 18 February 2020, YouTube, <https://www.youtube.com/watch?v=1AXJGhHCiH4>

Video 13.2 Dr. Nawal Shalaby: 'The Role of Egypt's Curriculum Center in the Education Reform', Interview by Linda Herrera, Education 2.0 Research and Documentation Project, 18 February 2020, YouTube, <https://www.youtube.com/watch?v=Hhw-TIjxZG4>

Video 13.3 Dr. Nawal Shalaby: 'Teachers in Egypt's New Education System', Interview by Linda Herrera, Education 2.0 Research and Documentation Project, 18 February 2020, YouTube, <https://www.youtube.com/watch?v=DeLwFln0V-I>

Video 13.4 Dr. Nawal Shalaby: 'The New Textbooks for Egypt's Education 2.0 Reform', Interview by Linda Herrera, Education 2.0 Research and Documentation Project, 18 February 2020, YouTube, <https://www.youtube.com/watch?v=n54joWc2yFc>

Video 13.5 Dr. Nawal Shalaby: 'The Future of Education Reform in Egypt: Interview by Linda Herrera, Education 2.0 Research and Documentation Project, 18 February 2020, YouTube, https://www.youtube.com/watch?v=R_BNDjsW4kQ

