

EDUCATION 2.0

CHRONICLES OF TECHNOLOGICAL
AND CULTURAL CHANGE IN EGYPT

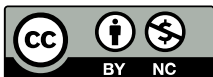
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2. Becoming and Being the Minister of Education: Interview with Tarek Shawki

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Abstract

Tarek Shawki was unexpectedly called into government service to chair the Specialized Presidential Council for Education and Scientific Research while he was Dean of the School of Sciences and Engineering at the American University in Cairo. In 2017, the president appointed him Minister of Education and Technical Education to lead a comprehensive national education reform, 'Education 2.0'. Shawki recalls his own quality public education in Egypt and Syria in the 1960s and 1970s, and his desire to bring that caliber back to twenty-first century Egypt. Inspired by Taha Hussein, a pioneering minister of education and man of letters from the past century, Shawki's goal was to provide all Egyptians, regardless of their social class, gender, or location, a state-of-the-art quality public education. He recounts the challenges of working in a large state bureaucracy resistant to change, and his attempts to manage an often volatile public on social media. After leaving the position in 2023, he reflects on what he might have done differently and what he learned about Egyptian society.

Keywords

Education 2.0, Minister of Education, Egyptian parliament, politics of education, social media, Taha Hussein

1 This interview is based on two interviews conducted by Linda Herrera on 7 September 2022 in Cairo, and on 7 March 2024 via Zoom.

1. Becoming Minister of Education

LH In 2014, you were Dean of the School of Sciences and Engineering at the American University of Cairo. How did you become involved in governmental work in education and scientific research? What was the process?

*TS*² I don't know how (laughs). Life was very normal away from the public. Up to age fifty-seven, I did not have anything whatsoever to do with public life. But one day in August 2014, just two months after president El-Sisi was sworn into office, I got a call on my mobile. I was in Alexandria for the night with my family. The guy on the line said, 'I am from the President's office'. I thought it was the wrong number. I was like, 'Who are you calling?' He mentioned my name. I thought maybe it was a mix-up and he was looking for someone else with the same name. He said it was no mix-up and that they wanted to meet with me the next day. I asked who exactly wanted to meet me? He said he did not know, he was only supposed to give me this message. He named a hotel in Cairo and said I should be there at 7:00 p.m. the next day. I told him I was in Alexandria and he said, 'Sir, you must be here in Cairo tomorrow at 7:00 p.m.'. When I hung up I was still thinking it must have been a scam. But my daughter said, 'Dad, we are going home anyway, so why don't you go?' I said ok, and I went.

I met two young men in civilian clothes, but they were officers. They told me that the President was putting together his think tanks which included advisory groups for education and scientific research, economics, national security, and social affairs. They wanted me to chair the education and scientific research group, for the Presidential Council. I asked, 'Who are you? Who picked me? How? I don't know you. Why me?' They said, 'No, we know everything about you'. And actually, the scary thing is that they really did. Until now, I do not know how they chose me. They also chose eleven other members for that advisory group. I didn't choose them. I chaired that group on a part-time basis. It was not a job, it was a kind of national service. I kept my position at the American University in Cairo and used to go to the group about once a week.

2 Tarek Shawki served as Egypt's Minister of Education and Technical Education from 2017-2022. For a detailed overview of Dr. Tarek Shawki's professional career, see his LinkedIn profile at <https://www.linkedin.com/in/tarek-shawki-0059025/?originalSubdomain=eg>

LH When did you first discuss your ideas about education reform with the President? What ideas did you present to him?

TS The first time I saw the President, which was the first time I saw any president for that matter, was when he met that advisory group. I was Chair of the Specialized Presidential Council for Education and Scientific Research.³ He came to ask us our thoughts about the education system. I said, 'It sucks'. He laughed. He was not used to that kind of talk. I continued by saying, 'Education used to be good, but not anymore. Now we are really low in the rankings. Education gives people a status, but it is not about learning'. He asked how we could fix that and I told him I didn't know, but spoke honestly and shared my opinions, as did others in the group. I told him I wished we had the education I had forty years ago.

I said, 'All I know is the level of education I got was perfect. But the system has been in decline from 1980 until today'. I explained how many other countries like Singapore, Korea, Japan, and Finland invested in their education systems during the same period and they improved, became excellent. I told him that I could not accept that we were in the lower bottom in the international rankings. I was insisting that we had to do better, we could do better. I also talked about how the world has changed and the purpose of education has changed. I was talking freely about big dreams.

I argued that it is easier to build something new rather than fix something old. I gave the analogy of the old building. You can fix the balcony, but then you find problems with leaky pipes. You fix those, but then you realize the electricity is not working. All these repairs end up being a waste of money because in the end the building is not inhabitable. I told him, 'Let us build something new with a new dream,

3 President Abdel Fattah El Sisi issued Decree No. 60/2015 for the purpose of establishing four specialized councils to 'define State policies and prepare comprehensive studies of various national work'. Councils were established for Community Development, Education and Scientific Research, Economic Development, and Foreign Policy and National Security (SIS 2015). The members appointed to the Specialized Council for Education and Scientific Research were Dr. Tarek Galal Shawki (Chair), Joyce Gamal Rafla, Dr. Amal Mohamed Kamal, Dr. Ahmed Mohamed Hosny Al-Hawy, Dr. Hoda Mohamed Farid Abu Shadi, Dr. Raida Mohamed Ahmed Abd al-Karim, Dr. Tamer Mohamed Abdelfatah Al-Nady, Dr. Ashraf Hamed Moussa Shaalan, Dr. Nivine Mohamed Alsayed Khaled, Dr. Malak Zaalouk, and Dr. Hesham Ezzat Eldeeb.

a new World Trade Center'. I said that it would be a long-term project because we have to rebuild the foundation from the ground up. The World Trade Center will have fourteen stories from kindergarten to Grade 12, and we have to bear through that. That was the birth of the concept of Education 2.0. The new building, the new dream. He spent four hours at that meeting, listening to whatever ideas we threw at him. During our second meeting, I talked about the idea of the Egyptian Knowledge Bank (EKB) (see Chapter 4 in this volume).

LH At what point did you learn that you were being considered for the position of Minister of Education?

TS It started in the first youth conference in Sharm el-Sheikh in October 2016. I was on a panel with the then Minister of Education El Helali el Sherbini, the minister of higher education, and Dr. Ahmed Okasha, a famous psychologist.⁴ I was very passionate and was saying that even despite Egypt's really low rankings, we could do something and leapfrog. We could be an inspiring model for other countries, and so on. I was talking about the idea of Education 2.0. The event was being televised live and the President was sitting in the front row. He picked up the microphone, looked back to the audience and said, 'You know, there are people on this panel who are saying amazing things. And I asked them to do this twice and they refused'. I wondered who he was talking about. I looked around and there were those two ministers and Dr. Okasha. He could not mean Dr. Okasha. Was he talking about me. I was not sure how to interpret this statement. Was it a compliment, or was he angry?

After the panel, I called an important guy in the President's office and asked what he meant by that comment. He said, 'The President meant that we asked you twice', meaning, to be the minister. I once told

4 Dr. Ahmed Okasha is an internationally known psychiatrist from Ain Shams University, Faculty of Medicine (MB, MSc, M.D., and Ph.D). He was the founder and honorary chairman of the Institute of Psychiatry at Ain Shams University, Professor and Director of the World Health Organization (WHO) Collaborating Center for Training and Research in Mental Health, Institute of Psychiatry, Ain Shams University, Member of the Expert Advisory Panel in Mental Health – WHO – Geneva, President of the Egyptian Psychiatric Association, President Arab Federation of Psychiatrists, Honorary President World Psychiatric Association, Honorary Fellow of World Psychiatric Association (2005), among many other prestigious positions.

the President I did not want to be in the government, I just wanted to work on the idea of Education 2.0. I told this guy, 'We were just chatting'. He replied, 'Does that mean you accept?' I told him I did not mean that either. He said 'Thank-you', and hung up. Apparently they considered this conversation to be a 'yes', because the next morning I was invited by the prime minister for an interview. I told the prime minister I had never worked in the government before, that I was not a politician and did not know anything about how to handle public work. I was direct about how I did not know or care about bureaucracy, red tape, signing papers, and all that stuff. I am really someone who is good at the idea level. He said, 'Don't worry, we will help you'. So, on February 14, 2017, I was sworn in as the Minister of Education and Technical Education and brought to this job. But to answer your question of how I got there, it was their choice. There are still two questions I do not think I will ever entirely know the answers to so I have to live with that mystery: One, how did they choose me in the first place?; And two, what happened to say enough was enough at the other side of it? (see Fig. 2.1)



Fig. 2.1 Tarek Shawki, Minister of Education and Technical Education, giving a press conference, 2020, Cairo, Wikimedia Commons, CC BY-SA 4.0, https://commons.wikimedia.org/wiki/File:Tarek_Shawki-2020-MOETE.jpg#/media/File:Tarek_Shawki-2020-MOETE.jpg

2. The Education of an Education Minister

LH How do you think your upbringing and schooling prepared you for the role of Minister of Education?

TS I have to start with my grandfather. As a child, my best day of the week was Thursday because my parents would take me to sleep over at my grandparent's house for the weekend. I was their oldest grandchild and they used to treat me very special. Their house was filled with books. They had more books than chairs or tables or anything. There were libraries everywhere. I remember my grandfather would take my hand and and say, 'We are going to have a great time now'. We weren't going to Disneyland or something like that, no, we would read and talk about a book. One cabinet was filled with books by Taha Hussein, a very famous writer and a former Minister of Education (1950-1952). We read some of those together. You have to realize that my grandfather passed away when I was eight, so anything I remember about him was when I was really young. I was a product of Egyptian government schools of the sixties. I was able to read and understand Taha Hussein and other writers, though it was heavy language in formal Arabic.

My granddad had a High School diploma which at that time was a high level of education. I think he worked in a bank, but he was incredibly educated. He used to do Arabic calligraphy very eloquently and write notes for me to understand mathematics and science. He was an expert in everything. He would also take me out on outings. He was a very formal guy. He would take me out with a suit and a tie and I would have to tuck in my shirt really tight and be proper. But I had a lot of fun, believe it or not. I remember he took me to the Museum of Railways. He told me stories about how trains work, how they stop, how the signals go, things like that. Then he might buy me a small plastic train as a gift or something. Then we would go back home for lunch. He used to tell me a children's story before we took our nap in the middle of the day. That was the dessert. We were always reading. And before I left, he would give me a book and tell me to read it and tell him about it when I returned the next weekend. This was all education.

My father was the second big influence on my education. He was a professor of engineering, a true scholar. This man was researching all his life. He would research things outside his field like the history

of Arab civilization in science and math. Our house was loaded with manuscripts and microfilms. He used to sit at his desk with his robe over his pajamas, very proper. We had to knock at the door before entering his study to make sure we were not interrupting anything. He did everything by hand. He had an amazing library of his own handwritten lecture notes on every aspect of engineering. I remember him cutting cards to make a classification system of the origin of words in the Arabic language. He traced some words to Turkish, or other languages. He had great handwriting like his dad, and used to write with a simple pencil. He was a perfectionist.

LH In what ways did your mother influence your education?

TS At that time, girls used to marry very young. My mom got married when she was seventeen. I think she left school at Grade 11. It was very impressive that she spoke four languages, Arabic, English, French, and German. This era of government education in Egypt produced people who were highly educated. My mom had the ability to learn through her life, what we now call lifelong learning. She became an expert in engineering and manuscripts and she used to brag about Dad's work to our guests. She learned everything. She went with my father to Germany, to Syria, to Qatar. She kept saying, 'I learned a lot from your dad'. She meant the perfection, the organization, the management. My mom was the social master so she complimented my dad socially.

LH What types of schools did you attend?

TS I went to a government school in Egypt until Grade 8. My father took a job in Syria and I was there from Grades 9 to 12. We returned to Egypt and I studied mechanical engineering at Cairo University between 1974 to 1979. The exposure to different systems as a child taught me how to accept differences, how to survive in new places. I figured out fast that being at the top of my class in Egypt, did not mean I would be the top of my class in Syria. I remember that I found Arabic very difficult. It was much heavier than the level I had in Egypt, and the math was like twice the content. But, my mother helped me a lot, especially with the Arabic. And it was in Syria where my father discovered manuscripts and got this hobby kicking.

I will tell you a funny story. When I was in Grade 11, we were living in Syria and I became the top student in mathematics at the national level. I was very proud and went to my dad to show him my paper. I said, 'Dad, guess what, I got fifty-eight out of sixty in math and I'm the top of the nation here in mathematics'. He held the paper, looked at it, tore it in several pieces and threw it in the garbage. I looked at him speechless and said 'Dad, I got fifty-eight out of sixty'. He said, 'Yeah, pick it up'. He had me sit on my knees and pick up the shreds of paper and said, 'Put them on the table'. I asked him what was wrong. He said 'When you wrote this paper did you write your name?' I could not follow what he meant? I said 'Yeah, of course'. He said, 'Did you write your full name?' Meaning my dad's and grandfather's names. I told him, 'Of course'. He said, 'The next time you write your family name, respect it'. I asked how did I not respect it? He said, 'Look at your handwriting. That is not a proper handwriting. Remember next time you write your name that this is our family's honor'. That has nothing to do with mathematics but it was a lesson I never forgot. It is about perfection. He taught me about doing everything properly. That is why I like pens. I like calligraphy and those sorts of things (Fig. 2.2). That was all in the 1960s and early 1970s. Between him and my granddad, I learned that being a respectable man was all about knowledge, about how educated you are, what you know, what you can do. If I wanted to impress them, I had to read more, to know more, to be disciplined, to do everything to perfection.



Fig. 2.2 A custom-made Mont Blanc fountain pen with the signature of Tarek Shawki on the nib. Photo courtesy of Tarek Shawki, 2022.

LH You studied engineering up to the level of the Ph.D. How did you apply your training as an engineer to your job as Minister of Education?

TS There is something about engineering in general, whichever field of engineering, which is the logical thinking, the sequential approach to things. I give credit to my undergraduate engineering at Cairo University and graduate studies at Brown University for giving me a structured mind, teaching me the art of how to describe a problem, model it, then solve it. Talking about a problem is one thing, but solving it is a very different thing. Engineers do not stop at describing a problem. They always think of how to solve it. What are the boundary conditions? It's that structured mind that you apply to everything in life, and I tried to apply it to education reform.

LH Are there certain philosophers or public figures who influenced your ideas about education?

TS I was lucky to be born in late 1950s and to grow up in the early 1960s and 1970s. Egypt had a lot of great minds at that time and they used to write in the newspapers. When you flipped through the paper you would find articles by Taha Hussein, Tawfik Al-Hakim, great writers. The style of language and depth of analysis was equally great. We really had great talents in writing, arts, and music. The popular songs of the day had lyrics that were heavy poetry. Everybody listened to them easily. And these were the products of our free education system which was very highly ranked at that time. Our teachers were quite knowledgeable and good educators. Our faculties and colleges were equally good. All this influenced a whole generation.

Regarding education, Taha Hussein was famous for defending the right to education and free education. He was battling for an equitable society where the poor and rich would have the same rights and access to education. This was happening during the transition from the monarchy to the new republic. Education was in good shape in terms of the teachers and the content.

Apart from the great writers and artists, I was influenced actually by my own teachers. They were great educators and were passionate. They were not employees. They were not talking about money and private tutoring. No, they knew their responsibilities and how to have an impact on kids. I remember my teachers until now. Thank-you is not enough for them.

3. Leading a National Reform

LH You began your role as Minister of Education in 2017 with the intention of what you have called ‘transforming’ the education system. You have talked about how you wanted to start from a blank page and design a new system from scratch. What assumptions at that time did you make about what needed to be changed?

TS In the beginning we thought rightfully, that Egypt needed an education transformation. We worked on the assumption that people wanted a better learning environment and that parents wanted their kids to have better skills. One of the things that really concerned us was the high number of kids who could not read. We wanted to create a learning environment away from the obsession with tests and grades. We started by building a curriculum framework and developing the learning materials. We worked on the complete integration of a digital counterpart. We did the teacher training. For high school, we provided tablets to incoming Grade 10 students and did electronic exams. We thought parents would cheer us. But we soon learned that we were not thinking along the same lines as them at all. They were not appreciating the value of what we were giving them. Parents were angry because we were giving them one thing, while they wanted something else. For instance, in 2018, after we deployed the first set of new textbooks for KG1, KG2, and Grade 1, we were surprised to learn that people did not seem to be interested in this at all. They talked negatively about the size of the book, the number of lessons. I think we made some errors in our assumptions about the cultural scene and the priorities of parents with respect to how they viewed education and learning. That was our miscalculation.

LH How were parents thinking about their children’s education? What were their priorities?

TS They were talking more about infrastructure issues like the distance to school and the condition of the facilities, not about learning and skills. They wanted their kids to pass through the system but did not care about what they learned. If we had understood how the concept of learning had really been erased, we would have done things differently. Before putting pen to paper, we should have engaged them in a dialogue, even if it took three years. I think we should have done surveys, asked

people what they really wanted, and reached a point where in the last survey people would just be begging us for reform. The rest would have gone the same way. I mean, before you impose a traffic law, you have to convince people why it is good for them, otherwise they will look around and break the rule as long as they do not get caught. The same mentality is in education.

LH Do you mean to say that it was not the right approach to start from a blank page, that you should have entered into a more consultative process from the start?

TS No, it was the right approach but it needed a break-in period to get in the minds of people. It is like being sick and going to the doctor. If the doctor gives you medicine when you ask to cure an illness, you accept it. People needed to know that the system was ailing. I should have gotten them to the point of asking for the medicine. But we gave them the medicine without them knowing they were sick. They were spitting it out. I think we were just too quick.

We needed to address the cultural understanding of schooling and to convince every parent that their kids should go to school to learn, not just to get a degree and a status. The learning is what should be the measure of success. When parents prioritize having their kids get that degree in the shortest route possible, this opens the door for a lot of corruption like cheating and automatically passing kids, even when they cannot read. And I know Egyptian kids are very intelligent. They do not lack anything. It is just that they use their intelligence in the wrong things. Take cheating for example. They used to spend maybe two days writing equations and formulas in the smallest handwriting. That takes incredible effort. And you want to say, 'Was it not easier to study the lesson? You are smart enough to do it'. Now they are doing clever things using technology. They hacked the tablet in ways that were really genius. So I tried to tell them, 'You are smart enough to hack the tablet. So now, read your book please'. But it's a culture. I am not attacking anybody. No, I actually feel bad for the kids. Nobody is telling them that they are really good. But they need discipline and a lot of work to compete outside. And it is not the ministry alone that can do that. There has to be a national effort to get this through their heads.

LH If you could start over, knowing what you know now, what would you do differently?

TS If we were to do it again, we would spend more time on communication with parents, at least with the moms. We did not spend the time to tell people why we were doing this, we just gave them the solution. But we were also under pressure to move fast. Egypt has really been stagnant for over thirty years, and the President was in a hurry. He wanted to make up for the lost time. In certain things like infrastructure projects, speed works. But in things that touch humans, like education, it takes more time.

LH When you arrived at the Ministry of Education, did you find allies, people who were aligned with your ideas for change?

TS Actually, I found people with a very different mindset. And they saw me as an outsider. A lot of people thought I was a foreign guy. They were very surprised when I told them I got educated in government schools in Egypt and Syria. They asked, 'Really? We thought you were born in America'. That shows you the distance. It was not the way I looked, but what I said. They said I talked like an American. They thought I must have done this reform in other countries. They kept saying we could not copy it here. This of course was not the case. But I would ask them, 'Don't you want to be as good as the American kids, or Singaporean kids? Don't you want our kids to have the skills of Chinese kids? They can make better cars and better phones. I am really jealous. We have to compete with those guys. You cannot just sit still'. But they resisted change.

I remember in 2017, three months after being on the job, I met the President. He asked, 'Okay, I left you for three months. Tell me, how is it going?' I said, 'You know, if the building I entered everyday did not have a banner with the words "Ministry of Education", I would not have known where I was. Because people in there talk about anything but education'. He was surprised. I explained that they talk about promotions, raises, overtime, and stuff like that. There was not a group inside the ministry I could meet with to talk about education. This was a problem. I had to bring people from outside. And the people I brought,

advisors like Deena (Boraie) and Nelly (Elzayat), looked like foreign entities to those permanently tenured people (see Chapters 5-7).

LH Did you try to work on developing the capacity of government employees in the education bureaucracy?

TS The people inside the ministry wanted to do things the old way. That is all they knew. In fact, I did not find 'educators' inside the ministry. I did however find people I could work with in the government centers for curriculum development (Center for Curriculum and Instructional Materials Development-CCIMD) and assessment and examinations (National Center for Examination and Educational Evaluation-NCEEE). Both centers have grown tremendously. I also brought in a deputy minister, Dr. Ahmed Daher, who is an IT guy who understands the partners and the issues (see Chapter 18). I think there is enough know-how now in the ministry, the CCIMD, and the NCEEE, to move the reform forward.

LH Given that you could not find the necessary expertise or like-minded colleagues inside the ministry, how did you carry out this national reform? Who did you find to do the heavy lifting needed to change the education system?

TS I sub-contracted different components of the reform to different bodies. For example, we contracted Discovery, Nahdet Misr, National Geographic, Pearson, and other digital partners. I got pushback for this. People would ask, 'Why do you pay so much money to Discovery?' I would ask back, 'What is so much and what is so little? What is your benchmark?' It is like we are buying vegetables from the supermarket. I would say that whatever you pay those people, it is little compared to the scope of the impact. These experts have a know-how that very few people have. We worked with them to put together a curriculum framework and a coherent series of books. And once we publish a book, many generations, millions of students, will use it. The price we pay per head is almost zero. Building those courses was the best use of money. Some people came with nationalist ideas saying, 'We are Egyptians. We are the descendants of Pharaohs. We can do everything. We do not need anybody'. But at the time, we did not have this expertise. We needed outside help, and now, we are better prepared. As I said, the NCEEE and

CCIMD are much stronger now and able to carry out much of the work (see Chapter 13).

LH You became known for implementing the reforms at scale without piloting. This applied to distributing the tablets to all students entering Grade 10 and deploying a new 2.0 curriculum in all schools. What are some of the lessons you learned? Looking back, do you think you should have started gradually and done some piloting?

TS Throughout this reform, I learned a lot about Egyptian psychology. For instance, the first year we distributed tablets to the kids (in 2018) it was a huge expense. If you get 700,000 kids and give them each a 300 dollar device, that is a lot of money. But they were taking the tablet without even saying thank you. They did not even ask what it was for. Someone wrote to me on Facebook saying that if you understood the Egyptian psychology, you would have chosen 100 schools, given them special names to show these were the distinguished schools, and only distributed the tablets there. You would have had everyone else begging for them.

The same might have been true for Education 2.0. When we first introduced the 2.0 system (in Grades KG1, KG2, and Grade 1), parents reacted as if we were forcing something on them. Egyptians hate that. We got the reaction, 'You did not ask me if I wanted this, so now I am going to be a critic. I am going to tell you what is wrong with it'. But if we had selectively and purposefully chosen certain schools to deploy 2.0, given them a special name to show some distinction, not as a pilot but as a tactic, parents may have asked for it, maybe. Because it is a psychological thing.

LH What did you learn about Egyptian society through this experience?

TS First, I saw that Egyptian society has totally changed since the 1960s and 1970s when I was growing up. It is as if Egyptian culture and the society has turned upside down. I was in a public school in Egypt as a child, but the environment was different. People were reading books and talking about knowledge very proudly. That is not the case today. I mean today, seeing a young person with a book is a rare scene. There has also been a change in the sense of being Egyptian. Young people today do not feel loyalty or a sense of belonging to the country as we did at their age. Very few of them talk about a purpose. They are more

focused on building their own success. And that has to be accounted for when you want to rebuild something like the education system. Since the 1980s, education has been on a steep decline.

I also know that Egyptians are very smart people and they really care about education. But they just hate to be bound to rules. They are also emotional people. But the majority never learn how to address things objectively. They address them in love and hate terms. I also find they have a very competitive nature. If you look at football for example, they get really angry if they lose to another country and so on. I tried to trigger that good side about being competitive, with the message that they have to work for their goals. But the current generation wants a quick way. Every twenty-five-year-old wants to be a CEO, be rich, have a villa. But I ask them, 'Have you done your homework or not?' You have to work for this success. We need to work to make Egypt more competitive.

4. Dealing with Social Media

LH From the start of the reform, people were making a lot of noise on social media, whether Facebook, WhatsApp, or other platforms. What was it like to be on the receiving end of an essentially non-stop chorus of voices on social media, much of it critical?

TS Those five years showed me stuff about Egypt, about the people, the culture, that I could never have imagined. I was happier not knowing. I was told when I was young about how kind and nice and courteous Egyptians are, but I saw a different reality. In this time and age, I saw people who were very rough, extremely rough. Before being a minister, no one ever cursed me, or made personal insults about my family. I was never attacked by random people. Once I became minister, people were very quick to use foul language, to attack me just because I differed from them. It was very hard to be on the receiving side of that.

The teachers were the most aggressive. They were nasty beyond my imagination. From what I saw, they do not care about the country or the kids. They are out to protect their own interests. I once said that at least 75% of teachers needed to be fired. We need new blood here, cleaner. These are the people raising our children. They have to be ethical, they have to love their country, and they have to talk about kids and learning, not only about money and private tutoring and raises.

LH You were known for answering your critics and engaging in conversation with members of the public online. How involved were you on social media?

TS People added me to groups which are active 24/7. Overall, I was in 3,000 WhatsApp groups. I felt I had to engage and answer their questions. But the more I answered, the more they attacked me and the nastier they were. Facebook was the same. It is filled with people with plenty of free time whose purpose is to just keep whining. It is a psychological disease. They constantly criticize but they offer no solutions. And people, when they do not like something, they just raise their voices in the nastiest way. It is like a tactic. They make enough noise to achieve what they want, even if it is not the right thing, like cheating on the exam or dropping half the contents of the book. They just keep making noise until the system gives in. I unfollowed many of the nonsense pages to get my sanity back.

LH It is hard to gauge real public opinion through social media. A minority on social media can make a lot of noise. Do you have a sense of the proportion of society that opposed or supported what you were doing?

TS That is a big question, whether it was a minority or a majority that opposed the reform. The day after the change of cabinet when I was removed, there was a wave of support for me on social media. So you wonder, why were these people quiet for five years? Were they afraid because the negative voices were pushed by professionals, meaning that if anybody said a positive thing they would be harassed and trolled and this would stop them from speaking? When the change of minister happened (on 13 August 2022), they started speaking up. They said, 'No, we want the reform. We finally had the dream. We were going in the right direction'. But another question is, how many people appreciate the change and really understand it? Five percent, fifteen percent, twenty percent? We simply do not know.

LH Do you think your removal from office had to do with pressure coming from teachers or parents on social media?

TS Parents put pressure on the political system, they asked for a change. The interest groups, the teachers, also resisted as usual, but parents were number one. If the majority of parents really wanted reform, they would

have kept the political support going. We needed to have them on our side. At the time, there was a lot of noise around the Grade 4 exams. We didn't hear too much from parents in the first three years (Grades 1-3) because there were no exams. The kids were passing automatically. We tried to have a dialogue with the public to say that the exam was not the objective at all, but people were up in arms. The exams are the monsters. People worship exams. A lot of this pushback happened in social media. Some of this was spontaneous and genuine, but there was also organized activity, those who managed social media in a professional way to make sure that certain things were shared widely and certain opinions spread. So, social media was not helpful. If we had done the reform in a world without social media we could have lasted longer. It was a weapon used by smart people against us. So, that is one part.

5. Being in the Political Arena

LH You entered the ministry as a lay person who had not previously held a position in government. How did you manage being in the political arena?

TS Sometimes it is better to speak to people without the government hat. I learned that once you are in the government, people consider you the enemy, or they suspect you are the enemy. When I came to the ministry I really did not know much about politics. The fact that I lacked the political dimension was a surprise even to the enemies. They thought I might have a devious plan, which I did not. But there are lots of things you have to pay attention to. There were the people who were adversely affected by the reform, the tenants of the old building who did not want to move to the World Trade Center, people whose income would shrink because of the new building. I am talking about all the interest groups who were fighting the reforms from the start. The people who print books got angry when we made books digital. The people who give private tutoring were angry that we provided electronic platforms and alternatives. When we started electronic exams to replace hand grading, some people got upset because they lost perks that came with hand grading, and so on. I had to face teacher unions and teacher groups and interests. The more we pushed the reforms, the more resistance that appeared. I did not come equipped with that political part.

LH You were called to the parliament on different occasions to answer questions about the reform. What did those experiences reveal about the political environment?

TS I remember one occasion when the parliament called me to a session to ask about the new books. There was a lesson about adaptation to the environment, a very well done lesson that shows kids how to observe nature like a scientist. It shows how reptiles behave in the desert and how their skin color changes when they stand in the heat. There are also examples of fish, bats, and penguins. For a child, if you poke their curiosity, they become really into it. We also provided digital companions to the lessons like movies the teacher can show in class. This book was state-of-the art. It had been taught in thirty-seven states in the US, and was customized to our environment by our own curriculum center from a curriculum framework and life skills standpoint.

So in the parliament, when the mics and cameras were turned on, one of the parliamentarians held up the book like it was a sack of potatoes and cried out, 'Is this a book for a child?' The implication was that the book was too thick, or that there was too much content for a child. Another person flashed the science book at me and said very upset, 'Why, for God's sake, do you teach penguins? Do we have penguins in Egypt?' I just did not know what to say. And she went further; 'What possible benefit is there for my child to know whether a penguin has four or five fingers?' I stood there watching this, reflecting on what it meant. This was a sample of society. This person had never studied the book, did not speak with any knowledge of learning or pedagogy. She was simply mimicking what her constituency was saying, she was transmitting something. And that was what needed to be fixed.

LH On 13 August 2022 there was a Cabinet reshuffle and the President replaced thirteen ministers, including you as the Minister of Education and Technical Education. Why do you think he replaced you at that particular point in time?

TS The President supported our education reform for over five years. I do not think any other president would accept a project like this. He did accept it, and I was crazy enough to do it. But there was a limit. In the

end, what happened was that the forces against me managed to cluster in such a way that I was presented as a political liability and there was pressure to remove me. The argument was that in order to 'comfort the street' we had to change the faces of the people in the office. 'Comfort the street' is code for giving up a good cause because people are not ready for it. The political leader cannot nurse the dream if it means losing his job. He must have reached the conclusion that people do not want to learn. It seems he lost patience as he had many other problems. Still, it is a shame because people lost an opportunity which does not happen often.

LH Did the President ever explain his decision to you?

TS No, not directly. But shortly after the cabinet reshuffle at an event organized by the Ministry of Communication on digitization, the President made a comment in public that was a surprise. He took the microphone and said, addressing the people, 'You all wanted to reform education. And I got the guy to do it for you. You pounded him on the head. You almost killed him. What do you want? Do you want to learn?' He said it just like that. At the time, it was not clear whether he was saying it as a compliment or out of frustration. But now I know he was frustrated because he supported this reform for five years and we were doing well. He observed the attacks and their political price. He was also receiving reports from a security angle telling him to quit the reform, to comfort the people and make sure the streets were okay. For a long time he shoved the criticism aside, but I think he reached a point under greater pressures with the economy, foreign currency issues, the prices, that he should cut out anything that was disturbing the people. The argument was, 'Forget education now, it's not the time'. Maybe he thought he was spending on people who did not want to learn.

I always knew it was a matter of time before this would happen; there were too many opponents. What people do not understand is that what we did was a miracle, an absolute miracle. The best observation I heard from an intelligence officer recently was, 'The question is not why you left. The question is how you stayed for five and a half years?'

LH A reform of the K-12 education system needs fourteen years to see the first cohort schooled entirely through the new system, and four to eight years after that if you want to see the results through higher education. How can the political system support a reform that requires such a long-term commitment?

TS That is a good question. I have been thinking about this question generally, and not only for Egypt. How do you carry out a major reform from start to end, a twenty year project? No political system has this stamina. We cannot expect someone to last in a ministerial position or any political position throughout the duration of such a reform. Those people in political positions can be believers, they can be dreamers, but in the space of four or eight years, not twenty years. In reality, any big education reform needs an extended period of political will or support. Political systems worldwide worry about anything that looks like a political liability.

If I had the chance to meet the President and discuss the reform, I would say, 'You know what, this is like raising a child. If you give up at some point, you can hardly go back again'. It is like when a child throws a tantrum because he wants the chocolates. You should not give him the chocolates. You have to be patient, because if you give up and hand him a chocolate, he will do that every time. It is similar with the reform. We were almost there. We reached Grade 5, it was just about the tip of the curve. And when you reach Grade 7 you run. So, it is about controlling the crowd and the expectations. Now, the crowd, the people dedicated to attack, think they have won. So now they will say that every single time they do not like something they will throw the same tantrum using social media and they will be harder to control. That is my fear. They just took away what we were doing by force.

LH Was there a handover with your successor Dr. Reda Hegazi (Minister, 2022-2024)? Will he continue with Education 2.0?

TS No, there was no handover. The new minister, Reda Hegazy, is the person I chose as my Deputy for Teachers' Affairs to nurse the old system until the new system replaced it. He oversaw the old exams and grading. He does not know much about 2.0 or the EKB. From a political point of view, he was told to contain the criticism and this forced him in his first week to make statements about 'removing' and 'eliminating'

lessons from the new Grade 5 curriculum. They call this 'lightening' the curriculum. But when you remove something this results in a learning gap. So the new minister returned to the old way and fed the old culture. And that was only in the first week. He does not have the same sense of mission for the reform.

Fortunately, the President insisted that anybody who comes to this position should continue building the World Trade Center. They might choose different colors for the balconies, but at least, I hope, we can get the building completed. But actually, we made it half way, almost. There are new curricula for KG1 to Grade 5, these cover seven years. And I made sure payment was made for Grade 6 to be completed. That is not easily reversible. You have between twelve and fourteen million children who have not seen anything else besides 2.0. Policymakers will face a problem a year from now when the 2.0 cohort enters Grade 7, which still operates according to the old 1.0 system. This will put pressure on them to continue along the same lines. We have partners in place, we have the EKB in place.

6. The Legacy of Education 2.0

LH What do you consider your greatest achievements during the five and a half years of your tenure as Minister?

TS We achieved a lot technically. We built brand new curricula from this totally new vision, new assessment, and everything from KG 1 until Grade 5. Grade 6 is in the kitchen. So that is half the way. And actually, inside that new building there are over fourteen million kids, so that is nothing to sniff at. It is a huge scale. There are teachers who have gotten training, there are new books, there are new assessments, there is a lot on the ground. It has been a very rich experience. In high schools, we are still using the old curriculum, but we changed the assessment, we gave them the tablets, and built the IT infrastructure. We did over fifty million electronic exams. It is an incredible scale of integration of technology. Now, we have two or three platforms on the EKB that have everything you can imagine. All these curricula have a digital companion from the best publishing houses in the world including Britannica, Discovery, York Press, Wolfram, Mathematica, you name it. Just imagine that Mathematica is available for free to twenty million students in Egypt. We have twenty million free licenses here on the EKB. If you buy it in the US, it costs one

hundred dollars per student per year. One of the best things I did before leaving was to have enough screens in schools to enable broadcasting from the EKB and the TV channels in the classrooms. Students and teachers can go to them instead of private tutoring.

It was a very rich journey over the five and a half years trying to materialize the dream at a speed that was a blessing and a curse. A blessing because enemies were hit by a storm, so they did not know how to stop us quickly. But it was probably too fast for parents and teachers to absorb. We probably should have regulated the speed a little bit.

LH On a more personal level, how did being the minister affect you. What kind of toll has it taken on you?

TS Oh, that is a tough one. I paid a very heavy psychological price. It is like I have been battling Mike Tyson for five years and have just gotten out of the ring with wounds everywhere, psychological ones at least. It is like a trauma. It was tough, and there is no way to justify it. Especially when you kill yourself to give people your best, and they just throw stones at you. People do not know how much damage they can do.

I am still trying to restore my old, happier self. I am just trying to erase the bad stuff and only remember the good. If they had asked me to put in five more years, I do not know how I could have sustained it. I am not sure I would have had the energy to handle those people again, the interest groups. Technically yes, I could continue working from an ivory tower or from a conference room. But I am grateful for this huge experience, nonetheless. I would not have had the chance to do something at that scale, or even make a few friends who I am very happy to know. And the kids have been the best part in the whole journey. They are victims of the environment they find themselves in. They have no problem at all with the new curricula or the new platforms. The problem is with their parents.

LH How do you see the legacy of Education 2.0?

TS I was in Paris 27-30 June (2022) at the UNESCO headquarters for a huge preparatory meeting for an upcoming event in New York, the Transforming Education Summit (16-19 September 2022) called for by the Secretary General. Over a hundred ministers of education were there. I worked at UNESCO for many years, so I knew a lot of people

in the building. But the number of ministers who asked to meet one-on-one was incredible. Then I sat on a panel and the Assistant Director General of UNESCO for education, a lovely Italian scholar Stefania Giannini, said, 'Today, UNESCO ranks the Egyptian 2.0 and the Finnish system as the two exemplary model systems worldwide'. The Minister from Finland was saying, 'I'm inspired by what Tarek is doing'. I said, 'I came to learn from you'. And she said, 'No, you did a much more difficult job. All I have is like 500 schools with half a million kids. You have 60,000 schools'. This is to say that 2.0 is known to more countries than you think, and they are very inspired by it.

The Palestinian minister came to sit with our ambassador and me and said, 'You are helping me a lot!' I asked him how. He said that when he goes to cabinet meetings in his government and asks for anything and they show resistance he says, 'Tarek did it and it worked'. So, he always takes us as the benchmark. If it works in Egypt, then it must work for them. The Saudi minister is also inspired by 2.0. His problem is the political sensitivity.

LH How would you like people to remember you as Minister of Education?

TS Actually, there is a board in the ministry building (on Falaky Street) of all the ministers who came over time (see Fig. 2.3). There is a picture of every person who served as Minister of Education with his picture and the duration in office. Taha Hussein is of course on that board, with many other great people. Taha Hussein was my idol. He battled for free education for all. I hope people remember that through the EKB I battled for free state-of-the-art knowledge for all. We also planted the seeds for the foundation of a modern education system. Modern in the sense that it brings Egypt back to the frontiers of the world's leading countries. Not in terms of having oil or resources like that, but of having intellectuals, and that is something that is really dear to me. I am proud of Egypt as the source of inspiration, since the Pharaohs throughout history in many phases. It has always been a cultural hub. Hopefully we can return to that. There are millions of bright kids who just need an opportunity. Today we have twenty-five million kids in the K-12 system, that is a huge number. If 10 or 15% of them are benefitting from what we offer them, I think they will propel Egypt forward.



Fig. 2.3 Board of Ministers of Education in Ministry of Education and Technical Education, Cairo. Photo by Linda Herrera, 2020.

7. Education 2.0 Resources

Ministry of Education and Technical Education. 2018. 'Education 2.0: Vision and Strategy. Egypt's Transformation Program (2018-2030)', *Education 2.0 Research and Documentation Project*, <https://drive.google.com/file/d/1gO8G5J3meYhBi7n7GIL4gNjf4EWe8Eku/view>

Ministry of Education and Technical Education. 2020. "Transforming Teachers: Education 2.0 Teachers: A New Cadre of Educators", *Education 2.0 Research and Documentation Project*, <https://drive.google.com/file/d/1VgnNBliU09U2fopMF6dbpFrzFqLYsDxv/view>