Discovery
E D U C A T I O N ™

Discovery Education is the global leader in curriculum-matched digital resources and professional development for teachers everywhere. Together we're re-imagining learning and harnessing the power of technology to bring the real world into the classroom and ignite pupils' curiosity.

Discovery Education Internationally

The Discovery Education International Team works with Ministries of Education to implement once-in-a-generation opportunities to improve the life chances of their young people through transformational education programmes. These are programmes aimed at equipping both students and teachers with the knowledge acquisition skills for the 21st Century. Often governments see investment on this scale, in the future of their country, as pivotal to building lasting political and economic stability. Discovery Education works as a trusted advisor and partner with Ministries sharing its experience of large scale and country wide change programmes. In the truest form of partnership, advice, training and a robust and comprehensive stakeholder engagement and communication programme, are usually undertaken by Discovery to build trust and confidence in the concept, to encourage engagement and use and to support ongoing development.

Ministries across the globe - ponder the question:
'One generation – what does it take to transform education?'

At Discovery Education we believe the answer to that question lies in the triumvirate of partnership, vision and belief.

On the following pages we outline 3 very different approaches and adoption methods to the shared theme of education transformation at a country level. In Africa we worked with a Ministry of Education to deliver wholescale curriculum, teaching and learning change. In MENA we trialled Arabic Coding with a pilot programme and a National Coding competition. And finally, in LATAM, we worked with the Education Ministry on a phased implementation with built -in academic proof points along the way.

No nation is the same. And no education transformation programme is the same. Our consultative approach in the truest form of partnership is what makes Discovery Education's international work effective and successful. And successful Ministries acknowledge that the best way to effect the changes they need is to adopt a partnership model. Discovery Education is well positioned to connect ministries to the expertise, content, professional development and thought leadership they need to realize their national visions by connecting the local and the global.

Achieving wholescale education reform, with one vision and many elements

Changing the entire education system to build a society that can learn, think, and innovate.

A unique and visionary project conceived by the Minister of Education and endorsed by the President. To develop the key components of 21st Century learning, namely Critical Thinking, Creativity, Collaboration and Communication.

The vision was to reform all components of school education from the ground up and top down. This included developing a new curriculum, providing print and digital resources to support the new curriculum, extensive teacher training both foundational and technical, access to technology with new infrastructure such as tablets, and in classroom materials, as well as a new assessment system.

The solution needed to address the legacy of an out of date curriculum, low quality teaching materials, poorly motivated and therefore low performing teachers who had little access to technology.

The underpinning objective of this project was to provide an education system that competes at the international level.

The Ministry of Education chose to work with Discovery Education to transform teaching and learning through best practice and innovative instructional strategies. Specifically, this required a new curriculum, new instructional content and comprehensive Professional Development.

The Ministry took this route as the Minister knew that a holistic approach was needed. One aspect could not be changed in isolation. A unilateral approach was needed to provide wholescale change and improvement. A new curriculum needed comprehensive teacher training, new content needed new technology, teaching morale needed nurturing and motivating and parents and students had to be convinced too.

To date over 150,000 teachers have been trained under our cascade model. And Discovery Education is providing a vast collection of digital resources to be used in the classroom and at home. We connect education communities to their most valuable resources, each other and have set up community groups for Parents, Teachers and Students.

Through Discovery Education Curriculum Connect, we gave teachers and students access to a large library of curriculum aligned content for primary schools across Maths and Science subjects. We created curriculum aligned STEM content that can be used by teachers in the classrooms to make their lessons fun and enjoyable and by students when they revise at home. Curriculum Connect resources support multiple learning styles and engage and encourage critical thinking and help students develop 21st century skills. The library includes videos, interactive activities, text, images all designed to bring the curriculum to life.

This project is on-going and as the curriculum and training is rolled out further evaluation and monitoring will be published to show the effectiveness of this wholescale approach.

Inspiring a new generation of Coders!

A large Middle Eastern based Ministry of Education wanted to test the interest and take up of coding with its students and teachers. Working with Discovery Education they came up with a unique and innovative way to do that without risking reputation, investment and students' goodwill.

With Discovery Education, the MoE, the Ministry of Communications and IT and a key government agency a National Coding Competition was devised to run at the same time as a pilot programme in schools.

Their vision was to inspire a new generation of Coders across the nation by equipping students with the resources and skills they need to be successful and confident coders. At the same time, they also needed to build the capability and confidence of their teachers to deliver inspiring and engaging lessons in coding.

Coding hadn't been taught in a classroom setting in the country before. Added to that there were very few products on the market that taught coding in Arabic, and none which provided the holistic perspective of both quality resources for students and a professional development programme to upskill teachers.

The Ministry identified Coding as a priority in education as Coding is now considered a basic literacy in the 21st Century. It is key to enabling students to understand the world around them and utilise technology effectively. Beyond the basics of learning to Code, coding skills also develops students' communication, creativity, maths and writing skills and has an overall impact on confidence.

These skills combined are crucial in responding to the challenges and opportunities facing every community and the broader global community today. Being part of the knowledge economy is the new digital currency.

The Ministry of Education selected a two-pronged approach. They focused on developing a pilot for teaching Coding as a quality, classroom lesson, and to ensure that outside of this pilot, all students had the opportunity to learn Coding developed a National Coding Competition.

The thinking was fourfold

1. To inspire students to learn to Code, while providing opportunities for all, even before a national rollout
2. To create excitement and profile around Coding, and to demonstrate its importance
3. To provide opportunity to trial resources for classroom learning, then adapt and improve them
4. And to build a "trailblazer" Professional Development programme, with a firm aspiration that teachers would be able to train others

What were the results?

Student participation in Coding Competition

- Over 17,000 students participated in the Coding Competition
  › 9,500 girls and 8,000 boys
  › 8,500 in primary school and 9,000 in middle school
- Over 550,000 minutes spent by students creating Coding apps in the Competition
- Over 620,000 minutes spent by students in Coding lessons in the Competition
- Over 40,000 apps submitted by students in the Coding Competition
- Over 1.1 million minutes spent by students learning Coding in the Competition in total
- Students competed in a two-day prestigious Final Event , producing top quality entries

Professional Development outcomes

- Pre- and Post- Surveys by teachers rated Professional Development as 'outstanding'
- 'Train the trainer' model successfully implemented in 5 regions across the region

Pilot outcomes

- Coding Pilot successfully rolled out to over 50 schools for students in Grades 5 and 6
- User Experience testing identified improvements for students and teachers in the Arabic Coding resources, subsequently adapted and implemented
- Outstanding feedback from students, parents, teachers and educational leadership

"The level of engagement and quality of the students' work was outstanding and really encouraging to see. They learned so much and achieved real proficiency in Coding in such a short space of time."

- Caroline Hardman, Competition Judge and trainer.

The Ministry is planning to expand the Pilot to more schools and age ranges giving even more students the chance to learn to Code. And Discovery Education is working to develop the Arabic Coding resources even further, tailoring resources to enhance student and teacher support.

Driving digital transition in schools through the use of digital textbooks and PD development for teachers

This was project driven by the Ministry of Education and the Curriculum Evaluation Unit in partnership with Discovery Education.

The Ministry had a clear vision to drive digital transition through the use of digital textbooks to increase student engagement in the classroom. And build teachers' technology literacy and capacity to integrate digital media into instructional practices.

Despite being a leading country in the region in international league tables such as PISA, the Ministry identified that there was historical low progress in classroom learning, and a low level of technology integration into the learning practices of its schools.

The Ministry decided the best approach to solve this problem was to modernize school textbooks, improve the quality of learning and develop an education system that competes at the international level.

To achieve that they chose Discovery Education's Math Techbook and Science Techbook (Grade 8, fully localised and curriculum-aligned to the national curriculum), This was supported by Professional Development sessions in the form of workshops, in person coaching and virtual coaching.

They chose this route as it gave teachers immediate access to high-quality digital educational materials, therefore, building teachers' confidence, technology literacy and capacity to integrate digital media into instructional practices and, thus, increasing student engagement in the classroom.

At the end of the first phase of the pilot a number of teachers and principals were surveyed on the programme and the results were very impressive.

- Overall, 89% of teachers and 94% of principals rated their satisfaction with the sessions as excellent.

- 95% of teachers and 100% of principals rated the facilitators' level of engagement as excellent.

- 88% of teachers and 97% of principals rated the facilitators' ability to answer questions as excellent.

- 98% of teachers and 100% of principals felt the goals of the PD session were met.

These results have been so positive and encouraging that at the beginning of 2020, we launched on behalf of the Ministry Math Techbook and Science Techbook to the entire country. By March over 90 thousand students and over 3.5 thousand teachers were using our resources